Beliliou, Beluu el Omechelel a Tekoi (Peleliu, the Place Where Things Begin):
Possibilities for the Re/use of Traditional Marine Conservation Practices in the Republic of Palau

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Introduction

This thesis examines the feasibility of re/using traditional marine conservation knowledge in Palau, but more specifically within the island of Peleliu. The arguments presented here involve Palauan traditional marine conservation practices (see Table 3, 88-91), paying attention to current use, value, and opinions regarding whether this knowledge could be effectively used to manage marine resources in Peleliu. However, this thesis argues that re/using traditional concepts are useful on other levels for cultural perpetuation.

I use the term “re/use” rather than other words such as “revival” or “reintroduce” because this knowledge is still very much alive within Palau and recognized as having significant value by many Palauans. However, over the years this knowledge has been suppressed and overshadowed by western-based education and other colonial influences. Regardless, these traditional practices are still known by many people even if they are not applied or utilized as they were in the past. Therefore, I use the term “re/use” to reflect the idea that this specific knowledge is still known today but just not being used.

I research this topic for a few different reasons. My personal experiences while living and working in Palau as a U.S. Peace Corps Volunteer have greatly influenced the direction of this project. I worked as a Natural Resource and Community Development (NRCD) volunteer between 2002-2005. Particularly my two years in Peleliu assisting with the development of marine conservation and environmental education programs with the Peleliu Marine Enforcement
Division (PMED) were most influential. I noticed that conservation in Peleliu was primarily western based, where laws, protected areas, and other restrictive measures were enforced. Many times conservation efforts ended up frustrating communities or projects failed, which led me to question why local knowledge was not being incorporated into environmental efforts. Although it appears as if this knowledge is no longer utilized or passed down to upcoming generations, I found that it is still very much alive. I also came to learn the varied opinions of the local community (and particularly the split between the elders and youth) regarding the changing world around them, both environmentally and culturally, which spurred my interest in pursuing these ideas further.

I propose the idea of re/using traditional knowledge for several reasons. First, a successful reapplication of these traditions can potentially improve marine conservation efforts in Peleliu, where the western conservation that is practiced today has little success. I also suggest that traditional conservation re/used today may work to protect both marine environments and Palauan communities.

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1 As a Peace Corps volunteer, I spent one year in the urban center of Koror working with the Palau International Coral Reef Center (PICRC) as a research and monitoring assistant. However, at the beginning of my second year I relocated to Peleliu where, under the supervision of the Division of Fish and Wildlife Protection (DFWP), I assisted the Peleliu State Government with their conservation efforts among many other secondary projects. Not only did I work alongside Palauans, I lived with a Palauan family and was immersed in the culture daily. It is from this experience that I am able to reflect local perspectives on these issues of marine conservation, cultural efforts, and development.

2 It's questionable as to why this knowledge survived up until the present if it is no longer being physically applied and utilized. However, I assume that this knowledge has sustained to the present day because it is culturally valuable. I also think that this knowledge is taught alongside marine harvesting techniques and practices and therefore has been perpetuated that way (see Appendix 2). Regardless of this knowledge not being used in the physical sense, the fact that it is still known highlights the value of this information to Palauans.

3 The concept of re/using traditional conservation in a modern context has been researched many times throughout the world for various purposes, such as decolonization and resource protection. However, what I have tried to do differently in this project is highlight the idea of using traditions to deal with modern issues in a specific context and for this very specific place.
culture at the same time. This is important because the two are so dependent on one another, where the marine environments play a role in nearly all aspects of daily life. A healthy marine environment means more to Peleliuans than simply protecting and ensuring access to plentiful resources or scenic views. Rather, it is fundamental to the culture and identity of the people who live there. Thus, re/using traditional knowledge can be beneficial in its applied use to protect resources and valuable in the knowing of this information to perpetuate culture in a Peleliu-specific way. I also feel that it is important to many Palauans to retain their culture, apparent in their decisions and development choices. They recognize the value of their culture for their lifestyle and appreciate it as their cultural right. Here I suggest that the re/use of traditional marine conservation knowledge may be beneficial in the future for the people and their culture.

I ground my arguments in Palauan epistemology, perspectives, and values in the hopes of offering a local construction of the current environmental situation in Peleliu and to achieve the three goals of this project. First, I explore the feasibility of re/using traditional conservation practices and concepts within Peleliu. Research has often focused on the knowledge itself and how traditional conservation was used in the past, as well as encouraging conservation managers to recognize the importance of local knowledge when developing management today. Other studies have paid attention to the decreasing natural resources and changing landscapes of Oceania, while few have focused on the long term impacts of these changes on the people, economies, and cultures of the region (Allen, 2002). Even fewer have examined the feasibility of re/using traditional knowledge within a modern context. Here I focus on whether the community in
Peleliu sees potential for the re/use of traditional knowledge for marine resource management.

Secondly, I explore the extent of environmental problems within Peleliu and relate these issues to the enforcement of western conservation practices in a non-western society. While such methods are designed to protect resources and habitats, it is possible that they are inappropriate in a place like Peleliu and therefore do not work as they are intended. In some cases these western practices may even be doing more damage than good as a result of foreign influence on knowledge systems and transmission processes. It is possible that the re/use of traditions could combat modern environmental problems, often caused by modernization.

The third goal is to provide a Peleliu-specific perspective on these issues and incorporate local dialogue as much as possible. I recognize the limitations associated with achieving this, as I am not Palauan and unable to provide an “insider” point of view. However, I feel that through my experience living and working in Palau, with two years in Peleliu, that I was able to develop an understanding of the culture, language, and ultimately the importance of the marine environment to many Palauans. Within the scope of this project, I feel it is important to use indigenous voices as much as possible in order to contribute to the limited literature written from a Peleliu-specific perspective.

Through providing local insight into the current conservation efforts within Peleliu and their reasons for success or failure, it is possible that this project may contribute to the larger environmental debate in Palau. Although Peleliu stands apart from the other places in Palau I feel that the shared cultures
and similar environments give these ideas relevance throughout the country, using local solutions to counter larger global problems. It is also possible that if the re/use of traditional marine conservation practices are successful in Palau that similar concepts could be re/applied to other communities within Oceania. This project may offer a Pacific-specific solution to regional environmental issues, as many Pacific places share similar cultures, histories, and current events allowing these ideas to be transferable.

I adopt an interdisciplinary approach and base my arguments in various fields, but largely draw on the observations, knowledge, and experience of Palauans as I have come to learn them. I have added a multimedia component of three short films to compliment the written text. These films are interspersed among the chapters as a way to visually reiterate the main arguments from a local perspective. While this is different than a typical academic approach, I feel that multimedia allows the material to become more accessible to a larger audience and provides a medium for Peleliu perspectives to be heard.

Structurally this thesis is divided into five chapters. In the first, I situate Peleliu as the beginning point of many things in Palau. I generally discuss the marine environments and how they have played a role in shaping cultures and histories of the people living with them throughout Oceania. Here I begin the dialogue on re/using traditional marine conservation knowledge in Peleliu and suggest the possibility that such ideas could be carried throughout Palau.

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4 I agree with the notion that the Pacific region is not small, isolated and unchanging. Rather these island societies are complex and dynamic and do vary between places. However, here I am suggesting that they are similarly influenced and changed by the outside world, which has resulted in a shift in knowledge use and transmission (Chambers, 2006).
In the second chapter I describe the environmental situation in Palau and Peleliu. Today it appears that Palauans are faced with many choices that can potentially damage marine environments. A wrong choice could lead to other issues affecting cultural perpetuation and the sense of cultural identity. Aware of this, Palau is trying to balance development, environmental protection, and culture at the same time, all of which are important in modern society. I use local epistemology and mythology as ways to appropriately represent this balancing act, referencing past events that have affected the use of traditional conservation within Peleliu.

Next I explore the development of Peleliu-specific conservation practices. Chapter 3 highlights how Peleliuans identify with their marine environments for more than just survival purposes. I demonstrate how indigenous conservation practices have evolved over the years through a discussion on the relationship between nature and culture in Peleliu. Following this chapter is the first of three videos that portrays a local perspective on the value of the marine ecosystems to the cultural identity of Peleliuans while also showcasing the physical environments.

Chapter 4 explores what conservation is thought to be according to Peleliu perspectives. I note that a generational gap exists between elders and youth regarding what conservation is, what it was in the past, and what could improve marine resource management today. I argue that environmental and cultural protection in Palau is unbalanced, and therefore counterproductive. A short film precedes this chapter, reinforcing how Peleliuans define conservation and how it has changed over time.
In order to re/use traditions successfully within a modern context as a way to perpetuate cultural knowing, and in this case to also protect marine habitats, it is important to understand the foundation of these practices. The conservation practices of the past are discussed in depth in Chapter 5, examining their origins and foundations. It is necessary to understand the goal of these concepts in order to appropriately re/use them today, for resource protection and to counter the intellectual and cultural hegemony associated with colonization.

The last chapter reflects on the ideas that have emerged in the thesis and offers some suggestions regarding how to re/use traditional marine conservation in Peleliu. This chapter is followed by a final film or reflection on possibilities for re/use of traditional conservation in Peleliu with a particular focus on youth.

Overall, this thesis involves a search for a way to better utilize traditional Palauan concepts in response to modern day environmental problems, particularly concerning the health and well being of the marine environments in Peleliu. Environments biologically significant, but also crucial in perpetuating the identity, culture and spirituality of the people who live with them.

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5 This is referencing the idea that a dominant culture has the ability to rule over another culture, group of people, or class, which works to change the dynamic of that group and their beliefs and daily practices.
Chapter 1: A Omechelel (The Beginning)

Pacific Island societies created and implemented their own unique methods of marine conservation generations before the western world developed such a concept for resource management purposes (Johannes, 1978). These traditional practices included closed seasons or areas, size limits, and the designation of marine tenure systems. Traditional methods of marine conservation have changed over the years as a direct result of colonization and westernization, which have transformed cultures, lifestyles, economies, technologies, political structures, and even knowledge systems. These factors have led to the erosion of traditional marine conservation practices throughout much of the Pacific region. However, there has been a recent revival in the use of traditional concepts, which has been effective in managing and conserving marine resources (Johannes, 2002). This is especially true in Oceania where a large number of communities have indicated that the introduced methods and technologies of the West are not always beneficial to their cultures and lifestyles.

The Republic of Palau is one of the Pacific Island nations recognized as having its own unique marine conservation practices (see Table 3, 88-91). “Palauans have long depended on the land and sea to provide their means of existence. As such, areas of land and sea have historically been strictly guarded by village-based land and marine tenure systems” (Otobed, 1994, 37-38). Many

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6 See the following sources for cases of re/using traditional marine conservation throughout Oceania (Aswani, 2004; Berkes, 1993; Chambers, 2006; Johannes, 1978, 2002). Also, refer to the following, which specifically discuss traditional conservation use within the Republic of Palau (see Colding, 2001; Graham, 1998; Gordon, 1990; Johannes, 1978, 1981, 2002; Read, 2002).
Palauans also feel that conservation is a way of life or an aspect of their culture. Some have even expressed the idea that the formation of traditional conservation methods was based on a shared feeling. For instance, it is said that these practices were developed as a way for people to give back to their environment, which had been generous in providing them with plentiful marine resources over the years (Noah Idechong, personal communication, June 20, 2006). However, due to many years of foreign influence, similar to the experiences of many other Pacific countries, Palau finds itself in a confused state. Today there is tension between modern government and traditional authority, where roles between the leaders in these different systems are blurred (Graham, 1998). Also efforts towards development and conservation are largely unbalanced. All of this has led to the breakdown of traditional marine conservation use amongst other things.

The island of Peleliu is located in Palau’s southern lagoon and has a long history of beginning many things. As a result of this unique quality, the people from Peleliu have formed their own specific culture heavily based on their personal interactions with the natural world. These interactions have led to the development of specific knowledge about the marine environment and how best to utilize or conserve resources, as a result of the natural surroundings being primarily marine.

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7 Some even claim that Palau’s independence is itself the cause for the “erosion of traditional tenure and management systems” of the natural environments (Graham, 1998 143).
I had been living in Palau\(^8\) for one year when I made the move from Koror
to Peleliu. Before ever stepping foot onto the “Land of Enchantment” I was
cautioneby my host family and friends about what to expect when I got there\(^9\).
The majority of the people who knew I was relocating felt the need to prepare me
for the apparently bold move I was about to make, which at the time struck me as
somewhat odd. I wondered how different this place could really be from the rest
of Palau. What was so unusual about the people compared to other Palauans?
Why did so many feel the need to warn me? I remember being told to be cautious
who I talked to and was reminded to mind my behavior. I was told to choose my
words carefully because Peleliuans are known to give names to people for the
slightest thing they may do that is different from their own ways. Peleliuans are
also regarded as trendsetters of new fashions and for coming up with catchy
phrases that often end up circulating throughout Palau, such as “\textit{ka bloes}” the
2005 favorite.

Although the warnings were thoughtful they did make me somewhat
anxious, knowing I was already an easy target as one of the few non-Palauans to
live on the island and the first \textit{Biskor}\(^{10}\) in Peleliu after a ten-year absence.
However, I was welcomed into the home of my new host family and the
community without any teasing or embarrassing moments. After a few months

\(^8\) The Republic of Palau is known as \textit{Belau} in the Palauan language. It should be noted that many
place names within Palau have both a Palauan and English name that vary considerably
depending on the source. However, for the ease of the reader and to avoid confusion I have
chosen to use the English spelling throughout this paper unless stated otherwise.
\(^9\) All U.S. Peace Corps Volunteers placed within the islands of Micronesia are required to live with
host families for the duration of their service. It is both a challenging and rewarding experience
for the volunteer and family, and one I feel made my time in Palau so invaluable.
\(^{10}\) The Palauan spelling for Peace Corps Volunteer.
in Peleliu I returned to Koror to get some supplies and to visit my former host family and friends. One of the first things I was asked was, "Techang klem," or "what's your name," but in reference to a nickname I might have received for doing something funny. To their dismay, I had not been labeled and it was then that I began to notice that Peleliuans are in some ways different from other Palauans. Indeed, they embrace this reputation and attempt to live up to it. I found that the naming or teasing I was warned about was just an integral part of daily social activity, one way to pass the time. I also came to learn that this unique quality of Peleliu has a history that goes back many generations, traceable to the creation stories of Palau.

Peleliu has been regarded as the beginning point of many things and the people, as a result, the creators of them. While today Peleliuans may be known for inventing names and jokes, in the past this place was associated with the beginning of life. One of the creation stories in Palauan mythology is about the formation of the first island and human being, which happens to take place in the southern lagoon of Palau within Peleliu's waters. As the story is told, Uchelianged, the god of heaven, sent a star to fall into the ocean and form Ngeriab Island of Peleliu, the first island of Palau (Hijikata, 1993; vol. 3). Soon after this Uchelianged created something else, a *kim* (*Tridacna gigas, Hippopus* sp., giant clams) to live in the water near that island. Eventually that *kim* became pregnant and gave birth to a goddess named Latmikaik, guardian of the sea. In
time Latmikaik herself became pregnant and soon after gave birth to a daughter named Obechad, who became the progenitor of all human beings (ibid.)

Peleliu also takes credit for being the place where valuable knowledge about _uel_ or sea turtles (Chelonia mydas, green turtle or _melob_ and Eretmochelys imbricata, hawksbill turtle or _ngasech_) nesting patterns was discovered. For instance, they have learned nesting behaviors, breeding seasons, temporal locations, and general behaviors of these animals. This knowledge can be traced back many generations to a legend known as the story of Ngemelis. According to Palauan epistemology, Terepkul, a Peleliuan man and his lover, a woman from Ngemelis Island in the Rock Islands, commonly met up for monthly rendezvous. During one of their meetings they accidentally came to learn the nesting cycles and breeding behaviors of sea turtles. As a result, Terepkul took this information with him back to Peleliu and shared it with the other men of his clan. Since then it's been said that men from Peleliu are the best turtle hunters in Palau, particularly those men belonging to Terupkul’s clan because of their access to this specific and sacred knowledge. Before this discovery, turtles were valued for their meat and shell products alone without awareness of their biology or behavior (Temengil, 1995).

Peleliu can also be considered the beginning point for the Ibedul, the high chief of Koror and all of southern Palau. As the tradition goes, in order to obtain

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11 In this legend it is also said that Ngatpang State is the “mother” of all places in Palau, as the birthplace of Uab who was another child of Latmikaik and is believed to have formed the islands of Palau (Smith, 1997, 7). See Legends of Palau for the complete legend of Uab (Temengil, 1995).

12 Specific information about this story as it relates to Peleliu was shared with me through informal conversations and interactions with Peleliuans. The popular version of this legend can be read in Legends of Palau (Temengil, 1995).
this customary title one must pass a series of tests about Palauan culture and history\textsuperscript{13}. The final stage of this process is for the Ibedul to go to Peleliu and ask for permission to make his title official. Traditionally, the Ibedul’s right hand man, Mad ra Ulekomel, goes to Peleliu and announces his arrival to Ngirchongor, the high chief from Ngerdelolk hamlet. Ngirchongor then announces their coming to Dilliklep, his female counterpart or the high chiefess of Ngerdelolk and the highest female title in all of Peleliu. Dilliklep gathers all the highest ranked female chiefs from Peleliu, the \textit{klobak l’dil}, who together discuss the potential Ibedul candidate before collectively making a decision on whether or not to grant him the title. Meanwhile, the \textit{klobak} of Peleliu, the ten highest ranked male chiefs or \textit{rubak}, gather in the \textit{bai} of Ngerdelolk hamlet and await the decision of the \textit{mechas}. As a result of this process, Peleliu is recognized to play a crucial role in this traditional chiefly system.

In the past, Peleliu was also known for its brave warriors, who were often sought after by other villages to assist them with their battles. They had a reputation for strong social cohesion both within and between the five hamlets of Peleliu due to powerful leadership by a very respectable and understanding chief named Obak, the highest chief of Peleliu (Mark Mabel, personal communication, 2006). It is recognized that Peleliu has started life, trends, and has created practices that are emulated throughout Palau, which has all played a role in shaping a Peleliu-specific culture.

\textsuperscript{13} The position of the Ibedul is different than other chiefly titles in that it is hereditary or passed through a family, rather than passed through members of the clan. Therefore, the Ibedul has always come from the same family, passing the title to the son of the Ibedul’s sister. In the cases where the Ibedul has no sister, the title would then go to the next brother of the current Ibedul.
When I later asked a friend directly if Peleliu was different from other places in Palau he agreed that this was true. It was his story that has led me to suggest Peleliu is the starting point of many things in Palau. One afternoon Kent and I were sitting at Chelochel dock in Peleliu when he said to me:

"You know my grandmother used to say that Peleliu is the root of the tree that everything starts from. So, if you don't take care of the tree the nice pretty flowers will fall off and die. So a lot of people from Peleliu they feel that they are the start of how do you say this...Beliliou\textsuperscript{14} is where everything begins" (Kent Giramur, personal communication, May 15, 2006).

He then went onto explain how Peleliu, as the root of life in Palau, needs to be taken care of in order for the rest of the islands to thrive:

"So if we don't take care of that [Peleliu] then the rest of the tree [Palau] will have problems. So I think it's that feeling that people from Peleliu have. Peleliu is where everything starts. That feeling that they have is the reason why people from here are very concerned about the environment" (ibid.).

This Peleliu-specific culture seems to include a conservation ethic. There is an existing awareness among people of their ability to damage their resource base, as well as a commitment to reduce such problems from occurring (Johannes, 1993). It seemed as though people in Peleliu feel that they are the stewards not only of their own environment, but also of Palau's environment.

I should take some time to discuss what is meant by "environment" as this term can be used in various ways. In the most general sense of the word, the environment may be thought of as one's physical surroundings or circumstances.

\textsuperscript{14} Beliliou is the Palauan spelling of Peleliu.
Explained in such a simplistic manner, the term has natural or biological components, as well as social connotations (Townsend, 2000). The Palau Conservation Society\textsuperscript{15} defines environment as a “broad concept [that] relates to everything about where we live: time, space, resources available, and resource quality. The environment contains all resources, but is also impacted by forces such as time and weather. Humans live in an environment, but are also part of an environment” (PCS, 2001).

In this paper “environment” will be used to refer to the natural world and various ecological systems and habitats found within it. It includes the living and non-living resources within ecosystems whether they are marine or terrestrial. In Palau, like many other Pacific Island places, environments are largely composed of marine ecosystems and include mangroves, coral reefs, lagoons, and freshwater lakes. Considering the ratio of land to sea it is not surprising that Pacific Islanders value marine environments so highly. After all, they rely on the sea’s resources for nearly 90 percent of their total protein intake (Johannes, 1977). In fact, 70 percent of the Earth’s surface is composed of water (Kishigami, 2005), one-third of which is occupied by the Pacific Ocean. At over 19 million square miles this is the world’s largest body of water. While vast, it contains less than 500,000 square miles of land\textsuperscript{16}.

\textsuperscript{15} The Palau Conservation Society (PCS) was founded in 1994 by Noah Idechong, the current delegate of Ngiwal State and recipient of the Goldman Environmental Prize in 1995. This is Palau’s first local non-profit agency dedicated to the conservation of Palau’s natural resources and biodiversity through sustainable community based projects and outreach education programs.

\textsuperscript{16} Oceania, or the Pacific Islands, is composed of three regions known as Melanesia (“dark islands”), Polynesia (“many islands”), and Micronesia (“small islands”), all of which were named in the early 19\textsuperscript{th} century by the French explorer Dumont d’Urville. While these labels can be misleading and problematic in areas other than for the convenience of geographic grouping (see
Therefore, the peoples of this region often consider themselves to be the guardians of the sea and its resources. Many Oceanic cultures have a deep understanding of the marine environments, where their history as seafaring people explains how they have learned to survive by the sea and use its gifts. This has in turn developed into their feelings as guardians of the marine ecosystems where they live. According to Epeli Hau'ofa, an influential Tongan scholar, “There are no people on Earth more suited to be the guardians of the world’s largest ocean than those for whom it has been home for generations” (Hau'ofa, 1994, 158-159). Not only have the people of Oceania lived with the sea for multiple generations but they have developed skills regarding how to use it, work in it, and navigate through it (ibid., 1994, 153).

The Republic of Palau is the westernmost island nation of Micronesia. It lies within the Caroline Islands chain and stretches a distance of 700,000 square kilometers (Golbuu, 2005) from the northernmost point of Ngeruangel Atoll in Kayangel State all the way to the southernmost point of Helen Reef in the Southwest Islands group. While some may consider Palau composed of small, isolated, resource poor islands because the total land area is only 188 square miles (Barnett, 1960) Palauans have a drastically different perspective on their surroundings (PCS, 2002). This is due to the expansive and seemingly endless ocean that surrounds the 350-some islands that make up their country. Needless to say, Palauans feel at home in the water. All Palauan communities are

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Hau'ofa, 1994), I use the term Micronesia throughout this paper in reference to the region where Palau is located. Micronesia is composed of the Caroline, Marianas, and Marshall Islands groups.
Figure 1: Map of Oceania

University of Hawai‘i at Manoa, Center for Pacific Islands Studies

1 Reprint with permission from the Center for Pacific Islands Studies.
considered coastal due to the ease of access to the ocean and its resources\textsuperscript{18}. 

Geologically Palau is composed of four main island types, including volcanic islands, high limestone islands, low coralline islands, and atolls. Within this variation in island formation is a diversity of ecosystems that contain the richest diversity of species, from the land to the sea, within all of Micronesia (Levy, 2003). The diversity of marine habitats in Palau is extremely high and biologically significant for such a “resource poor” country\textsuperscript{19}. Marine ecosystems found there include mangrove forests that work to filter the flow of nutrients to the oceans, sea grass beds which sustain a large proportion of juvenile fishes, coastal bays that provide habitat for many marine species, a barrier reef system providing fertile fishing grounds, and freshwater lakes and streams (Otobed, 1994).

The diversity of marine habitats has allowed a large number of marine species to thrive in Palau. For example, there are roughly 1,500 species of fish, 400 species of hard coral, 300 species of soft coral, seven out of the world’s nine species of giant clams, and four of the world’s seven species of sea turtles (PCS, 2002). While Palau may not be among the world’s most biodiverse countries in terms of the total numbers of species, it is home to many endemic species\textsuperscript{20}. These include the most isolated dugong species (\textit{Dugong dugon, mesekiu}), at

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\textsuperscript{18} Most of the islands within Micronesia are classified as low lying coralline islands and atolls that barely rise above sea level, with no island elevation throughout the region higher than 3,300 feet (DeBlij, 2004). As a result, farming and fishing communities are closely connected by distance and culture, unlike that of many Pacific communities in the higher islands throughout Melanesia and Polynesia where access to marine environments is distant and arduous.

\textsuperscript{19} Often times Pacific Islands are considered as “resource poor” because of a limited number of resources, small land areas, and the isolated locations of many of the islands.

\textsuperscript{20} Endemic species are those that are particular to certain areas and found no-where else. For instance, endemic animals in Palau are those occurring only there.
Figure 2: Map of the Republic of Palau
Figure 3: Map of the Palau Islands
least five known endemic fishes, saltwater crocodiles (*Crocodylus porosus, lius*), as well as many birds, plants, and coral species.

The outer island of Peleliu is located within Palau's southern lagoon 23 miles south of Koror (Olkerlil, 2003). It is sometimes referred to as Palau's largest Rock Island and contains a great diversity of habitats and species. Peleliu is located within Palau's barrier reef, which is nearly 100 miles long and encompasses most of the islands, with the exception of Kayangel and Ngeruanangel atolls in the North and the islands of Angaur and the Southwest Islands group in the South (Republic of Palau, 1991). Its location at the edge of the barrier reef has provided Peleliu with a variety of fishing grounds both within and outside of the lagoon, a trait unique to this place. The island is about five square miles in total area and divided into five traditional hamlets (Olkerlil, 2003; also see Fig. 9, 62). The population was estimated at 571 people in 2002, with most residing in the northern village of Kloulklubed (Davis, 2002, 10).

In total, the different marine ecosystems in Peleliu include inner patch reefs, outer reefs and steep drop offs, coastal beaches, as well as some freshwater ponds primarily used for aquaculture of milkfish species. It is also important to note that Peleliu is a low platform island composed mostly of limestone, which has created poor conditions for soil production (Republic of Palau, 1991). It is possible that the difficult agricultural conditions within the island have forced

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21 I should mention that historically Peleliu is an important site as one of the fiercest battles during World War II was fought there. Today there are many sacred sites in place in remembrance of those battles. However, its important to mention that as a result of the war much of the vegetation was destroyed, leaving the island to be composed of mostly secondary growth today (Olkerlil, 2003).

22 See (Otobed, 1994) for a more thorough description of the physical environments of Palau.
Figure 4: Map of Peleliu State, Palau
Peleliuans to become more dependent on their marine environments. In turn, this may have led to the formation of specific knowledge on how to utilize those systems.\(^{23}\)

This high level of biodiversity of species, ecosystems, and natural resources is reflected in Peleliu-specific culture. Although in recent times Palau has adapted to an international, cash based economy, making it appear on the surface as if culture is fading, the majority of Palauans continue to strongly identify with their traditional culture. This is most noticeable in the peoples' connection with the sea (Matthews, 2003)\(^{24}\). In Peleliu many still utilize the ocean for subsistence purposes, as well as a source of income. Some Peleliuans have turned to marine harvesting activities as a way to earn money due to the limited job opportunities available on the island.

I now wish to draw your attention back to the creation stories of Palau, remembering that before there was land and before there was life, only the ocean existed. After the god of heaven, Uchelianged, created land marine life was formed and from that came human life. In this sense, Palauan people are not only connected to the ocean as a result of proximity, but are made of the sea. They are genealogically connected to it through their beliefs and creation myths,

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\(^{23}\) The northern end of Peleliu is primarily composed of mangrove and swamp forests that lead into sea grass beds and eventually to the outer reef. Along the western coast of Peleliu are long stretches of sandy beaches while the eastern side is composed of both beaches and mangrove areas. At the southern end there are steep coral walls along with a mixture of rocky and sandy coastal areas.

\(^{24}\) This is not to insinuate that terrestrial ecosystems are not valuable in Palauan culture. In fact, it is noticed that in many Oceanic cultures, including Palau, both the land and sea are connected as interlocking systems co-dependent upon one another, rather than viewed as separate entities (see Aswani, 2002; Drew, 2005; Hviding, 2003).
and many Palauans are probably incapable of imagining a world without the ocean. Hau'ofa addresses this point in his influential essay “Our Sea of Islands”:

“But if we look at the myths, legends and oral traditions, and the cosmologies of the peoples of Oceania, it becomes evident that they did not conceive of their world in such microscopic proportions. Their universe compromised not only land surfaces, but the surrounding ocean as far as they could traverse and exploit it, the underworld with its fire-controlling and earth-shaking denizens and the heavens above with their hierarchies of powerful gods and named stars and constellations that people could count on to guide their ways across the seas. Their world was anything but tiny. They thought big and recounted their deeds in epic proportions” (Hau'ofa, 1994, 152).

This quote is not only suggestive of the value of the ocean to many Oceanic cultures and societies but it also reinforces the idea that smallness is merely a state of mind. Pacific Islanders do not view their world as isolated and limited. Rather they perceive island places and peoples as being closely linked to and through the sea. This is similar to the point my friend Kent was making with his story, which connects the people of Palau together through their vital marine ecosystems and where Peleliu is the starting point.

That afternoon at Chelochel dock, Kent concluded our conversation by saying, “It’s that knowledge that people of Peleliu have, as the caretakers of the cultures of Palau,” cultures heavily reliant upon their natural surroundings. Unknowingly, he helped me understand what distinguished Peleliuans from other Palauans. It is a difference in the knowledge they possess. Knowledge that’s been passed down for multiple generations about how to best utilize and care for the environment, resulting in a strong connection between the people and their natural world. This is evidenced by the creation of traditional marine
conservation practices that have developed in Peleliu. This knowledge has also contributed to a Peleliu-specific culture. Particularly, if culture involves how one understands or makes sense of the world, including nature, then this allows for “priorities [to be] set for conservation and development” of these natural systems (Campbell, 2003, 308).

Peleliu truly is a unique place and it does have a way of starting things that end up circulating throughout the islands. Today this might be most visible in the form of catch phrases and funny names but this concept I feel goes much deeper than sharp, witty behavior and a keen sense of style. I use this as the starting point of my own journey. One that also begins in Peleliu and one that may potentially gain momentum and move throughout the islands of Palau.
"Long ago, Palauans understood that the sea's bounty must be preserved for the future generations. The role of stewards over our precious heritage and the sea's magnificent bounty are an integral part of our rich culture... I am... proud that our ancestors understood their unique role as guardians of Palau's natural environment and have endeavored to pass this awesome responsibility from generation to generation. We have not forgotten our solemn responsibility to our environment. Only now, we struggle to find a balance between economic development and the continued health of our natural environment."
—Tommy E. Remengesau, Jr. President of the Republic of Palau (Deichmann, 2001)

In this chapter I discuss the environmental changes that have occurred in Palau as a result of modernization. While I attempt to highlight the situation in Peleliu, I focus on Palau in general throughout the chapter because many of these issues carry over to all communities. Since the 1970’s Palau has been recognized as one of the leading dive destinations in the world (Nero, 2000). As a result, today the islands are internationally recognized for primarily their marine surroundings. These islands are endowed with a lush natural environment rich in marine resources due to their close proximity to the center of coral diversity, a biodiversity hotspot containing a high number of unique coral, fish and other marine species (Sakuma, 2004). They have also received attention for its persistence in opposing proposals for an international superport, U.S. military use of their lands, and its struggle to gain independence and develop a nuclear free constitution. All of these actions have been based on the importance of

25 It has also been referred to as one of the world's last remaining Eden's by National Geographic, named "Paradise of the Pacific" by PBS, and labeled as an underwater wonder of the world by the Smithsonian Institute (Davis, 2002).
26 Much of the attention focused on Palau is due to the unique area of over 300 limestone isles in the southern lagoon that form the Rock Island complex (Chelebachal). These islands, created by the uplift of ancient coral reefs, are uniquely mushroom-shaped, covered in green vegetation and harbor isolated lakes, beaches, and patch reefs that provide homes to a variety of marine and terrestrial species.
retaining culture and environmental health (Nero, 2000). Today the environments remain in healthy condition, although some places may no longer be considered “pristine” because of poorly planned development (Taniguchi, 2005). Regardless, the marine habitats continue to create this unique natural splendor that Palau is recognized for.

![Figure 6: Chelebacheb (Rock Islands)](image)
*Photo by Teresa A. Brugh, May 2005*

While beautiful, these marine ecosystems play a crucial role maintaining the lifestyle, economy, and cultures in Palau (PCS, 2002). “The importance for Palau of maintaining healthy and functioning areas of marine habitat, particularly coastal marine habitat, cannot be overemphasized (Otobed, 1994, 25).” For instance, human life is sustained through the consumption of fish and marine resources, where 90 percent of food protein comes from the ocean in
most Pacific communities (Johannes, 1977). The economy also depends on a healthy tourism sector, with diving and other marine activities at the center of economic growth in Palau. In fact, tourist numbers increased 75 percent between 1993 and 1999 alone (Fitzpatrick, 2001), jumping from 40,000 to 70,000 visitors a year, for marine based tourism. Historically the sea has also been very important to Palauan people in shaping the cultures and lifestyles. This connection between Palauans and nature is illustrated by examining their depth of knowledge and understandings of taxonomic systems, temporal and spatial insight, as well as social and behavioral knowledge of various marine species (Johannes, 1981).

This local environmental knowledge has been evolving over many generations. As people moved to the islands and settled they eventually learned to use the resources that were available to them. Through trial and error they determined what things were best suited for particular uses. As a result, these natural systems—particularly marine—became important to the culture of the people and helped to provide the foundation for a sense of identity (Otobed, 1960). More importantly, over time Palauans realized some animals became scarce and they had to have regulations in place to prevent them from becoming limited or extinct (ibid., 2-3). Such regulations are now referred to as traditional forms of conservation but continue to be recognized today (see Table 3, 88-91). In fact, most Palauans possess their own beliefs, customs, and traditional practices that relate to or originate from their relationship with nature.

Marine resources are the mainstay of Palauan culture and traditions. Nearly every aspect of life in Palau is connected to and through the sea. Most
Palauan legends refer to the environment in some way and many ancestral gods are believed to have existed in the form of various marine species. One of Palau's creation myths explains that human life originated from the sea itself. According to the legend, the god of heaven named Uchelianged created a giant clam that in turn created the first human in Palau (see Chapter 1). Through this particular creation story one can see that all life, both in nature and human, was created within Peleliu. This point ultimately reinforces the affinity Peleliuans have with their marine environment through historical, spiritual, and genealogical connections and cultural beliefs.

As a result of the importance of the ocean's resources to the cultures, economies, and lifestyles of the people, protection of these ecosystems has become a modern day priority in Palau. Conservation laws have been created, protected areas designated, education programs and enforcement activities developed, and various governmental and non-governmental organizations formed that are dedicated to environmental protection. However, these modern efforts are considerably different than in times past. They are often western in design and concept, yet implemented in a place that is not western. Nevertheless, Palau is heavily influenced by globalization and such things as rapid economic development and population increase have greatly affected conservation efforts in Pacific places (Aswani, 2002). In fact, although Palauan nationals form the majority population in Palau, nearly one third of the total population is composed
of foreign workers and their dependents (Nero, 2000). This has had an affect on socio-cultural change, but has also added pressures on the supply and health of marine resources.

The environments of Palau are fragile and susceptible to many threats of the modern world regardless of their remote location within Oceania. These include, but are not limited to, poorly designed development projects, population increase, global warming, and rapid resource depletion, which all threaten marine habitats directly or indirectly. It is also said that the efforts of Palauans to build a self-sufficient cash economy primarily exploit natural resources. This is mostly because the three focal industries are tourism, fishing, and agriculture based opportunities (Otobed, 1994). There are invasive acts such as dredging to build marinas and docks, mangrove cutting and clearing, an increase in solid waste, poor disposal methods, fisheries exploitation, as well as an increasing number of marine tourism ventures that have caused environmental concerns. As a result of such activities, marine environments have been negatively affected, offsetting the delicate balance of ecosystems on these small islands.

Another shift has occurred in the applied use of traditional marine conservation knowledge. A report produced by the Palau Conservation Society (PCS) on community based resource use throughout Palau summarizes these

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27 In 1973, 4 percent of the population was composed of foreign workers, jumping to nearly 24 percent by 1995 (Nero, 2000). Primarily, these immigrants are of Filipino, Chinese, and Bangladeshi descent.
28 I discuss this issue of foreign migrants living in Palau in general, rather than in terms its affect on Peleliu. This is because there are very few foreign labor workers living in Peleliu in comparison to other states. This appears to be more of a national issue; especially regarding this particular topic of traditional marine conservation use.
29 Such invasive acts have caused increased sedimentation on the reefs and inner lagoons, depletion of numerous marine species, water pollution, and destruction of corals and fish habitats.
changes as:

“The loss of traditional knowledge and practices has influenced how people behave in the environment. For instance, traditional fishing methods were often coordinated group activities that were under the control of the chiefs or other knowledgeable people. These people directed what the group did, when the fish were caught, how much fish was caught, and what was done with the catch. There was no means of long-term storage for extra catch, and no real incentive to catch everything. In addition, the locally made gear was not as efficient as modern gear and boats were not as fast or far-ranging” (Matthews, 2003, 106).

Often today, western concepts of marine conservation and harvesting methods are preferred, affecting the environment and social systems of Palau. So while these islands are commonly referred to as being pristine, untouched, or enchanted, there have been dramatic changes over the years. Although there have been natural causes that have altered environments in Palau, human activity is the leading cause (Otobed, 1994, 34). This is due to the increasing pressures and demands they place on these fragile ecosystems, along with changes in behavior and use of resources. In turn the ecological systems and biological functions of many habitats have shifted. “For instance, the loss of traditional methods, technological changes in gear, increased market demand, and an increased number of users all contribute to the over harvest of resources” and physical changes to marine areas of Palau (Matthews, 2003, 106). As a result, environmental health has become unstable.

“Habitat changes that affect near shore sea grass beds and mangrove areas can have far-reaching impacts since they damage important areas for the early life stages of many marine fish and invertebrate species. Destroyed or damaged habitat combined with the changes in the ways resources are used, can increase the likelihood of over harvest by forcing people to harvest in smaller and smaller areas. This increases the pressure on a
smaller resource base, so that the species being harvested have no chance to reproduce to replenish the population" (ibid., 106).

These pressures have also impacted social organization in Palauan communities. In particular, the colonial history has influenced and impacted the ways that marine resources have been used, valued, and conserved in Palau.

"The major changes were brought about after the westerners re-discovered the islands. Ever since confusion has increased by leaps and bounds" (Otobed, 1960, 2). As a result, there is now a national desire to develop within the modern global economy\textsuperscript{30}.

The islands of Palau experienced four different colonial administrations, by Spain, Germany, Japan, and the United States (U.S.) before gaining independence in 1994\textsuperscript{31} after ratifying the Compact of Free Association\textsuperscript{32}.

\textsuperscript{30} I am in no way implying that Palauans did not alter their environments or cause harm to their resources in the past. Although many anthropological and ethnographic accounts of early indigenous societies view these peoples as lacking history, today it is said that these societies shaped environmental history and our current outlooks on ecology and conservation (Smith, 2000). As humans we are and have always been modifying and colonizing natural spaces. What I highlight here is that as a result of westernization came concepts, methods, and gears that were foreign in Palau, which ultimately placed more pressure on the marine resources.

\textsuperscript{31} See the following sources for a more complete description of the colonial histories of Micronesia and Palau (Aldridge, 1990; Goetzfridt, 2002; Hanlon, 1998; Hezel, 1983, 1995). However, it should be noted that the U.S. was the last colonial administration of Palau, gaining control of Micronesia after World War II. Following the war, Palau spent three decades as part of the United Nations (UN) designated Trust Territory of the Pacific Islands (TTPI) under the U.S. administration, where they remained part of the Federated States of Micronesia (FSM). In 1978, Palau opted for independence and broke away from the FSM. Following, Palau approved their constitution in 1981 followed by signing the Compact of Free Association with the U.S. in 1982. However, this compact was not approved until October 1, 1994 after almost a decade of negotiations, with eight referenda and multiple amendments to this document that both parties were able to agree upon. See (Aldridge, 1990) for more in-depth explanation of the Compact negotiations and Palau's struggles for self-determination.

\textsuperscript{32} There are multiple compact agreements within Micronesia, those between the Republic of Palau, the Federated States of Micronesia (FSM), and the Republic of the Marshall Islands (RMI) with the U.S. Under these agreements, these countries receive 15 years of financial support, access to U.S. programs (such as health and education), and free access into the country. In turn, the U.S. has the right to use the islands for military purposes for national security interests. A unique feature with these compacts is that they may only be terminated upon the mutual
agreement with the U.S. However, outside forces most likely impacted the islands much earlier through encounters with missionaries, whalers, and beachcombers who landed on the shores of Palau (Hezel, 1983). All of this has influenced changes in Palauan behavior and interactions with their natural environment. Also, during these early contacts new tools and methods of harvesting were introduced and likely changed traditional Palauan practices.

The impacts of westernization along with the desire of the population to develop within the global economy have put increasing pressure on the natural resources of Palau. In particular, foreign influences have changed leadership styles and the way traditional marine conservation knowledge and practices are used. Leadership systems have moved from a traditional chiefly, village based system to a centralized, democratic national government that is modeled on the U.S.\(^3\) In the past divisions existed between clans, villages, and hamlets. However, today Palau is divided into 16 states, modern day remnants of the colonial occupations, which has also affected the traditional leadership enforced within these areas. Many Palauans are unsure of what system (traditional or modern) to abide by and even the specific purpose of the newer regulations. As a result, marine resource exploitation has increased due to a lack of local agreement of both parties. Recently in 2005, the FSM and RMI renewed their compact agreements for another 20 years. Palau is up for renegotiation in 2009.

\(^3\) Palauan government is composed of one national branch and 16 respective state governments. The national government is divided into three bodies being the executive (elected President and Vice President), administrative (various ministries and the council of traditional chief leaders that is the highest chief representative from each state), and legislative branches (the Senate, House of Delegates, and judiciary) all ruled under the national constitution. Each state has a constitution plus an elected governor and legislative body, along with a traditional chief system.
understanding and enforcement of a system that is seemingly at odds with cultural practices.

It has been said that if traditional leaders had maintained their positions as stewards of the natural environments that poor developments and the frequent misuse of natural resources would not have occurred (Rosenberg, 1996). Traditionally, Palauan villages were divided into *chutem buai* (public properties) and *chetemel a beblil* (clan properties). These areas were inclusive of both the land and sea spaces under the control of the family or village chiefs (Otobed, 1994). Each village contained a council of ten ruling chiefs (*klobak*) and ten female chiefs (*klobak l'dil*). Therefore, village chiefs enforced traditional conservation and regulation of resources within the public areas.

Today this traditional chiefly system remains intact and is recognized by both Palauan custom and the constitution (PCS, 2001). In theory such recognition should allow for the use and implementation of traditional law and management practices known to protect marine resources. However, they only appear strong on the surface and lack potency as a result of modern laws and political powers that work to override these traditional systems (ibid.). Regardless, Palau's national constitution clearly expresses its support of traditional leadership within the following sections:

"The government shall take no action to prohibit or revoke the role or function of a traditional leader as recognized by custom and tradition which is not inconsistent with this Constitution" (RoP, 1979, Article V,

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34 Many Pacific Island nations have developed constitutions that recognize traditional authority and customary processes as part of the decolonization movement occurring over the past few decades (Graham, 1998). In particular, Palau's constitution is said to grant more authority to traditional leaders than some other Pacific Island nations.
Section 1).

and:

"Statutes and traditional law shall be equally authoritative. In case of conflict between a statute and a traditional law, the statute shall prevail only to the extent it is not in conflict with the underlying principles of traditional law" (RoP, 1979, Article V, Section 2).

Nevertheless, traditional leaders have "retained little authority relative to the central and state governments" (ibid, 144). Many of the high chiefs have become involved in state government matters and have managed to weave their titles and influence into the modern political system. For various reasons, this has led to the weakening of their authority and loss of respect within their communities. For instance, many chiefs seem to be involved in politics and foreign investment opportunities for self-gain. Some chiefs have also leased out land and access to resources for the benefit of their family rather than focusing on the community’s success (Rosenberg, 1996).

Traditionally village chiefs were responsible for understanding, managing, and controlling their natural resources, while currently the Palauan government is leading resource protection efforts. State governments also play an important role in the regulation of resources because according to the constitution each state is responsible for the management and development of all resources within their boundaries (RoP, 1979, 59). “In essence, Palau’s environment is being held hostage to the power struggle between national and traditional authorities, both

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35 Keep in mind that as Palau seeks economic development, each state has their own agenda. These individual ventures of each state have put additional pressure on the natural environments in particular because they are the most marketable through tourism industries. Such industries are primarily marine-based, increasing the pressures on these resources specifically.
of whom seek to dominate the course of Palau’s economic development” (Rosenberg, 1996, 2).

Peleliu has not escaped these struggles between traditional and modern governments in the management of marine resources. Today the Peleliu State Government is responsible for resource protection. This has resulted in the development of various conservation laws that attempt to protect resources such as the rekung (Cardisoma carnifex, Discoplax hirtipes, and Gecarcoidea lalandii, land crabs), ketat (Birgus latro, coconut crab), and kim (Tridacna sp. and Hippopus sp., giant clams). Also under the jurisdiction of the Peleliu State Government is a marine conservation division staffed with trained law enforcement officers, and a protected area named Teluleu. There is even a permit system for diving and fishing activities, which raises revenue needed to sustain such programs. A number of national marine conservation laws are also applied and enforced within Peleliu (see BMR, 2002). These include regulations for uel (Chelonia mydas, green turtle or melob and Eretmochelys imbricata, hawksbill turtle or ngasech), meyas (Siganus canaliculatus, dusky rabbitfish), and semum (Trochus niloticus, trochus). It is clear that Peleliu has moved away from

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36 There are three species of land crabs protected under Peleliu State law (Peleliu State Legislature, No.07-41-03). These include: Cardisoma carnifex (Rekung el daob), Discoplax hirtipes (Rekung el beab), and Gecarcoidea lalandii (Kesuar). The coconut crab (Birgus latro, ketat) is also protected under Peleliu State law and finally five of the giant clam species found in Palau are protected under law in Peleliu. These species include: Tridacna gigas (Otkang), Tridacna squamosa (Ribkungal), Tridacna deraasa (Kism), Tridacna maxima (Melibes), and Hippopus hippopus & Hippopus porcellanus (Duadou).

37 There are two species of sea turtles protected under Palau National Law: Chelonia mydas (green turtle or melob) and Eretmochelys imbricata (hawksbill turtle or ngasech) (Ref. 24 PNCA 1201). The Siganus canaliculatus (dusky rabbit fish or meyas) species is protected under national law (Ref. 27 PNCA 1204). And Trochus niloticus (trochus or semum) is protected under Palau law as well (Ref. 24 PNCA 1243). See BMR, 2002 for a complete list and guide on Palauan domestic fishing laws.
traditional use and regulation of resources in favor of the imposed western
conservation measures and legal restrictions. However, these laws are largely
ignored by Peleliuans who feel that the regulations poorly reflect local opinions.

The chiefs in Peleliu continue to carry their titles within their villages and
hamlets. They form an advisory council or klobak, for the state legislature, made
up of the ten highest chiefs of Peleliu. Yet these leaders no longer enforce marine
tenure and other customary practices that traditionally worked to conserve
Peleliu’s resources (Rosenberg, 1996). Even when traditional conservation
methods are established within communities, many tend to not fully adhere to
these regulations because traditional authority is ineffective38.

Over the past 50 years there has been a loss of traditional marine
conservation use and a backlash against current conservation measures (Davis,
2003). This has caused village chiefs to turn to their state governments for
assistance with managing natural resources but has led to confusion regarding
who has authority (Otobed, 1994). Amidst this confusion, those holding chiefly
titles or influential government or business positions have exploited marine
resources (Davis, 2003). As a result, other locals have started to behave
similarly. Therefore, this shift in leadership styles has been critical in the way
traditional marine resource management works or doesn’t work today.

38 There is currently one bul in Peleliu, which is a prohibition of the selling of prak (Cryptosperma
chammissions, yellow taro) in the markets of Koror, established by high chief Obak. However,
most of the women preparing market goods do not abide by this traditional restriction and
continue selling prak in Koror. Not only are the women not following this law but Obak is not
punishing those who disobey these restrictions, further perpetuating the behavior. In regards to
marine resources, the northern states of Kayangel and Ngarchelong have used traditional bul with
success. The two states’ traditional leaders together established a bul on all fishing activities along
the northern reef channels during spawning season, in a known grouper species aggregation site.
First enacted by the chiefs, it has since been recognized by the state governments who established
laws to protect this conservation area.
Leadership changes are not the only factor causing the erosion of traditional marine management and conservation knowledge in Palau. For instance, some have suggested that independence is actually what has led to the loss of this traditional knowledge. “Despite the obvious effort of constitution makers through most of the region to reassert cultural identities and to reinvigorate custom, the independence constitutions may have inadvertently weakened many elements of customary marine resource management systems” (ibid., 147). The early colonizers in some cases actually supported traditional conservation practices. However, the changing values and priorities of the Palauan national majority led to the weakening of some traditions, including those associated with traditional conservation.

Other factors altering traditional conservation systems include a shift away from subsistence to cash based economy, the opening of export markets, as well as the influence of new technologies and products (Johannes, 1978). In fact, the introduction of refrigerators is regarded as one of the main factors in marine resource depletion throughout Palau. In the past, conservation was easier because there was no way to preserve and store perishable foods such as fish. As a result, it was common among fisherman to only take what was needed for that day. It was part of the lifestyle, something everyone practiced without question because there were few alternatives. Today this is no longer commonly practiced. Stockpiling in household freezers and over harvesting for both subsistence consumption and market sales is common. Such exploitative activities have caused a decrease in food fishes and other marine species. For instance, *rekung* (*Cardisoma carnifex*, *rekung el daob*, *Discoplax hirtipes*, *rekung el beab*, and
Gecarcoidea lalandii, kesuar, all land crabs) were at one time abundant during particular seasons in Peleliu. Today these land crabs have dwindled because of an increase in demands for sale in local markets, use at custom events, and popularity in household consumption.

While the introduction of freezers is believed to have made life easier in Peleliu because the people no longer have to fish as hard or everyday to earn the cash necessary in modern society. In some other ways it has made life harder. Putting a dollar value on marine resources has increased pressures and contributed to a change in local perspectives. Many fishermen now go out with the intention of making money rather than to provide food for their families. Some Peleliuans consider this lifestyle change as beneficial because amenities like refrigerators, boats, fishing gear, etc. have made harvesting or preservation easier. However, many say that they now have to fish longer to catch the same amount of fish that are often smaller in size than they used to be.

A shift in worldviews from a community based to an individualistic perspective has also occurred. For instance, some Peleliuans have the mentality of “take it while you can before someone else does,” whether for external or local exploitation. This is most likely the result of colonization influences from global and foreign markets interested in Palau’s fisheries and marine resources (Smith, 2000). This is problematic as many view the resources as renewable, infinite, and unaffected by global ecological problems due to a lack of scientific evidence.

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39 This is based on the opinions of multiple Palauans who were interviewed for this project. However, while the introduction of refrigeration may have made their life easier in some cases, due to the pressures of over harvesting that began to occur with the introduction of western gear (for example, motorized boats, fishing line and hooks, spear guns, and fishing poles all made from non-local materials).
to compare the past to the present (Fujita, 2003). Also, many outsiders believe that Palau still has relatively healthy fish stocks compared to other coastal regions. Therefore, they may assume that the resources are stable enough to handle such exploitation. On a local level there is a lack of understanding of the ability to damage marine environments beyond repair. Many Palauans seem unable to see their world globally, or are incapable if conceiving their affects on the larger world (Noah Idechong, personal communication, June 20, 2006). Yet changes are continuing to happen in Palau that affects both environments and social systems, either naturally or human induced.

“Changes have occurred in the ways resources are used, why they are used and who uses them. People are collecting the resources, especially in the marine environment with new and more effective gear. They rarely follow traditional methods that tended to limit catch. More and more, people are collecting or harvesting resources for monetary income rather than solely for local subsistence uses” (Matthews, 2003, 102).

This is a difficult time in Palau because the changes in marine environments affect more the preservation of biodiversity or the maintenance of aesthetic beauty. In Peleliu nature, knowledge, and culture all go hand in hand; any alterations of one will affect the others. The changes in the marine ecosystems over time have affected the culture as a direct result of their co-dependence. Also, the ways that traditional conservation knowledge has been used has changed because of cultural and environmental shifts. Meanwhile, changes from traditional to western imposed concepts have also affected the culture and the marine environments. There is a cycle involving the environment, culture, and development. This cycle needs to maintain balance in
order to ensure the success and perpetuation of all the components, which promote environmental health, perpetuate cultural awareness, encourage appropriate development, and maintain a stable economy.

This cycle of events relates to a Palauan legend about a man, turtle, and canoe. The title of this legend, *Lak bom ua chad er a Ngerchemai el miltom ra uel el metom ra mlaia* and is translated to literally mean "don't be like the man from Ngerchemai who lost both the turtle and the canoe." This is a common Palauan proverb used to mean something to the effect of "don't be selfish." The moral of this story is to avoid greed, to practice conservation and moderation in life (Temengil, 1995). According to this legend there was once a man from Ngerchemai village in Koror who went fishing in the Rock Islands within a particular area that was known to be home to many sea turtles or *uel* (*Chelonia mydas*, green turtle or *melob* and *Eretmochelys imbricata*, hawksbill turtle or *ngasech)*. As he came upon this area in his canoe a large sea turtle swam by and without thinking he jumped off the canoe and into the water after the sea turtle. However, the man forgot to anchor his canoe. He dove after the turtle and caught it by the carapace but as they both surfaced for breath the man realized his canoe was floating in the opposite direction. The man swam with the turtle for a bit, but they only continued to get farther away from the canoe. Finally, the man made the choice to let go of the big turtle and swim for his boat. However, at that point it was so far away that he was not able to reach it. The man ended up arriving ashore empty handed, without his big catch or canoe.

I believe that a version of this legend is occurring in Palau today. Imagine that Palau represents the foolish man from Ngerchemai who has caught the sea
turtle, while the turtle represents development or economic progress. Like the old man from Ngerchmai, Palau is being taken for a ride by the turtle or modern development. As Palauans focus their attention on the big turtle they may be in danger of forgetting to anchor their canoe or traditional practices and beliefs. This has a negative outcome because these traditions are valued for their benefit to the environmental and cultural health of Palau. While Palauans today acknowledge that their canoe or traditions still exist they may not be placing equal value on its importance and causing an imbalance in the cycle.

Palau managed and sustainably used marine resources for many generations prior to contact with the western world and new forms of conservation. Yet, marine ecosystem health is declining as people utilize resources differently. There is a recognizable need to change the management of marine resources in Peleliu but it is questionable whether the revitalization of traditional conservation ethics will be successful. However, protecting marine species and habitats in Peleliu is important to the protection of the unique culture and knowledge systems of this place. There is a clash between maintaining traditional culture while attempting to modernize. Peleliuans are aware that they cannot remain the same, nor completely revert to traditional ways. They are cautious about embracing development, aware that it could affect more than just the physical surroundings. With the current marine conservation practices, the change of leadership styles, difference in social behaviors and marine harvesting methods, as well as alterations in the physical environments, it is obvious that change needs to come. For the benefit of the Peleliuan community, ensuring the health of Palauan culture, and preserving biological diversity.
Chapter 3: A Basio ma Besul (Place and Position)

"Weaving these sources of natural and human wealth together is perhaps the most important resource of all: our traditions. Palauans maintain strong cultural ties to their land, their waters, and their history, and with these ties we strive to preserve and conserve all of our precious resources."

—Belhaim Sakuma, Former Director of the Palau Conservation Society (Sakuma, 2004)

Regardless of all the changes that have occurred and continue to occur to the physical environments, social dynamics, and cultures of Palau, traditional heritage remains at the forefront of developmental decision making (Sakuma, 2004). Thus, conservation efforts are important to protect the environments and traditions Palauans value highly. In this chapter I discuss the cultural significance of marine environments to a Peleliuan sense of cultural identity and make connections between the key terms used throughout this project.

Kangkei (Connections)

Many of the terms used in this thesis are controversial. In fact, my use of "traditional marine conservation knowledge" instead of one of the many other terms such as "traditional ecological knowledge," "indigenous knowledge," or "folk science" may raise questions. Especially when considering that words such as "traditional" and "conservation" have been deconstructed and reconstructed by academics over the years. There is also an ongoing debate on the difference between "indigenous conservation" and "traditional conservation" practices, as well as disagreements on which term is more appropriate. Therefore, it is necessary to examine these terms and the way I use them.
Traditional

Traditions refer to specific information or doctrines handed down from one generation to another. They are reflected in ceremonies, practices, and beliefs or customs shared by a specific group of people. Similar to culture, traditions evolve and continually change rather than remaining static or frozen in time. “Culture” thus seems to be a broader term for “tradition”⁴⁰. Therefore, if something is said to be “traditional” it can be assumed that it has been passed down multiple generations (Berkes, 2000). This has implications regarding a set of knowledge that each generation compares to their own experiences by testing its reliability and modifying it as necessary before passing it on again (Pierotti, 2000). Therefore, traditions do change. Newer generations who obtain this knowledge alter them to appropriately fit the present.

Regarding traditional marine conservation practices in Palau, it’s important to understand the goal of the particular tradition. This is so the practice itself can be modified without changing the original intent or goal. This is to ensure the tradition remains true to form, rather than simply creating a new tradition. For example, although Palauans continue to practice traditional canoe building, they now use modern power tools. However, this change in gear does not mean that the practice is no longer traditional. The goals and underlying

⁴⁰ The following explanation of “tradition” is based on the theories of Ramdas Lamb, a Religion Professor at the University of Hawaii at Manoa. During a guest lecture at the East West Center, February 21, 2007, Dr. Lamb discussed his own perceptions on what traditions are and specifically traditional culture’s place or role within rural education systems throughout India. He discussed questions such as who defines tradition? How long does something occur before it’s considered a tradition? Can tradition change? Where do they come from? And if a tradition is modified or altered over time is it still considered a tradition?
principles of why the canoe is built, who is building it, and what it signifies have remained constant.

Here I have chosen to use “traditional” instead of the term “indigenous,” which was another possibility. Throughout the discussions surrounding marine conservation practices, I use “tradition” to refer to a set of knowledge that has been acquired over time but has changed over many generations. “Indigenous” on the other hand, refers more specifically to a select group of people and a specific type of knowledge unique to that group. Although I am in fact talking about a specific group of people (Peleliuans) and a specific set of knowledge (traditional marine conservation practices), I feel that using the term indigenous is not necessary for a few reasons.

First, while I am not “indigenous” because I am not Palauan or from Peleliu, I am attempting to use a Palauan perspective to develop these arguments. I hope that an indigenous point of view will come out without having to become involved in the “indigenous” versus “non-indigenous” debate. So by using this term I may encourage a non-indigenous person to think outside influences do not drastically alter indigenous knowledge (Pollnack, 2005). This allows foreign influence on marine conservation use in Palau to be easily disregarded; even when those “traditional” practices have been affected by outside forces and altered accordingly. Secondly, throughout my time in Palau the word “indigenous” was rarely used. In fact, Palauans were the ones to label this specific knowledge about marine conservation as “traditional.” So for these two reasons, the danger of creating a dichotomy and the lack of use by the local
population, I have consciously chosen to use “traditional” to refer to marine conservation knowledge of the past.

Conservation

Conservation may be broadly defined as the combination of actions taken to maintain the existence of items that are attributed with a positive value (Webb, 2002). The important components of conservation include the prevention of resource depletion, along with a well-designed plan to follow it through, whether intentional or evolutionary (Smith, 2000). According to the Palau Conservation Society (PCS), conservation is the wise and sustainable use of natural resources to ensure availability to future generations (PCS, 2001). Here I use “conservation” over “ecological knowledge” or “folk science” because the latter terms more often refers to all knowledge about the natural world. Conservation on the other hand signifies not only the knowledge itself but also implies a set of actions that produce an outcome ultimately beneficial to the surrounding environments.

Conservation is different from preservation, which means to keep something the same over time (ibid.). The concept of conservation understands the need for change and for the continued use of resources while also recognizing the value of protection. Conservation in this sense is a process that invokes a particular outcome or set of actions. It is not the same as sustainability, which means using resources in such a way as to prevent the destruction of the main source (ibid.). Although similar, labeling an action as conservation more or less implies that the specific actions taken will prevent the exploitation that would
probably otherwise occur (Smith, 2000). Even sustainable harvesting methods could deplete a resource base if not conserved properly. It is important to consider that, “just as sustainable use does not necessarily indicate conservation, [the] lack of conservation does not necessarily indicate resource depletion” (ibid., 508).

Today there are various forms of conservation, and for this thesis I broadly categorize them as western and traditional. Western conservation tends to be more accepting of space between people and their natural environments, or disconnecting them by restricting entry and access to resources as a means of preservation (Campbell, 2003). This form of conservation is based on the idea that protecting resources is important for aesthetic beauty and species biodiversity, commonplace ideas in many western societies. But for communities who continue to practice subsistence living, conservation means something different. There is an emphasis on the continued use of resources rather than their preservation. Conservation is more a lifestyle or behavioral trait that protects habitats necessary for survival. Many subsistence-based communities are thought to have had no other choice but to live sustainably, due to the limitations of their natural environments. Therefore, in many places conservation is ingrained in the culture, as something communities have to do in order to survive (Redford, 2000).

41 For this project I intentionally juxtapose these two forms of conservation as a way to show the differences between them within a modern Palauan society. However, I am in no way implying that there are not forms of traditional conservation in western culture or western forms of conservation in non-western societies.
In Palau, conservation is thought to be a lifestyle practiced out of respect for the environment. As such, it is not a new concept. It is a traditional belief system that all Palauans follow, under the pretext that if you don’t you will become poor (Gordon, 1990). Many Palauans know about conservation, as it is something they have been doing successfully for many generations to ensure the presence of critical resources for future generations. Unlike western practices, Palauan conservation emphasizes the permitted use of resources rather than prohibiting harvest and access altogether. Palauan conservation is not only about the physical or tangible resources but is about the future, guided by the idea that you are securing something vital for upcoming generations. While today many Palauans say that there is no Palauan word that translates to “conservation,” there does exist a term that expresses to a similar ethic. Thus “omengeromel” in the Palauan language translates to mean “to use something wisely” (PCS, 2001). This traditional Palauan concept is evidence that conservation is an integral part of Palauan culture and is further supported through its perpetuation through multiple generations until today.

Knowledge

The Merriam-Webster’s dictionary defines knowledge as:

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42 According to interviews for this research project, many Peleliuans identified conservation as a part of their culture (see Appendix 2). However, I do not wish to over-romanticize Palauan interactions with their natural world. Although, it seems as though Palauans and many other indigenous communities have used and managed the natural resources of their habitat in sustainable ways for centuries (Smith, 2000, 500). Therefore, it seems unjust to impose western conservation on societies that already have systems in place specific to their environment and valuable to their cultures. Therefore, a more realistic view of human-nature interactions needs to be strived for, attempting to be more case sensitive to specific places and cultures.
Knowledge is gained through a process that involves learning a combination of experiences, whether academic or personal, from a variety of sources such as teachers, family or friends. Knowledge then forms the basis of cultures. Therefore, traditional conservation knowledge about the marine environments in Palau also contributes to building and transmitting culture. The transmission of knowledge shapes societies and cultures just as culture and society works to shape the knowledge itself (Ruddle, 1993). Traditional knowledge in particular is especially valuable to perpetuate and pass on within local communities. The perpetuation of traditional conservation knowledge thus ensures management of key resources, has socio-cultural value, and helps to build cultural appreciation and identity (ibid.).

**Culture**

Culture has been broadly defined as what people learn and must know in order to function practically and appropriately within their society (Grant, 2004). It is collective knowledge organized in a very specific manner and composed of the many traditions from a particular place. Culture is a way of life, shared by a group of people and displayed through things such as their language,
understandings, beliefs, skills, and values about their world and place within it (Thaman, 1997). This definition acknowledges both continuity and change and is central to human relationships and how groups of people perceive, organize, and interact with their world. Culture is dynamic and continually changing just like tradition. Therefore, it is important to note that people do not loose their culture or become “cultureless” because of these changes. Rather, these cultural modifications help set appropriate social parameters within the society, based on the particular time and setting. Culture is dynamic, and changes out of necessity when an existing practice is no longer practical or possible. This is similar to the way traditions are constantly being modified within a modern context.

If culture is how one understands or makes sense of the world—the way we eat, think, dress, behave, etc.—in combination with what constitutes nature and how nature plays a role in our lives, then through culture “priorities are set for conservation and development” of these natural systems (Campbell, 2003). Culture is inclusive of the environment, where a co-dependent relationship exists between the two (Hviding, 2003). This is certainly applicable in Oceania where many Pacific Island societies have incorporated knowledge on how to utilize the environment—particularly marine ecosystems—within their cultures. Culture is then shaped or defined as a result of this recognition and incorporates a conservation ethic, such as in Palau.

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43 The following explanation of “culture” is based on the theories of Ramdas Lamb, a Religion Professor at the University of Hawaii at Manoa. While lecturing at the East West Center, February 21, 2007 Dr. Lamb discussed his own perceptions on what culture is composed of, how and why they change, and the priority of incorporating cultural knowledge into education in India.
Traditional Marine Conservation Knowledge

Now that I have elaborated on the various meanings of the terms used throughout this thesis I will connect and discuss them together. “Traditional marine conservation” practices and knowledge from Palau, like traditional ecological knowledge (TEK) or indigenous environmental knowledge (IEK) elsewhere, is also based upon observations of ecological systems and patterns found within nature. This knowledge is passed down through a process of cultural transmission, typically by oral traditions in Oceania, and is reflective of the dynamic changes of complex systems over time. The people who acquire this knowledge then base their ethics, values, politics, and social structures (Peirotti, 2000) on this understanding of their impacts and presence within their natural world. As I use them, these words refer to the customary or cultural knowledge acquired by a group of people about the marine life within their community (Chambers, 2006).

Traditional environmental knowledge thus forms the basis for a community’s perspective of their world and culture. This type of knowledge does not always use conservation in the sense of protecting resources, but is based on the deep understanding of natural systems and species, as well as ways to use them wisely. It is inclusive of an ethic or recognition of the human ability to deplete a resource along with a commitment to prevent such an occurrence (Johannes, 1993). It is information about how to harvest resources within certain environments, using specific knowledge about various techniques depending on particular situations and/or factors (Chambers, 2006).

Regardless of whether or not these traditional practices were developed
specifically for the management of resources, they are still recognized as valuable in many Pacific communities (Aswani, 2004). Over time this knowledge develops as newer generations notice changes in their natural world and social systems. Today it is altered—yet based on old ways—to fit the present. It reflects what that community decides is important to them and their culture during that time. Traditional marine conservation knowledge also changes with environmental shifts because much of the knowledge originated as a result of the physical surroundings (Chambers, 2006).

Traditional marine conservation knowledge differs from western conservation in that it is based on practice and application, rather than theory and scientific proof. Traditional knowledge is specific to a particular location and culture while taking into consideration the links between the species and environments of a specific place (Drew, 2005). This is why traditional conservation knowledge is thought to work better than western conservation within indigenous communities. While this knowledge is presently called “traditional” it continues to have value in modern times to the people who carry it. In fact, today this knowledge helps connect the past to the present (Berkes, 2000). However, by taking the best practices of both (traditional and western) this combination can also be beneficial in protecting resources.

Traditional methods of conservation are believed to have existed many generations ago among Palauan societies. In fact, many different forms of traditional conservation practices have been documented by Palauans (see

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44 This is not to say that traditional methods are not based on some type of theory or hypothesis. However, it is a different type of theorization than those used to develop western conservation practices.
Chapter 5). The development of these older conservation strategies in Palau can be best explained with reference to a local perspective:

"The environment is very important to Palauan culture. Palauan culture is generosity and the reason this is like that is because the environment is so generous to the people so they are generous to one another. Being a Palauan is a state of mind, not a blood quantum or based on how well you follow customs. It's about the way you live and how you contribute to society. All Palauans know that if you use something too much it will diminish, so conservation is not a new concept they have always known its importance" (Noah Idechong, personal communication, June 20, 2006).

Debel Belau ma Cholengchelel (Marine Environment and Identity)

Throughout the Pacific region there is a shared perspective that the ocean is not only something with a physical presence, but also a spiritual being. The sea has historical and spiritual importance in shaping the cultural identities of the people living with it. Early Austronesians are said to have formed sophisticated relationships with the sea, as well as crafted skills necessary to build tools, canoes, and other items that would ensure their survival within such environments (Merlin, 2002). The sea has been the most important vehicle for Pacific Islanders as they have used it to travel great distances between islands.

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45 Austronesians are also known as Lapita people. All Pacific Island languages are part of the Oceanic branch of the Austronesian language group, which is thought to have emerged from Southeast Asia approximately 6,000 years ago. Today Austronesian peoples are found from Madagascar to Easter Island. The group of people expanded their territory through sea voyaging alone and today we link them through recovered shards of pottery known as Lapita, which is unique to only them. This pottery is said to have originated in New Guinea around 1500 B.C. and has migrated with people as they have moved eastward. Remains have been found throughout the Pacific from Vanuatu, Solomon Islands, Samoa, and Tonga. This pottery has been said to scientifically "prove" and link the islands of the Pacific through a shared common heritage and culture based on sea voyaging.
(ibid.). The ocean has acted as a highway to education and social interactions between places and people as reflected in the like cultures and shared worldviews throughout the region. Oceania is what it is because of the large ocean, which has worked to link people, their cultures, lands, histories, and shape a shared regional identity over time.

![Figure 7: Peleliu sunset](image)

*Figure 7: Peleliu sunset*

*Kids paddling a canoe into the sunset at the Taoch area in Peleliu (Photo by Teresa Brugh, 2003)*

These relationships may be traced back in time through the many creation myths and legends that spiritually connect Oceanic peoples to the sea, which also contributes to their claiming of a Pacific-specific cultural identity. In many parts of the region, marine species carry religious or spiritual importance (Colding, 2001; Hviding, 2003; Kenichi, unknown; Luna, 2003), as commonly seen in the
form of various social taboos as well as the totemic worship of these animals. Sea turtles in particular are a traditional part of many local cultures and histories of Oceanic peoples because of their acclaimed sacred qualities as higher beings (Luna, 2003). As a result, many traditional laws have been implemented throughout the region to protect these sacred beings (ibid.). In Polynesia, the concept of tapu, a prohibition or ban, commonly was applied through social customs to marine animals thought to have higher powers (Colding, 2001).

Palauans too are spiritually connected to their marine environment as reflected in the many legends, songs, chants, and oral traditions that have been passed down through generations. There is a complex social system in Palau known as delasang, where certain animals are not harvested or eaten due to the belief of certain families, clans, and villages that those animals are spirits of some kind. A report by a Japanese anthropologist named Sugiura Kenichi (date unknown) discusses this totemic system practiced in Palau, explaining its many complexities and drawing on the existence of multiple marine species (e.g. fish, shellfish, rays, turtles, dugongs, and sharks) that are not to be killed, eaten, or harmed because of spiritual connections. There are also many traditional Palauan songs, chants, and dances that highlight the importance of the marine environment to Palauan culture and identity.

Furthermore, the depth of knowledge about the sea and how to use it held by the people of this region further supports this relationship. The ancestors of Oceanic peoples have “had an intimate, practical knowledge of how to harvest the edible animals of the reefs, lagoons, and deep-ocean” (Merlin, 2002, 28). They also possess in depth knowledge on the taxonomic systems, the temporal and
spatial distribution of species and their locations, as well as detailed social and behavioral insight about these animals (Johannes, 1981). In particular, the Palauan language is evidence that the sea is important to the culture and identity. Development of words for fish species, life stages, behaviors, marine places, seasons, and the tools used to harvest marine animals reinforces the strong relationship Palauans have with their natural environment (Nettle, 2000).

**Figure 8: Spirit house in Peleliu**

*This is the praying house dedicated to Ngirabeliliou, the god of Peleliu who is said to watch over and protect all life there (Photo by Teri Brugh, 2005)*

Such historical and spiritual connections between the sea and the people living with it have given rise to knowledge about marine conservation practices
that predate western concepts (Hviding, 2003). These knowledge systems about the marine environment then form the basis of the cultures and identities of the people within that place. This is a critical point, necessary to understand the development of traditional conservation in the first place. Here I am suggesting that the marine environments play a particularly crucial role in the development of the cultural identity of Peleliuans, but this relationship may be applicable to all Palauans and even other Pacific Islanders. Marine environments not only have shaped knowledge, but also determined how people in Peleliu live within their world as the basis of their culture or how they see and live within their environment. At the same time the culture determines the health and stability of the marine environments. If culture is incorporative of a conservation ethic and how people interact with nature, then culture ultimately determines what nature looks like, as people are the ones who interact with and take care of it.

Marine ecosystems create a sense of cohesion or build a shared cultural identity amongst the people of the region, shaping a “Pacific Way” of how they conceptualize their world (Lal, 2004). These marine systems enable a flow of cultural values to occur through shared or similar customs and a sense of belonging. The majority of Pacific Island peoples relates to the sea and has similar ideas about their individual identities because of how they see and use the ocean. One important fact to consider is that they do not view a separation between land and sea. Instead one leads into the other and one is only able to function because of the existence of the other (Hviding, 2003). Different from western frameworks, Pacific perspectives are based on the idea that the land and sea are interconnected, with people aware of their place within nature as part of a
larger system. There are connections between ecosystems, rather than separation between humans and nature and between land and sea habitats (Aswani, 2002; Drew, 2005; Hviding, 2003).

Although outside forces are strong in Palau, influencing virtually all aspects of modern day life, a solid sense of Palauan identity and pride in knowing who they are and where they have come from remains (Kroeker, 1999). At the center of this is the ocean, which allows Palauans to claim their identity with authority and confidence. The following quote nicely captures the idea that even with colonization and globalization, the constant presence of the ocean is what has allowed Pacific cultures to develop and grow. Hau'ofa has said:

“But we all know that only those who make the ocean their home and love it, can really claim it as their own. Conquerors come, conquerors go, the ocean remains...” (Hau’ofa, 1994).

In Peleliu, as I mentioned earlier, the diversity of marine ecosystems and easy access to marine resources have worked to shape a Peleliu specific culture, incorporative of a conservation ethic and understanding about the value of the ocean. The marine environment is vital to the ability of the people to claim a local identity as Peleliuans. In fact a large number of informants claimed that it was the marine environment alone that actually made a person feel Palauan, and more specifically Peleliuan (see Appendix 2). The ocean is identified as the foundation of their culture, providing resources necessary for food, maintenance of lifestyles, and allowing social interactions and learning to occur. Most Peleliuans could not conceptualize their world or life without an ocean because it is such an integral part of all aspects of their lives. The ocean is also necessary for
practicing Palauan customs, which are critical to the survival of the culture. The following conversation highlighted this idea:

TB: So, your relationship with the ocean makes you a Palauan? Or it's part of it, as being a Palauan?

Peleliuan: I think so. Yeah, I believe so. It's the ocean that makes you a Palauan. It's a lot of it. It's the ocean. Like uh, without the ocean there might as well be no land. I mean, you get a lot of things out of the ocean. Of course you know the land [is important], but everything you need is in the ocean. You want money, it's in the ocean. Anything from modern day money to the Palauan custom money [is in the ocean]. You know if you need money for a custom, you go find a turtle to make [toluk⁴⁶] for the mechas to use for the custom. And that's worth more than the dollar money. According to Palauans it's worth more money. Unfortunately it's not the same nowadays. But yeah, I think that to be a Palauan you have to have the ocean.

TB: And do you have to know the ocean?

Peleliuan: Yeah, you have to know the ocean. You have to.

The environment and natural surroundings of Peleliu have always played a part in the lifestyles of the people living there. In a sense, Peleliuans are a product of their environment and many have said that their knowledge is a result of their surroundings (see Appendix 2). What they know, what they do, how they do it, and why they do things in specific ways are all factors influenced by their environment. The ocean that surrounds Peleliu, with each side offering a different physical setting, has resulted in the formation of different styles of doing things within the island, with regard to marine harvesting. For instance, one side of Peleliu is good for spear fishing, another side for clamming. Some places

⁴⁶ Toluk is the most common non-consumptive, cultural use of sea turtles recognized in Palau. Toluk is a form of women's money made from the large costal scute of hawksbill turtles (Eretmochelys imbricata) that is molded into the shape of a polished bowl and exchanged between women during customs as a sign of gratitude between families for their assistance during customs (Campbell, 2003). Toluk carries value in its age, production, craftsmanship, and history behind the making of each piece.
provide areas good for inner/lagoon fishing while others allow for deep diving. The variation in marine environments affects where certain species live as well; certain areas have some species that the other places do not.

Environmental conditions and variations of natural settings between and within places in Palau, shapes how people do things. One study focused on the role of marine resources within Palauan societies by examining the fishing behaviors among prehistoric villages (Fitzpatrick, 2005). Environmental variation and species fluctuations between different communities caused different skill sets to develop (ibid.). Similarly, there are specific food delicacies particular to precise areas of Peleliu based on the availability of resources within that particular locale. There are five hamlets in Peleliu, each of which is known for preparing and eating a certain types of food. These foods reflect knowledge based on the physical environments, which contribute to the claiming of a definite cultural identity of Peleliuans from those areas. These foods, specific to each hamlet, show that the environment plays a role in what people know and how they use their environment, as well as stressing the differences between the environments and cultures within Peleliu.
Table 1: Traditional Foods of Peleliu

<table>
<thead>
<tr>
<th>Hamlet Name</th>
<th>Abundant Food Product</th>
</tr>
</thead>
</table>
| Ngesais     | Btil a malk (Chicken tails)  
              | Gallus sp.            |
| Ngerchol    | Ilechiil (Sand shells)   |
| Ngerkeiukl  | Urekerk el uasech (Fish paste) |
| Ngerdelolk  | Kelat (Bluespot Mullet)  
              | Mooigarda seheli      |
| Telieu      | Rekung (Land crab)       
              | Cardisoma carnifex, Discoplax hirtipes, and Gecarcoidea lalandii |

For instance, people from Ngesais hamlet, located in the mid region of Peleliu, eat a lot of btil a malk (Gallus sp., chicken tails). This is thought to be the result of this hamlets location, which is mostly surrounded by forest areas where chicken populations typically thrive. In the northern hamlet of Ngerchol, there are many long stretches of beach that provide the perfect habitat for a large number of shells and other beach species. People from this area know how to prepare ilechiil (sand shells) and have developed a taste for it. This same concept applies to the other three hamlets. People from Ngerkeiukl along the western coast are said to eat a lot of fish paste (urekerk el uasech) resulting from their access to the outer reef and ability to fish well in deep waters; Ngerdelolk along the East coast is in close proximity to ketat (Mooigarda seheli, bluespot mullet) spawning grounds, thus the people harvest and prepare mullet fish more

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47 Urekerk el uasech is a fish-based paste made from a combination of fish species. Commonly fish parts, such as bones and left over fish pieces from other meals are used to make this paste. These parts are then boiled down, or reduced, for days until they form a thick paste, which is often eaten with rice.
Figure 9: Map of Peleliu Hamlets
This map represents the divisions of the 5 hamlets of Peleliu, provided by the Peleliu State Government.
than other species; and people from Telieu hamlet in the South harvest and prepare *rekung* (*Cardisoma carnifex*, *Discoplax hirtipes*, and *Gecarcoidea lalandii*, land crabs) in a variety of ways because this area harbors a particularly dense population of land crabs.

Even more specifically, each village within the five hamlets is also known for particularities based on their surrounding environments. Thus the *mechas* from the village of Imechol in Ngerchol hamlet, where there are large areas of mangrove swamp, are known to be very skilled at catching mangrove crabs (*Scylla serrata*, *chemang*). However, the people living at the Taoch within this same hamlet are good at inner reef fishing due to their access to such habitat. These examples illustrate how the environment plays a role in what a person knows and how they interact with nature. If what a person knows is what creates their culture, then this knowledge is a critical component of one’s sense of cultural identity. According to one Peleliuan, “*Knowledge is formed from your surroundings and in Peleliu the surroundings are the environment, so what we know is a result of our environment*” (Ngereblunt Arurang, personal communication, June 20, 2006).

This deep relationship and connection to the marine environment contributes to the cultural identity of Peleliuans, as well as the development of knowledge necessary to protect such habitats. Peleliu-specific marine conservation practices have been created to protect the cultural significance of these areas, more so than for food and survival necessities. Also, just as people are dependent on a healthy marine environment for the perpetuation of their cultures and cultural identity, it can be said that the environments too depend on
a healthy culture. The culture in Peleliu is what stabilizes and maintains the healthy surroundings through the use and implementation of specific traditional methods of conservation.

In the following chapter, the idea of traditional conservation as expressed by the local population is discussed in more detail. The idea of what conservation is, comparing past and present methods is explored. Out of this discussion I particularly focus on the generational gaps in responses of Peleliuans regarding what conservation is and how these practices have changed over time. There is hope in the re/use of traditional conservation within Peleliu mostly because Palauan youth seem to be more inclined to improve environmental protection efforts than the elder population (Davis, 2003). There is a heightened interest among youth in reclaiming and learning about their history and culture rather than western ideals (Tatge, 2005). In fact, many Palauans do not favor fast development and modernization over sustainable development and cultural preservation efforts (Kroeker, 1999).

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Watch Video 1
Outekeu: Welcome

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Chapter 4: *Omengereomelem Bitang a Beluu l’Chad* (Conservation Across Generations)

I can recall numerous times when I was treated differently while living in Peleliu, not because I wasn’t Palauan, but because I was considered a person of “conservation” through my *Biskor* affiliation with the Department of Fish and Wildlife Protection (DFWP). I was offered bribes, scolded, avoided and lied to because I was thought of as a person who enforced the conservation laws. There were countless instances where Peleliuans would hide things from me, like what they were eating or cooking or had caught that day while out fishing. It might have been that they were cautious around me thinking I might report them if they were harvesting something out of season. Yet, I highlight these experiences to point out that nearly everyone in Peleliu knew what conservation was, and as a result treated myself and the other conservation officers differently.

Conservation to many Palauans today means tickets, laws, fines, and harsh restrictions that prevent them from maintaining their lifestyles and using local resources. They are typically aware of the conservation laws and what the various restrictions are. However, because education and outreach is minimal in Peleliu they may be unsure as to why these measures are in place. Regardless, they are aware that the laws exist and that their actions work against them. Yet they continue to behave as if these laws were not in place or even important in some cases. I came to realize that to many Peleliuans conservation meant something totally different, which helps explain their lack of respect for these laws. Conservation meant more than simply preventing particular behaviors to protect
species. More importantly, the concept of conservation in Peleliu had changed significantly over the years as evidenced by different people's reactions towards conservation efforts.

In this chapter I discuss more specifically what conservation means to Peleliuans, explaining what it is and how it has changed from the past to the present day. I do this by asking four key questions and interpreting local responses to them. I present such ideas from a Peleliu-specific point of view, as I feel they can best represent themselves and their opinions. A generational difference in the responses of Peleliuans is apparent when exploring these four questions. Here I distinguish between an "elder" or "youth" in a Peleliu-specific manner based on a person's social affiliation with a local group in Peleliu, typically designated by one's age. These group divisions determine how people participate in and contribute to various local custom events, such as kemeldiil (funerals) and ngasech (first born ceremonies), as well as how they organize and conduct various community activities like cleaning or beautification projects and holiday parties.

I consider all "elders" as rubak belonging to the Ngarablod group and all mechas belonging to the Tatirou group, typically of 50 years or more. A large majority of the members in this category lived in Peleliu during the Trust Territory period and experienced the change in colonial administration from Japan to the United States. This is important to keep in mind when considering their perspectives on issues such as traditional conservation use today, because their educational experiences have ranged from a traditional Palauan style, to Japanese schooling, to the current western-based educational system.
All “youth” referred to in this chapter are men and women belonging to the social group known as Ipang-Seineng. In general, members of this group range from ages 20-40, with of course some falling outside of this range. Members of this group have lived only during the U.S. colonial period and through the independence movement in Palau. Education styles during both have been primarily western based and follow curriculums similar to those taught in the U.S. Overall, 40 percent of the interviews for this project were conducted with those classified as “elders” and the remaining 60 percent of interviews represent “youth” perspectives. Based on the responses of Palauans during interviews, it became clear that members of these two categories differed in their ideas of what conservation is and their perceptions of the possibility for the successful re/use of traditional conservation today.

In the previous chapter, *A Basio ma Besul* (Place and Position), a general definition of conservation was explored based on an academic perspective and framework. Conservation was referred to as a set of ideas and actions that result in an outcome beneficial to the environments and species those efforts were intended to protect. This academic approach is different from that of a Peleliu-specific, or local perspective, where such ideas tend to be less theoretical and more applicable to daily life and understandings; as something people understand as being an aspect of their culture.

“*Conservation is part of Palauan culture it’s just been dormant for a* 

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48 There are a total of 11 “elders” and 17 “youth” who contributed to the ideas presented in this chapter. This “youth” number includes two children, not officially members of Ipang-Seineng, but that I still categorize as being “youth.” See Appendix 1 for a full description of the research methodologies.
while and there is a need to rebuild that aspect. It’s impossible for Palauans to fight against conservation efforts because it’s part of the culture and they know it. Palauan culture is so connected to the environment and science only confirms this by proving what Palauans have known for many more generations. Palauan culture is to learn by observation and use all the senses [like in science]” (Noah Idechong, personal communication, June 20, 2006).

I use four focus questions to explore what conservation means to Peleliuans. Each of these questions was presented during the field research interviews conducted for this project. These responses collectively represent a general feeling amongst Peleliuans regarding conservation practices of the past compared to the present, along with a local consensus on the feasibility of re/using traditional conservation methods today. The remainder of this chapter attempts to answer each of the four questions through a Peleliu-specific perspective by using direct quotes from conversations with local sources.

1. What is conservation?

In general, 61 percent of Peleliuans described conservation as a means or precautionary measure taken to ensure there is always enough of what you need in the present so that it can be available for use in the future. Along with this, it was largely agreed that conservation is part of Palauan, or a Peleliu-specific culture ingrained into the lifestyles and daily activities of the people. Typically, when I asked Peleliuans to talk about what conservation meant to them I heard responses that would emphasize future generations of Peleliuans over the present.

49 The percentages in this chapter are based on the themes extracted from interviews conducted with Peleliuans for this project. See Appendix 2 for a full list of themes.
value of the tangible resources. Respondents felt that conservation was important today to protect marine resources as a way to guarantee younger generations access to the same resources that their parents used. This was because those particular species were identified as being valuable to the culture and quality of life of those who use them.

“I'm a fisherman, so conservation is not about fish I think instead about my daughter so she has [and can have] those fish we eat now. Conservation is to save or protect the fish for the future” (Richard Vickery, personal communication, May 27, 2006).

According to 30 percent of the youth interviewed, conservation today is mostly seen through a western lens, as a recent introduction practiced within Peleliu. Those who suggested this idea also felt that conservation is used today more often as a means to earn money more than to protect resources. There were also those in agreement with this point who recognized that traditional forms of conservation did in fact exist within Peleliu and that today the idea of what conservation is has changed.

“When I think about conservation yeah of course its good for future generations. Its really not in the Palauan language so when you say what is conservation to me now the first thing that comes to mind is some people in an office, with some papers scattered around. It's got nothing to do with the future of my kids. You know. I'm sure there is a Palauan way of conserving things. But when you ask me the question of what I think about when I hear conservation, I think about an office with a lot of papers thrown around and no one inside. I think of a lot of money being passed around. So when you tell me Teluleu is a conservation area I don't have a lot of respect for that so don't be surprised if you catch me in there fishing” (Kent Giramur, personal communication, May 15, 2006).
Nearly all Peleliuans agreed that traditional marine conservation practices did in fact exist within Peleliu. Overall, 72 percent of those interviewed were able to identify traditional conservation practices as a means of protecting key species important to Peleliuans. What was striking was the noticeable generational variation in views between the elders and youths in their ability to discuss traditional conservation practices and concepts in general. Elders were typically able to talk about traditional marine conservation methods in more depth, explaining with ease the practices themselves and how they were used. Elders described traditional conservation as a lifestyle and a way Peleliuans contributed to their communities, rather than something intentionally developed to protect or preserve resources.

"Conservation did exist. In the past, conservation was strong and has changed today with new technology and gears. Conservation used to be something that was never talked about. It was just done. It was a lifestyle. People did it without knowing that's what they were doing. It was just the way people were raised. It's what you learned from your family on how to live your life in order to best serve your family and community. This [conservation] was done out of respect for the village chiefs and for others in your village. If [you] didn't follow you were shunned from the community and fined. Conservation was part of our life. Conservation like we think of it today didn't exist then" (Elwais Samil, personal communication, May 12, 2006).50

It was something that everyone followed and based more on lifestyle choice rather than a series of actions stemming from theoretical frameworks and scientific proof, along the lines of programs more commonly used today.

50 The following quotation was transcribed and translated by a Peleliuan. What is presented here is a summarized version based on that direct transcription.
“Well they [uncles and elder men] were teaching me to conserve but they were doing it in a way where I thought that if I do these things it was good for...good for me and good for my family. It wasn’t so much for the good of the ocean” (Kent Giramur, personal communication, May 15, 2006).

Peleliu’s youth, on the other hand, typically had a harder time describing traditional conservation in any context. Instead they discussed and defined conservation solely from a western point of view. Very few of the youths recognized or believed that traditional conservation existed in Peleliu only a few generations back.

“Conservation is a place where we like protect the marine life. Or a, natural resources, anything we protect or conserve or guard or something like that. I just started working with the rangers and that’s why I now know these things. Because before I’ve never even heard of it [conservation]. Well, not here in Peleliu” (Lekong Sambal, personal communication, May 12, 2006).

About 31 percent of the youth went as far as to disregard the idea of traditional conservation altogether, claiming that such ideas never existed in the past. They expressed the view that Peleliuans before never had to conserve because of factors such as smaller village populations and larger populations of marine resources.

“In the past they didn’t need to conserve resources because there were plenty available. They also didn’t sell their catch so people didn’t take too much. Today there is now conservation, but people are harvesting to sell so there are fewer fish and resources” (Kannie Kangich, personal communication, May 26, 2006).
Primarily the youth felt that conservation practices were recently developed through the use of scientific approaches and methodologies because people were taking more resources than they did in times past. This perception, of conservation within a western framework, is not surprising when considering the educational system used in Peleliu today along with the fading transmission of traditional knowledge in both schools and at home.

According to most Peleliuans, the reason for this generational variation regarding the existence and use of traditional conservation stems from the changes in the educational system and knowledge transmission process that has been occurring over the years as a result of globalization. In the past, Palauan men typically learned to fish at very young ages (between 3-10 years), as cultural knowledge that all males were required to learn because they are the providers of protein foods, mostly fish species. Women were typically not taught how to fish or hunt because their duties within society were different. However, women did learn how to go crabbing in the forest and mangroves, as well as how to connect other marine harvesting and reef gleaning activities for species like clams, sea urchins, and crabs.

Fishing was thus considered men’s work or a man’s duty to his family and community. As such, it was generally the families’ responsibility to pass on this knowledge to young boys as a way to ensure their family acquired enough food. However, some Peleliuans mentioned that in the past village chiefs were also responsible for making sure that both men and women learned the appropriate set of skills necessary for the benefit of their village. Still other Peleliuans expressed the idea that fishing knowledge was not something one was taught at
all, but rather an innate skill Palauans are born with. It was commonly reported that when youth learned various marine harvesting techniques, they also learned marine conservation concepts.

Males generally learned how to fish from their fathers, uncles, or other mentors whom they sought out to learn a particular skill or trade. It was common then for young boys to go live with their mother’s brother for a few months as an apprentice to learn that uncle’s particular knowledge. Females on the other hand did not go away for extended stays with their aunties to learn the necessary cultural skills. Rather young girls would participate in harvesting activities with their mothers and aunties and learn those harvesting and conservation skills through observation, a more informal and indirect way of learning than those used with males.

Also, of particular note is the fact that in the past knowledge was often passed down to younger generations through stories and oral traditions shared amongst men sitting in the community bai. The elders would share fishing stories, marine folklore, and discuss practical harvesting techniques and methods while at the same time making fishing line from coconut ropes and carving fishing hooks. The young men were invited to sit in the bai during these times and would learn about the ocean and fishing through listening to and observing their elders. Knowledge on how to catch fish of a particular species, ocean currents and patterns, following the tides and moons, locating particular species at specific places and at particular times, understanding spawning seasons, as well as learning about fish anatomy and animal behaviors was the type of information men learned at a young age.
The concepts and practices of marine conservation that fishermen were expected to follow were also taught, either directly or indirectly. All of this knowledge was important and necessary to understand in order for one to be a skilled fisherman or marine harvester, and thus all community members were expected to know these things as a way to help out their families and villages. It can be assumed that in the past nearly all Peleliuans learned and used traditional forms of conservation. However, today this process of knowledge transmission has changed drastically. In fact, 58 percent of Peleliuans interviewed identified the switch to western education systems as the leading cause of traditional practices not being used and passed onto younger generations today.

“I think traditional knowledge should be taught more at schools since [it’s] not [being taught] at home. The parents now are too busy working to teach this and it’s not being passed on. We need to start teaching [traditional knowledge] in schools because it’s possible in 10 years from now that the knowledge will be completely gone because it’s not being used” (Anne-Mary Kolas, personal communication, May 22, 2006).

In general kids today are not learning this information at home, nor are they learning it in their classrooms. Also, there no longer exists a traditional bai or community meeting house for the men in Peleliu to gather and tell stories like in the old days. Today, the majority of parents work in order to earn an income necessary in modern Peleliu51, while their kids are enrolled in school. This changes the process of knowledge transmission.

51 Job opportunities in Peleliu are limited. Only a few positions exist within the state government, elementary school, fishing co-operative, and other local businesses (such as convenient stores, laundromats, gas stations, hotel/visitor accommodations, and dive shops). Those that do not hold one of the aforementioned jobs often resort to agriculture or fishing/marine based activities to make a living.
"Kids today it's very different. It's very different because today you hardly see any uncles with their nephews. Doing things together... because of the fact that the uncles aren't around to teach them how to do these things. The problem is they are now making money for themselves. You know a while back, growing up, an uncle would be walking around with his nephew and he'll sit around with the old men and then here's a nephew circling around these old men. So the nephew has a chance to hear what they are saying and learn what they are saying. But now the uncles are telling the nephews to go away because the old men are sitting around and they are not talking about fishing or other productive things" (Kent Giramur, personal communication, May 15, 2006).

Because the school system in Palau does not teach traditional knowledge, kids are becoming disconnected from nature because they are learning within a western framework while living in an essentially non-western society.

"The education system today does not incorporate traditional knowledge and the system restricts knowledge to western education and not [practical] experiences. There is a need to incorporate traditional knowledge in the schools and to again teach kids to be more connected to the environment and culture" (Noah Idechong, personal communication, June 3, 2006).

This has led to the feeling that kids today are disinterested in learning about their past, causing their elders to hold onto traditional knowledge for fear that the youth won't respect or utilize such information properly.

"Today kids are not learning how to fish and how to conserve in the old ways because there is a lack of interest. Kids today prefer hot dogs and canned foods to fish. When I was young, I wanted to learn, but at that time I had to in order to help feed the family. Kids today don't have to help feed their families because they are in school while their parents work to buy their foods" (Jason Nagata, personal communication, May 27, 2006).
In fact, many elders stated that the social structure of the communities and the environments in Peleliu have changed so drastically over the course of only a few generations that traditional knowledge is no longer important. So these ideas then lead to the following question:

"Schools in Peleliu are not teaching traditional knowledge, but they should because parents are not teaching it either. And it’s important for the sake of our culture. The marine environment has a lot to do with us in Peleliu, how we live everyday. If we are not teaching in schools, what are we gonna have in the future?" (Eriko Malone, personal communication, May 22, 2006).

2. Do marine conservation efforts in Peleliu work today?

“Conservation is not strong in Palau today. [We] need better leadership because the people enforcing the laws and the [traditional] leaders are not always working together” (Richard Vickery, personal communication, May 27, 2006).

As already noted conservation in Peleliu is primarily western in design and implemented, through laws and other legal restrictions. Traditional methods of conservation are not widely used today; although many elders said they did still use traditional practices they were taught. Every participant interviewed for this project said that conservation efforts in Peleliu today do not work. Some said that they work to some extent, but could use improvements in certain areas. No Peleliuan felt that conservation was completely successful because so far they have not seen any results. There was no significant difference in responses between the elders and youth regarding the ineffectiveness of conservation. In fact, both generations agreed that conservation programs in Peleliu were largely
unsuccessful, with some even claiming this ineffectiveness as a result of the lack of cultural understanding. There is typically a lack of incentives for local Peleliuans to conserve through these western practices, which are unforgiving of the continued cultural use of specific marine species.

“Conservation is not fair today because it’s done for the tourists and not for Palauans. It’s not fair that we can’t go to certain places and harvest things that we need for our customs” (Jason Nagata, personal communication, May 27, 2006).

Still other Peleliuans claimed that the loss of traditional knowledge use is why western conservation doesn’t work today. This is the result of the new systems having different goals than those important to Palauan and Peleliuan cultures.

“Conservation efforts affect Palauan culture and customs today, where people are prevented from getting species needed for customs. So people break laws and get these fish and turtles anyways because some conservation goes against the culture. This shows that the customs are still strong even though conservation is strong too” (Blunt Arurang, personal communication, June 20, 2006).

Many elders expressed this along with their opinions on the difficulty in appropriately applying traditions in a modern context because of the drastic changes in social settings, lifestyles, and behaviors. These elders often thought that today Peleliuans lack respect for the past, and instead support the western ideals and lifestyles based on making money, rather than focusing on the good of the entire community.

“Today conservation is not being followed [or utilized] because no one is
listening to what their elders told them. People are not using the old knowledge and the young people are not learning it because their parents aren't using it. In the past [in Peleliu] chief Obak was able to get people together as one and everyone followed what he said. They would stay at the bai as long as he said to. Because of his power people [other Palauans] would say “Peleliu has one mouth” because this Obak was able to unite and no one would speak out unless they all agreed. Today Peleliu is different, it's junky. Before the 5 chiefs would tell their hamlets what work needs to be done and the community would do it. Now there are machines and people only work for pay. People lost respect and won't do things unless they are going to get something in return” (Mark Mabel, personal communication, May 28, 2006).

3. Why is marine conservation important in Peleliu today?

Chapter 3 highlighted how vital the marine environments are to all Palauans, for the culture, customs, and identities of the people living with them. In Peleliu most of the environments are marine, which has led to the integration of these habitats into the lifestyles of the people and in turn created a desire to conserve these natural systems because of their cultural significance.

Conservation is important in Peleliu as a way to protect culture, identity, biological diversity, and the local economy. So if the marine environments become significantly degraded, this can cause negative changes to aspects of the culture, identity, biological diversity, and local economy within Peleliu. This idea goes back to that expressed in Chapter 2, regarding the struggles to balance the environment, culture, and economy of Palau today.

However, the marine environments of Peleliu have physically changed, caused by a variety of factors. Changes have been noticed in ways that are
Table 2: Environmental Changes in Peleliu over Time

<table>
<thead>
<tr>
<th>Change</th>
<th>Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>More sea grass Growth</td>
<td>More dirt is trapped in the mangrove and sea grass beds causing an increase in pollution and more algae to grow</td>
</tr>
<tr>
<td>Fish are decreasing in size</td>
<td>Resulting from over harvest of particular species, some fish are now much smaller in size as they are not given the chance to mature before being caught.</td>
</tr>
<tr>
<td>Increase of Sediment</td>
<td>Due to poor planning a storm drain flows out to the ocean and causing sedimentation within the inner lagoon and an increase in algae growth.</td>
</tr>
<tr>
<td>Change in landscape/seascape</td>
<td>From natural and human induces causes the shorelines, beaches, and mangroves have been physically altered, which has caused marine species habitats to change as well.</td>
</tr>
<tr>
<td>Water level decreasing</td>
<td>A shift in water levels is causing water temperatures to increase, which affects the life of corals and other marine species.</td>
</tr>
<tr>
<td>Increased pollution</td>
<td>With more imported goods, trash and pollution is now found in the lagoon and along the beaches.</td>
</tr>
<tr>
<td>Change in fishing/harvesting gear</td>
<td>People are now using nets, spear guns, hooks, and lines that are made differently than traditional styles, which ultimately are more harmful to the marine ecosystems.</td>
</tr>
</tbody>
</table>

According to local opinions shared among both elders and youth, with no significant generational variation, marine environments have shifted ultimately as a result of traditional knowledge not being used. For instance, people are now

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52 The following chart is representative of the views and responses of local Peleliuans interviewed for this project. These were the most common responses to the specific ways that the environment has changed within Peleliu over time, along with what has caused such changes (see Appendix 2).
using different frameworks to view their natural world, as the result of the shift from subsistence to cash based economies. To some extent this is a natural occurrence because as culture changes so do the values and viewpoints of the people within that culture. However, the shift in perspectives regarding the value of the marine environments among Peleliuans has changed from one based on respect to one with a cash value.

Also, today’s new gear and harvesting methods are often more invasive and damaging than traditional tools and practices. Therefore, marine conservation efforts that actually work to protect species and habitats should be identified and implemented within Peleliu. It is possible that without a change in marine conservation, the culture, environments, and economy of Peleliu will become unbalanced according to many Peleliuans. In fact, many recognized an immediate need to do something to protect the constantly changing marine environments as a result of exploitation and poor management. Many shared feelings of dissatisfaction with the current health and populations of marine resources as compared to years past and some even expressed fear for the future of the marine ecosystems in Peleliu if change does not come.

"Conservation is needed in Peleliu today because the environment is changing. In order for it to work good people need to be educated on it. No one comes and teaches about these new laws to the community" (Jason Nagata, personal communication, May 27, 2006).

4. Can traditional conservation knowledge be re/used in Peleliu today to better protect marine environments?

Overall, 54 percent of Peleliuans interviewed said that the re/use of
traditional conservation practices may prove more successful than the current efforts being used.

"I think that would work because...in order for something to work it has to come from the mind and the heart. Yeah, and the western conservation methods that's all brain you know. Now all we have to do is work on the heart. And maybe that Palauan culture can work on the heart. If you put both of those things together you got yourself a round ball" (Kent Giramur, personal communication, May 15, 2006).

Of course it was also mentioned that such a task would require collaborative and supportive efforts of the community in their willingness to re/learn these concepts, since today many people are more familiar with western methodology and technologies. Of those in favor of traditional re/use, 73 percent specifically mentioned that traditional knowledge should be incorporated into educational programs within the school system as a way to ensure children and upcoming generations obtain this information. It was thought that through the perpetuation of cultural knowledge ideas would develop on how to utilize this to improve of marine ecosystems. Also, many others claimed that this re/use may be obeyed more closely, or at least understood better, by the large majority of the community because such practices are closer to the cultural understanding of the people.

"Traditional knowledge is still valuable today. We Palauans should look at it more as way to learn from the past on how to improve conservation today. Conservation back then wasn't necessarily better, but things worked then. They may not work now, but it's worth a try" (Richard Vickery, personal communication, May 27, 2006).

Some Palauan communities outside of Peleliu have in fact re/used
traditional conservation with success. For instance, traditional leaders from Ngarchelong and Kayangel States have enforced a *bul* on a well-known grouper (*Epinephelini* sp., *temekai, tiau, mokas*) spawning and aggregation site, which crossed both states’ boundaries. This particular area has been heavily fished during mating seasons by Palauans from outside of these states, causing the traditional leaders of those communities to become concerned about the grouper populations. The development of mixed management between states and traditional leaders has been successful in other Pacific Islands as well (Johannes, 2002). This re/use has worked in Palau, to a certain extent, through this example of establishing a *bul*, which started locally within communities and with traditional leaders before involving the government.

However, not everyone interviewed in Peleliu was in agreement with the practicality of this reintroduction and use of traditions. Those who did not favor traditional re/use tended to say that Peleliu was simply “too different” now for those practices to work. Others said that the lack of traditional leadership and change of social systems, where kids today no longer seem interested in learning their cultural history (according to most elders) would also prevent the successful re/use of older conservation practices.

“Um, it’s very hard to go back. We need to go forward. And I think the only way is to make the law and then we enforce it. I think that’s the only way. I don’t know. It’s very hard when we watch Olbiil and the legislators and the chiefs. They [the legislators] don’t respect the chiefs. So it’s different. Uh, I think uh to me, people right now they don’t expect Obak to do something right now. They just go, go, go. That’s governor’s job. So I think we have to separate the government and the chiefs and then I think it’s good to get the permission and then they make a law...because they don’t have power, the chiefs” (Elwais Samil, personal communication, May 12, 2006).
It was commonly felt that an overall lack of respect in how Peleliuans treat their environment and disobey current management systems is caused by the strong American influence in Palau. In fact, things have changed so drastically that many Peleliuans today feel that old rules would not be followed because many have become more comfortable with the new, imported lifestyle.

“Today people are careless and don’t think of tomorrow. Now we are using conservation in a different way, not to protect resources for family use but now people are using the knowledge to conserve resources to only turn around and sell them to make money” (Eriko Malone, personal communication, May 22, 2006).

Particularly striking about the views regarding traditional conservation re/use in Peleliu is again a noticeable generational difference in opinions. In fact, the majority of Peleliuans who agreed that the re/use of traditional marine conservation practices was feasible were generally in the youth category. This is interesting because the youth in particular had difficulty identifying specific traditional practices during the interviews. It was also common to hear elders refer to the youth as lacking interest in history and ancestral knowledge, including traditional conservation practices. Many elders expressed the view that the youth of Peleliu today were generally “disrespectful” of their traditional heritage and therefore not worthy of learning traditional knowledge. Also, this response is surprising because the youth of Peleliu have been educated in a western style and non-traditional manner and generally assumed not to have learned cultural practices as well as the youth of previous generations.
Regardless of these factors, the youth did respond with a more hopeful outlook regarding the feasibility of the re/use of traditional conservation practices.

Other reports have also recognized that the youth of Palau exhibit the most concern for the environment and willingness to work towards conservation (Davis, 2003). More often youth today are educated about the marine ecosystems in their school settings through scientific and biological approaches. Furthermore, they are being educated on the current environmental issues and threats to marine ecosystems. Coupled with their recognition of the failure of current conservation efforts, this has resulted in many youths becoming interested in marine ecosystems and the protection of these areas. Some Peleliu youth even expressed ideas that the marine environments were important beyond biological significance, although the current forms of education serve to disconnect these youth from nature and ultimately their culture.

For instance, one youth made it very clear how important the marine ecosystems are to the customs and culture in Peleliu. She said that today efforts towards marine protection met with little success because of economic interests. Meanwhile, she felt that efforts for cultural protection are noticeably lacking. In her opinion, this misbalance of efforts between environmentalism and cultural/ism in Palau today appears to be counterproductive, especially when considering the interdependence of the environment and culture.

"Conservation [in Peleliu] today is happening because of the Bureau of Marine Resources and other agencies. It's not because of traditional knowledge [use]. So, conservation today works but people don't always follow it because it's so different than the culture. Conservation actually goes against the culture. Today [marine] conservation [efforts] is stronger than the culture and customs. Many people in Palau are
working to protect the environment but there is little done to protect the culture here in Peleliu. Nobody is fighting for this either because Palauans have adapted to western ways, we are comfortable. But I wonder what is good about a healthy environment if there is no culture left to appreciate it? More efforts should be placed on cultural protection too” (Kannie Kangich, personal communication, May 26, 2006).

Continuing on with this concept of the possible re/use of traditional marine conservation practices in Palau today, I follow up in Chapter 5 with a discussion on what these traditional practices are and what these concepts are based upon. In order to re/use traditions successfully within a modern context as a way to perpetuate culture, and in this case also to protect marine habitats, it is important to understand the foundation of these practices.

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Watch Video 2
Outekeu: Welcome

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Chapter 5: The Re/Use of Traditional Conservation in Peleliu

“The longer we wait to do something...the harder it will be for us to succeed.”
—Unknown resource manager (Gilbeaux, 2001)\(^{53}\).

Palauan culture incorporates conservation ethics and practices that pertain specifically to the protection of marine resources. Such beliefs and methods are actually a component of Palauan culture and thought to have resulted from the need for Palauans to maintain supplies of resources necessary to sustain human populations over many generations (Gordon, 1990). Now that a foundation has been laid by outlining the changes in Palau as a result of colonization or modernization, the struggles Peleliu faces trying to balance the environment, culture, and development, along with the value of the marine environment for cultural identity, I will discuss in more detail what these traditional marine conservation practices are and what principles they reflect.

It is important to identify these specific practices and their objectives in order to better understand ways to successfully apply these traditions in a modern context. More specifically, to identify the possibility of using traditional concepts to deal with modern environmental issues. There is a common Palauan proverb that reinforces this idea, stating that knowledge needed to solve problems can typically be found in close proximity to one’s home. This proverb is, “\textit{Ng diak betik rengii er [ch]eroid e me douchii ra rebai}” literally means don’t

\(^{53}\) The unidentified resource manager who made this statement was referring to the modern need to improve conservation efforts for specifically sea turtles (\textit{Chelonia mydas}, green turtle or \textit{melob} and \textit{Eretmochelys imbricata}, hawksbill turtle or \textit{ngasech}) within Palau before these animals are severely threatened.
go far away because you can cut it in your backyard (ibid., 1). It can be applied here to the idea of re/using traditional marine conservation practices as a way to perpetuate culture, and in this case to protect marine habitats as well.

Figures 10-12: Peleliu's "Backyard"
Example of Peleliu's environments used for marine harvesting
Top photos: Techakl. Bottom photo: View of the Rock Islands from Peleliu's northern channel (Photos taken by Teresa Brugh, 2005)
The following table lists the various traditional marine conservation practices referred to in this thesis that can potentially be re/used in the future. These practices are not necessarily Peleliu-specific although they emerged from interviews with Peleliuans (see Appendix 1). In fact, these practices represent an overall Palauan perspective regarding traditional conservation, as many are known to have been used in traditional societies throughout Palau. The table briefly explains the purpose of each practice, along with a short explanation on how it is viewed as conservation. It also describes the intention of each method, indicating whether each was specifically designed as a way to protect marine resources.

Table 3: Traditional Marine Conservation Practices of Peleliu

<table>
<thead>
<tr>
<th>Traditional Conservation Practice</th>
<th>Original Purpose/Goal</th>
<th>Type of Conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bul (Species and Locations)</strong></td>
<td>Total prohibition on harvest of particular species or at certain locations as designated by village chiefs for as long as they determine necessary.</td>
<td>Direct, as a way to ensure the community always had an ample supply of select resources as enforced by village chiefs.</td>
</tr>
<tr>
<td>Following seasons</td>
<td>A Palauan calendar was developed based on the moon cycles, tides, and correlations between various blooms of plant species with particular spawning aggregations of fish species. This is a social mechanism based on local knowledge and understandings of nature.</td>
<td>Indirect, this was not developed specifically to protect marine species from harvest but knowledge that was used for when to best harvest and utilize resources in a way where people would expend less energy.</td>
</tr>
</tbody>
</table>

54 The following chart lists the traditional conservation practices as explained to me by Palauans during field research for this project. While not all of these practices were designed with the intention to conserve resources they do contribute to protecting marine species for future use. Also, see (Johannes, 1981) for further details pertaining to traditional Palauan conservation practices.
<table>
<thead>
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<th>Traditional Conservation Practice</th>
<th>Original Purpose/Goal</th>
<th>Type of Conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing</td>
<td>A social behavior that emphasizes community over individuality. Resources were harvested and divided among families and sometimes the entire village as a way to distribute resources caught and ensure there nothing was wasted.</td>
<td>Indirect, this was developed for more social obligation than conservation specifically. Based on family obligations. Sharing amongst and between families was, and still is, commonplace as part of the culture, or part of the &quot;Palauan Way.&quot;</td>
</tr>
<tr>
<td>Marine tenure</td>
<td>Part of the social dynamic and division of land and marine areas based on membership to a particular clan or family within villages. Families were then responsible for controlling activities within their marine tenure plot.</td>
<td>Direct and indirect. This is considered directly conservation because chiefs, clans, or families regulated the exploitation of species or controlled areas. This is indirect because division of land and reef was a part of the social organization of traditional societies, divided among clans and families. Used as a way to control conflict between families.</td>
</tr>
<tr>
<td>Regulation by chiefs</td>
<td>A social mechanism and way for village leaders to control their community and monitor behaviors so that everyone acted in a way that benefited the entire community. This is a concept based on social cohesion and not individuality, as well as respect.</td>
<td>Direct and indirect. Chiefs directly controlled harvest of resources as a way to benefit the community. Fines were typically harsh therefore everyone followed their rules. This is indirectly conservation though because it is out of respect that people obey their chief rather than to directly protect fish populations.</td>
</tr>
<tr>
<td>Quota</td>
<td>This is the concept of taking only what you need for that day and leaving the rest for the next time you or someone else comes to harvest. It was also practiced because there were limited options to preserve foods for long amounts of time.</td>
<td>This is direct conservation as it was based on the awareness that if you take too much then there will not be any left for the future. It was also based on the idea to not be wasteful.</td>
</tr>
<tr>
<td>Traditional Conservation Practice</td>
<td>Original Purpose/Goal</td>
<td>Type of Conservation</td>
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<tr>
<td>Species restrictions</td>
<td>This practice falls into the categories of bul and religious beliefs. These unwritten rules were a way to prevent over harvest of particular species. Also, many species thought of as gods or have spiritual value and therefore avoided.</td>
<td>Indirect conservation as this was mainly based on the idea that certain animals had higher power or spiritual value. In Peleliu specifically this can also be a direct form of conservation applied to the milkfish species. During times of bad weather this fish was allowed to be harvested from the natural fish pond that harbored many, but was restricted during times of good weather as a way to ensure there would be food during times when fishing was hard.</td>
</tr>
<tr>
<td>Location restrictions</td>
<td>This practice falls into the categories of bul and religious beliefs. Locations were then avoided because of chief designations of areas, marine tenure practices, or taboos regarding particular areas that were then avoided.</td>
<td>This is indirect conservation as particular areas were designated as off limits typically for social reason (customs) or for spiritual beliefs.</td>
</tr>
<tr>
<td>Repopulation/Farming techniques</td>
<td>This serves as a way to replenish what is taken and maintain ecosystem functioning. This practice developed out of the awareness people had that when they take something if they don’t replace it there will not be enough in the future.</td>
<td>Direct conservation as it was based on the assumption that if you take something it will not be there in the future unless you replace it.</td>
</tr>
<tr>
<td>Religious/Superstitious beliefs</td>
<td>These are primarily thought to be social mechanisms first and foremost, but also work towards conservation of different species or locations that these taboos are placed upon. Thus conserving by increasing the resilience of an ecosystem.</td>
<td>Indirect as many social taboos are based on religious and spiritual/cultural beliefs rather than for direct conservation purposes. However, they indirectly work towards protection of species and areas which particular taboos are applied to.</td>
</tr>
<tr>
<td>Traditional Conservation Practice</td>
<td>Original Purpose/Goal</td>
<td>Type of Conservation</td>
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<tr>
<td>Protecting fish habitat</td>
<td>This was explained as based on the awareness among people that if you break the home/habitat of a fish/marine species, such as coral rock, then it was thought that no fish/marine species would return to that area to live. A precautionary measure.</td>
<td>Indirect, because this is not a practice that prevented the over harvest of species. It rather protected species habitat so that harvest could reliably continue in the future.</td>
</tr>
<tr>
<td>Food preservation and reusing/recycling</td>
<td>Traditionally, Peleliuans only had access to what was available in their natural surroundings. Therefore, everything was preserved or was re/used many times. Generally, things were not thrown away and people were aware that if they were careless they would not have what they needed.</td>
<td>Direct, as a way to ensure you always had food or enough of supplies that you needed access to throughout the day.</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Fisherman talking about populations and sharing fishing experiences as a way to monitor changes within marine ecosystems.</td>
<td>Indirect conservation practice because sharing stories was not intentionally done to discuss ways to prevent over harvest of species. It was a social behavior and interaction between people that indirectly benefits the marine environments.</td>
</tr>
</tbody>
</table>

Questions are raised about the origins of these traditional practices, or conservation ethics, incorporated into Palauan culture. There is no direct evidence from Palauan history and folklore that leads one to believe that there was ever a shortage in food supplies, particularly of marine species. "The Palau archipelago possesses an unusually high proportion of sheltered, productive reefs to land. In addition, chronic warfare seems to have helped keep the population below the reefs' carrying capacity" (Johannes, 1981, 64). Some argue that one should not assume that these traditional practices were simply developed for
conservation of species (Thomas, 1999). Perhaps many of these measures taken by Palauan ancestors had social functions more than anything else.

Traditional conservation practices really involve an integrated set of knowledge, practices, and beliefs that have been perpetuated through generations. As a result these practices differ from those in modern societies largely because of the spiritual values and beliefs that are often associated with such traditional conservation practices (Colding, 2001, 594). Therefore, these traditional practices were based on different belief systems than those that exist today. It is also possible to assume that because of my own altered, contemporary viewpoint or western frameworks that I reconstruct these traditions to be something other than what they were intended to be. For instance, some of these practices may have been developed for reasons other than species protection.

Traditional conservation then appears to be a colonial construct, or as non-conservation, based on western ideals and frameworks. In fact, because many westerners often view indigenous peoples as being in touch with their natural surroundings or living in harmony with their environments, it is possible to make false associations regarding the intention of these traditional practices (Pierotti, 2000). However, it is also thought that some contemporary resource

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55 I am aware that because of my upbringing, I too have a set of beliefs and standards that are different than a Palauan perspective. Therefore, it is possible that I also have contributed to an unrealistic portrayal of these traditional practices by assuming they are conservation when they might have been developed for other purposes. This is reflective of the concept expressed in Orientalism by Edward Said (1978), where western theories and preconceived notions about the East (in this case the Pacific) often result in generalities based on one's own experiences and frameworks rather than looking at things from an indigenous perspective.
management has emerged from these traditional philosophies and indigenous beliefs regarding the natural world (ibid.).

\[\text{Figure 13: Mengerer (Laticauda colubrine, Banded sea snake)}\]

*This species is believed to be a god or totem species to some families in Peleliu, thus not harmed or killed by members of those families*  
(Photo by Teresa Brugh, 2005)

Nevertheless, it is apparent that not all of the Palauan conservation practices, identified in Table 3 (88-91), were originally intended to manage and protect marine species or habitats. Many of these practices developed out of spiritual and cultural beliefs that Palauans have about their world. Yet today many of them are regarded as conservation, or for protection of species and
habitats, even if unintentional. Therefore, spiritual practices that developed for one purpose may work to serve another (see Appendix 2).

The current environmental situation in Peleliu is the direct result of westernization and its affects on traditional cultures. Colonization has sometimes been thought of as a good thing (from mostly western perspectives) for indigenous societies as it has led these “savage” societies into civilization and enlightenment. Some have explained this process as bringing indigenous peoples out of the “darkness” and into the “time of light” (Hereniko, 1999). This process of development and progress worked to destroy traditions in order to improve peoples and their lifestyles.

Development efforts throughout Micronesia during the early Trust Territory days were about more than improving infrastructure. This colonial process was an attempt by the U.S to transform the Micronesian peoples and their cultures. An effort to homogenize the region and how Micronesians think about their environment and interact with the world around them (Hanlon, 1998, 7). Colonial policies during the U.S. occupation of Micronesia aimed to change local perceptions regarding their natural resources (ibid.). It was during this time that the erosion of traditional conservation and uses of marine resources began to accelerate. The economic value of resources began to overshadow their subsistence and social importance.

Ironically, the importation of western practices has to some degree caused the depletion of the resources that such efforts are designed to protect. This has happened largely because such imported systems remove the use of traditional concepts within local communities and ultimately limit the type of conservation
employed by the local people (Johannes, 1977). The breakdown of traditional knowledge use has resulted in damage to these ecosystems, regardless of the fact western intentions are to protect resources. In Palau, the replacement of these traditional conservation practices—such as marine tenure, regulation by village chiefs, and the erosion of spiritual value—with the newly placed economic and cash value attached to marine resources, has caused fisherman to exploit and deplete resource bases (ibid.).

The implementation of western conservation ideology in a non-western society may cause more harm than good, because of factors including few incentives for local people to conserve, lack of local knowledge and manpower in the development of western conservation projects, and limited educational efforts. It is possible that if these things were done properly, or incorporated in western conservation programs, they might work more efficiently and effectively in indigenous communities. In Peleliu imported western conservation practices and ethics have overridden traditional methods, and often changed human behavior and interaction with the natural world. Western conservation may have damaged these particularly vulnerable and fragile marine environments, which are critical to the cultures of Peleliu and Palau.

A large number of the people in Peleliu today either fish or participate in other marine harvesting activities as their primary source of income. These same people are often the ones who disregard existing conservation laws. There is a serious lack of incentives for Peleliuans to follow such laws and regulations, where the tangible results of such efforts remain unseen. For instance, people over harvest fish species and crabs yet talk about how they do not see increases in
their populations or restoration of habitat health from modern day conservation efforts. They do not perceive that their individual behaviors contribute to the lack of success\textsuperscript{56}. Many Peleliuans are not following modern state government laws, and high chief Obak is not enforcing any traditional conservation measures. Therefore, marine ecosystems of Peleliu have changed significantly.

I argue here that these changes are largely the result of traditional knowledge not being fully utilized in Peleliu. Not only are the environments being degraded but the unique culture of this place has suffered as a result. Today there is less social cohesion and more often an emphasis on individuality and the nuclear family over community and group sharing. Thus, returning to traditional practices and the re/use of marine conservation knowledge might work to better protect environments and also empower Peleliuans as a community, to help rebuild the social cohesion that was once so strong and that is essential to the perpetuation of the cultures of Palau.

The re/use of traditional knowledge can also contribute to decolonization efforts in Palau. If applied on a larger, regional scale it could possibly contribute to decolonizing conservation methods practiced throughout much of Oceania. There is a continuing need to decolonize Pacific places, even though such efforts have been occurring for some years now. As Hau’ofa argues, many Pacific minds need to be decolonized because they have become comfortable and set in the ways the western world has provided for them (Hau’ofa, 1994). This is also the message in Albert Wendt’s empowering essay “Towards a New Oceania” which

\textsuperscript{56} It is apparent that if Peleliuans did follow these laws and restrictions properly, there might be positive results from western marine conservation efforts.
suggests possibilities for cultural preservation in a more Pacific-specific manner (Wendt, 1976). Wendt notes that colonialism has worked to homogenize the Pacific mostly through educational systems, which is alarming since this region is so culturally distinctive and diverse. This trend towards cultural dependency amongst Pacific Islanders is more damaging than being economically dependent on foreign aid. According to some, one of the key elements of globalization is uniformity of thought in terms of economic development, as well as social and political phenomena (Gosovic, 2001). Thus, through the re/claiming and re/use of indigenous cultures, western ideals and concepts are pushed aside in an act of resistance to global hegemony.

Local knowledge has been disappearing largely because of colonization and globalization throughout the region. One result is that many Pacific youth grow up somewhat alienated from their traditions (Inglis, 1993). However, Wendt suggests that the diversity of the region (culturally, historically, socially, economically) can be its best asset in countering hegemonic forces (Wendt, 1967). The differences of the cultures, politics, histories, and societies of the region can be used to re/shape identities on local terms, based on local histories and cultures, and their own unique ways. Wendt suggests specifically the use of mediums such as creative arts and literature (ibid.).

In this thesis I am suggesting the re/use of traditional marine conservation knowledge to enhance the ability of Peleliuans to once again control and manage their marine ecosystems. Re/using traditions will allow them to employ their own knowledge in appropriate ways to redefine their world and ultimately their use of marine resources. There is much optimism and hope in such possibilities across
Oceania, as the ocean and protection of its resources is something familiar and important to the people of this region.

"Oceania is vast, Oceania is expanding, Oceania is hospitable and generous, Oceania is humanity rising from the depths of brine and regions of fire deeper still, Oceania is us. We are the sea, we are the ocean, we must wake up to this ancient truth and together use it to overturn all hegemonic views that aim ultimately to confine us again, physically and psychologically, in the tiny spaces that we have resisted accepting as our sole appointed places, and from which we have recently liberated ourselves" (Hau'ofa, 1994, 160).

Today it is the younger generations, although educated in western systems that are typically the ones who favor a return to cultural roots and cultural revival efforts (Inglis, 1993). By looking at practices of the past, younger generations are able to find inspiration and focus on creating a new vision of their own Oceania.

Figure 14: Peleliu Youth

*Environmental Day held at PES where youth learned about various species, like the lius (Crocodylus porosus, saltwater crocodile), found in their environment (Photo by Teresa Brugh, 2005).*
In Peleliu, youth tend to be more optimistic and in favor of re/using traditional concepts than their elders, who generally feel such concepts are no longer applicable (see Chapter 4). This could actually be one benefit of a western education. Youth today are educated about environmental issues and they are aware of their changing environment from a biological perspective in addition to an experiential framework as in the past. Nevertheless, this sort of education makes many youth want to improve conservation efforts throughout the Palau archipelago. In the case of Peleliu, some elders and youth alike still have this knowledge regarding traditional marine conservation practices. There is hope in its re/use because some still know and carry this knowledge, while others are keen to use it.

Not only can Peleliuans and Palauans benefit from the re/use of traditional conservation practices, but non-Palauans and non-Pacific Islanders can also see a benefit from the successful re/use.
work more effectively than current conservation efforts then biological diversity will be preserved for the benefit of the larger world. This is important when considering Palau's unique location within the biodiversity triangle of the Indo-Pacific. Successful marine conservation will protect and preserve many of the unique species found only within this region, benefiting world biodiversity. This speaks to the idea that what happens locally affects the global world. All ecosystems and regions are connected and there is a need to begin acting locally but affecting global environmental problems.

In the final chapter, I offer some specific suggestions regarding how to re/use the traditional marine conservation practices that were laid out in the beginning of this chapter. These suggestions incorporate a combination of my own interpretations, as well as input from Peleliu sources. Through this final reflection I argue that the re/use of traditional conservation in Peleliu can work towards marine preservation but also, more importantly, towards cultural perpetuation and the restoration of the delicate balance between environment, culture, and development in Palau.
Chapter 6: **Er a Merael Mei el Sils** (Days to Come: Future Implications)

In the past, it was common for western researchers to ignore local people and their knowledge. “Imagine people who confidently assume they can best describe and manage the natural resources of an unfamiliar region alone—ignoring local hunters who know every cave and watering hole and the movements and behavior of a host of local species. Such, historically, has been the custom of most scientists and natural resources managers working in unfamiliar environments” (Johannes, 1989, 5). This is true regarding marine resources and environments, sometimes thought of as unlimited. Foreigners assumed open access without regard to Pacific Island peoples and local marine resource practices and restrictions on use. Such a western framework has surely led to the depletion of marine resources in Oceania, while at the same time Pacific Islanders were attempting to use local methods of conserving and guarding their fisheries and marine resources.

The suggested re/use of traditional marine conservation practices that I present here in the case of Peleliu is not a new concept. In fact, in 1992 the UN called a global meeting to devise ways to stop environmental degradation throughout the world at what is commonly referred to now as the Earth Summit (Inglis, 1993). During this meeting in Rio de Janeiro participants devised agreements and identified requirements for assuring sustainability of global resources in the future. The contributions of indigenous peoples’ knowledge to protect the environment were included in these discussions (ibid.). Much
research has been done on indigenous cultures and their rich knowledge about the natural world. As a result, conservationists and researchers are now called upon to become more aware and respectful of these peoples and to work more on their terms (Drew, 2005). Over the years, it has slowly been recognized that indigenous peoples possess a great deal of knowledge, which can assist researchers with their projects and help in testing their hypotheses (ibid.). Many studies and reports have been produced, which suggest the re/use of traditional knowledge by both local people and by foreign researchers as a way to improve conservation efforts.

Palau has not been left out of this trend, as seen in various plans and strategies for long term environmental protection where typically a clause or two acknowledges traditional knowledge and the importance of including local people in order for programs to be successful (see Cassell, 1992; Fitzpatrick, 1997; Maragos, 1995). In fact, mixed forms of management are often thought to be the most effective strategy today, especially in a place such as Palau where state and national governments now hold more authority than traditional leaders (see Johannes, 2002; Gilbeaux, 2001; Graham, 1998). These recommendations sound great on paper but are typically not seen by the local communities, and in particular within Peleliu. Nowadays, the type of conservation practiced in Palau is mostly western in form, where incentives are not provided and restricting access to resources is the focus. This could contribute to the failure of programs,
even though some of the marine laws are based on the knowledge of local fisherman (Noah Idechong, personal communication, May 20, 2006)\textsuperscript{57}.

Local conservation organizations often visit Peleliu and conduct surveys and monitoring projects without recruiting local resources to assist them. Peleliuans often have little knowledge of the environmental surveys that are done on their island. There is no reporting back to the community or attempts to solicit ideas about why things are the way they are or how to improve conditions. For instance, I have often heard people talk about the various Koror based conservation organizations that come to Peleliu unannounced and never explain to the locals what they did and what they have discovered. Reports are seldom shared with the community, leaving them skeptical of their purpose.

The revival of traditional methods may very well improve conservation efforts, as well as contribute to cultural preservation in Palau. When arguing for a return to more traditional concepts of conservation, I realize the need to be careful in calling such indigenous practices “conservation,” when the term itself is not Palauan. It is problematic to assume such actions are about conservation merely because they reduce the harvest rates or impacts on the resource (Smith, 2000). Conservation practiced in the West typically works to preserve biodiversity or maintain aesthetic beauty of an area or key species while many indigenous groups conserve resources for different reasons (ibid.). There needs

\textsuperscript{57} It was explained that before the conservation laws were developed in the 1980’s that a group of well-known fishermen across Palau were gathered together to share their knowledge on spawning sites, species behaviors, and seasons of marine ecosystems. This information was then taken and applied to the conservation laws that were developed and are still in place today. However, no incentives were given to the fishermen and many of them have now expressed their frustrations with these laws, feeling they do not work and that their knowledge was misused.
to be an economic or social benefit to the communities where the conservation program is established.

The concepts on which Palauan traditional conservation practices were based can be successfully transferred to the present if the proper steps are taken to include local support. Perpetuating this knowledge is important for a few different reasons, even if it’s not directly applied or used for marine conservation. The real value lies in maintaining the knowing of this information, understanding and enhancing the cultural heritage, and solidifying a cultural identity. Such social benefits include increasing the cohesion of communities and empowering local peoples.

The cultures in Palau today remain strong because many continue to appreciate their indigenous cultural heritage. It is also worth noting that the culture continues to be dependent on the marine environment in modern times. Equal value should be placed on environmental and cultural protection because they are so interdependent. However, generally there is a stronger emphasis on environmental protection, while cultural preservation efforts are often weak. Some Peleliuans felt frustrated with conservation efforts and similar sentiments were heard within other Palauan communities that conservation just isn’t working. People are not seeing results, they continue to be kept out of areas, restricted from marine harvesting when there are little other opportunities, and given no alternatives. People are ready for a change and traditional concepts seem to offer a feasible solution, as their knowledge would be respected and used.

I offer some suggestions on how to re/use traditional conservation today in Peleliu, based on the practices of the past yet appropriate enough to fit the
present situation and needs of the community. Unlike other surveys and studies, I suggest re/use of traditional knowledge as a way to benefit not just the environment or culture alone. Instead I argue that if one is guarded properly the others will benefit as well. After highlighting the dependence of a healthy environment on a healthy culture for sustainable development, it seems obvious that those efforts, for either type of protection, would effectively involve both aspects. However, that has not been the case within Palau where many reports and recommendations tend to focus on only one aspect. Peleliu itself is not a homogenous society, nor does Palau have only one culture. Differences exist in their opinions regarding what conservation is, what methods work to protect resources, and how valuable traditional knowledge is. I account for these differences within the following suggestions, aware that Peleliu does not speak with one voice. I try to speak on behalf of the majority opinion.

My first suggestion on the re/use of traditional marine conservation practices within Peleliu deals with the transmission of this knowledge. Elders often admit to not passing on this knowledge as they did in the past for a variety of reasons, while parents are also not as available as in the past to teach this knowledge to their children. At the same time, the Peleliu elementary school no longer teaches cultural knowledge or practical skills that would ensure the perpetuation of ideas of traditional. Due to budget cuts and limited funding for such projects, cultural classes in all public elementary schools were cancelled a few years ago. Therefore, youth today are often not learning this knowledge or
aware of the possibilities for its re/use. I suggest incorporating this knowledge into the educational system as a way to ensure it is perpetuated. Village elders could possibly come to the school classrooms and give presentations. There is also the possibility of forming an immersion school that would focus on teaching Palauan culture, language, history, and practices while also teaching western education, as this is important in a modern society, but doing so in local way.

Figure 16: Environmental Awareness Day
*Education program initiated by the Peleliu Marine officers and the DFWP (Photo by Teresa Brugh, 2004)*

There is another possibility of developing more hands-on activities and coordinating field trips to get the kids out in the environment to learn these skills in a physical setting, outside of the classroom and from their elders. An option would be to develop an after school program that is dedicated to teaching Palauan youth about their past and traditional skills. For instance, while I was a
Peace Corps Volunteer in Peleliu I worked with the marine conservation officers in developing various environmental education and outreach programs to get kids out into nature, as a way to teach about their traditional cultural and use of the environment. From being in the environments being discussed it was also appropriate to highlight the current degradation of species and environmental changes that had occurred in Peleliu. We developed a camp program for the upper elementary grades, which for a weekend focused on teaching cultural activities and environmental issues. We had parents and community members participate in the activities and we invited representatives from the Division of Fish and Wildlife Protection to join. We coordinated activities such as forest walks, reef tours, scavenger hunts, beach clean-ups, basket weaving, and spear making that taught conservation and traditional culture at the same time, as well as local knowledge and use of species.

I also feel that many of Palau's environmental agencies, both governmental and non-governmental organizations, could be key resources for engaging elders in the transmission of traditional knowledge. For instance, organizations like PCS could develop programs that would assist elders in developing ways to appropriately pass on their knowledge that would capture the interest of today's youth. This would work to meet PCS's goals of engaging local communities and conserving resources through using local knowledge.
Figure 17: Clam Farm

Part of an educational program initiated by Peleliu Marine officers where PES students were taken on reef tours around Peleliu and to select sites, such as the clam farm (Photo by Teresa Brugh, 2005)

A second suggestion also involves improving the perpetuation of traditional knowledge. I feel that the lack of space for such transmission to occur as it did in the past has greatly affected the lack of traditional knowledge in Peleliu. I propose that the community in Peleliu get together and build a traditional bai structure. The elders and youth can work together on its construction and afterwards would have an area for passing on knowledge as occurred in the past.

Another possibility lies in the actual re/use of traditional conservation practices. A bul has not been enforced in Peleliu for many years. However, the re/use of this practice might work to improve the respect and power of traditional
high chief Obak, teach the youth about their traditional culture through application of this practice, as well as protecting an area or species that is threatened. For instance, Obak could potentially call a *bul* on the use of net fishing in Peleliu's inner lagoons, the harvest of *rekung* (*Cardisoma carnifex, Discoplax hirtipes,* and *Gecarcoidea lalandii,* land crabs) when the moon is full, or from fishing *meyas* (*Siganus canaliculatus,* dusky rabbitfish) during a given season. Adaptive management systems could then be developed if the *bul* is successful. The Peleliu state government could attempt to work with the traditional leaders and establish laws based on the *bul* to increase the effectiveness of conservation efforts.

On a national level, traditional conservation may be incorporated into marine protected areas that recently Palau has received international recognition for. Palau president, Tommy Remengesau Jr., is said to be the “most conservation-minded head of state” after the November 2005 U.S. Coral Reef Task force meeting (Miho, 2007). In recognizing the shared resources and importance of the environment, President Remengesau called out on the region to conserve 30 percent of their coastal areas and 20 percent of their land properties by the year 2020 (Pala, 2007). While this challenge is courageous and necessary, it's mostly based on utilizing western conservation practices. Also, the maintenance and enforcement needed to prevent poaching in these areas is costly, estimated at $2.1 million a year to maintain the areas in Palau alone (ibid.). The Micronesian Challenge may then be more successful in Palau if traditional knowledge and conservation practices were utilized. For instance, the use of local knowledge is essentially more cost efficient but also allows Palau to
be self sufficient and not rely on foreign assistance. Therefore, designating bul and re/using the practice of harvesting during particular seasons would be ways that traditional knowledge could be incorporated into this challenge.

A final suggestion involves the improvement of marine conservation enforcement activities and interactions between these officers, policy makers and local community members. Re/using more traditional leaders and forms of authority alongside enforcement efforts, and possibly incorporating more traditional forms of punishment, would be a more local way of conserving marine species, while also re/using cultural knowledge and potentially strengthening these traditional leadership systems.

The question remains as to how to go about implementing such traditional concepts today. One idea from a system that worked in Brazil (Marcovaldi, 1999) is to take violators, say turtle poachers, and allow them to lead efforts in enforcing and educating the public on sea turtle conservation and biology. While Palau is very different from Brazil, the concepts of community involvement and positive incentives could be transferred. Revenues from violations and/or user fees should go back into the community (Mehta, 2001).

In Palau, this is not the case, as revenues collected tend to go into the state and national government funds where they are redistributed through those agencies. Local people generally do not see the benefits that conserving resources can bring to their community, both in an economic aspect or the increase of species and environmental health. The separation between local communities and government agencies in Palau will need to be broken if traditional
management is to work, due to the power that the national government now exercises over traditional leaders.

I am aware that the idea to re/use traditional knowledge does not come without challenges and roadblocks. It would involve a process of learning, creativity, and patience. However, if done properly this could potentially work to protect the environments and cultures of Palau by getting to both the minds and hearts of Palauans (Kent Giramur, personal communication, May 15, 2006). This is more than what western conservation practices achieve in Palau. It is apparent from the interviews with Peleliuans that traditional concepts regarding conservation still have a role to play in modern day Peleliu, even if they are not used on a daily basis. The youth are interested in acquiring this knowledge despite the fact that most of the elders feel the youth are disconnected and uninterested in their history. Both the elders and youth alike recognize a need to change current marine conservation efforts in Peleliu. And while there are still elders around to perpetuate this knowledge for cultural importance and modern day environmental protection, traditional conservation re/use seems like a feasible and appropriate suggestion that would involve local people, give them incentive to continue with such programs, and be based on knowledge defined in their own terms.

It is often said that conservation efforts do not work because people continually violate regulations, enforcement is weak and unfair, and punishments are not strict enough (Gilbeaux, 2001). The lack of traditional leadership today could be troublesome when re-establishing indigenous practices. Many people say that there is a loss of respect for traditional leaders because these men are
using, or abusing, their titles for greed and self interest rather than for the good of their villages. Reverting back to traditional methods of conservation may not work effectively if such activities persist.

Palau’s constitution may not give as much regard to traditional authority as it proclaims which could raise issues on how to enforce these traditional practices in a modern setting. In practice, when these systems clash, the central government often overrides traditional leaders (Graham, 1998). However, there is hope in mixed management between states and traditional leaders, which has been successful in other Pacific Islands and select villages in Palau (Johannes, 2002). For instance, traditional leaders from Ngarchelong and Kayangel states have enforced a *bul*, or a traditional style of protected area or protected harvest on a particular species as designated by the village chief, on known fish spawning and aggregation sites with success on the local level and support from the government.

It should also be considered that the majority of the young people in Palau have not grown up using such concepts at home and in daily life. To many youth, conservation is defined and thought of in western terms alone, whereas older Palauans define and conceptualize the term using more traditional thought and frames of reference. Re/establishing traditional practices in Palau will have its challenges due to the fact that this place has changed so much over the years. I am hopeful however that traditional knowledge will prove successful for the management of all marine resources in Palau.

A more realistic view of conservation that is beneficial to the communities involved should be strived for because Palauans will continue to need access to
their resources for cultural, subsistence, and economic reasons. Changes may have occurred in the ways resources are used, why they are used and who uses them, but people are still collecting marine resources for monetary income (Matthews, 2003). It is important when developing new strategies to manage marine resources that cultural knowledge and use of species be considered in order for programs to be effective. Western concepts need to be reshaped, or attention brought back to more local concepts, because of the difference between Palauans and the West in how they view nature and their place within it.

It seems to be inappropriate for Palauans to continue unsustainably harvesting marine species and not to improve efforts towards their protection. They depend on them for both culture and to support their claim to unique biodiversity, which ultimately affects the success of the tourism industry. Conservation is not always about saving a certain number of species, but more about protecting the value of important species, as they contribute towards happiness and well being of humans (Witherington, 2003). In the case of Palau, marine environments and species are a significant part of culture, history, and economy and therefore continue to be incredibly valuable today just as in the past. There is hope that Palau can turn to their ancestral knowledge for inspiration and guidance on how to move into the future in the most sustainable way to protect both the culture and the environment.

If things in Palau do begin in Peleliu, then the successful re/use of traditional marine conservation practices there may gain momentum and circulate throughout the archipelago in a nationwide effort to improve marine conservation efforts and protect the cultures of Palau. If Peleliu really is the root
of the tree and the center of Palauan culture then this re/use would clearly be beneficial to the entire country on multiple levels. It’s said that in order to move forward we sometimes need to look behind us, to learn from the past. Re/using traditional marine knowledge in Peleliu would be a way to do that and in a sense anchor the canoe or traditions of Palau in the face of modernity (see Chapter 2). In conclusion, I find that re/using traditional conservation concepts will prove successful if implemented in Peleliu to conserve marine resources. However, such efforts will also work to perpetuate cultural history and strengthen community building, for the benefit of the cultures, livelihoods, and lifestyles of Peleliuans, Palauans, and Pacific Islanders who live with them.

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Watch Video 3
Faces of the Future

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**Palauan Glossary**

The Palauan language belongs to western branch of the Austronesian dialect grouping. The following is a brief explanation on some spelling and pronunciation for Palauan orthography. For a complete discussion and dictionary please refer to the New Palauan-English Dictionary (Josephs, 1990).

- The most common letters used to spell the consonants are \( b, t, d, k, ch, s, m, ng, r, \) and \( l \).

- The letter "B" is pronounced as "\( b \)" only when at the beginnings of words or when between two vowels and before "\( l \)." Otherwise, it is pronounced with the sound of the letter "\( p \)."

- The letter "D" is in pronounced with a "\( th \)" sound when between vowels or at the end of a word.

- The letter "K" is pronounced more like the letter "g."

- "Ch" is never pronounced as "ch," in the English language, ever. Rather it represents a glottal stop, with a throat sound such as "uh."

- When vowels in a word are doubled the sound is held longer.

Definitions:

**A:** Word that precedes nouns and verbs under various conditions.

**Airechar:** Past or occurred in the past.

**Bai:** Community meetinghouse or village guesthouse.

**Basio:** Place

**Belau:** Palau

**Beliliou:** Peleliu

**Beluu:** Village, place, land

**Besul:** Situation or circumstances

**Biskor:** Peace Corps
Btil a malk: Chicken tails (Gallus sp.), a traditional food from Ngesais hamlet in Peleliu.

Bitang: Next to or across from

Bul: Regulation or restriction

Chad: Person

Cheldecheduch el chelid: Legends or literally translated to “stories of the gods”

Chelechang: Present, today, now

Chelebacheb: Rock Islands

Chelid: General term for a god or deity

Chei: Fishing or knowledge about the sea and associated technologies and practices/beliefs.

Chemang: Scylla serrata or mangrove crab

Chesols: General term for a chant

Chetemel a beblil: Clan properties

Chutem buai: Public properties

Daob: A general word for the ocean

Ilechiil: Sand shells found along the beach and shoreline. A traditional food from Ngerchol hamlet in Peleliu.

Ka bloes: A popular saying from 2005, literally means “you’re dead.” Typically this statement was paired with the question “ke daijob (are you okay)?” Where the response would be “ka bloes.”

Kangkei: Connection or relationship

Kelat: Moolgarda seheli, bluesopt mullet fish. A traditional food from Ngerdelolk hamlet in Peleliu.

Kemediil: Funeral

Kemedukl: Bumphead parrotfish

Ke mei: “Come here”
Kerreomel: To conserve

Ketat: *Birgus latro*, coconut crab

Kim: *Tridacna* sp. and *Hippopus* sp., giant clams

Klobak: A council of the ten highest village chiefs (males)

Klobak l’dil: A council of the ten highest village chieftesses (females)

Ma: And

Mechas: Refers to an adult female, an elder woman, or a titled/chiefly woman.

Melangch: To set aside; to identify; to try to recognize

Melob: *Chelonia mydas*, green sea turtle species, which are generally hunted for their meat

Mengerer: *Laticauda colubrine*, Banded sea snake

Meyas: *Siganus canaliculatus*, dusky rabbitfish

Mlai: Car, boat, canoe

Ngasech: *Eretmachelys imbricata*, hawksbill turtle species whose shells are used to make *toluk* a form of Palauan women’s money as well as other types of jewelry. *Ngasech* also refers to the first born ceremony, a traditional Palauan custom to celebrate a woman’s first born child.

Ngikel: General term for fish

Ngloik: General name for Palauan traditional dances

Olbiil er a Kelulau: Current day Palau National Congress

Omechelel: To begin

Omengereomel: Palauan translation of the word conservation

Omtechei: General word for change

Ousengek: To give a gift or to thank

Outekeu: Welcome
Rekung: General term for land crabs (Cardisoma carnifex, Discoplax hirtipes, and Gecarcoidea lalandii, land crabs), a traditional food of Teliu hamlet in Pelelilu.

Rubak: Refers to an adult male, an older man, or a titled man/chief

Sechal: Man

Semum: Trochus niloticus, trochus

Sils: Sun or day time

Techang klem?: “What’s your name?”

Tekoi: A general word for language or to talk

Telbiil: Word for the compact agreement between Palau and the United States

Toluk: A form of traditional customary women’s money that is made form the shell of a hawksbill turtle (Eretmochelys imbricata, ngasech).

Uel: General term for sea turtle (Chelonia mydas, green turtle or melob and Eretmochelys imbricata, hawksbill turtle or ngasech)

Ues: Vision; sight; view

Ukaeb: Shell of land crab that is filled with cooked crab meat and covered in coconut milk. Is a common food known of Peleliu.

Ungil tutau: Good morning
Appendix 1: Research Methodology

Formal field research for this thesis was conducted between the dates of May 17th to August 6th, 2006. I had the opportunity to travel to Palau during this time through a travel grant provided by the Graduate Student Organization (GSO) at the University of Hawai‘i at Manoa. This trip brought me back to Palau after being away for only 8 months. During the summer of 2006, I lived in Peleliu State with a Palauan family whom I had known prior to this visit while I was a Peace Corps Volunteer. I spent the entire summer in Peleliu, making only a few short trips to Koror for interviews and one trip to Angaur to participate in a educational camp program.

During the first month I focused on re-establishing my place within the community along with explaining my research to numerous Peleliuans with the hopes in getting feedback for the project. It has always been important to me that this research is something both beneficial and desired by the community it is about. The people I chose to interview for this project were either skilled fisherman or marine harvesters, worked in the field of marine conservation, were an educator or teacher, or else had been recommended by another community member as someone possessing knowledge on the topic of traditional conservation. I should also mention that Peleliuans were primarily interviewed but I did find opportunities to talk to other Palauans about the same topics as a way to highlight the very specific environments and culture within Peleliu by comparing and contrasting environments and peoples throughout Palau.
In the beginning of June I began interviewing community members, typically at their place of employment or in an outdoor setting. It should be mentioned that due to my former experience in Peleliu, I knew almost every participant except for a few people from Koror. Because of these pre-established connections I found it easy to arrange interviews and it was also beneficial in creating a comfortable atmosphere necessary for an open dialogue on this topic. All interviews were kept personal and informal in their setting and discussion. Each participant was given a consent form, both an English and Palauan, to read and sign along with being briefed on the objectives of the project before the interviews began. Although I did have an interview questionnaire I did not use it strictly during each interview. Rather these questions acted as a guide for flow of discussion topics. Because of this, some interviews had different questions than others, which were specifically tailored to that participant’s skills, knowledge, and interests. However, there were key questions that were asked to each participant in the same manner during every interview. I gave each interviewee the option of having the interview videotaped and if they did not approve of this I took written notes during the conversation. On average the interviews lasted about one hour, although some lasted over three hours and a few short interviews were about 30 minutes in length.

In total, 28 formal interviews were completed for this project. The participants ranged between the ages of 12 to 76, with 11 females and 17 males interviewed. The majority of participants were from Peleliu (22 in total) and 6 interviews were held with Palauans from Kayangel, Koror, Airai, and Ngiwal states. In addition to these interviews I had numerous conversations with
Palauans regarding this topic of traditional marine conservation knowledge, which has greatly contributed to my conclusions on the re/use of traditional knowledge in Peleliu today. I also had the opportunity to go on a few fishing trips, as well as crabbing and clamming trips, with various participants and community members. These experiences have again, worked to inform the discourse of the project.

Throughout the three months of field research in Palau I shot a total of 9 videotapes, with each mini-DV cassette 60 minutes in length. All footage was captured using a Sony handheld camcorder. Of the 28 formal interviews, a total of 9 were captured on film. Other video footage includes the environmental settings of Peleliu and Koror, fishing, crabbing, and clamming trips, a first-born ceremony, Palauan dances, and a trip to Angaur where I was involved in a week long summer youth camp program. These tapes along with my own digital photographs and some borrowed images are what were used to produce the three films for this project.

Academic literature reviews and working through the data that was collected during the field study was the other aspect of this project. I used primarily qualitative data analysis methods by reading through interview transcriptions and extracting common themes and key points raised by Peleliuans that would support my arguments. I used these common themes (see Appendix 2) to then determine percentages and averages of the responses that were presented in this thesis.
## Interview Participants

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** Designates that the subjects' age is unknown.
Appendix 2: Interview Themes

The following themes or concepts are based on the direct responses of Palauans interviewed for this project. These themes have been extracted from field notes and video transcriptions from each of the interviews conducted. I have attempted to keep these concepts as true to form as possible, with only slight changes in the wording as a way to organize and combine like ideas. Similar responses given by different persons were grouped together to make a single theme, as many people interviewed expressed similar ideas only worded their responses differently. This was done to avoid excessive repetition and as a way to focus on core concepts of these interviews. Each interviewee was assigned a number, and can be noticed next to that participants corresponding response (see Appendix 1). Any comment found within brackets [ ] is my interpretation surrounding that core concept.

I. Marine Harvesting Knowledge

Knowledge Transmission (who teaches/ who they teach)

- It is the families responsibility to pass on knowledge in Palauan custom, or to make sure your children have a particular knowledge to help the family (1, 2, 3, 8, 14, 23, 24, 28)

- It used to be the village chiefs responsibility to ensure his community had knowledge about how to care for marine resources (8, 15, 18)

- Males and females have different knowledge sets (1, 6, 9, 11, 13, 14, 19, 20, 21, 23, 24, 28, 25)

- Males learn from fathers, uncles, and mentors. Either they are sent out fishing with them or sent to live with them as a way to learn their skills/trade. [Traditionally this was maternal, where males were sent to
live with their mother’s brother to learn his trade/specialty throughout his teen years before his coming of age. [2, 3, 4, 5, 10, 12, 14, 15, 19, 20, 21, 22, 23, 24, 28, 26]

- Females learn from mothers and aunties by going out with them to collect marine species. [Traditionally this was maternal, where girls learn from the women from the mother’s side of the family.] (5, 9, 13, 28, 25)

- Generally, Palauan men learn to fish at very young ages, between 3-10 years because culturally fishing is something all Palauan men must know how to do. [This was expressed by the majority of participants.]

- Generally, fishing is considered “men’s work.” Typically, women are not taught this knowledge, although today it is more common for a woman to learn such skills and it accepted in the community. However, this is generally discouraged, and more so in the past. This was one main reason why many women felt they should not be interviewed for this project.

**Knowledge Transmission (how teach)**

- Knowledge is acquired by observation only and trying things out by one’s self. An informal or indirect style of teaching (2, 3, 9, 10, 11, 13, 25)

- Knowledge is acquired by sitting around the bai and listening to men talk about customs and fishing stories (10, 19, 24)

- Teaching marine harvesting knowledge was/is intentional because it’s a skill needed to help feed your family. You were directly told you were going to learn this trade and then taught by the appropriate person [Today it’s different and learning this knowledge isn’t as critical or necessary because of the change in lifestyles and availability of imported foods] (8, 14, 15, 28, 26)

- Teaching marine harvesting knowledge was/is intentional and indirect. Learning is a combination of observation, trial and error testing methods, as well as fishing with your teacher/father/mother/mentor. However, there is no direct discussion on what you are learning (13, 14, 19, 21, 22, 23)

- Knowledge about how to harvest marine resources is not something you are taught, it is an innate skill one is born with as a Palauan (3, 7, 12)

- Learning how to harvest marine life is a type of playing because it’s fun and the style of teaching is unintentional (5)
Knowledge Transmission (what teach)

- One was/is taught how to catch fish, current patterns, listening to waves, the tides and moons, fish/species locations & migration patterns, spawning seasons, fish anatomy and animal behaviors. All of this is necessary to be good at marine harvesting. [Whatever the method, be it crabbing, fishing, turtle hunting, etc.] (4, 12, 13, 14, 19, 20, 21, 22, 28, 26)

- One was/is taught the rules of the past. In the past fisherman were told by their village chief when to go fishing and what to catch. It was not appropriate to go at anytime, to take anything, or to go anywhere (10, 15, 19, 24, 27, 28)

- One was/is taught special family knowledge about a particular fishing style or turtle hunting knowledge, if your family has acquired and carries this specific knowledge (10, 15, 19, 28)

- One was/is taught different methods of fishing and techniques [like net, spear, hand line, etc.], which have changed over time because of introduced gears. However, the concepts have remained the same (3, 4, 12, 21)

- Conservation [in general] is something you are taught when you learn how to harvest marine life (2, 3, 4, 5, 6, 10, 12, 13, 15, 20, 21, 22, 28)

- Conservation [in general] is not something taught along with marine harvesting practices (9, 11, 14)

Sacred Knowledge

- Knowledge about the marine environment is not sacred but not necessarily shared either. In the past there were rules about who could talk and when to do so. Many people had knowledge but only certain people could teach it, use it, or speak about it based on the rank of that person within their clan. Also, some knowledge is just kept only within a family—not shared outside—because that was a skill used for that family to make their living. (2, 3, 7, 10)

- Sacred knowledge today only exists in the form of black magic (6, 18)

- Many fishermen today consider their knowledge and skills to be sacred. They do not want to share their knowledge with conservation organizations or lawmakers because they do feel their knowledge is not being used properly, as they have done this before and not seen results of
II. Conservation

What is Conservation?

- Conservation is a western construct, only a modern or recent introduction to Palau (1, 9, 11, 14, 22)

- Conservation means to make sure you always have what you need and that those resources are sustainable for future generations. [To ensure there is always enough to take and eat, not to sell] (4, 5, 9, 11, 12, 13, 19, 20, 21, 22, 25)

- Conservation is not about the resource but about future generations who may not see or use those resources. [The idea that these resources are special and valuable where the thought of future generations not being able to experience this is alarming] (12)

- Conservation is something all Palauans want to do—just not something they all follow (19)

- Conservation today is like an office with a lot of papers and no one inside, it’s not about the future of Palauan children (3)

- There are two types of conservation, one for sustainability of resources and another to make a profit (18)

Why use conservation?

- All things in the ocean need to be conserved because they are important to culture and they are noticeably declining (4, 14, 21, 22, 24, 19)

- Conservation is needed today because there are fewer resources for customs and for market sales (9)

- Conservation is needed today because of the high demand on Palauan resources from the outside [Fisheries exports] (12)

- Conservation is important for the well being of future generations (4, 12)

- Without conservation Palauan customs will disappear (12)
Conservation in Palauan culture

- Traditional conservation practices do exist in Palau (2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 18, 19, 21, 23, 24, 25, 28)

- Conservation is an aspect of, or ingrained within Palauan culture (4, 10, 12, 15, 18, 19, 20, 23, 24)

- Traditional Palauan conservation is based on the concept that if you take something you must put it back because it's known that resource will diminish (8, 19, 28)

- Traditional conservation is a lifestyle, a way people contributed to society, and something that everyone followed as part of daily life. The punishments were harsh so everyone followed (2, 3, 5, 8, 15, 19, 23, 24, 25, 28)

- Traditional conservation methods were practical in the past and today they are theoretical and based on science. [Meaning that modern conservation is not understanding of cultural practices and harvesting of species] (10)

- Traditional conservation was not intended to be conservation as we think of it today (7, 19, 23, 24, 25, 28)

- There is no such thing as traditional conservation in Palau. Palauans in the past never conserved because there was so much of everything and only few people that they didn't have to. It only looks like conservation now because they didn't take too much because they had no way to store foods (9, 11, 14, 22)

- There is no word for conservation in Palauan (3)

III. Marine Environment and Palauan Culture

Environment-Culture Relationship

- The marine environment is important [critical] to Palauan culture, for food, livelihood, customs, social interaction, and learning. Palauans are dependent on marine resources (1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26)

- The marine environment and its resources are what make you a Palauan. [Meaning one can’t practice Palauan customs without marine
resources. If the marine environment collapses then the culture is in 
trouble as it's the basis of Palauan culture.] (3, 8, 9, 11, 12, 15, 19, 24)

- Learning happens because of the ocean. It allows Palauans to travel 
to other places and acquire new knowledge, which in turn has 
shaped/developed the culture (2, 6, 26)

- Palauan culture is about generosity, and this is because the 
environment is so generous to Palauan people. [The idea of reciprocity, 
the relationship between people and their natural surroundings.] (19)

- Unsure what Palauan culture is anymore because it has been 
heavily influenced by so many outside forces over the years (7)

*Physical Environment*

- The marine environment in Peleliu has changed over time, with a 
negative connotation (1, 2, 3, 4, 6, 7, 8, 9, 10, 13, 14, 15, 20, 21, 22, 23, 24, 
25, 26)

- Changes in the marine environment [in Peleliu] are causing 
Palauan culture to change. Now resources are used in different ways with 
less sharing, less thinking of the future, and it's now harder to provide 
foods necessary for customs. (6, 10, 11, 12, 13, 14, 15, 25, 26)

- The marine environment in Peleliu has changed because new gears 
have been introduced that damage the marine environment (10, 20, 25)

- The marine environment in Peleliu has changed because people 
have the mentality that, “If I don’t take it now someone else will,” which 
has led to over harvesting (13, 19)

- The changes in the physical environment in Peleliu after WWII is 
what caused conservation practices to form. There was little food available 
so people needed to conserve what they had. (6, 10, 15)

- The environment in Peleliu is bad today because people in the past 
did not conserve or take care of the environment. Only recently have 
Palauans started to conserve marine resources. (11)

- Today people are less sensitive towards the marine environment 
and its changes because the lifestyle and social behaviors have changed 
where people aren’t spending as much time within nature anymore. 
[People hold office jobs now.] (7, 9, 19)
• The environment in Peleliu is different/unique in comparison to other places in Palau. [Because of the Rock Islands, varying reefs, mangroves, lagoons, sea grasses, etc.] (4, 6, 8, 13, 14, 15, 18, 19, 20, 22, 23, 24, 25)

Environment and Knowledge Formation

• People from Peleliu have different knowledge than other Palauans due to the environmental differences between places. [There are different lifestyles between Palauans, along with different fishing styles, cooking styles, weaving styles, etc. due to the variation in environmental factors] (2, 3, 6, 8, 10, 13, 14, 18, 24, 25)

• Different areas within Peleliu have different environments, which has created different knowledge and developed differences in how those people from those areas use their environment. [For instance, the different hamlets of Peleliu are known to prepare different foods that are available in their areas.] (13, 24)

• In general, Palauan knowledge is reflective of the place where you are from and the culture of that place (1, 5, 6, 8, 9, 19, 24, 26)

• The accessibility to the marine environment in Peleliu makes it easy to learn about marine harvesting. [Is said to be one reason why Peleliuans have more knowledge about the marine environment.] (20)

• All Palauans have the same knowledge and the environment does not affect what you know (22, 23)

IV. Spirit and Palauan Culture

Animistic beliefs

• There are sacred animals in Palauan culture that are not harvested for spiritual reasons, a totem system called delasang (1, 2, 3, 5, 6, 7, 11, 12, 19, 20, 21, 23)

• There are many different gods in Palauan culture. [Gods for the land and the sea and gods for different places in Palau. These gods are sometimes animals.] (2, 3, 5, 6, 11, 12, 19, 20, 21, 23)

• Within Peleliu [and Palau], different clans/families worship different gods (3, 19)
• Ngirabeliliou is the god of Peleliu who protects everything there, including the environment and the people (6)

• Singing or chanting while out fishing was common in the past. Men would sing to the fish they wanted to catch and sing to the gods of the ocean to allow them catch them (2, 3, 4, 12, 21)

Sacred Animals

• Sea Snake (mengerenger)- clan in Peleliu

• Shark (chedeng)- Angaur

• Spotted Eagle Ray (ochaeo)- Ngchesar

• Dugong (mesekiu)- family from Ngerieleb hamlet in Koror

• Coconut Crab (ketat)- Angaur

Spiritual beliefs and conservation

• Not harvesting particular animals because of spiritual reasons is a form of conservation, called delasang, but is unintentional conservation (3, 5, 19)

• The belief that animals have spirit or god-like qualities was a balance between nature and humans, as Palauans have always respected nature (19)

• Spiritual beliefs about certain animals is not conservation (2)

• A Palauans connection to the ocean is spiritual (3)

Spiritual beliefs today

• These spiritual delasang beliefs are not strong today because of Christianity (1, 6, 11)

• Today people still believe that certain animals have spirit and they don’t harm or kill them (2, 5, 11, 19, 23)

V. Conservation and Traditional Knowledge Today

Use of Traditional Conservation Today
• Traditional knowledge isn’t used today because it never existed (11)

• Traditional conservation is not used today, because people don’t know about it. [People are more often western educated and aren’t taught traditional Palauan culture] (1, 3, 4, 6, 7, 8, 10, 12, 13, 14, 15, 16, 21, 25, 26)

• Today people in Peleliu don’t use traditional conservation because there is not enough education teaching why conservation is important. The wealth of resources in Peleliu and the change of lifestyle [to a cash economy] has caused people to use marine resources for money instead (19)

• Traditional conservation knowledge and how to harvest marine resources is different today because of new gears (5, 9, 12, 14, 20, 24, 26)

• Traditional conservation is known today by most Palauans but it’s not being used. [The use of these practices has been dormant for a long time because of western influence.] (19, 23, 24)

• Traditional conservation is still used. [But by the person interviewed and not by everyone else or other community members.] (3, 4, 5, 6, 13, 15, 25)

• Traditional conservation and marine harvesting knowledge is still used today but it has been altered to mix with the use of modern gear (1, 3, 9)

• Traditional conservation is used today but is mixed with western conservation. [The laws today are yesterday’s bul.] (12, 18, 19, 24)

• Some places in Palau have implemented traditional conservation and it works for their communities (5, 19)

• Palauans have built on the knowledge of the past with the newer tools of today (3)

• Traditional conservation is hard to practice today, or people don’t practice it at all, because of social change. Many said that people are disrespectful or greedy today. [In lifestyle change and the now noticeable lack of respect for the past due to a stronger need to make money than to conserve. Now too many people to take too much.] (2, 3, 8, 13, 19, 21, 24, 25)

• Traditional conservation is hard to practice today because the role of traditional leaders/chiefs has changed and they are not enforcing laws
like they did in the past [and the reason why conservation in the past worked.] (2, 8, 10, 15, 18, 19, 25)

- Knowledge about the marine environment is not different, it's the leadership in Palau that has changed the use of traditional knowledge (8)

**Knowledge transmission today**

- Traditional knowledge about conservation is not being passed on to upcoming generations (5, 6, 15, 18, 20, 25)

- Elders are not passing on this knowledge today because Palau is such a different place where they feel it's not applicable anymore (9, 10, 24, 25)

- Traditional knowledge is not passed on because there is no bai in Peleliu where this knowledge can/should be taught (20)

- Kids today are not interested in learning traditional knowledge or cultural history (9, 14, 15, 19, 20, 23, 25)

- Kids show a lack of respect towards their elders (15, 19, 20, 23, 25)

- Kids today are taught to take whatever they can (6)

- Parents have no time to teach this traditional knowledge today at home like they did in the past and many parents don't have this knowledge themselves. [Because of the change in social organization with lifestyles.] (7, 8, 9, 15, 19, 20, 23, 24, 25)

- Traditional conservation is not taught in schools but should be in order to preserve culture and reconnect kids with nature. [Developing outdoor programs] (6, 7, 8, 9, 19, 20, 23, 24)

- Western style conservation is taught in schools today rather than at home [Where traditional conservation would be taught.] (1, 9, 11, 21, 22, 25)

- Traditional conservation today is taught by elders, only to those who ask. They are not passing it on for fear it will be misused (5, 6)

- The person interviewed has passed on what they know about traditional conservation to others (6, 10, 13, 14, 15, 18, 19, 26)

- Traditional conservation knowledge is part of oral history and not well documented, so it's hard to pass it on (8, 23, 26)
• Traditional knowledge about conservation and village history should be the responsibility of the village chief to pass on today but they are not doing this (18)

Value of traditional knowledge today

• Traditional knowledge is valuable today for the culture, even if Palau is a very different place than it was in the past (1, 3, 5, 6, 7, 8, 9, 10, 12, 19, 21, 22, 23, 24, 25, 26)

• Traditional knowledge is not valuable today (10)

• Unsure if traditional knowledge is valuable today (2)

• Traditional knowledge today can re/teach Palauans to not be so dependent on exported goods and re/learn to live off the land (9, 22)

• Traditional conservation is something that is good for everyone, all Palauans and is why conservation was practiced in the past (2, 3)

Traditional conservation knowledge as modern day conservation

• Incorporating traditional knowledge into conservation and education programs is a good idea and needs to happen (2, 3, 5, 8, 9, 12, 19, 20, 23, 24, 25)

• Traditional conservation should be used today more often because people might follow traditional conservation methods better because it’s closer to the culture or easier to understand (4, 9, 11, 12, 23)

• Incorporating traditional knowledge into conservation today won’t work. Palau is too different and there is a lack of respect/disinterest in what people in past did (2, 10, 11, 14, 15)

• Today you cannot revive old practices and ways of living because the American influence is so strong and has changed the culture too much (10)

• Today the old ways might not work but we can learn from them (12, 23)

Current Conservation in Palau/Peleliu
Conservation practiced in Palau today is in the form of marine laws and environmental education—not traditional knowledge (9, 10, 11, 12, 14, 15, 19, 20, 21, 22, 25).

Conservation practiced today is western in design and is not working [People say that they see no results of any modern day conservation efforts] (2, 3, 7, 8, 10, 11, 12, 14, 15, 28).

Conservation today is western in design and doesn't work because harvesting marine resources is one of the only ways people in Peleliu can make a living (2).

Conservation today doesn't work because Palauans feel that the marine resources belong to them and that this right, or access to these resources, has been taken away through the modern laws, which punish and outcaste them for taking what is thought to be theirs (19).

Conservation doesn't work because the monitoring and follow up procedures are not good (19).

Conservation doesn't work because many Palauans have a hard time conceptualizing their global impacts on the world's supply of marine resources. There is only a focus on learning about local issues and consequences (19).

Conservation today is western in design and doesn't work today because the leadership is weak. [The change of systems has caused confusion.] (10, 12, 15, 19).

Today people use marine harvesting practices that are bad and go against conservation ethics. Like using bleach, gill nets, and breaking fish houses/destroying habitat. (3, 12, 15, 28).

Western conservation is better than Palauan styles of conservation because it's based off of scientific research (14, 25).

Conservation in Palau today works but people break the laws because they go against the culture and don't allow for cultural takes of species (24).

Conservation in Palau today works but the laws need to be more strict and enforcement efforts improved (4, 9, 11, 20, 21, 22).

Conservation in Palau today works but it started too late and wasn't developed properly (14).
• Conservation today is only used as a way to protect resources for economic gains (6)

• Education about conservation in Palau is good but the enforcement is weak (8)

• Education about conservation needs to improve in Peleliu/Palau in order for people to follow it (14, 19, 20)

• Efforts towards environmental conservation in Palau today are strong and efforts to protect or preserve culture are weak. [Feels this is unbalanced as what is the point of a nice environment if you have no more culture. Efforts should be more equal. The Belau Fair is said to be the only thing to protect cultural heritage today.] (7, 9, 20)

• Culture today is changing because of the introduction of western gears and new methods of fishing, which are preferred over traditional methods and fishing styles. [The colonial occupations have suppressed the expression of Palauan culture and made Palauans feel their cultural practices are wrong or inferior.] (10, 20, 24, 26)

• Introduced marine harvesting methods, like nets, go against conservation and end up doing more damage, while also allowing people to easily take more than they need (8, 14, 20)

• Palauans can learn from places like Hawaii and Guam and look to them for inspiration on how to conserve marine resources before its too late and too much development occurs (13)
Appendix 3: Video Synopses

Outekeu (Welcome)

This film is intended to be an introduction to Palau and Peleliu, with an emphasis on what the physical environment look like. I spliced footage taken while driving through Airai (from the airport) to Koror as a way to provide an image of what Palau looks like. This includes some of the things that can be seen along the way. The black and white archival photographs, from the Trust Territory period, are used to make a point that some activities of the past still occur today, even though Palau is considered to be “modern.” Therefore, the still photographs are used to highlight the relationship between Palauans and their marine environments. I also splice footage from a trip going from Koror to Peleliu, passing the Rock Islands to visually show what this trip looks like. I use still photographs here as well, to showcase how things have changed. Part two of Outekeu focuses on Peleliu, the physical appearance of the marine environments and how valuable they are to the culture. I chose to reinforce these ideas by combining direct quotes from Peleliuans set against scenic shots showing the variety of marine environments in Peleliu along with clips from one interview in particular with Kent Giramur. I chose this interview because his comments and insight best explained the point I was trying to make, which is the immense value of the marine environment to Peleliuans for their sense of identity, culture, and lifestyle.

The two songs used for in this first video were intentionally selected. The first song, Suebek by Sheldon is about flying into the Airai airport and seeing
Palau from the sky and feeling how beautiful the islands are. The second song, *Odesangel Yorosku* by Kayo, is about how beautiful Peleliu is and what a special place it is.

*Airechar ma Chelechang* (Past and Present)

In this second video I showcase local perspectives on what conservation is by juxtaposing conservation of the past to the present. By editing interviews I was able to show some local answers to the key questions (see Chapter 4). I chose to use few scenic images as a way to highlight the opinions of those interviewed. I have added a Palauan chant, different in the sense that it is traditional in form, however, modern in the beat and drumming added. I feel this particular chant is appropriate in the context of this thesis as it actually re/uses a traditional practice in a modern context, similar to what I am suggesting with the re/use of traditional marine conservation.

Faces of the Future

This final video recaptures the essence of the re/use of traditional marine conservation knowledge and practices in Peleliu today, which is the youth. The feasible reintroduction of such concepts really lies in the hands of the youth of Palau and specifically Peleliu as this is the place where things in Palau begin, take shape, grow, and perpetuate throughout the rest of the islands. This short film captures the faces of the future, showing the youth of Peleliu who are the generation to re/use traditional marine conservation.