

LV 2061

PROTOHISTORIC MATERIAL CORRELATES
IN HAWAIIAN ARCHAEOLOGY
A.D. 1778-1820

A THESIS SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY
OF HAWAII IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

IN

ANTHROPOLOGY

AUGUST 1990

By

Laura A. Carter

Thesis Committee:

Michael Graves, Chairperson
Jocelyn Linnekin
Patrick McCoy

HAWN.
CB5
.H3
NO. 2061

Theses for the degree of Master of Arts
(University of Hawaii at Manoa)

We certify that we have read this thesis and that, in our opinion, it is satisfactory in scope and quality as a thesis for the degree of Master of Arts in Anthropology.

THESIS COMMITTEE

Michael W. Graves

Chairperson

Patrick C. McCoy

Carolyn S. Kinnel

©

Copyright by Laura A. Carter

iii

ACKNOWLEDGEMENTS

I would like to express appreciation to two friends that know the importance of the protohistoric and were always there supporting me, they are Bruce Masse and Gary Somers, who in the end helped to make this thesis a reality. Special thanks also goes to my very special friends, Kell and Gary Douglas and my mom, none of these people ever tired of encouraging me to complete this thesis. To you all many many thanks.

ABSTRACT

This thesis focuses on the archaeological identification of non-traditional artifacts introduced into the Hawaiian economy by transitory maritime-based traders during the Hawaiian protohistoric period, A.D. 1778-1820. The relationship between the transitory visitor, the Hawaiian people and the objects used in trading activities is examined through a model that views the pattern of artifact assemblages for this period as being determined by island geography and by the transitory nature of the trade itself. Together these factors clarify the pattern of dispersal of Western goods during this time. Selected collections from the island of Hawai'i, O'ahu, and Kaua'i provide the archaeological database for this study, while data concerning the types and quantities of Western goods introduced into Hawai'i during the protohistoric period have been gleaned from various historic documents. The results of this study can be used as a general guide for the identification and interpretation of protohistoric period sites in Hawai'i and should be useful in interpreting post-contact sites elsewhere in the Pacific.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	111
ABSTRACT	v
LIST OF TABLES	vii
LIST OF FIGURES	viii
Chapter 1 INTRODUCTION	1
The Problem	4
Initial Contact	5
Acculturation	7
Chapter 2 THE PROTOHISTORIC AND HISTORIC PERIOD IN HAWAI'I	13
Definitions of Protohistoric and Historic Periods	13
Material Correlates of the Hawaiian Protohistoric	16
The Sources	18
Maritime Fur Traders and the Hawaiian Response	31
Chapter 3 PROTOHISTORIC TRADE IN HAWAI'I	36
Previous Research on Trade	36
The Documentation of Trading Activities 1778-1820	39
Cook's Voyages, 1778	39
Maritime Fur Traders, 1786-1795	46
Kamehameha's Domain, 1795-1810	57
The Land-Based System, post 1810	61
Summary	67
Chapter 4 THE ARCHAEOLOGY OF PROTOHISTORIC HAWAI'I	75
Previous Work in Historic Sites Archaeology	78
What We Should Expect from the Archaeological Record	81
Summary of Artifact from Selected Sites	93
Beads	93
Buttons	101
Ceramics	102
Flint	103
Metal Objects	104
Summary of the Archaeology of Protohistoric Hawai'i	106
Chapter 5 CONCLUSION	111
Model of Maritime Trade	113
REFERENCES	117

LIST OF TABLES

Table 1.1 CATEGORIES OF ACCULTURATION	10
Table 2.1 VESSELS VISITING THE HAWAIIAN ISLANDS 1778-1820	23
Table 2.2 FREQUENCY OF VISITOR DAYS BETWEEN 1778-1820	30
Table 3.1 OBJECTS TO BE USED IN TRADE 1776-1780 . . .	45
Table 3.2 PAYMENT FOR ONE BOAT OF SANDALWOOD 1811-1812	62
Table 3.3 LIST OF AVAILABLE GOODS AND PRICES IN PICULS OF SANDALWOOD	64
Table 3.4 PAYMENT FOR SANDALWOOD - 1817	64
Table 3.5 OBJECTS AVAILABLE FOR TRADE BETWEEN 1778-1820	70
Table 4.1 LOCATION, SITE NAME, DATES, AND NUMBERS .	94
Table 4.2 FIVE ARTIFACT TYPE FREQUENCIES	95
Table 4.3 BEAD TYPES NOTED IN LITERATURE OF THE PROTOHISTORIC PERIOD	99

LIST OF FIGURES

Figure 1.1 HAWAIIAN ISLANDS	3
Figure 4.1 ARCHAEOLOGICAL SITE LOCATIONS	77
Figure 5.1 MARINE BASED TRADE - PROTOHISTORIC	115

Chapter 1

INTRODUCTION

The basic warp of the fabric is the process of evolution, interwoven with the weft of unique events trailed from the shuttle of history. The variable strands of the weft produce a pattern interlocked with the regularity of the warp. The resulting design...has determined the relationship each strand of yarn has to every other in the woof and warp of the fabric. The design can be equated with culture process. The fabric is that creation of man known as culture (South 1977:25).

At the time of contact, 18 January 1778, Captain James Cook found the Hawaiian people organized under a complex political hierarchy. The deities were at the top of this pyramid, followed by seven grades of chiefs (ali'i), and the large class of commoners (maka'ainana) formed the base (Kirch 1985:6). This social system followed the same pattern. Land tenure and subsistence organization for example, were complex, with many subdivisions. The Islands were divided into districts governed by the ali'i 'ai moku (the island eating chiefs). The districts were then divided into ahupua'a, each governed by an ali'i 'ai ahupua'a, who then appointed a konohiki (headman of ahupua'a land division) to oversee the maka'ainana. The maka'ainana were the labor force that produced the tribute (goods and services) that was presented through this hierarchy up the pyramid and back to the gods.

After Cook's arrival and his untimely death in the islands, sporadic contact between Hawaiians and visitors from Europe and America continued through these 42 years. Most interaction occurred between the district or ahupua'a chiefs and the foreigners. This pattern of sporadic visitation differentiates the period of contact during the protohistoric (between 1778-1820) from contact in the historic period (post-1820) when visitors came to stay in the islands.

The report of Cook's discovery of Hawai'i (Beaglehole 1967) is considered to be the first account of the Hawaiian archipelago (Figure 1.1). Seven years passed without any known foreign visitor to the islands between 1779 and 1786. In 1786, Captains Dixon and Portlock visited the islands, after which time ships crossing the Pacific regularly stopped in Hawai'i. Most stopped only temporarily for provisions on their crossing of the Pacific from the Northwest Coast of America to Asia; in fact, Cook's visits were the longest duration recorded for the next 34 years. The sporadic nature of contact in Hawai'i between 1778-1820 is similar to other areas where the protohistoric has been identified (Cheek 1974; Fisher 1977; Quimby 1966).

Some sailors from these ships were detained from their journeys and remained in the islands in service to Kamehameha, ali'i nui (the paramount chief by usurpation). Most notable of the foreigners in Hawai'i in the eighteenth

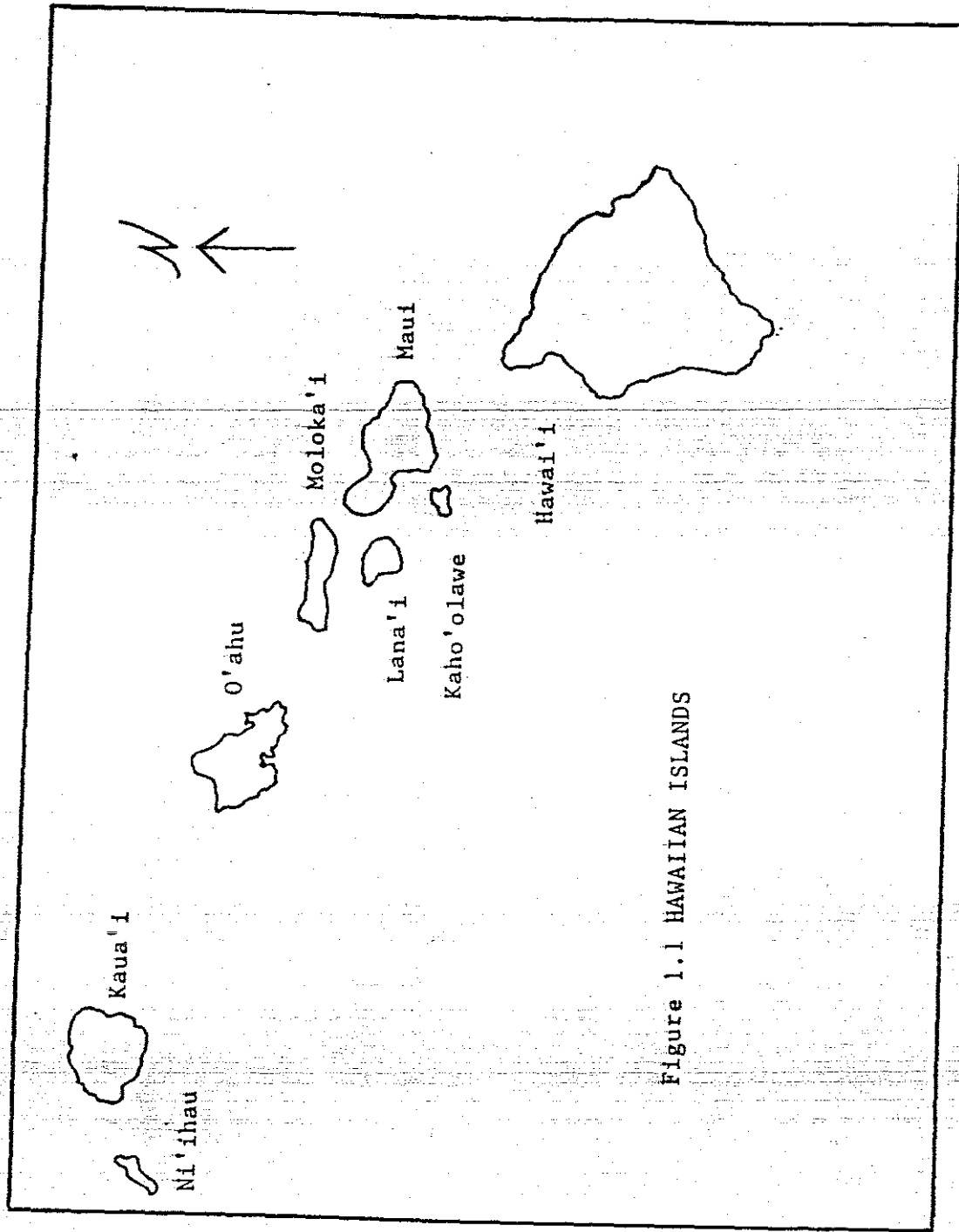


Figure 1.1 HAWAIIAN ISLANDS

century were John Young and Isaac Davis, who were detained in 1791 from the fur trading ships Eleanora and Fair American. Others, often nameless in the historical records, stayed as part of Kamehameha's entourage of foreigners who assisted him in ship building and helped him to acquire the general navigation and weaponry skills for use with these ships.

This period of initial contact and sporadic visitation to Hawai'i ended almost overnight as the result of three events. These events were: 1) the death of Kamehameha on 8 May 1819; 2) the breaking of the 'ai kapu (where men and women ate together); and 3) the arrival of the American Protestant missionaries on 19 April 1820. These events happened within eighteen months of each other, radically altering the Hawaiian culture as it was recorded by Captain Cook forty-two years earlier.

The Problem

The problem that this thesis focuses on is two fold: the identification of artifacts as time markers for the protohistoric period 1778-1820, and the interpretation of artifact patterns identified in the archaeological record. The identification of specific artifact markers helps to set the chronology of archaeological features and sites. Through the examination of written documents that record items used in trade during the protohistoric period it may be possible to identify similar artifacts in the archaeological record.

The lists of trade items also allows for the dating of introductions of specific items. It is hoped that this document will provide a substantive contribution to the understanding of the contact period before 1820 in Hawai'i. It is vital that an understanding of the pattern of trade and its sporadic nature during the protohistoric period as identified in the following pages be understood prior to the discussion of broad research issues such as demography or settlement patterns.

In this thesis I am not concerned so much with discussing the economic links that Hawai'i had with a world economy or the rise of capitalism in Hawai'i, or with demographic issues. This thesis focuses on the identification and definition of sites between 1778-1820. In other words can such sites be dated? How does one date such sites? And if such sites cannot be dated, what alternatives are then left for the study of broad research issues such as demography or settlement patterns?

Initial Contact

If we are to assume that culture is dynamic and that changes within any cultural system are normal processes, then identifying and understanding systemic changes are logical steps in the study of culture contact. The social sciences generally hope to explain the relationship between humans and their environment. Historical archaeology, cultural anthropology and social history can provide similar

approaches to the study of the past (Deagan 1988:7). But the particular goal of historical archaeology is to study the processes and interrelationships by which human social and economic organizations developed and evolved in the modern world (Deagan 1988:8).

Processual studies would include issues concerned with cultural processes in operation at a particular time and place. The chronological basis for such studies is inferred by some means of dating. Once chronologically ordered, these cultural processes can be used as the "building blocks" from which to investigate issues such as the rise of capitalism in the post-1500 world (Wallerstein 1980; Wolfe 1982; Sahlins 1985). The capitalist world economy, with its genesis in Europe, has geographically expanded to cover the entire globe (Wallerstein 1980). Hawai'i was part of the capitalist expansion, but only after 1820 when Hawai'i played a role in the export of sandalwood (although one contract for sandalwood was written before this time, the post-1820 date marks the beginning of socio-cultural changes related to the sandalwood trade). World systems theory is not a new concept and the basis of this theory is that a relationship exists between economics and power relations, between colonial and frontier societies. Hawai'i was viewed as a frontier society to the established and mercantile colonial societies of Western Europe and the United States in the early nineteenth century. It is after this point in

time that the archaeological records^e changes from the intermittent and sporadic occurrence of foreign items to a higher frequency of foreign items.

Other research issues that focus on demography, and the connection between human geography and anthropology (culture), include questions of settlement patterns, disease vectors, and population estimates. Cultural contact situations have provided the basis for important contributions in this area (Deetz 1962; Deagan 1982), and the identification of contact sites is necessary for any discussion of population dynamics, epidemics, and social disintegration.

Historical sources often provide the needed insight into social and economic variables used to interpret archaeological patterns of initial contact sites. For example, some studies of gender have suggested that "the people provide the links between the two cultures in contact is a critical factor in determining the end results of acculturation" (Deagan 1982:163). In other words the assimilation of western ideas and goods and the resulting systemic changes in the recipient culture can often be identified or inferred by examining the historical documentation for the gender of the individuals involved in contact situations.

Acculturation

To what degree is a group acculturated? When does an indigenous site become a historic site? Is the presence or

absence of exotic trade artifacts the key criterion in historic site identification? Is a site historic after the point of initial contact or after the point of continuous contact?

Identifying the change from a prehistoric site to a historic site hinges on the larger problem of defining when a group becomes acculturated. The first formal attempt to define the anthropological concept of acculturation was made in the mid-thirties and defined as the result of two groups that come into continuous first had contact and changes occur in the original cultural patterns of either group (Redfield, Linton, and Herskovits 1936). Forty-two years later definitions are still being suggested (Schuyler 1978:28). Both sources include discussion of the element of time as it relates to the contact situation, that is, sporadic versus continuous interaction. They agree that acculturation can be confirmed when changes in the original cultural pattern are altered in observable ways. According to Schuyler:

Indigenous sites become historic sites, and thus the subject matter for our discipline, only when their basic cultural and ecological patterns have been altered by contact and when this is displayed in the archaeological data (Schuyler 1978:28).

The links between acculturation, historic sites, and exotic artifacts becomes clear. Exotic artifacts are indications of an association with Europeans and we may infer contact or trade but not necessarily direct or first

hand contact with foreigners. The presence of the artifacts may signal the beginnings of acculturation, but not necessarily so. Artifacts acquired during the contact period may or may not alter pre-contact organizational patterns. In other words contact situations may not necessarily change the organization of material culture or human behavior from its previous prehistoric state.

The study of acculturation through the examination of archaeological data in conjunction with written sources provides insights into changing aspects of cultural systems. Deetz (1962) excavated at the site of La Purisima Mission in California, built in 1812 to service the Chumash Indians. He also excavated a nearby Chumash village, Alamo Pintado, and by comparing the two identified systemic changes in Chumash culture. Male-oriented activities changed the most between the two data sets while female activities showed little change and greater stability over time. The interaction between two divergent groups (Spanish missionaries and Chumash men) may account for the stability of female artifact categories, in relation to their corresponding activities, as contrasted against male-oriented activities and artifact categories.

Two anthropologists have tackled the problem of classifying types of material artifacts that may show patterns of change in response to acculturation. Quimby

Table 1.1

CATEGORIES OF ACCULTURATION *

New Types:

1. of artifacts received for which there is a native counterpart.
2. of artifacts received where there is no native counterpart.
3. of artifacts made from native materials but copying introduced models.
 - a. Where the techniques are introduced along with the new artifact.
 - b. Where the techniques come from within the recipient group.
4. of artifacts where the introduced model is decorated after the native manner.
5. of artifacts where the manufacture is local but the maker employs imported material and techniques.

Old Types

1. of artifacts where there is a substitution of an imported material for a local one.
2. of artifacts where there is a substitution of material and technique.
3. of artifacts modified by the introduction of a new element of subject.

* From White (1974:156, Table 1).

(1966) introduced "categories of change" as a way of assessing the degree to which artifact categories changed over time. This method was an attempt to determine the degree of acculturation or change on the American Indian culture as a result of contact with the Europeans. Later White (1974) uses a similar scheme to estimate the degree of acculturation the Pomo Indians experienced through contact with members of the Russian American Company at Fort Ross, California.

White added a "manufacturer" category (one that Quimby didn't include). The eight categories of material culture might be identified in any acculturative situation and "can be a valuable tool in the analysis of artifacts found in the contact situation" (White 1974:156, Table 1:161). The categories identified in his article are presented here in Table 1.1. When applied to the indigenous site artifact assemblages, the pattern or degree of acculturation can be inferred.

The study of contact situations provides archaeologists with access to several independent categories of evidence (historical documentation of individual recollections of events). Such a data base has been characterized by Schuyler (1977:) as "the spoken word, the written word, observed behavior and preserved behavior". In this thesis the documentary sources are part of the data base. Also included are the material by-products or

"preserved behavior" of contact situations.

In this chapter the problem of artifact identification as time markers and the interpretation of artifact patterns was introduced. The importance of identifying pre-contact (pre-1778), initial contact (1778-1820), and early historic post-1820) features, all of which may share archaeologically similar artifact patterns, was also introduced. Chronological controls for identifying features distinguished during the period of initial contact, hereafter referred to as the protohistoric (1778-1820), are vital to understanding this transitional period; this understanding, in turn, may shed light on broader research issues. The remaining chapters present a methodology to distinguish the protohistoric from the historic period including the documentary sources for this period. We will begin with a detailed examination of the nature of the Hawaiian protohistoric.

Chapter 2

THE PROTOHISTORIC AND HISTORIC PERIODS IN HAWAI'I

Definitions of Protohistoric and Historic Periods

The Hawaiian protohistoric has been identified by Kirch (1985:306-308) as the period A.D. 1650-1795. His definition of the protohistoric period is based on the systemic (technological, political, and social) changes to the Hawaiian culture from "its Ancestral Polynesian predecessor". Kirch asserts that "these changes were witnessed at European contact" (Kirch 1985:306) but began before foreigners arrived.

In contrast to Kirch's definition, I consider the protohistoric to be the period between prehistory and history. Prehistory refers to the period of time before initial European contact. The historic period would then be defined as the period after European contact and after the establishment of mercantile capitalism (for most of Hawai'i this date is 1820, for Honolulu this period may begin a few years earlier). In the historic period indigenous sites become historic sites and can be archaeologically differentiated by changes in the "basic cultural and ecological patterns" that have been altered by contact (Schuyler 1978:28).

The protohistoric period, as used in this thesis, delineates a major cultural and temporal period that is

specific for those areas of Hawai'i which were in sporadic contact with European visitors between 1778 and 1820. Foreigners during this time tended to focus on their needs (water, food, sex, and shelter) which included maintaining their relationships with paramount chiefs. Kamehameha was the paramount chief of Hawai'i and parts of Maui by 1795 and after 1795 of O'ahu as well. This means that the movements of Kamehameha during much of this time ^{are} ~~is~~ a key factor in identifying the nuances of protohistoric cultural contact. The Hawaiian material culture of this period, from an archaeological point of view, was not changed from its previous prehistoric pattern. *I disagree.*

The historic period, on the other hand, is differentiated by the technological, social, and material influence of missionaries and whalers who arrived in the Islands in 1820. The influence of the missionaries was far more reaching in the Islands than that of the whalers. Moreover, the whalers as a group were concentrated on Maui rather than on the other Islands.

The missionaries of the American Board of Foreign Missionaries and the mercantile efforts that followed them in the 1820s subsequently altered artifact patterns that are revealed in the archaeological record. The introduction of new objects (sets of dishes, cloth, clothing, bottled medicines, liquor, glassware), made available for purchase or barter to all, not just the chiefs, allowed for material *Yes*

culture to spread across the spectrum of chiefs and commoners, thereby changing the archaeological pattern. Changes to the patterns of material goods ^{were} ~~was~~ inevitable due to the increase of exotic goods filtering through the system through many different conduits--through merchants and missionaries, as well as their wives and children. This pattern of distribution significantly differs from the pattern of the previous 42 years of contact, which had ^{been} dominated by transitory male visitors (traders). Deagan (1982:163) points out that the link between two cultures in contact is critical. The link in the protohistoric period was dominated by males whereas in the historic period the links are men, women, and children.

Although little archaeological research has focused on marker artifacts of the Hawaiian protohistoric period, the information presented in journals and logs of the time period suggests frequent and varied trading between Westerners and Hawaiians. Initially iron was the object most sought after, followed by guns, which in turn gave way to increasing quantities of perishable items (cloth or clothing) and novelty items (ceramics, mirrors, furniture). Pressure was placed on the foreign traders to provide the appropriate goods to offer in trade to the Hawaiians for their food and water. This control of trade by the indigenous group is typical of the contact period ^{Good} interactions in other areas (Fisher 1977:2-5). It separates

the protohistoric period from the historic period, where the merchants established businesses, and where they (the foreigners) controlled prices.

In subsequent sections of this Chapter, the nature of the Hawaiian protohistoric period will be explored by 1) discussing the rationale for using selected trade items as a means of identifying protohistoric sites; 2) presenting a brief evaluation of the documentary literature pertaining to early protohistoric trade in Hawai'i, and 3) discussing the strikingly different mechanisms for trade during the protohistoric and historic periods.

Material Correlates of the Hawaiian Protohistoric

This thesis presents an investigation into the problem presented by the meager record of material remains from the protohistoric period when maritime trade was established between foreigners and Hawaiians. Temporary visitors to the Islands dispensed to the Hawaiians various trade goods, plants, animals, ideas, and diseases. Documents provided by European and American visitors name the locations and provide the year of these introductions. These documents describe the initial and subsequent contact situations between two divergent cultures, that of the Western (American, English, French or Russian) visitor and the native Hawaiian. However, the identification of Hawaiian sites or cultural features, dating between the late eighteenth and early nineteenth centuries (approximately

1778 to 1820) has been difficult. While the first 42 years of the contact period, the protohistoric, has been selected as a focal point of this investigation and discussion, references to the historic period will also appear.

This paper focuses on those artifact patterns that reflect access to the types of trade goods introduced and recovered in the archaeological record during this 42-year period. The archaeological database, or collections, used to illustrate this pattern are from selected sites on the islands of Hawai'i, O'ahu, and Kaua'i. The artifact collections from these sites will be correlated to the written documents of the protohistoric period to identify specific artifact types that may serve as time markers for this period in Hawaiian history.

Investigations of the artifacts diagnostic of the protohistoric and the interpretation of the relative lack of protohistoric artifacts in the archaeological record has been neglected in Hawaiian archaeology. A question relevant to the focus of such an investigation and one that will be addressed here is: What artifacts can be used to identify protohistoric features? An additional question that should also be addressed is: What makes identification of post-1820, the historic period, features less difficult?

The answer to the first question can be found in the historic documents that describe activities of trade between the Hawaiians and the foreigners. Excerpts from these

documents will be detailed in the next chapter. Through the documentary record one can identify what might be expected to be recovered in the archaeological record for the protohistoric period. However, the items listed in these documents do not always match the items recovered from an archaeological excavation. Nonetheless, artifacts dated to the protohistoric period can be used to date the archaeological deposits within which they are recovered.

The greater availability of historic artifacts reflects the continuous nature of trading opportunities available to the Hawaiians after the missionaries and the merchants who followed them arrived in the Islands. This pattern of trading transactions was markedly different from the protohistoric trade, where transitory foreign males provided non-traditional objects, such as beads, nails, metal tools, guns, and cloth. These items remained the same until the establishment of foreign settlers and settlements in the islands. The establishment of continuous or sustained contact with foreigners and the availability of a wider range of objects used in trade or their availability in the marketplace provided Hawaiians with increased and continuous access to foreign goods.

The Sources

The archaeological assemblages targeted for this investigation were selected because they were recovered from areas noted as important locations for transactions between

Westerners and Hawaiians during the late eighteenth and early nineteenth centuries. These include five locations: Kealakekua, and the nearby area of Honaunau, and Kawaihae (John Young's house site is located here) on the island of Hawai'i; the coastal area known as Makena on the island of Maui; and Waimea Bay on Kaua'i. The selection of archaeological sites and associated artifact assemblages within these areas was based on this author's familiarity with the sites themselves, and with the relevant site histories, artifact collections, and published information.

Sites were chosen primarily on the strength of location, and secondarily on published information. The archaeological information collected at the locations listed above has been contract work that was conducted by the Bishop Museum staff. In some cases the original published information did not include descriptions of some of the historic artifacts recovered during the archaeological field work. Thus a thorough examination of the artifact collections was necessary. The archaeological collections that were reviewed included collections from the National Park Service Historic Landmarks of Pu'uhonua O Honaunau and Pu'u Kohola, along with collections from Fort Elizabeth now housed by the Department of Land and Natural Resources in Honolulu. In addition to these collections I reviewed various collections held at the Bernice P. Bishop Museum Department of Anthropology, looking specifically for

UNIVERSITY OF HAWAII LIBRARY

artifacts that could be used as markers for the proto-historic period. This research required the survey of all non-traditional artifacts stored in cabinets in the Museum.

Historical sources such as journals and logs of sojourners provide information on first and subsequent encounters between these transitory visitors and the Hawaiians. Generally these accounts provide valuable documentation on the cultural nuances of Hawaiian life over time (Beaglehole 1967, Vancouver 1984, Meares 1790, Townsend 1921, Lisiansky 1968). These accounts also provide the archaeologist with knowledge of a time and a place where interactions between Hawaiians and foreigners occurred. To a lesser degree these documents provide descriptions of the articles used in trade with the indigenous groups encountered on voyages. Many times there are references to "trifles" as gifts being presented to an individual however the specific meaning of this term is unknown and the interpretation is left to the reader (c.f. Hughes 1977:11 for similar comment).

The available journals, logs, and diaries are quite numerous, and it was difficult to limit the sources used for this thesis. The selection of documents was based on their inclusion of trading situations where the specific items used in trade were provided. In addition to reading about the various voyages of discovery by Cook 1778-1779 (Beaglehole 1967), La Perouse 1786 (La Perouse 1968),

Vancouver 1792-1794, Lisiansky 1804 (Lisiansky 1968), and Golovnin 1817-19 (Golovnin 1979), other documents were examined, including various journals of fur traders. The fur traders provided detailed accounts of trading activities between themselves and Hawaiians because their social orientation was as a businessmen or merchants. Fur traders included Dixon (1968), Portlock (1789), Meares (1790), Roe (1967), Townsend (1921), Lisiansky (1968), and Krusenstern (1968). All of these documents provided data on the objects used in trade in Hawai'i, the milieu for trading activities, and how traded objects were manipulated by the recipient culture.

In the protohistoric period, 1786-1820 (excluding Cook's voyage and the 8 years hiatus), 134 ships stopped in the Hawaiian Islands. The average length of stay made by any one vessel was 17 days. Based on the documentation available the number of potential trading days was calculated. This number was arrived at only for those entries that provided both arrival and departure dates for the ships. The trading days are referred to as "potential" because trade or the exchange of goods between foreigners and Hawaiians did not occur every day a ship was anchored offshore. The total number of potential trading days was 2,262. The range of trading days varies significantly from just a single day in 1797 (this was the departure day of the ship Otter), to a total of 137 days in 1794 (the visit of Vancouver with his

two ships). Table 2.1 provides a listing of the ships that visited Hawai'i. In chronological order it lists the Captain's name and the origin of the ship. Figure 2.1 illustrates the number of days foreign vessels stopped in the Islands between 1778 and 1820. A total of 79 ships was identified by the criteria outlined above, representing 60% of the total number of ships that visited Hawai'i during this time. These statistics do not reflect the absolute number of days foreigners visited the Islands but it provides a representative sample of those that did.

The topic of maritime fur trade is one that has stimulated researchers, including historians, geographers, and anthropologists, to write vigorously on the subject since the early part of this century. The literature focusing on fur traders in a culture contact situation has generally concentrated on the articulation between two divergent cultures as they interacted either by a sea-based or a land-based organization. A major geographic focus of this subject has been the Pacific Northwest Coast (e.g. Fisher 1977, Kerch 1984, Quimby 1948:247-255). Of these summaries surprisingly few include Hawai'i in the discussion of the maritime fur trade. Hawaii's role in the maritime based trade in furs across the Pacific is acknowledged in the work of J. Meares (1921), F. W. Howay (1932), H. Bradley (1939), T. Morgan (1948), J. M. Callahan (1969) and J. W. Caruthers (1973).

Table 2.1

VESSELS VISITING THE HAWAIIAN ISLANDS 1778 - 1820

Year	Arrival - Departure	Ship	Captain	Origin
1778	Jan. 18 - Feb. 2	<u>Resolution</u>	Capt. Cook	British
		<u>Discovery</u>	Capt. Clerk	British
1778-79	Nov. 26 - Feb. 4	<u>Resolution</u> <u>Discovery</u>	Capt. Cook Capt. Clerk	British British
1786	May 24 - June 13	<u>King George</u> <u>On. Charlotte</u>	Capt. Portlock Capt. Dixon	British British
	May 29 - 30	<u>Boussole</u> <u>Astrolabe</u>	La Perouse de Langle	French French
1786-87	Nov. 16 - Mar. 15	<u>King George</u> <u>On. Charlotte</u>	Capt. Portlock Capt. Dixon	British British
1787	May 20 - 25	<u>Imperial Eagle</u> or <u>Loudoun</u>	Master Barkley	Austrian
	Aug. 2 - Sept. 2	<u>Nootka</u>	Capt. Meares	British
	Sept. 5 - 18	<u>On. Charlotte</u>	Capt. Dixon	British
	Sept. 27 - Oct. 8	<u>King George</u>	Capt. Porlock	British
1788	Jan. 2 - Mar. 18	<u>Pr. of Wales</u> <u>Prn. Royal</u>	Capt. Colnett Capt. Duncan	British British
	Oct. 18 - 26	<u>Felice</u>	Capt. Meares	British
1788-89	Dec. 6 - Mar. 15	<u>Iphigenia</u> <u>N. W. America</u>	Master Douglas Master Funter	British British
1789	July 20 - Aug. 20	<u>Iphigenia</u>	Master Douglas	British
	August - ?	<u>Colombia</u>	Master Gray	American
	Sept. 23 - 25	<u>Mercury</u>	Capt. Cox	British
1790	early in year	<u>Eleanora</u>	Simon Metcalf	American
	both captured	<u>Fair American</u>	Thomas Metcalf	American
	September	<u>Grace</u>	Wm. Douglas	American

Table 2.1, continued

Year	Arrival - Departure	Ship	Captain	Origin
1791	Mar. 23 - Apr. 18	<u>Prin. Royal</u> captured '89	M. Quimper	Spanish
1791	April - ?	<u>Argonaut</u>	J. Colnett	British
	May 20 - 29	<u>Hope</u>	J. Ingraham	American
	Oct. 6 - 12			
	Aug. 22 - Sept. 1	<u>Gustavus III</u>	Capt. Barnett	Swedish
	Oct. 4 - 10	<u>Solide</u>	Capt. Marchand	French
	Oct. - Nov.	<u>L. Washington</u>	Capt. Kendrick	American
	? - ?	<u>Hancock</u>	Capt. Crowell	American
1792	Mar. 2 - 16	<u>Discovery</u>	Capt. Vancouver	British
	Mar. 2 - 16	<u>Chatham</u>	Lt. Broughton	British
	Mar. 7 - 16	<u>Daedalus</u> naval supply	Lt. Hergest	British
	Oct. 29 - Nov. 3	<u>Columbia</u>	R. Gray	American
	Nov. 8 - 15	<u>Halcyon</u>	C.W. Barkley	?
	? - ?	<u>Margaret</u>	Capt. Magee	American
	? - ?	<u>Jenny</u>	Capt. Baker	British
1793	Feb. - ?	<u>Jackal</u>	A. Stewart	British
	Nov. - Dec.		W. Brown	
	Feb. 12 - Mar. 30	<u>Discovery</u>	Capt. Vancouver	British
	Feb. 12 - Mar. 16	<u>Chatham</u>	Lt. Puget	British
	Feb. - ?	<u>Butterworth</u>	W. Brown	British
	Mar. - ?	<u>Jefferson</u>	Capt. Roberts	American
	Oct./Nov. - Spring 1794	<u>L. Washington</u>	Capt. Kendrick	American

Table 2.1, continued

Year	Arrival - Departure	Ship	Captain	Origin	
1794	Jan. 9 - Mar. 14	<u>Discovery</u>	Capt. Vancouver	British	
		<u>Chatham</u>	Lt. Puget	British	
	Jan. 9 - Feb. 8	<u>Daedalus</u>	Lt. Hergest	British	
	February	<u>Britannia</u>		Hawaiian	
	(first ship built in islands supervised by Vancouver)				
	Oct. - ?	<u>Jefferson</u>	Capt. Roberts	American	
	Sept. - ?	<u>Phoenix</u>	Capt. Moore	?	
1794	Dec. 3 - Dec.	<u>L. Washington</u>	Capt. Kendrick	American	
	? - ?	<u>Pn. Lee Boe</u>	Capt. Gordon	British	
1794-95	Nov. 21 - Jan. 12	<u>Jackal</u>	W. Brown	British	
1795	Oct. 13 - Oct. 16	<u>Union</u>	J. Boit	American	
	Oct. 13 - Nov. 12	<u>Jane</u>	?	British	
	Winter - Dec.	<u>Pn. Wm Henry</u>	Wake	British	
	? - ?	<u>L. Washington</u>	Simpson	British	
	? - ?	<u>Mercury</u>	Cat. Barnett	American	
	1796	Jan. 1 - Feb. 20	<u>Providence</u>	Capt. Broughton	British
		July 6 - 31			
Feb. - ?		<u>Ruby</u>	C. Bishop	British	
	October	<u>Arthur</u> (wrecked)	H. Barber	?	
1796-97	Dec. 2 - Jan. 1	<u>Otter</u>	E. Dorr	British	
1798	Aug. 12 - 31	<u>Neptune</u>	D. Greene	American	
1799	January	<u>Eliza</u>	Capt. Rowan	American	
	July 19 - 21	<u>Caroline</u> or <u>Dragon</u>	R. Cleveland	American	
	Oct. 6 - 8-9	<u>Hancock</u>	Capt. Crocker	American	

Table 2.1, continued

Year	Arrival - Departure	Ship	Captain	Origin
1800	Summer	<u>Alert</u>	Capt. Bowles	American
	Oct. 21 - 28	<u>Betsy</u>	?	British
1801	Dec. 10 - 20	<u>Perseverance</u>	A. Delano	American
1802	Aug. 5 - Nov. 4	<u>Atahualpa</u>	Capt. Wildes	American
	Fall	<u>Alert</u>	J. Ebbets	American
	Dec. 25 - 28	<u>Ann</u>	?	American
1802-03	Dec. 17 - Jan 21	<u>Margaret</u>	J. Buyers	British
	June 21 - July 7	<u>Lelia Byrd</u>	W. Shaler	American
1804	June 7 - 10	<u>Nadeshda</u>	Lt. von Krusenstern	Russian
	June 8 - 20	<u>Neva</u>	Lt. Lisiansky	Russian
1805	Feb. 27 - Mar. 12	<u>Pearl</u>	Capt. Ebbets	American
	Aug. 22 - - Sept. 9	<u>Lelia Byrd</u> (leaked so took new ship)	W. Shaler	American
		<u>Tamana</u> (built in Hawaii)	J. Hudson	Hawaiian
	Aug. - Oct. 6	<u>Atahualpa</u>	Capt. Adams	American
	Dec. 8 - 22	<u>Yarmouth</u>	S. Patterson	?
	February	<u>Hamilton</u>	Capt. Porter	American
1806	Sept. 3 - 28-30	<u>Pearl</u>	Capt. Ebbets	American
	Sept. 8 - 30	<u>Perseverance</u>	A. Delano	American
	Sept. 29 - Oct. 26	<u>Port au Prince</u>	Mr. Brown	British
	Sept. - Oct.	<u>O'Cain</u>	J. Winship	American
	? - ?	<u>Tamana</u>	J. Hudson	Hawaiian

Table 2.1, continued

Year	Arrival - Departure	Ship	Captain	Origin
1807	May 19 - July 19	<u>Maryland</u>	J. Perry, Jr.	American
1808	before Jan. 9	<u>Pearl</u>	Capt. Suter	American
1809	Jan. 27 - April	<u>Neva</u>	Capt. Hargmeister	Russian
	Feb. 24 - Mar. 15	<u>Dromo</u>	?	American
1810	Feb. - Mar. 4	<u>Duke of Portland</u>	Capt. Spence	?
1810-16		<u>Albatross</u> (important figure in early trade)	Various	American
1811	Feb. 13 - 28	<u>Tonguin</u>	Capt. Thorn	American
	Feb. 27 - Mar. 7-8	<u>New Hazard</u>	Capt. Nye, Jr.	American
	Sept. 28 - Oct. 15			
	Sept. 27 - Oct. 15	<u>Enterprise</u>	Capt. Ebbets	American
1812	Feb. 26 - Mar. 14	<u>Atahualpa</u>	Capt. Suter	American
	Mar. 26 - Apr. 6	<u>Beaver</u>	Capt. Sowles	American
	Fall	<u>Isabella</u>	Capt. Heath	American
	Oct. 23 - Nov. 13	<u>New Hazard</u>	Capt. Nye, Jr.	American
1813	?	<u>Lark</u>	Capt. Northcop	American
1813	June 29 - July 26-27	<u>New Hazard</u>	Capt. Nye, Jr.	American
	October	<u>Atahualpa</u> (sold to Russians, changed name: <u>Bering</u>)	Capt. Suter	American

Table 2.1, continued

Year	Arrival - Departure	Ship	Captain	Origin
1813-14	June 29 - Late	<u>Isabella</u>	Capt. Heath	American
	June 29 - ?	<u>O'Cain</u>	Capt. Winship	American
1814	May 14 - 23	<u>Racoon</u>	Capt. Black	British
	May 23 - June 11	<u>S. Andrew Hammond</u>	Lt. Gamble	American
	June 22 - July 16	<u>Cherub</u>	Capt. Tucker	British
	October	<u>Bering</u> (wrecked off coast of Kauai)	Capt. Bennett	Russian
1815	Jan. 16 - 18	<u>Columbia</u>	A. Robson	British
	November	<u>Isabella</u>	Capt. Tyler	American
1815-16	Dec. 7 - Feb. 16	<u>Millwood</u>	S. Bailey	American
	Dec. 10 - Jan. 4	<u>Columbia</u>	Capt. Jennings	British
1816	Jan. 16 -	<u>Forester</u> (purchased by Kamehameha)	Capt. Adams	American
	Mar. 28 - May 7	<u>Ophelia</u>	S. Hill	American
	June - Dec.	<u>Enterprise</u>	Capt. Ebbets	American
	Nov. 21 - Dec. 14	<u>Rurick</u>	Lt. Kotzebue	Russian
1817	Jan. 19 - ?	<u>Almyra</u>	?	Russian
	Jan. 27 - Apr. 16	<u>Columbia</u>	Capt. Jennings	British
	July 4 - 7	<u>Panther</u>	Capt. Lewis	American
	Aug. 12 -	<u>Bordeaux Packet</u> (sold to Kalaimoku, December)	A. Blanchard	American
	Sept. 27 - Oct. 14	<u>Rurick</u>	Lt. Kotzebue	Russian
1817-18	Dec. 6 - ?	<u>Columbia</u> (sold to Kamehameha I, May 1818)	Capt. Jennings	British

Table 2.1, continued

Year	Arrival - Departure	Ship	Captain	Origin
1818	May	<u>Santa Rosa</u>	Capt. Turner	American
	(private ship, purchased by Kam. I, seized by Argentina Sept.)			
	Aug. 28 - Sept. 20	<u>Osprey</u>	Brown	American
	Sept. - Oct. 20	<u>Argentina</u>	Capt. Bouchard	S.American
	Oct. 20 - 30	<u>Kamchatka</u>	Capt. Golovnin	Russian
	November	<u>Mentor</u>	J. Suter	American
1819	Jan. 9 - 26	<u>Bordelais</u>	de Roquefeuil	French
	Aug. 8 - 30	<u>Uranie</u>	de Freycinet	French
	Nov. 17 - ?	<u>Sylph</u>	Capt. Adams	?

Sources for the above table were primarily from Judd (1974) with additions from other journals.

Table 2.2 FREQUENCY OF VISITOR DAYS BETWEEN 1778 - 1820

Number of Ships	Years	Days *	Average Number of Days
4	1778-1779	166	41.5
10	1786-1787	405	40.5
7	1788-1789	241	34.4
5	1791	62	12.4
7	1792	134	19.1
6	1794-1795	184	30.6
3	1796-1797	87	29.0
1	1798	20	20.0
2	1799	7	3.5
1	1800	7	7.0
1	1801	10	10.0
4	1802-1803	176	44.0
2	1804	17	8.5
4	1805	48	12.0
3	1806	79	26.3
1	1807	62	62.0
2	1809	20	10.0
4	1811	61	15.2
3	1812	50	16.6
4	1813-1814	84	21.0
5	1815-1816	166	33.2
5	1817-1818	135	27.0
2	1819	41	20.5
79**			

* Total number of visitor days annually.

** Represents total number of ships that (1) included arrival and departure dates; (2) each return-trip was counted individually; (3) total represents 61 % of total number of ships visiting Hawai'i during this period.

Fisher defines differences between marine-based fur traders and land-based fur traders (1977:24). His discussion on the transitory nature of marine-based fur traders applies to Hawai'i, especially as most of the visitors to the coastal area of British Columbia also stopped in Hawai'i during the period between 1778 and 1825 (Fisher 1977:2-23). The peak years for the maritime fur trade in the Northwest Coast were between 1792 and 1812 (Fisher 1977:2-3), while in Hawai'i the peak years were between 1786 and 1810 (Morgan 1948).

The major sources that will be used to extract the Hawaiian ethnographic perspective are the works of David Malo (1951), Samuel Kamakau (1961, 1964, 1976), Handy and Pukui (1972), and John I'i (1959). Contemporary sources that have provided insight into the structure of the Hawaiian chiefly class during the protohistoric include the writings of Marshall Sahlins (1981, 1984), Robert Hommon (1976), Patrick V. Kirch (1984, 1985), and Caroline Ralston (1978, 1984).

Maritime Fur Traders and the Hawaiian Response

The social and political sub-systems in operation within the Hawaiian culture of the protohistoric period determined the material remains recovered in the archaeological record, and it is the identification of these sub-systems that constitutes the focus of this thesis. The formal structure of the artifact assemblages, or patterns,

UNIVERSITY OF HAWAII LIBRARY

that can be identified should be investigated in relationship to broader theoretically-based questions. South (1977:xii) suggests that historical archaeologists direct their investigations toward the understanding of the "dynamics of cultural systems and the causal conditions which bring about their modification." The particular perspective that South maintains is an evolutionary one with the ultimate goal of isolating regularities in the archaeological record that can be expressed as empirical laws (South 1977:xiii).

The material remains of a culture can be interpreted as those objects that have been manipulated by a particular set of "culturally dictated plans" (Deetz 1977:11). In Hawai'i there were two groups that interacted over a period of time between 1778 and 1820, each with their own set of culturally dictated plans. By analyzing the basis for this interaction we gain insight into the type of objects traded and insight into the cultural response elicited by these objects. The examination of historical material culture from Hawaiian sites has been limited to the occasional chapter or appendix within the context of a site report (Riconda 1972, Carter 1979a, 1979b, 1981, 1984) or as descriptions of objects recovered without synthesis and interpretation (Cleghorn 1975, Rosendahl 1972, Luscomb and Reeve 1976). In this investigation of material culture the focus is on the broader question of the impact of transient male traders

(the fur traders) and the Hawaiian response to these foreigners. What does the archaeological pattern of material culture look like for this unique period, marked by foreign traders who were transient and male? This pattern can then be contrasted to that of the historic period which is marked by non-transitory trading opportunities and interaction not only with foreign males, but with women and children as well. Each group interacting with the Hawaiian people and consciously or not changing the archaeological pattern of the material culture.

Although the fur traders who visited Hawai'i had a different purpose for their presence here, as a group they interacted with the Hawaiians on the same level as when encountering the indigenous groups that lived along the Northwest Coast of America. The mid-Pacific island setting certainly provided a different kind of experience for the fur trader (there were no furs to be traded and the Hawaiians were a culturally different group) but in fact the fur traders appear to have responded to the Hawaiians in much the same way they did to the Indians living in coastal villages of British Columbia. The reaction to fur traders and their goods by the Hawaiians, however, will help to clarify the discussion of the identification and presence of western goods at archaeological sites in Hawai'i.

The Hawaiian archaeological record illustrates the transitory nature of the contact during these years.

Although the frequency of foreign vessels in Hawaiian waters increased with time, only few foreigners remained in the Islands to impart organizational changes in the Hawaiian culture, and these were isolated occurrences that did not affect the culture as a whole. The archaeological record for protohistoric periods in other areas (for example, British Columbia (Quimby 1966), the Marquesas (Denning 1971), the American Southwest (Cheek 1974)), when compared to those for the Hawaiian protohistoric, reflect similar patterns--a lack of contact artifacts and little change to the archaeological pattern. Those changes which may have occurred within the Hawaiian culture during this time must have been isolated and individual in nature, and are not reflected in the archaeological record.

Through the examination of the archaeological collections the identification of artifact patterns specific to the protohistoric and historic time periods can be isolated. A presentation of pertinent references contributing to the discussion of trade between foreigners and Hawaiians during this time will help to identify the means by which foreign trade goods were introduced. A model that explicates the impact of transitory traders on a marine-based location will then be presented which clarifies how the Hawaiians incorporated the new objects into their cultural system. This model will show that the experiences were varied and determined by the participants in the transactions and by

the objects traded. The indigenous culture manipulated the imported goods to fit their own ideology and reality. However, before discussing this model, a brief evaluation of the documentary literature pertaining to early historic trade in Hawai'i will be presented. Then these accounts will be examined to assess the correlation between the historical sources and the archaeological collections.

In the chapters that follow documentation of the protohistorical record extracted from the journals and diaries of the transitory visitors will be presented in Chapter 3. Archaeological evidence from this period will be introduced in Chapter 4, providing further information to support the model of the Hawaiian protohistoric that is presented in Chapter 5.

Chapter 3

PROTOHISTORIC TRADE IN HAWAI'I

This chapter focuses on the historical documentation of the period after contact (1778) and before the missionary period (1820) in Hawai'i. The objective is to present information relevant to establishing the types of objects traded into Hawai'i during this period. The ultimate goal is to identify the objects that would be recovered in the archaeological record, the durable remains of the interaction between Hawaiians and foreigners.

Previous Research on Trade

Many historians, anthropologists and archaeologists have focused on the subject of "trade" in Hawai'i. Notable studies by historians include those of Alexander 1904; Thrum 1905; Howary 1930, 1930-1934; Morgan 1948; Daws 1967; Bradley 1968, and Kuykendall 1968. Anthropological and archaeological studies, on the other hand, have focused almost exclusively on the prehistoric period of Hawaiian history. Cleghorn's (1982) interesting work on the adz quarry at Mauna Kea, in which he identifies traditional objects and analyzed the source for such objects, is a good example of such emphasis on the prehistoric period. Likewise Hommon's (1976) investigations of trade routes between the Islands is also largely confined to the prehistoric period. However, little has been done in the way of examining of

western non-traditional artifacts, with the exception of general references to the trade between foreigners and Hawaiians and the impact of this trade on the Hawaiian social-political system (e.g. Sahlins 1982).

The nineteenth century in Hawai'i was a time of major changes within the Hawaiian cultural system. The overthrow of the kapu system (in 1819) marked the beginning of significant organizational change within that century (Sahlins 1982:55). Missionary influence was widespread in the Islands after 1820, and a consequence was the marked increase in exposure and consumption of western goods. As the missionary efforts became more widely dispersed to remote areas of each island, the concomitant increase in the use of Western goods enhances our ability to identify post-1820's material remains.

The eighteenth century, however, presents a different picture--both from the standpoint of the mechanism of trade and the objects traded. These two factors are the major considerations in the following presentation of historical documentation of the eighteenth century. The mechanism for trade in the eighteenth century was marine-based and transitory, with nearly all objects of trade being mere "trifles" (e.g. nails, bar iron, mirrors). Some chiefs were presented with arms and ammunition and ships; however, these items are as rare as the trifles in the archaeological record. On the other hand, during the nineteenth century the

mechanism for trade was land-based, with the objects of trade being primarily household items, writing implements, cloth or clothing, and tools. Admittedly some objects of trade remained the same during both centuries (e.g. nails, clothing, beads) but the mechanism for trade was significantly different.

After contact, the fur traders (1786-1813) and the sandalwood traders (1811-1829) provided a continuous and accreting supply of western goods to island inhabitants (Morgan 1948). Hawaiian political organization and patterns of warfare, however, affected the distribution of these goods. In the years after contact in 1786, the Hawaiian chiefs set high prices for provisions, captured a small ship, used foreign arms in inter- and intra-island battles, and adapted their dugout canoes to hold these arms. The first use of foreign ships and armament occurred in 1791 near Waipio, Hawai'i Island, in 1791--a battle known as the Kepuwahaulaula "red-mouthed gun" battle (Kuykendall 1968:37). This may have been the first battle in which the Hawaiians were assisted in their efforts with foreign weapons and with the aid of two Englishmen, John Young and Isaac Davis, but guns and ammunition were traded or given to chiefs prior to this date (Kuykendall 1968:37).

Use of foreign weapons, ships, and manpower resulted in changes within traditional polities and in the ability of various chiefs to maintain power and control over their

island lands. In 1795 Kamehameha conquered the O'ahu chiefs. This left only the chiefs from Kaua'i in opposition to him. The culmination of the foreign assistance toward the chiefly ranks occurred in 1810 (Kamakau 1961:197) and was manifested by an archipelago-wide acknowledgement that Kamehameha I was the sovereign ruler of Hawai'i.

The Documentation of Trading Activities, 1778-1820

The chiefs had many opportunities to acquire weapons and other trade goods between the years 1778 and 1820, because there were 134 recorded ships that stopped in the Hawaiian Islands (see Table 2.1 and Figure 2.1 for dates and duration of visits).

The price of provisions and services varied for each visit. The foreign visitor initially offered only pieces of iron, iron tools, glass beads, or mirrors. Those objects referred to as "trifles" (as noted above) were never clearly defined but on occasion meant beads or buttons and sometimes nails. During later visits the variety of trade goods was substantially increased.

The following discussion of protohistoric trading activities and the items traded is broken down into four temporal periods: (1) 1778; (2) 1786-1795; (3) 1795-1810; and (4) post 1810.

Cook's Voyages, 1778

Captain James Cook arrived in the Hawaiian Islands at the beginning of 1778 and returned in November of the same

year; the combined time that his crew visited the islands was 166 days. According to Cook, while touring, on his first visit to the Islands fish were exchanged for "anything we offered them, but [the Hawaiians] valued nails, or iron above every other thing" (Beaglehole 1967:264).

As was discovered by early traders elsewhere in the Pacific, objects made of iron were the most sought after items of trade (Shinberg 1967; Fisher 1977; Hughes 1977). There was even a word for iron in Hawaiian, hao. On the first day of trading off Kaua'i Cook noted that the natives desired specific iron objects, especially nails, which can only be explained by a prior knowledge of the material (Beaglehole 1967:285, 1193-94). Samwell (in Beaglehole 1967:1194) noticed a breech pin of a ship's gun and another piece of iron that was beaten out by a Hawaiian and made into a dagger. Other iron tools seen while trading on Kaua'i were an adze made from a piece of iron hoop two inches long and fitted into a wooden handle and another edge tool that was made from the point of a broad sword (Anderson 1784:533). The nails used for these transactions were six-penny nails; they were about 1/2-inch long with flat points (Beaglehole 1967:264). Stokes (1931) confirms Cook's explanation in his discussion of an a priori knowledge of iron that preceded Cook's arrival.

During Cook's second visit to the Islands, iron was still very valuable and was highly sought after in trade.

Cook established a set price for provisions that the members of his crew were to honor when trading with the Hawaiians. The crew was instructed to trade with iron only when hogs and vegetables (yams, sweet potatoes) were offered, but if perishables, such as taro, were offered, then trifles should be used in trade (Beaglehole 1967:527). The Hawaiians requested iron nails so frequently that Samwell notes (Beaglehole 1967:1064):

These People are so eager for our Iron that they pick the Sheathing Nails out of the Ship's bottom, & our Men pull as many as they can conveniently on the inside to give to the Girls

Iron was so valuable to the Hawaiians, chiefs and commoners alike, that it was necessary to secure most objects for fear that the ships would be stripped of all its fittings. Other iron objects used in trade included barrel hoops cut into pieces and sharpened, making it similar to the Hawaiian koi or adze (Beaglehole 1967:276; Anderson 1784:529). Also, hatchets, knives, chisels, a gun, and a complete tool chest were presented to Kalani'opu'u (Beaglehole 1967:297, 474, 507, 1170), along with various unspecified tools (Anderson 1784:574). Metal objects removed from the ship by natives included hooks, thimbles, (Burney, n.d.:8) a bucket, a butcher's cleaver, a pewter soup tureen, a boat hook, a ships rudder, a set of keys, a musket, the armorer's tongs, and a pinnace (Beaglehole 1967:1223, 265, 272, 1348, 490, 497, 532, 1193). Most of these stolen items

where?

were returned to the ship on Cook's orders, with the assistance of the island chiefs.

Lieutenant James Burney recalled that:

on our first arrival the best articles of trade were beads & buttons sewed on Slips of cloth to wear about their wrists & Iron wrought into small adzes in imitation of their own. (Burney, n.d.:8; Beaglehole 1967:538).

Transactions such as this were more likely to occur between ship's crews and women in exchange for sexual favors, as implied in the journals. During Cook's first visit to Hawai'i he introduced beads into the trading arena. There are no actual descriptions of the beads Cook used to trade with in Hawai'i. When the Hawaiians saw the beads they first asked what the beads were, and then whether they could be eaten; on being informed that they were to be hung in their ears, the Hawaiians rejected them as useless (Anderson 1784:525).

Beads were given as gifts by Cook along with other items during a feast at the heiau in Kealakekua (Burney, n.d.). Cook presented to Kalani'opu'u, the Hawaiian paramount, the following items: several strings of various colored beads, two mirrors, a large glass bowl, some nails and other trifles (Anderson 1784:580).

David Samwell, surgeon on Cook's third voyage, recounts the trade in buttons (not specifically described, but most likely brass) as an attempt to compensate the women who visited the ships. The members of the ship's crew, it was

UNIVERSITY OF CALIFORNIA LIBRARY

noted, stripped their clothes of metal buttons and busily made bracelets (Beaglehole 1967:1152). The women were so proud of their new ornaments that, in one instance, a woman receiving two such bracelets

shewed them to every Canoe as she passed them, holding out her Arms that they might have a full view of her finery (Beaglehole 1967: 1152-1153).

Acquiring provisions for the ships was the primary motive for trade in western goods in the Hawaiian Islands on both of Cook's visits. In one day of trading nine tons of water, 70 pigs, some fowl, plantains, potatoes, and taro roots were exchanged for nails and pieces of iron (Anderson:1784:527). Cook comments on his good fortune to receive such vital items as food and water for which the Hawaiians requested so little in return. The British Government had provided Cook with large quantities of items to be used specifically for the purpose of acquiring provisions. The selection of these goods was based on the experience of Cook and other voyagers or traders in other areas of the Pacific and along the Northwest Coast of America. Objects that were placed on board Cook's ships at the time of departure from Britain are listed in Table 3.1. The list, written in eighteenth century English, includes the quantity of the items selected and the name of the ship on which they were stored.

As illustrated in the excerpts from Cook's and his crew's journals, many of the items listed in Table 3.1 were

used in trade in the Islands and should survive in the archaeological record. The more durable items--such as beads, metal fishhooks, knives, nails, tools of different types, and musket shot--should be recovered. The perishable items (such as cloth) have less of a chance of surviving in Hawaiian archaeological sites.

After Cook's death, seven years passed before any other foreigners visited Hawaiian waters. Captain King, who accompanied Cook, advised his fellow Englishmen not to direct their ships toward Hawai'i (Anderson 1784:438 fn). Because of Cook's death, King suggested that voyages that circled the Pacific would be better off by avoiding the Hawaiian Islands. Two British entrepreneurs, Captains Dixon and Portlock, ignored King's warning and in 1786 were the first visitors to the Islands after Cook's death.

The publication of Cook's journals in 1784 by George Anderson introduced Hawai'i and other Pacific Islands to the literate western world, opening up interest in Hawai'i as a major hub in trans-Pacific trading activities. Hawaii's mid-Pacific location made it a haven for those sailing ships whose sailors plied the coastal waters of northwestern

Table 3.1

OBJECTS TO BE USED IN TRADE 1776 - 1780 *

	Resolution	Discovery
Carpenter Adzes	12	6
Axes of Sorts	200	120
Broad Axes	40	24
Hatches	300	200
Spike Nails of Sort	500 wt.	300 wt.
Nails 40 d & upwards	500 wt.	250 wt.
Chizzels	12	6
Saws	12	8
Files of Sorts	6 doz.	3doz.
Knives, Common	24 doz.	14 doz.
Scissars	2 doz.	1 doz.
Small Glass & Metal Buttons	6 doz.	3 doz.
Combs Small Tooth	4 doz.	3 doz.
Combs Large Tooth	20 doz.	12 doz.
Looking Glasses with frames	12 doz.	8 doz.
Beads in Sorts	L 16 worth	L 9 worth
Old Shirts, not patched	3 doz.	2 doz.
Red Baize	220 yards	120 yards
Old Cloathes	L 5 worth	L 3 worth
Fine old Sheets	20	12
Kettles or Potts	24	16
Hammers with Helves	1 doz.	1 doz.
Carpenters Planes w/2 iron ea.	12	6
Fish Hooks	20 doz.	12 doz.
Knives Long	4 doz.	2 doz.
Small Shott	8 Cwt.	5 Cwt.
Ribband [ribbon] to string some Medals which remain	20 dozn.	Yards

* Taken from Beaglehole (1967:1454).

UNIVERSITY OF HAWAII LIBRARY

North America. The majority of the visitors between 1786 and 1810 were involved in the very lucrative fur trade, transporting furs from the Northwest Coast to China. Visitors who frequented Hawaiian waters were primarily involved in fur trade with the exception of one attempt to collect sandalwood from Kaua'i in 1791. Sandalwood, however, dominated the economic boom in Hawai'i after 1820 and until 1829 (Morgan 1948). Fur traders, as a group, were transient in the Islands, whereas the sandalwood traders collected from the Islands for a longer period of time often making multiple trips between the islands and China.

The 1778-1820 protohistoric period was dominated by the struggle for the control of island chiefdoms and land. Kamehameha controlled the trade of western goods within Hawaiian waters for most of this period (Sahlins 1981:26). The maritime traders who stopped in the Islands were seen as potential assets to the Hawaiian political struggle, for they possessed arms that could be used in the overthrow and conquest of the individual chiefdoms.

Maritime Fur Traders, 1786-1795

Between 1786 and 1795, 55 ships visited the Islands for an estimated total of 1,113 trading days. Between 1795 and 1810, Hawai'i Island and Kaua'i chiefs were the recipients of, and set the guidelines for, any foreign trade in the Islands. During this time 33 vessels visited the Islands, providing an estimated 359 trading days. The number of

visiting ships dropped to 60% of the former number of visitors before 1795. (See Figures 1.2 and 1.3).

Journals from the voyage of Captains Dixon and Portlock (in 1786) reveal that many of the same items, adzes, fishhooks, buttons, beads and nails, were used in trade (Dixon 1789:50, 53, 99). John Nicol, a mariner on Captain Portlock's ship, describes aspects of trade in the Islands and more specifically the production of metal adzes:

I was as busy and fatigued as I could be cutting iron hoops into lengths of eight and nine inches, which the carpenter ground sharp.

These are the most valuable commodity in the eyes of the natives. I was stationed down in the hold of the vessel, and the ladders were removed to prevent the natives from coming down to the treasury. The King of Owhyhee [Kamehameha] looked to my occupation with a wistful eye; he thought me the happiest man on board, to be among such vast heaps of treasure...

When I gave him a piece of hoop twenty inches long, he retired a little from below the hatch into the shade, undid his girdle, bent the iron into his body, and adjusting his belt with the greatest haste, concealed it. (Nicol 1931:71-72).

Dixon and Portlock followed much the same sailing course as Cook (and for the same reasons, as each location provided a good anchorage and abundant provisions), with stops at Kealakekua Bay, Waimea Bay, O'ahu, and Kaua'i. During their first visit to the Islands Dixon and Portlock did not venture on land, but did so on their second visit while visiting Kaua'i in the latter part of 1786.

In this first instance of contact after the death of Cook (1786), four different ships arrived in the Islands for a total of 69 trading days. The chiefs of the independent island chiefdoms were already in the process of accumulating non-traditional forms of wealth. The accretion of this new wealth in turn provided greater status for the participant (Kaeppler 1985). In an attempt to control the amount of wealth that was pouring into the islands, Kahekili, chief on O'ahu, erected a storehouse to house the combined wealth of his subjects. Dixon relates Kahekili's purpose in building this structure:

Teereteere had caused the house to be built as a repository or store house for such articles as the natives might obtain in the course of their traffic with our vessels (Dixon 1968:106).

The priests were upset at Kahekili because he exerted his authority contrary to the rules of justice and equality (Dixon 1968:106). His pronouncements were, first, that Honolulu Bay was kapu (off limits to Hawaiians and closed to trade), and second, that all inhabitants were to bring what trade items they had received to be deposited in the storehouse. The result was that Kahekili then appropriated half of the stores for his own use (Dixon 1968:106). Portlock noted that the chiefs on O'ahu often took the articles that the commoners received in trade and that "it was warranted by their established custom" (Portlock 1789:310-311).

Differences in the preference for specific objects used in trade between the Hawaiian men and women and westerners is illustrated by the following reference:

To the credit of the men be it spoken, they looked on them [nails and buttons] as things of no value; but the females saw them in a very different point of view, and were exceedingly fond of wearing them round their wrists and anc[k]les as bracelets... This is an incontestable proof that the power of beauty is not confined within the narrow limits of our polite European circles, but has equal influence all over the world. (Dixon 1968:97)

Dixon (1968:97) notes (in contradiction to what other visitors noted) that men did not see value in nails and buttons; women preferred buttons to nails when offered the two items.

During the first visit to the Islands by Captains Dixon and Portlock two to three gallons of water were traded for a single small nail (Dixon 1968:53). At Ni'ihau "great quantities of yams [were] purchased with nails and such trifles" (Dixon 1968:54). In December 1786, seven months after their first visit, Ni'ihau was left uncultivated as the people moved to Kaua'i after acquiring wealth from trading with the foreigners (Portlock 1789:198). On Kaua'i hogs were expensive, more so than on the other islands; one large hog demanded the price of one or two "middling sized toes [adze]", five coconuts for a single eight-penny nail, five roots [taro] for an eight- or ten-penny nail (Dixon 1968:110). Iron was still so valuable that the inhabitants were tearing down their houses to use the wood in trade as

firewood for Dixon's ship (Dixon 1968:113).

The French were the second group to visit the Islands. In 1786, Jean F. G. De La Perouse, a naval commodore on a voyage of discovery through the Pacific, arrived in Hawai'i five days after Dixon and Portlock's first visit in May. La Perouse arrived on the Boussole, in company with the Astrolabe, and stayed in the Islands only one day, off the coast of Maui.

While in the Islands, La Perouse traded with both commoners and chiefs on different occasions, on board the ship and during his venture inland. The Hawaiians who came aboard the Boussole were given "medals, hatchets and other pieces of iron, which were of inestimable value to them" (La Perouse 1968:347). On shore La Perouse traded hatchets and nails with some women for several pieces of "stuff" [tapa] (La Perouse 1968:351). La Perouse notes that of the women he met, they "showed by the most expressive gestures, that there was no mark of kindness which they were not disposed to confer upon us" (La Perouse 1968:347).

The account of Cook's death in Hawai'i had been widely circulated by 1784, and the French took all precautions when dealing with these people. The Hawaiians could not satisfy their demand for iron and were proficient merchants in each trading transaction (La Perouse 1968:345). The Hawaiians soon realized that they could get more pieces of iron by trading for individual pieces of food rather than food

provided in bunches. In the one full day off the coast of Maui, with La Perouse on the Boussole, and de Langle on the Astrolabe, the ships took in:

upwards of an hundred hogs, with bananas, sweet potatoes, tarro, a large quantity of cloth, [tapa], mats, a canoe with an out-rigger, and various other small articles of feathers and shells (La Perouse 1968:351).

The French had many things to use in trade, and La Perouse's journal provides the most detailed account of these items. It that one day he traded tools such as hatchets, knives and iron nails, and also gave out medals (of which he carried over 700) made of different metals (La Perouse 1967:182-186). The variety of items La Perouse carried for trading activities is striking when compared to that carried by other visitors to the Islands.

Captain John Meares, a British trader who purchased and outfitted two ships in India, spent a month in Hawai'i in 1787. He took on board Kaiana, the son of a Kaua'i chief, who wanted to visit "Britannee" [Britain] (Meares 1790). Kaiana was allowed to travel with the British fur traders and before he returned to the Islands he purchased the following items in Canton:

saws of different kinds, gimblets, hatchets, adzes, knives, choppers, cloth of various fabrics, carpets of several colors, considerable quantity of China-ware, and ten bars of iron (Meares 1790:17).

The kinds of things Kaiana brought back from his travels provides some insights into what kinds of objects were

important to the son of a chief, although there may have been some coaching on the part of Meares regarding goods to bring back to Kaua'i.

In February 1789, Meares, then on his second voyage, notes that the price for a hog on Kaua'i was exorbitant--"a couple of hatchets or 18 inches of bar iron"--and this was "expected even for a hog but of a middle size" (Meares 1790:22).

Captain William Douglas, traveling with Meares to Hawai'i on the Iphigenia, was the first European visitor to set foot on land at Kealakekua Bay since Cook's death there in 1779 (Meares 1790). It was Douglas who was the first European to trade in or make a gift of heavy artillery to the Hawaiians. He gave Kamehameha a swivel gun in return for protection and insurance that the Islands would be a safe port for British sailors on subsequent visits (Meares 1790:25).

By their third visit to the Islands, in September of 1789, Captains Dixon and Portlock had to trade in arms and ammunition to receive any provisions because of the precedent that was set by Douglas. Since one chief was getting arms and ammunition, others in opposition also wanted the advantage, prestige, and power that these items were capable of providing. In the same year, 1789, Lieutenant Mortimer on the Mercury noted that at Kealakekua Bay Kamehameha's residence had the appearance of a well-fortified position:

UNIVERSITY OF HAWAII LIBRARY

he has got two two-pounders and two swivels mounted before his house on a raised platform of stone; the two-pounders have proper carriages, and the swivels they have mounted on blocks of wood (Mortimer 1791:85).

Since Douglas's visit in 1788-1789, Kamehameha had acquired a considerable arsenal. Between Douglas's visit in December of 1788 and the visit by Mortimer in September 1789, only two ships visited the Islands, the British ship, North West America and the American ship, Columbia Rediviva. Each must have traded in arms and ammunition for Kamehameha to have acquired so much so quickly. However, it is possible that Kamehameha had acquired some of the heavy artillery prior to Douglas's gift. Some chiefs maintained their trade in arms, powder and shot for their hogs, fish and vegetables while others exchanged their hogs, fish or feathered garments for nails of various sizes (Mortimer 1791:82; Ingraham 1918:1, 14).

The following year, 1790, two American merchant ships were captured, the Eleanora and the Fair American, captained by the Metcalfs, a father and son. Five of the six-member crew of the Fair American were killed and the ship taken by Kaiana on Hawai'i. The ship was small, only thirty-three feet long and seven or eight feet broad (Bell 1929-30:91). The crew of the Eleanora was held and then released without incident. One crew member from each captured vessel, Isaac Davis and John Young, were to play key roles in the events that brought Kamehameha to power (Kuykendall 1978). It was

the Fair American that Kamehameha used in a battle near Waipio in 1791.

Off the island of Hawai'i in March 1792, islanders demanded "pieces of iron about a foot long each fashioned into what they call Toee's" for a hog that was less than 50 pounds (Bell 1929-30:8). The price of a woman's "kindness" was also noted:

among the number [of people] we had on board there were not a few women and indeed they were the cheapest articles of Traffic the canoes brought off (Bell 1929-30:8).

What exactly the price of a woman's kindness was Bell, does not say, but he does mention that the women were quite bold, and they would steal many things from the ship after being allowed on board (Bell 1929-30:8). Any items that were made of metal and could easily be carried away from the ship were taken.

As in previous years arms and ammunition were highly valued and sought after by the chiefs. Bell, on board the Chatham, a tender for George Vancouver's expedition from England, commented on the disservice that his fellow countrymen (such as Douglas, Meares, Kendrick and other captains of the fur trading vessels), had done by trading for provisions with arms and ammunition (Bell 1929-30: 8,11,61). As a result of their actions (from the standpoint of the trader), provisions became dearer and the Hawaiians demanded more for their goods. Bell writes, for example, that for

5 small Hogs that one man had in his Canoe he demanded a musquet, or Powder, - and the same for any valuable thing they had particularly Feather'd Helmets of which we saw only a couple - nor wou'd they part with them for any thing else... (Bell 1929-30:8)

At Kealakekua Bay Vancouver presented Kamehameha with "all kinds of Culunary [sic] utensils, and also furnished [him] with some plates, knives & forks, glasses &c. [etc.] (Bell 1929-30:84). By the third visit it was clear that the chief's preference for certain goods had changed dramatically, but not so for the commoners:

Many of them told us they had more Iron than they knew what to do with, though in this I do not believe them, as the common people most eagerly took all kinds of Metal, particularly Iron in exchange for their Vegetables and other articles they had to dispose of.

Scissors were in the greatest demand by all ranks, this article had not in the least decreased in value.

The Common people were likewise very eager after Nails & Knives & Looking Glasses. Beads of particular kinds and colours were much asked for -- Red Blue & Yellow were those most in Fashion, perfectly round & small in size (Bell 1929:63).

Bell notes that the Hawaiians were so familiar with metal tools by 1792 that "a stone Hatchet, or a shark's tooth Knife is as rare a thing among them, as an Iron Axe, or a pair of Scissors [sic] was twenty years ago" (Bell 1929-30:63).

Trading on Kaua'i seemed to suit Vancouver and his crew since provisions there were more reasonably valued. "Toe's, Knives scissors & nails, but particularly scissors which

they call Oopa [upa] were the articles most in request" and used in trade for provisions (Bell 1929-30:17,63).

The people sold many of their Gods & graven Images for a few rusty nails -- Everything went on fair & regular -- and we found these people less exorbitant in their prices than at any of the other Islands (Bell 1929-30:17).

The chiefs on the other Islands wanted arms and ammunition to fight the battles that were to bring the Islands under one ruler. The foreigners had much to gain by this process, as a unified island group would make trading easier for them in the future (Bell 1929-30:83). The following year, 1794, men from Vancouver's ships supervised the building of the first foreign vessel, the Britannia, for Kamehameha. All ironwork, sails and equipment were provided by Vancouver (Kuykendall 1978:42). This was to be the first of many ships that Kamehameha would commission. The second was built the following year on O'ahu (Kuykendall 1978:23).

The victory of Kamehameha's army over Kalanikupule on O'ahu in 1795 meant that only one other ruler and island chiefdom remained to be conquered. Keawe, on Kaua'i, ruled for two years until his death in 1798, after which Kaumuali'i ruled Kaua'i. Between 1798 and 1810, Kamehameha and Kaumuali'i and their respective lesser chiefs were the major contenders for the foreign trade in the Islands. This arrangement was acceptable even after Kamehameha became the acknowledged sovereign ruler of the Islands in 1810 (Kamakau 1961).

Kamehameha's Domain, 1795-1810

Just prior to 1795 Kamehameha successfully became the ruler of all the Islands with the exception of Kaua'i. This political move cost his island kingdom dearly. Food was scarce not only for the Hawaiians but food to be used for trade with the foreigners. During this period trade in Hawai'i was dominated by the Americans who visited the islands regularly after 1798. British fur traders were still present and it is the observations of Captain Charles Bishop of the British ship Ruby, on a trading voyage for otter furs to the Northwest Coast of America, provides an account of the scarcity of food in the Islands in 1796. Because of the inter-island wars, food was scarce on Hawai'i Island; hogs were traded for one quart of powder and they could get "40-50 hogs but [were] not to expect more" (Roe 1967: 135-136). To insure that the traders got their quota of hogs Kamehameha was given two bottles of rum, powder, ball, and a pistol (Roe 1967:137).

In August of 1798 the ship Neptune, with supercargo Ebenezer Townsend Jr., arrived in the Islands. The price of a single hog was "3-5 quarts of rum" and an order of 45 hogs was made on the island of Hawai'i but would be picked up on O'ahu (Townsend 1921). Townsend paid one barrel each of flour and pitch, along with a large pitch kettle for 33 hogs, and the remaining 12 hogs were paid for in canvas, rice, and ship's block and tackle (Townsend 1921:12).

L 76
DU 12 L 76

Kamehameha's chiefs requested from the foreigners those items that would enhance the fleet of ships that Kamehameha was creating in preparation for his battle against the Kaua'i. Isaac Davis received, in addition to ten gallons of liquor, "a barrel of beef, a musket, a cheese some coffee & chocolate and a couple of shirts" from Captain Greene of the Neptune for his assistance in trading with the Hawaiians (Townsend 1921:20).

At the turn of the century, the range of goods requested by the chiefs and commoners had broadened from nails and beads to ready-made clothing. The mechanics of trade changed from barter to cash, and cash accounts were opened at some businesses, such as William French in Honolulu (French 1810-13). At this time an estimated 50 Europeans were in service to the King (Lisiansky 1968:112). Traditional customs such as burial practices were altered by this date to the extent that coffins were being used by the Hawaiians to bury their dead (Lisiansky 1968:112). In 1804, Samuel Patterson who brought horses to Hawai'i, writes that:

They [the Hawaiians] Endeavor to procure what money they can to buy European goods from ships as they touch at this place (Patterson 1825:69).

In this same year, the Russians arrived looking for provisions. At Kealakekua Bay, they offered hatchets, knives, scissors, whole pieces of cloth and a complete suit of clothes in exchange for a 100 pound hog that an islander brought to the ship, but all he would accept in return was

"a large cloth mantle capable of covering him from head to foot" (Krusenstern 1968:196). Cloth seemed to be the most requested item; the Russians carried very little cloth on the Nadeshda, and consequently their efforts to provision the ship were curtailed (Krusenstern 1968: 196). Lieutenant Urey Lisiansky, on board the Neva, stayed in the islands 12 days, as compared to Lieutenant Krusenstern's three-day stopover, and had a chance to see more of the Islands and trade with the people. Two medium-sized hogs and a considerable amount of vegetables cost him three bottles of rum, two axes, and one adz (Lisiansky 1968: 102). The Hawaiians also accepted knives and small mirrors in trade but preferred printed or common coarse linens; they received "with pleasure shirts, jackets, & trousers," but iron hoops were of low esteem (Lisiansky 1968:102).

Between 1809 and 1810, Archibald Campbell, a resident on O'ahu, writes of life on that island:

Many of the natives are employed as carpenters, coopers, blacksmiths, and tailors, and do their work as perfectly as Europeans.

Almost all their dealings are conducted by barter; they know the value of dollars, and are willing to take them in exchange; but seldom appear again in circulation, being always carefully hoarded up.

Owing to the number of ships that are constantly touching at these islands, provisions are by no means cheap. A pig is estimated by its length. The largest size, called poanana, or fathom pig, measures that length from the snout to the rump, and is valued at two axes; a junk[et] of the thickest part of the sea-horse tooth [walrus or whale ivory?], five or six inches long, a yard and a half of blue cloth, or five dollars (Campbell 1967:144-145).

UNIVERSITY OF HAWAII LIBRARY

The variety of objects available to the Hawaiians increased with the number of foreigners taking up residence in the Islands. The mechanics of trade were changing from a marine-based transitory exchange to that of a permanent land-based exchange. Trade in sandalwood, the predominate trade item from Hawai'i after 1809, was responsible for the deluge in items from the Orient, especially Chinese tableware, silver and ivory pieces (Morgan 1948:62). According to Kuykendall (1978:85) it is hard to determine a beginning date for sandalwood trade in the islands; however, Morgan (1948:62) collected information in Canton that noted 900 piculs of sandalwood were imported from the islands in 1804-1805. The last nine years of Kamehameha's rule were dominated by this trade which continued on into the late 1820s.

The sandalwood trade brought more visitors and more foreign goods for the chiefs; the commoners also received items when in servitude to the chiefs and foreigners. One of Kamehameha's first business contracts made with a foreigner was a deal he made with Captain Winship in 1811-1812. Kamehameha sold him one boat load of sandalwood in exchange for the items listed in Table 3.2.

Most of the items on this list designated for Kamehameha can be considered perishable. However, items such as beads and smoking pipes do survive in the archaeological record. This list is also very informative as a way of

UNIVERSITY OF HAWAII LIBRARY

measuring the importance of these objects from the perspective of Captain Winship as he or someone he appointed selected the items.

Astor, the organizer and owner of the American Fur Company, and founder of Astoria, a trading outpost at the mouth of the Columbia River, was responsible for linking the American market of New York with the major commercial markets of London and Canton by 1800 (Porter 1930:495). The trade in furs and sandalwood became so entwined that ships leaving the coast of America headed for Hawai'i, not so much for rest and relaxation as for the collection of sandalwood. Visits to Hawai'i became money-making ventures, not merely a place for renewing health and provisions.

The Land-based System, post-1810

By the first decade of the nineteenth century Hawai'i was very much part of a world market. Events that took place thousands of miles away affected trade and events in the Islands. During the War of 1812, Astor and others were forced to curtail their trading ventures in the Northwest Coast area; at that time, Astor sold his Columbia River fur-trading company, the source of great commercial income for him, but maintained several ships for the China trade in sandalwood (Porter 1930:469).

One of Astor's ships was the Forester, (sailing under British colors for safety reasons), which arrived in Hawai'i

UNIVERSITY OF CALIFORNIA LIBRARY

Table 3.2

PAYMENT FOR ONE BOAT LOAD OF SANDALWOOD
1811 - 1812*

3 paintings on paper	6 fishing rods
2 doz. ordinary cotton stockings	
1 box Chinese wood	135 lbs. large glass beads
2 crystal lamps	1 iron hearth
1 bundle of metal pipes	1 saddle
12 Chinese chairs	3 pieces flowered satin
1000 large beads	3 boxes of sweets
10 boxes silk handkerchiefs	1 large cloak
6 shiny hats for soldiers	50 Chinese cutlases
12 black straw hats	3 pieces flowered flannel
50 Chinese silk hats	100 Chinese mats
6 reels thread	

*F.O.R., Hawaii State Archives

REPRODUCED FROM THE HAWAIIAN ARCHIVES

in 1813 on a trading expedition to Canton (Adams 1906). Kamehameha, who had a monopoly on the sandalwood trade, would send the commoners to collect the sandalwood, for which they were paid in clothing, mamaki tapa, and fish (Kamakau 1961:105-106). Francisco de Paula Marin kept the account books for Kamehameha, and a translation of an inventory list from 1811 through 1814 provides an indication of what items could be acquired on the China market, along with the price per item set in piculs, a Chinese measure of weight (133 and 1/3 pounds) (see Table 3.3). Piculs varied in price between 1810 and 1818 from \$8.00 to \$10.00 per picul (Morgan 1948:63).

In 1817 the British-made brig Forester, owned by Astor, returned from Canton with a load of items for the King as payment for a load of sandalwood (see Table 3.4). In this collection of goods food items seem to be popular, as indicated by the presence of tea, candy, sugar, bread, and rum. Clothing items are also represented by British hats and shoes. The paint, nails, cables and water casks may be related to ship construction and maintenance. One of the first known references to flints appears on this list; however, it is not clear from any of the references whether the imported flints were for guns or strike-a-lights (used to make sparks to start fires).

Money was infrequently used in Hawai'i, where some

Table 3.3

LIST OF AVAILABLE GOODS IN PICULS
OF SANDALWOOD

650 pieces of porcelain	35 piculs
600 files of different sizes	30 piculs
6 large wide coats	12 piculs each
12 hammers	1 picul
14 cannons of 4 pounds ea.	7 piculs each
500 balls for above	18 piculs
3 long cannons of 12 lbs. w/182 balls	54 piculs
23 piculs of grape shot	20 piculs
80 fathoms of cloth to line skirts	53 piculs
10 piculs of ammunition	35 piculs
1 mano / 3 lau /5200/	4 piculs

(Conrad (Marin 1811-1814))

Table 3.4

PAYMENT FOR SANDALWOOD - 1817

5 chests black tea
4 of hyson
18 tubs sugar candy
7 tubs sugar
4 boxes hats
1 box shoes
1 green trunk
10 puncheons of rum
one cwt. of nails
3 boxes paint
3 jars fine bread
2 buckets flints
cables and water casks

(Adams 1906:72)

items such as beads had some value and were used instead of money. The use of beads, by the string, seems to have been an accepted form of payment for some of the islanders for services during this time. The following excerpt from the account of Albert von Chamisso (1986:185), on the Russian brig Rurik during his visit to Hawai'i in 1817, relates his observances on the use of beads:

It was our custom to repay every slight service the O-Waihians rendered us, such as transporting us between ship and shore, and things of that nature, with a string of beads. Such shiny light wares were always happily received, even though no real money value was attached to them. Among his supply Choris had some strings of an unusual type and color that he distributed along with the others without making any distinction.

But fashion, as we found out later placed a most extraordinary value upon this particular color, a peculiarly dark red, and upon this particular kind of bead. Some like this, which Vancouver had first brought to the Islands, and no other mariner since him, were adornments of the queens.

Now they had appeared again, and some strings of them had come into circulation. The source was investigated and soon found to be Choris, whom rich chiefs offered several hogs for a string of them (Chamisso 1986:185).

In that same year we find in William French's account books that beads, sold by the string in Honolulu, were worth \$1.00 (French 1810-13). Pages from French's account books illustrate the variety of items available and demonstrate the continued use of barter, especially between William French and the Hawaiians. Accounts included are those of Kamehameha, Liholiho, and Kalaimoku, along with some of the

foreign residents of Honolulu. Although the description of items is not very detailed, basic information is provided. Some of the accounts for individuals span an entire year, with items listed for sale (such as soap for \$.25 and a jacket for \$3.50) being examples of items that could be purchased at this time.

By 1818, Captain Golovinin of the Kamchatka estimated that 150 Europeans lived in the Islands, primarily in Honolulu, and that they were "shipbuilders, locksmiths, boiler makers, joiners, and many carpenters and blacksmiths" (Golovinin 1979:191). Kamehameha had in his service "100 cannon of different caliber and 6000 men armed with guns and ammunition necessary for a soldier" (Golovinin 1979:191). Taxes on food products were initiated by Kamehameha and paid by foreigners; he would set the price but "natives can ask for more but not less than the set price" (Golovinin 1979:204). The going price for a pig was 7 or 8 piasters (Spanish dollars), which was dear, Golovinin notes, when a picul of sandalwood was worth only 13 to 14 piasters (Golovinin 1979:203-204).

Americans, on the other hand, were using bottles of liquor as the rate of exchange. Exchange rates were measured in bottles of rum: 2 bottles for 1 large hog and 1 bottle for a small one (Golovinin 1979:210). The chiefs were by this time all using "European dishes, cups, tea kettles, glasses, wine glasses, bottles etc." (Golovinin 1979:220).

By the second decade of the nineteenth century, lifestyles of the Hawaiians had changed significantly from the way in which Cook had first described it. Although the foreigners were responsible for major changes during this time, the Hawaiians were able to manipulate many of the introductions into their culture for their own purposes.

Summary

This section summarized the historical documentation of the various objects used in trade between 1778 and 1820, emphasizing changes in the nature of items received or requested by the Hawaiians over time. Visitors arriving in the Islands brought with them specific cargoes to be used in trade with the indigenous groups that they encountered. The cargoes were not always destined for trade in Hawai'i but used to trade with all indigenous groups encountered. It is clear, however, that when ships made return voyages to Hawai'i the cargoes were designated for trade with specific individuals.

The trade goods remained homogeneous until the first two decades of the nineteenth century. Through the sustained contact with Westerners after 1786, and the accretion of western goods from merchants or sailors, traditional Hawaiian objects, such as adzes, gouges, and files, were the first to be replaced. Prior to 1811 the objects that arrived in the islands were of everyday use, mirrors, fishhooks, or clothing, and in most cases were substitutes for objects

that existed in traditional Hawaiian culture.

A list of objects that were used or available in the Islands over the 42-year period described above are presented in Table 3.5. It is important to understand that trading between Hawaiians and Westerners was regulated by specific restrictions imposed within each cultural sphere by the chiefs or captains; consequently, commoners or crew were regulated to some extent when they were engaged in trading activities. The hegemonic position that the Hawaiian chiefs maintained did not allow for the widespread dispersal of imported goods. Commoners traded with foreigners but not as often as the ruling chiefs. Women played a dual role in trading transactions. They were participants in trade or the object of trade at the request of a husband or chief. Items such as beads, buttons, nails, knives, scissors, or other metal objects were used in transactions with the commoners, and were also traded up to the level of chiefs. However, the chiefs received a greater quantity of certain items. Specialty gifts to chiefs included such things as a complete tool chest from Cook to Kalani'opu'u in 1779, and Vancouver's presentation of an English bed and cooking lessons for Kamehameha and one of his attendants in 1794. Much of what was collected in these transactions was hoarded by the chiefs including a percentage of items that the commoners had collected in their contact with Westerners (Beaglehole 1967).

While chiefs were imitating the foreigners, especially the ships' captains, by wearing foreign clothing, learning how to eat with silverware, and collecting western furniture, the commoners were ingratiating themselves with their respective chiefs but also trading, when they could, with the foreigners. It is not unusual in contact situations for the items used in trading activities to have counterparts in the indigenous population's culture. When accepting items, that have familiar functions (though made of unfamiliar materials) are traded into a culture modifications to the existing socio-cultural structure is not as evident (White 1974:156). Most of those items in Table 3.5 listed under "Cook", have counterparts in traditional Hawaiian culture. Over time more and more foreign objects were introduced through these transactions, providing larger numbers of objects that did not have counterparts in Hawaiian culture. The greater the diversity of material goods the greater the changes to the existing socio-cultural structure.

With the exception of firearms, most of the other items listed would have been easily assimilated into everyday use. Under certain circumstances specific items of metal were requested of the armorer by a visiting chief. One such example was an item created using English iron spikes that were "18 Inches to 2 1/2 feet long, worked in the form of their own wooden Daggers" (Beaglehole 1967:538). The

Table 3.5

OBJECTS AVAILABLE FOR TRADE BETWEEN 1778 - 1820

	1778 - 1779 Cook	1786 Dixon/Portlock La Perouse (*)	1790 Mearns	1792 - 1794	1804 Vancouver	1819 Lisiansky	French
Adze	+	+	-	-	+	+	+
Bar Iron	+	-	+	-	-	+	-
Beads	+	+	+	-	+	-	+
Buttons	+	+	-	-	-	+	+
Canvas	-	-	-	-	+	+	+
Cards	-	-	-	-	-	+	+
Chisels	+	+	-	-	+	+	+
Cloth	+	-	-	-	+	+	+
Clothing	+	+	+	-	+	+	+
Combs	-	-	-	-	-	-	+
Cut nails	-	-	-	-	-	-	+
Cut sheet	-	-	-	-	-	-	+
Culinary	+	+	+	-	+	-	+
Files	+	+	+	-	+	-	+
Fishhooks (metal)	+	+	-	-	+	-	+
Flint (gun)	+	-	+	-	+	-	+
Forks	-	-	-	-	+	-	+
Glasses	-	-	-	-	+	-	+
Hatchets	+	+	+	-	-	+	+
Hoop metal	+	+	-	-	+	-	+
Iron nails	+	+	+	-	+	-	+
Knives	+	-	-	-	+	+	+
Liquor	-	-	-	-	-	+	+
Looking glasses	+	-	-	-	+	+	+
Medals	-	-	-	-	-	-	-
Muskets	+	-	+	-	+	-	+
Plates	-	-	+	-	+	-	+
Pillows	-	-	-	-	-	-	+
Powder (gun)	+	-	+	-	-	-	+
Razor	-	-	-	-	-	-	+
Rings	-	-	-	-	-	-	+
Scissors	+	-	-	-	+	+	+
Shoes	-	-	-	-	-	-	+
Shot (lead)	+	-	+	-	+	-	+
Soap	-	-	-	-	-	-	+
Swivel gun	-	-	+	-	-	-	-
Tobacco	-	-	-	-	-	-	+

* Refers to La Perouse voyage only.

Hawaiians were so impressed with the way the armorer could manipulate iron or meki that they attempted to duplicate the process (Hiroa 1964:435, Beaglehole 1967:1186).

Buttons strung on a piece of cloth were not unlike the Hawaiian kupe'è of drilled Nerita shells strung on olona cordage (Hiroa 1964:553). Beads given by the string or individually may not have appealed to a Hawaiian chief who saw them for the first time, but as a woman's ornament similar to a lei of Conus disks they would find a place in the variety of ornaments that existed prior to contact (Anderson 1784:526, Hiroa 1964:542).

The Hawaiians readily accepted and adapted western tool technology. The dynamics of this acceptance can only be touched on here as it is a topic much broader than the present one. The tools were accepted for two reasons. First, the metal tools as objects were often worn on the waist of a person, possibly to signify status just as Hawaiians wore other traditional ornaments. Secondly, these tools were useful in the milieu of existing traditions of house building, canoe making, and general carving of wooden objects. The tool kit of the Englishman differed from that of the Hawaiian only in the material of the individual tools. Although the Hawaiian tool kit was based on natural raw materials, such as coral, basalt, fish skins, and sea urchin spines, these objects had similar counterparts in the non-Hawaiian tool kit. Files, adzes, abraders, and gouges

could all be found in both tool kits. Traditional tools decreased in frequency, however, as their metal counterparts replaced them through trade (Bell 1929-30:83).

From the total quantity of tools that were used for trading purposes (e.g., "Hatchets of different sizes, and adzes, 2000" [La Perouse 1967:182]), the number of adzes distributed during any single visit would depend on the price of the provisions (e.g., one adze per hog) and the number of tools given out in gratuity. Prices of provisions varied over time and by island, thus making it difficult to estimate the quantity of objects recoverable from an archaeological context. Also, not all objects traded would be recovered in an archaeological excavation. Discard and use are two factors that would determine the number of objects of any kind recovered in an archaeological context.

Items of material culture have a value specific to a cultural context. Many of the western trade items were considered of low quality and in fact, Vancouver was directed by the British Admiralty to purchase provisions with "articles which Europeans esteem of little value" (Vancouver 1984:377). A chiefly gift of a cloak or feather helmet had a value equal to nine daggers (Beaglehole 1967:1190). Again each item had a value specific to a cultural context. The hog was important to the European visitor for it provided several days of sustenance, while a feather cloak was an "artificial curiosity" (the term used

in the 18th century to describe ethnographic specimens [Kaepler 1978:5]). There are some differences in the types of objects given to women and men of chiefly status. Women would receive beads or similar trifles; men were given some of the same objects, but in addition they usually received iron tools. Differences in the objects given to women of chiefly status and commoners seemingly were not significant (Beaglehole 1967:152, Nicol 1931:85, Bell 1929-30:81). Differences between objects received by Hawaiian chiefs and by the Englishman, Isaac Davis, who had chiefly status, is striking. The liquor, cheese, coffee, and chocolate Davis received were specialty items from the American ship captain of the Neptune, who provided them generously to a fellow Westerner.

The location of these trading transactions was uniform, once a "port" had been established. This was usually based on a preceding visit by a fellow countryman--English, American, or other nationality. After 1791, fur traders arriving in the islands included as ports-of-call Kealakekua Bay, Hawai'i; Honolulu and Waimea, O'ahu; and Waimea, Kaua'i. These were the most popular ports for basic reasons: they provided food, water, and shelter. Visits were infrequent along the coasts of Mau'i, Moloka'i, Kaho'olawe, and Lana'i during this time. The traders' focus was primarily on making contact with Kamehameha, so the patterns of political power also influenced which ports were

frequented. Kamehameha established various residences for himself over the years in locations which included Kealakekua, Kawaihae, Waipio, and Hilo, and after 1795 Waikiki, Honolulu, and Lahaina. Kaua'i and Ni'ihau were frequently visited from contact in 1778 throughout Kamehameha's rise to sovereign ruler in 1810.

In this chapter the goal was to provide appropriate information that would identify the wide range of objects traded, both perishable and durable. This information is pertinent to the analysis of selected archaeological assemblages to be examined in the following chapter. In the following chapter the archaeological collections from various locations on the islands of Hawai'i, Oah'u and Kaua'i will be compared to the list of items provided in Table 3.5. Testing of the reliability of the maritime trade model will also be discussed in the following chapters.

Chapter 4

THE ARCHAEOLOGY OF PROTOHISTORIC HAWAI'I

Two questions need to be addressed as our discussion of the protohistoric period in Hawai'i progresses: (1) What artifacts can be used to identify protohistoric features; and (2) what makes identification of post-1820 features less difficult?

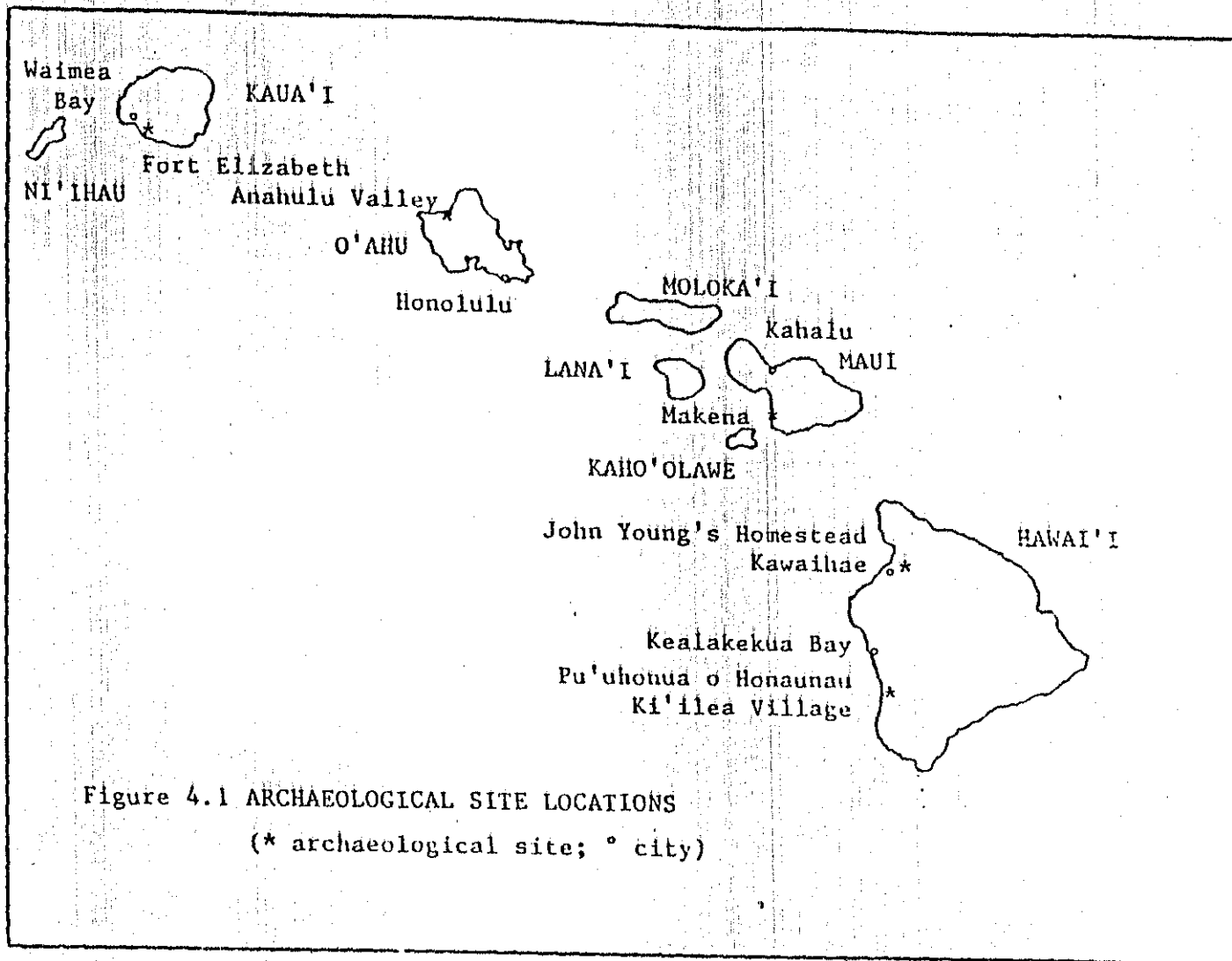
The material correlates of protohistoric sites are the focal point of this chapter. Archaeological assemblages containing historic objects that may reflect the transitory marine-based male dominated trade network that existed in Hawai'i between 1778 and 1820 will be used. It is not an easy task to isolate and identify objects traded between transitory male visitors and Hawaiian males, females, and chiefs during this time, however, artifacts from selected locations on the islands of Hawai'i and Kaua'i that are representative of the protohistoric period will be discussed.

The collections examined were selected on the basis of proximity to known areas of activity during the years 1778 and 1820. These include the John Young Homestead in Kawaihae and a house site at Pu'uhonua o Honaunau (both sites on the island of Hawai'i), and Fort Elizabeth, Waimea Bay, Kaua'i. These sites were selected because (1) John Young was a key figure in this pre-1820 period and lived at the homestead in

Kawaihae between 1793-1834 (Rosendahl and Carter 1988); (2) Ki'ilae Village (Pu'uhonua o Honaunau) is adjacent to Kealakekua Bay, a major port-of-call during the reign of Kamehameha I (Ladd 1986; Soehren and Tuohy 1987); (3) Fort Elizabeth at Waimea Bay was established by the Russians between 1814 and 1817 (Alexander 1894; McCoy 1972); (4) Waimea Bay figured prominently as a port-of-call during the period of marine-based trading. Figure 4.1 identifies the location of these three protohistoric sites.

These sites were also occupied after 1820; the artifacts present in the respective collections thus reflect both pre-and post-1820 items. To provide a comparison with findings of the pre-1820 archaeological collections, contract reports and manuscripts describing collections from post-1820 sites will be used. The post-1820 material will include collections from Anahulu Valley, O'ahu (Carter 1979; n.d.) and from Makena, Maui (Carter 1978). The artifact collections from these sites are stored in the Department of Anthropology of the Bishop Museum. The analysis of the artifacts was conducted in 1979 and 1981 by the author.

The field data portion of this thesis, consisting of the review of the collections, was carried out with permission of the National Park Service and Bernice P. Bishop Museum. The material from the John Young Homestead and Pu'uhonua o Honaunau is curated by the National Park Service at the respective parks on the island of Hawai'i.



The review of the John Young material was completed primarily in the early 1980's and again in 1987, resulting in the publication of John Young's Homestead by Rosendahl and Carter (1988). The collection of artifacts from Pu'uhonua o Honaunau were reviewed in 1988. The artifact collection of Fort Elizabeth, Waimea Bay, is housed with the Department of Land and Natural Resources Division of Historic Sites in Honolulu. The collections from Fort Elizabeth were reviewed in 1986 as well as the remaining collections used in this thesis. The artifacts from excavations on Maui and O'ahu are curated in the Department of Anthropology of Bernice P. Bishop Museum.

Previous Work in Historic Sites Archaeology

The archaeological reporting of historic sites has been limited to features associated with historical persons (Fredricksen and Fredricksen 1965; Rosendahl and Carter 1989) or historical places (Seeley 1969; McCoy 1972; Cleghorn 1975). Until recently, few reports or excavation projects were designed to focus on the historical aspects of settlement (Riconda 1972; Cordy 1979; Kirch 1979). Most information about the historic period in Hawai'i has related information regarding the Hawaiian and non-Hawaiian elite with little research designed to focus on the archaeology of the common person.

In 1972 Riconda published a report on the excavations in Makaha Valley, O'ahu. This was the first attempt to

systematically identify the historic component in Hawaiian archaeological sites. Previous reports occasionally listed some of the historic artifacts encountered, but never attempted to discuss their contextual significance.

Two major historic features dated to the early decades of the nineteenth century were excavated under contract at the request of the State Historic Preservation Program. These included Rosendahl's (1971) work for the Bishop Museum at Iolani Palace and McCoy's (1972) excavation of selected areas at Fort Elizabeth on Kaua'i. The Iolani report provides information on the construction methods, disposal practices, and food preferences of the monarchy ruling Hawai'i. Not all of the collections from Iolani Palace have been examined; most are boxed and in storage at Bernice P. Bishop Museum.

A research-oriented project in Halawa Valley, Moloka'i, in 1969 and 1970 combined the expertise of two archaeologists and one social anthropologist. Together they were to search for prehistoric data on settlement patterns within the valley. Although they encountered historical artifacts as the excavations continued, they paid little attention to these non-traditional artifacts. In the final document that was prepared by editors Kirch and Kelly (1975) the historic artifacts were listed without further mention (1975:158). However, Kirch and Leighton (n.d.) produced another manuscript relating to historic artifacts recovered in house

features excavated in the valley. In contrast to the other projects, this work focused on a Hawaiian housesite deep in Halawa Valley of Moloka'i. It is a valuable piece of work that identifies the types of artifacts from a relatively remote geographic location.

Excavations in 1968 by University of Hawai'i Anthropology students working at the Hawaii Mission Children Society Museum in Honolulu, recovered some very good examples of 1820s materials (Seeley 1969). However, the report on this excavation is a collection of student papers with no introduction or synthesis. A sad footnote is that many of the artifacts from this excavation were discarded or otherwise permanently removed from the collection. Other miscellaneous projects on Maui include work at Seaman's Hospital (Cleghorn 1975), and at Kamehameha's bungalow (Fredricksen and Fredricksen 1965).

Since the late 1970s, due to the increase in development projects requiring a contract archaeologist, many historic features have been encountered. The reporting on excavated materials has been much more thorough, and a conscious effort has been made by contracting archaeologist to provide an accounting of the historic component (Carter 1978, 1979, 1982, 1984 a, 1984 b; Allan-Wheeler 1981). However, despite the increased number of historic features encountered, few eighteenth century objects have been identified thus far. Work conducted in

1978 by Rosendahl for the National Park Service at the John Young Homestead was recently published and contains descriptions of artifacts that date to the eighteenth century (Rosendahl and Carter 1988). Other reports which contain descriptions of artifacts from the last decade of the eighteenth century include the reports by McCoy (1972) and the work of Fredricksen and Fredricksen (1965).

In summary, the work that has been done in historic archaeology in the Islands has been limited to contract projects, with the exception of the research-oriented Anahulu Valley project (Kirch 1979; Sahlins 1971, 1974). These contract projects have focused almost exclusively on the identification of the objects recovered with little in the way of synthesis. Most of the recovered materials from these contract projects appears to date well into the nineteenth century, thus substantiating the lack of objects that have been identified as belonging to the preceding century. Features that post-date 1820 (many are burial features) are easily identified because crypt-like structures and the objects recovered in association with the individuals, but the features from the preceding decades continue to pose problems in identification.

What We Should Expect from the Archaeological Record

It is important to realize the limitations that are inherent in the discussion of material remains. The continuity of artifacts over time and the longevity of

styles are limiting factors for specific dating of some artifacts. Often a wide range of dates can be associated with individual historic artifacts. The perishable quality of some historic items used in trade, mainly cloth or clothing items, and metal objects exposed to acid soil and salt air, inhibits our ability to identify and assign dates to some artifacts. Durable objects--such as glass beads, metal, glass or ceramic buttons, ceramic sherds, flint, and brass, bronze, gold or silver objects--are good for dating. None of the collections excavated represents the total assemblage of artifacts that can be used to identify the particular site excavated.

Not all objects of western origin that made their way into the hands of Hawaiians will be recovered in the archaeological record. Quantification of objects traded is obscured because of the lack of detail on items traded into a particular location during a trading period. Trade between foreigners and Hawaiians was not limited to trade among a few individuals; rather, an unknown number of persons were involved in the trading process.

From the historical documentation it is evident that during the protohistoric period (1) the dispersal of objects was primarily among those who lived along the coastal areas of islands; (2) objects traded were small; (3) the number of days that ships stopped in the islands to trade averaged 13 days per year between 1778 and 1820; (4) the average number

of ships arriving each year was 3.1 for the same duration of time. Multiplying the average number of ships per year by the average number of days each ship visited the Islands provides the annual total of 40.3 visitor days. This low number would provide few opportunities for Hawaiians to trade and acquire large amounts of goods during any given year.

Another factor that influences the identification of artifacts from this period is that many of the objects were available on the market for long periods of time. Stylistic changes in ceramic or bottle manufacture are more evident in the nineteenth century material due to the advent of mechanization. Objects such as beads, buttons, and nails (bronze or iron) can be used to establish a chronology for features that lack other diagnostic remains. However, a specifically dated context for the beads, buttons or nails must first be established before assigning comparable dates to sites based on artifacts found in them.

The search for the protohistoric period sites in Hawaiian archaeology has not been approached in a scientifically rigorous manner. The archaeological database in Hawai'i is comprised primarily of those sites identified within the right-of-way of developments and reported on by contract archaeologists. Excavation of these sites has usually been on a sampling basis, requiring a few test pits to be excavated and a summary report submitted to the

developer and the appropriate State or County agencies. Although the majority of the excavated sites included in the database are within the coastal areas of all Islands, and undoubtedly some of these sites date to the protohistoric period, little mention of this period is made. Our primary interpretation is that a site is historic when there are non-traditional artifacts of western origin present. However, in the protohistoric few objects of western origin have been recovered. Recognizing the protohistoric period in Hawai'i is difficult, and identifying artifacts may not be the means by which to do so. An alternative could be a system of inference based on the settlement patterns and the physical organization of architectural features within the settlements (Weisler and Kirch 1985; Ladefoged 1987).

Schiffer (1977) warns us about the cultural and natural transforms that determine why some artifacts remain to be recovered in the archaeological record and others don't. The ideological practices of a particular culture determine why some artifacts are maintained within that culture. To understand the manipulation of an object within a culture requires a knowledge of its use that is based on historical observation documented over time. Hawai'i has a very rich body of documentation that can be used to extract information relating to this type of cultural transform. The use of a particular object by one group may not be the same as another's. The collection of nails by Hawaiians, who did not

use them to hold objects together, but rather, manipulated them into fishhooks or used them as tribute, is an example of a cultural transform.

Natural transforms are usually site specific. Environment, both physical and climatic, and context determine the natural transforms of objects within an archaeological setting. Durability of an object or the stability of the material that the object is made of must also be considered. Gold objects would show some surface decay but the integrity of the object would still be intact compared with a fragment of silk brocade of the same vintage. Some sites, of course, have provided better protection for artifacts than others: caves or at least dry caves, have yielded up well-preserved objects that would normally perish, from wooden spears, canoes, and images to kapa (native cloth made from the inner fibers of some plants).

The nature of goods that were dispersed in the Islands before 1820 varied in quantity and included both durable objects, (ceramic, glass, metal, stone) and perishable items (ivory, bone, fabric, wood). The frequency of trade would determine the quantity of goods imported or arriving during any one visit. The striking change between the pre-1820 and post-1820 period is that the frequency of trade was more or less continuous after 1820. This allowed for larger quantities of goods to be dispersed in the Islands at the frequented ports-of-call (population centers). The frequency

of trade after 1820 (as revealed in the number of surviving artifacts) does not imply that artifacts imported were more durable than those traded prior to 1820 but that there were more objects (in quantity) imported after this date.

Between 1786 and 1795, the period of maritime fur trading, an average of 6.4 ships stopped in the Islands compared to 2 ships per year between 1796 and 1805 (for comparative purposes a nine-year period has been used). In Kamehameha's reign, the average annual visit was for 102.4 days and 38.4 days respectively for each of the nine year periods mentioned above. The approximated total number of days that visitors spent in the islands by 1795 was at least 927 or 74% of the total visitor days between 1786 and 1805, and 55% of visitor days between 1778 and 1820. Fifteen of the existing records from 1786 to 1795 and four of the records for 1796 to 1805 do not have information needed to calculate time spent in the Islands. Had this information been available the percentage of visitor days between 1786 and 1795 would have increased.

The impact of Europeans and Americans on the Hawaiian culture, particularly in the rise to power of Kamehameha between the years 1786 and 1795, was dramatic and was manifested as changes in specific Hawaiian socio-cultural spheres. Changes occurring within these spheres involved individuals who represented mainly the ali'i and to a lesser degree the maka'ainana. Both groups had access to trade with

the foreigners, both received Western objects in trade, but the ali'i became the more acculturated because of their continued and often prolonged visits with foreigners.

Some of the first objects to be requested in Hawai'i after initial contact were guns. For example, in preparation for Kamehameha's assault on the O'ahu chiefs in 1795, Boit noted that Kamehameha had gathered "5000 prime muskets... many swivels and cannons" (Boit n.d.:10). After Kamehameha conquered O'ahu in 1795 there was a 33% drop in visitors to the islands between 1795 and 1820. It is not clear why this decline occurred as early as 1795, but it is clear that the War of 1812 between the English and Spanish forced some of the trading vessels into military action.

Contact after 1786 was sustained and constant and the impact on Hawaiian culture in the areas of technology, religion, and politics--specifically warfare--can be illustrated. The range of goods and services available dramatically changed the military strategies of Kamehameha and other chiefs in their efforts to conquer independent chiefdoms before 1795. Kamehameha and other chiefs received guns, ammunition and heavy artillery before Vancouver's visit in 1792. Guns and ammunition were the standard medium of trade starting in 1788, and by 1791 a Western ship, the Fair American, had been captured and used in battle by Kamehameha against a chief of an opposing district. Kamehameha also had a well-supplied arsenal including swivel

guns and muskets.

By 1794, eleven foreigners were residing in the Islands. Two of the eleven Westerners in the Islands were top aides to Kamehameha, John Young and Isaac Davis, assisting him with navigation, arms and ammunition, and in negotiations with the visiting foreigners.

Objects received in trade that relate to technology (e.g. axes, knives, and files) had so easily been accepted into Hawaiian culture that they had curtailed or eliminated the use of traditional methods of technology in certain locations (Portlock 1789:192, Bell 1929-30:83).

Concomitant with the arrival of some of the visitors was the introduction of new plant seeds, such as melons of different varieties. These items were given in the hopes that they would be planted, flourish, and provide a welcome addition to provisions aboard future visiting ships (Nagata 1985). The impact of these melon and other introduced crop plants on Hawaiian cultivation practices has yet to be researched. Cordy (1972) has addressed the broader topic of the effect of European contact on the Hawaiian agricultural system before 1819. He concludes that the foreigners did impact the traditional system in localized areas (Cordy 1972:410).

Key factors in the protohistoric period between the years 1786 and 1805, (the years of fur traders as the primary visitor) are several; namely the majority of these

sporadic visitors to the Islands arrived and departed before 1795; in some places in the Islands Western goods were replacing the indigenous counterparts; some agricultural practices were changing to accommodate foreigner demands. If these factors caused changes to the cultural features and can be identified in the archaeological record then those sites are not protohistoric sites but historic, as Schuyler notes:

Indigenous sites become historic sites...only when their basic cultural and ecological patterns have been altered by contact and when this is displayed in the archaeological data (1978:28).

Culture change is dynamic and cannot be generalized as uniform over time and throughout the recipient group. The assemblages of objects found in Hawaiian sites reveal this variability. In acknowledgement of this intra-group variability Schuyler further states that "direct contact with Europeans is not necessarily a prerequisite for such far reaching changes" (Schuyler 1978:28). Direct contact then is not a prerequisite for changes to occur. Foreign goods can circulate through a group without direct contact.

The years between 1786 and 1795 represent a period of time when the Hawaiian people were assessing the foreigners and scrutinizing the value of their offerings by accepting or rejecting items offered in trade. Between 1796 and 1819, Kamehameha was involved in the world market via his contact with fur traders, and later, sandalwood traders. In this

later period the goods offered in trade were selected by the ships captains' with the idea of winning the friendship of Kamehameha. Prior to the arrival of the sandalwood traders Hawai'i maintained a passive role in Western expansionism (Friedman 1985:196). As early as 1805, Kamehameha allowed sandalwood to be cut in the islands in return for goods from Canton but the first contract that was signed for this resource was in 1812 (Morgan 1948:62, Kuykendall 1978:86). By 1810 Kamehameha became sovereign ruler of all the Islands and nine years later he died at his residence in Kailua-Kona, Hawai'i. The sandalwood trade continued into the late 1820's and "led to the final dissolution of 'ancient' Hawaiian society" (Kuykendall 1978:86).

The transitory male-dominated nature of marine-based trade during the protohistoric period is evident from the historical documentation presented in Chapter 3. Through the historical documentation it is known that the ali'i, or chiefs, maintained control of ports and trade between Westerners and Hawaiians as early as 1786 (Dixon 1968:106), and that after 1810, tariffs were assessed on visiting vessels. Although there are references to the maka'ainana, or commoners, trading with foreigners during this period, the dispersal of material goods was not equitable and it should not be assumed that what the chiefs received along the coast would be similar to objects recovered at other sites during the same period. Artifact patterns identified

at sites within similar locations occupied by equally-ranked individuals should be more similar than sites from diverse locations (inland versus coastal or ali'i versus maka'ainana households). Basic patterns of the types of goods recovered at sites will vary from site to site; however, this should not preclude the identification of similar artifacts between sites.

Because of the impact of transitory marine-based male visitors, the archaeological remains of sites dated to the protohistoric period should resemble assemblages (fur trader sites) of similar sites elsewhere, such as on the Northwest Coast of America, for the same temporal period, providing, of course, that the ships that visited the Islands also visited the area where the comparative assemblages originated. The acceptance of material goods, access to these objects, and the ultimate recovery of the objects in an archaeological context are dynamic factors that must be considered in analyzing a particular assemblage of artifacts.

After the missionaries arrived in the Islands in 1820, the pattern of artifacts changed dramatically and rapidly. Traders from Boston came to support the missionization efforts in Hawai'i. By 1823 four mercantile houses were in business in the Islands (Anonymous 1920:23). With the arrival of the missionaries, merchants stocked goods for their consumption, in addition to the wants of the ali'i or

at least the Boston merchants impression of what the ali'i wanted (Anonymous 1920:44-45). The excerpt below taken from a letter by John Coffin Jones, Jr. to Boston merchants Marshall and Wildes, in January 1823 states that they should not send much but what they do send should be of good quality

as superfine cloth, ready made clothes and shirts, Calicoes of every description, Rum, wine and gin, handsome feathers, some good hats, and shoes of large and small sizes; ladies Bonnets and gowns, large size different patterns say of silk, calico, Cambrick, & c., sea coal [flint], lumber copper, plank paints, and rigging, wheel Barrows, hand carts, light waggons, ox carts, and large size 4 wheel waggons, leather trunks covered with red leather, different sizes tables, cheap writing desks, table cloths, ...a quantity of pumps and gear [for drilling wells] (Anonymous 1920:45)

Documents that provide information about specific items traded to Hawaiians or the particular objects desired by the Hawaiians after the protohistoric period help to make comparisons between these later items and previously introduced items easy. Furthermore these later items can be chronologically placed and identified (if recovered) in an excavated collection of artifacts.

In the following section a summary of artifacts associated with the protohistoric period will be presented and a discussion of the value that each artifact category has to the interpretation of the protohistoric period.

Summary of Artifacts from Selected Sites

In this section descriptions of artifacts that were collected during the excavations at John Young's Homestead, and Ki'ilae Village on Hawai'i Island, Fort Elizabeth on Kaua'i, Makena, Maui and Anahulu Valley, O'ahu is presented. Table 4.1 introduces basic information for these sites. Artifact tables of the sites listed in Table 4.1 are partial lists of the excavated collections. Five artifact types will be examined: beads, buttons, ceramics, flint, and metal artifacts. These five types were selected because each can be used for specific dating, all of these artifacts are durable and frequently recovered in excavations, and, as documentation from the period shows, all of these items were traded during the protohistoric period. The artifacts that can be used as "identifiers" for the eighteenth century will be singled out of each of the collections in the discussion that follows. Table 4.2 represents the five categories of artifacts recovered from the sites listed in Table 4.1.

Beads

Of the non-perishable items, beads are commonly found at nineteenth century archaeological sites throughout the islands and well represented at different types of sites--from rockshelters and open habitations to burials.

A number of references to the use of beads in trade have surfaced from the journals, logs and account books from

Table 4.1

LOCATION, SITE NAME, DATES, AND NUMBERS

LOCATION	SITE NAME	DATES	SITE NUMBER
Hawai'i			
(1)	Kawaihae John Young's Homestead	1791-1834	50-10-05-2296*
(2)	Honaunau Ki'ilae Village	17th-20th centuries	
Kaua'i			
(3)	Waimea Fort Elizabeth	1815-1864	50-30-05-1000
Maui			
(4)	Makena	19th	50-Ma-B8-208**
(5)	Makena		50-Ma-B8-220
(6)	Makena		50-Ma-B8-238
O'ahu			
(7)	Anahulu	18th-19th	50-Oa-D6-34
(8)	Anahulu		50-Oa-D6-60

* Site number is from State of Hawai'i. 50=State; 10=Island of Hawai'i; 05=U.S.G.S. Quad; 1000=Site number.

** Site number is from Department of Anthropology, Bishop Museum. 50=State; Ma or Oa=Island (Maui or O'ahu); B8 or D6=Ahupua'a; 208=Site number.

Table 4.2

FIVE ARTIFACT TYPES FREQUENCIES

SITES+:	1	2	3	4	5	6	7	8
Beads	11	16	1	-	-	-	13	18
Buttons	5	14	3	-	-	-	10	12
Ceramics	455*	18	6	1	-	5	4	3
Flint	2	-	3	-	-	-	35	40
Metal	205	116	6	-	-	-	143	74

+ The numbers to the right across the top refer to the sites listed in Table 4.1.

* 256 sherds were from two vessels, the remaining sherds were from 5 additional ceramic types. 83 sherds were either creamware or pearlware sherds; 96 sherds were Chinese porcelain.

the protohistoric period, 1778-1820. Cook found that Hawaiians were not interested in beads and thought them insignificant (Anderson 1784:580). However, before Cook left Hawai'i one of the priests was using beads to pay his kava masticator at the rate of one bead per mouthful (Beaglehole 1967).

What kind of beads were used in trade by Cook? None of the journals describing Cook's voyages to Hawai'i mention the type or color of beads used in trade with the Hawaiians. Beads were included as part of the official inventory of trade items to be used in barter with the natives, but specifics as to color and size are lacking. However, Quimby (1978) tried to isolate the exact types of beads that were used during Cook's voyages, and it is from his work that the type of beads likely to be recovered in Hawai'i can be found. The journals of Cook and King sheds light on the color and type of beads used in trade in Hawai'i. This information can be inferred from documentation of trade elsewhere. In May 1778, off Prince William Sound, the white beads that Cook was carrying were not of much value; he speculates that the natives think that the white beads are like their crystal beads (Beaglehole 1967:346).

While Cook was trading with the Aleuts in July 1778, King notes that the women were fond of the beads in "blue, white & brown about the size of a large pea" (Beaglehole 1967:1427). Beads in these colors were traded to the Aleuts

by Russians, as their preference for them had been established prior to Cook's arrival. It can be assumed that similar beads should be recovered in Hawai'i, since Cook visited Prince William Sound after leaving Hawai'i, and trade in beads was common. Since Cook's first visit to Hawai'i, in 1778, was to Kaua'i, blue, white and brown pea-sized beads may be recovered near the port of Waimea. Trade in beads continued during Cook's second and third voyages to the Pacific. However, Van der Sleen (1973:40-41) identified a blue-faceted glass bead with a white center that was used in trading on his third voyage. Unfortunately it is not illustrated so an accurate comparison to existing collections is not possible.

The sources which document the years between 1786 and 1820 provide few references to the color of beads used in trade in the Islands. During this period in Hawaii's history the majority of the visitors were fur traders. The activities of fur traders on the Northwest Coast of America by American and European companies are potentially important sources for providing a chronology of beads that appear in Hawaiian sites. Dixon was carrying blue and green beads in 1786 the Northwest Coast of America (Quimby 1978:235) and Meares was also trading in green beads in the same year (Meares 1791:lxv). Documentation on the types of beads carried by Dixon and Portlock in their visits to the Islands indicate that they were probably small green and yellow

beads, as these colors were mentioned by Portlock as beads requested from Meares while trading in the Northwest Coast of America on May 19, 1787 (Meares 1790: xxvi).

Quimby (1966:88-89), in his study of European trade goods in the Western Great Lakes region of America, found that monochrome faceted beads regardless of size are diagnostic for the period between 1760 and 1820. The traders in this area were again fur traders, European prior to 1800 and mostly American after 1800 (Quimby 1966:82). The dating of these beads was dependent on the presence of silver ornaments made for the fur trade and used between 1760 and 1820. Such finite controls on the beads recovered in Hawai'i has yet to be established.

The summary of bead types that may have been introduced into Hawai'i during the protohistoric are listed in Table 4.3. The bead descriptions are not complete, just as the descriptions in the references are not complete. More work needs to be done to compile a list of bead types with color and manufacturing techniques that will allow for the use of beads as temporal indicators.

Orchard (1975:101) illustrates a number of glass beads that were distributed by traders in the West; although specific information on chronology and size is missing, the

Table 4.3

BEAD TYPES NOTED IN LITERATURE OF THE
PROTOHISTORIC PERIOD

TYPE	DATE	REFERENCE
Blue	1778-1779	Beaglehole 1967
White	1778-1779	Beaglehole 1967
Brown	1778-1779	Beaglehole 1967
Faceted beads	1760-1820	Quimby 1966
Green, translucent	1786	Dixon 1789
Blue, translucent	1786	Dixon 1789
Yellow	1787	Meares 1790
Green, translucent	1787	Meares 1790
Blue faceted	1810	Quimby 1978

shapes and colors are similar to beads in collections from sites in this study. The colors represented are (1) faceted transparent green, (2) opaque yellow, (3) dark blue transparent, (4) dark blue opaque, and (5) pale blue opaque round beads (Orchard 1975:102).

Faceted beads were one of the many types of beads carried by fur traders into the Northwest Coast (Quimby 1966). Of the beads recovered in the excavations of these sites faceted beads occurred only at John Young's Homestead (1 translucent blue-green) and Ki'ilae Village, Site D-140 (6 translucent midnight blue, 1 translucent emerald green, 1 translucent red). It is possible that these represent the pre-1820 period, since faceted beads were known to be used in that early trade. Faceted blue-green or emerald green beads are uncommon in collections from Hawai'i.

The distribution of the opaque round mandrel wound yellow (Munsel Color 5.0 Y 8/10-3.7 Y 8/13), or daffodil color (Color Harmony 1-1/2 ia) (Karklins 1982:107) beads, are represented in four sites: John Young's Homestead (3 specimens, 2 fused together measurements not included), Fort Elizabeth (1 specimen), and Anahulu Valley D6-60 (2 specimens). The size of these beads range from 6.0 mm-8.0 mm in width, 7.0 mm-8.0 mm height (parallel to bore), and 1.5 mm-2.2 mm bore size. This bead type occurs more frequently in post-1820 stratigraphic context than in a protohistoric (Carter 1979; 1982).

A common bead found in North American sites is the Cornaline d'Aleppo, and it provides a good marker for sites in Hawai'i. After 1830, the center of these beads varied from a light green core to an ivory core, with a bright red outer layer; the brighter the exterior red layer of glass, the later the manufacture (Sprague 1985:94). Karklins (1982:51-52) illustrates and describes several examples of this type of bead from a nineteenth century Venetian Bead Sample Book. Representative samples of this type of bead have been recovered frequently at sites throughout Hawai'i: No beads of this type were recovered from either Ki'ilae Village or Fort Elizabeth. However, nine beads were identified at the Anahulu Valley site D6-34 and one at D6-60, and one was identified at the John Young Homestead. The presence of this bead at the Anahulu Valley sites and Young's site may be an indication of the late period of introduction for this type of bead, corresponding with the formal attributes of a post-1830 form.

Buttons

Buttons from these assemblages are made from either organic material, glass, or porcelain. Most datable buttons are non-organic types. There was only one metal button from the pre-1820 period sites that was typical of buttons manufactured prior to 1800 (Noel Hume 1974:99). It was a plain-faced, slightly convex brass button with a loop soldered to the back. It was recovered from the John Young

Homestead (Rosendahl and Carter 1988:51).

A second impressed metal button, referred to as a Phoenix button, because of the bird design embossed on the face, was recovered from Fort Elizabeth, but it is the only one of its kind to be collected from archaeological sites in the Islands (McCoy 1974:30). This button post dates-1820 and is not associated with the Russian Fur Company (Strong 1975:76-79).

The most common type of button identified from the Anahulu collection is referred to in the literature as "small chinas" (Luscomb 1967:183). These buttons are usually white and made of a non-translucent porcelain ranging in size from 2/8" - 7/8". There is one example from D6-34 referred to as a "calico" button. This designation refers to the textile transfer-printed design on the surface of the button face. The small chinas that are plain were mass produced in this country after 1860. The one calico button, which was known to be popular in America has an earlier date of 1845. The remaining buttons were not diagnostic enough to be assigned specific dates.

Ceramics

Of the artifacts from the John Young Homestead, three types of ceramic artifacts stand out: (1) green edged pearl-ware (1780-1830) (South 1978:72); (2) Canton porcelain, blue on white underglaze (1800-1830) (South 1978:72; Tindall 1979:161, Fig.4; Godden 1979:164); and (3) overglazed

enamelled China trade porcelain, multi-colored with a floral design (1790-1825) (South 1978:72). Canton porcelain fragments were recovered at all three sites. The pearlware earthenware and overglazed porcelain which were recovered at the John Young Homestead were not identified at the other sites.

Other ceramic types included annular wares (1780-1815), common in early nineteenth century sites. These consist of bowls and other shapes decorated with horizontal bands of color (Noel Hume 1970:131, South 1978:72). This type of ceramic was only recovered at the John Young Homestead. Multi-colored transfer-printed ceramics (1820-1840) occurred at the John Young Homestead.

The Canton blue-on-white porcelain was recovered from the excavations at Fort Elizabeth. However, none of these ceramic types were recovered from the O'ahu or in the Maui excavations.

Flint

A single English blade gun flint, gray to black and prismatic in form, is a type that post-dates 1800 (Noel Hume 1970:220). One such flint was recovered at the John Young Homestead. Other flint was recovered from Fort Elizabeth on Kaua'i (McCoy 1972:27). The Kaua'i flints have been identified as French and English in origin on the basis of color, French ranging from very pale brown to grayish brown (Munsell Color 10 YR 7/3-10 YR 5/2), and English ranging from white

to very dark gray (Munsel Color 2.5 Y N8/-2.5 Y N3/). But according to McCoy (1972:27) these flints are American. No flint artifacts were identified for the Ki'ilae Village features.

Flint recovered from the Anahulu collection was considerable--a total of 75 fragments that included 23 worked fragments from the two features D6-34 and D6-60, with an additional 52 fragments of shatter identified. No formal gun flints were identified in these two collections or the total collection of flint recovered from the excavations. Analysis of 193 flint artifacts from 11 Anahulu Valley features showed that flint was being imported into the valley in nodule form (a high percentage of cortex was found on many fragments) and reduced to make either gunspall flints or strike-a-lights (Carter 1979, 1984).

Flint appeared on a list of goods destined for the Islands in the 1790's as "fire stone" (Roe 1967). Between 1805 and 1808 there is a reference to the use of strike-a-lights in the journal of Isaac Iselin (1922:71). He noted that while at Kealakekua Bay "a priest on board won't let anything else be used to light his pipe but "flint & steel'" (Iselin 1922:71). According to a summary article by Greer (1977:3-38) flint was imported in large quantities by 1838.

Metal Objects

Metal objects recovered from these sites were corroded, making identification impossible in many cases. Copper alloy

metals, such as brass or bronze, survive the salt air longer. Metal artifacts are usually the largest category of artifacts to be recovered archaeologically. Nails are the most common identifiable metal objects.

Many of the historical documents identify situations in which metal, specifically iron, was used for trade. Other objects of metal introduced were adzes, chisels, files, fishhooks, forks, hatchets, cut barrel hoops, iron nails, knives, razors, rings, and scissors (see Table 3.5:71 for references). Some of these items were recovered from archaeological sites that date to the protohistoric period but none can be securely dated to that period. Brass gun hardware was found at John Young's Homestead, and the fragment has been tentatively identified as a butt plate from a eighteenth century British musket (Stanford 1975:58). A second piece of brass metal work identified from this site is a drawer pull fitting, which dates to a period between 1750-1820 (Revi 1974:80-81).

Needles recovered from an archaeological context are rare but larger sized brass needles (probably used for sewing heavy canvas) were recovered from John Young's site (Noel Hume 1970:255).

Nails are most likely to survive the elements over time at both rockshelter sites and open terrace sites. Changes in nail manufacturing techniques provide a clue to their age: in a pre-1830 nail the metal fibers run crosswise to the

shaft, while in a post-1830 nail the fibers run parallel to the shaft (Noel Hume 1970:253- 254). The first type of nails will snap if clenched; the nail with lengthwise fibers is stronger.

In the historical documents from this period there is little technological detail or description of objects that would facilitate the identification of artifacts. One aspect of early pre-1820 artifact collections is the presence of copper alloy or brass nails, spikes, or brass sheeting. These artifacts are seemingly more durable than objects made of iron. Bronze nails are used in boat building and the sheeting is also used to cover the hulls of ships. Sheet brass was traded in the Northwest Coast and it is likely that it was used in trade in the Islands before 1800. In middle to late nineteenth century sites bronze nails or spikes are not found. The exception is that in some burial features brass tacks and nails are used to seal the lid of coffins.

Summary of the Archaeology of Protohistoric Hawai'i

The protohistoric period, 1778-1820, is characterized by a variety of visitors: transitory male traders, explorors and merchants. The archaeological data-base as presented in this Chapter only reflects the scarcity of objects that can be identified for this period. Conclusions about male and female activities are difficult to make from these artifacts, as many of the objects traded to men were also traded

to women. Hawaiian men were in contact with foreign traders more often than Hawaiian females; at least this seems to be the pattern as reflected in the documentation. Consequently male-oriented activities, such as canoe building and possibly image carving, would be altered because of the introduction of metal wood working tools. During this period, the only Hawaiian with whom the foreigners had sufficient contact to make a significant impact may have been the ali'i, primarily Kamehameha and his retainers. The ali'i, were more frequently involved with the trading activities with foreigners. Thus with more exposure to foreigners the rate of acculturation for this group would be greater than for those not in contact with the foreigners.

Artifacts associated with female activities during this time would not be as likely to change. The introduction of items such as beads or buttons were not items that were likely to alter traditional activities, since they did not provide the possessor with an alternate object to complete a task. (An example of this change would be the introduction of metal bowls as replacements for wooden bowls.) However, the area where impact might be seen is in the carving of kapa beaters. It is possible that the introduction of metal tools allowed for the finer carved lines in designs on beaters. The post-1820 introduction of writing and the implements for writing (e.g. different colored ink) may have influenced the design motifs on kapa. The introduction of

colored cloth was used to color kapa. The fine cotton fibers are visible on some samples in the Bishop Museum.

The artifacts recovered from an archaeological context are unfortunately meager. The few items that can be dated to the protohistoric are those that are well documented to a specific time period. Such items include English green edged pearlware (1780-1830), overglaze trade porcelain (1790-1825), a one-piece plain face brass button, and English blade gunflint (ca. 1800).

Although the ceramics have a terminus date that post-dates the protohistoric end date of 1820, the ceramic sherds of the types listed above would be considered early rather than late. There are many other types of ceramics that were being produced during this time but they are not recovered in Hawai'i (or we have not excavated the sites). During the latter half of the nineteenth century the archaeological pattern of material remains shows a higher percentage of ceramic artifacts.

Beads as a class of artifacts have a great potential for establishing a viable chronological tool for Hawaiian archaeology. The beads that have been presented here do not assist the archaeologist for the pre-1820 period but provide a good marker for some of the later period sites.

Evaluation of likely sites for finding evidence of the protohistoric in Hawaii's past should include geographical location (Hawai'i, O'ahu, Kaua'i), type of site (substantial

house structure [implying long-term residence], and historical associations with location. The selections of sites made for this thesis was based on location, historical associations, and prior knowledge of the artifact assemblages.

The John Young Homestead is the best documented transition site (between protohistoric and historic) in the Islands. The artifact assemblage is much more like a middle to late nineteenth century assemblage based on the variety of types of artifacts (e.g. glass tumblers, several types of ceramics, and bottle glass). Some items date to an earlier period supporting the presence of protohistoric and historic time frames.

Ki'ilae Village has an interesting assortment of objects but most postdate 1820. The few beads that were recovered stand out for their uniqueness among the site assemblages examined. However, the temporal indicators are lacking. It is possible that further work on beads found at sites in Hawai'i will clarify the context in which these beads were recovered.

Fort Elizabeth is no doubt the Fort established by the Russians between 1816-1817, but the collection of artifacts does not reflect this period as much as it does the post-Russian period (1818-1864) (McCoy 1972:7). Stratified deposits at this location, not necessarily the Fort, should illustrate the duration of occupation by Hawaiians and the

interaction with Westerners prior to 1820. By focusing on the contact site locations more information about the proto-historic can be pieced together.

In Makena artifact assemblages, none of the artifacts can be grouped in the early pre-1820 time frame. Assemblages from the Anahulu Valley sites are also late examples.

It is evident from the historical documentation that the ali'i or chiefs maintained control of ports and that men were the primary purveyors of trade between Westerners and Hawaiians. This pattern continued into the nineteenth century, maintaining the differential access to goods, therefore influencing the pattern of archaeological material goods. Post-1820 objects are more frequently found, since the quantity and the dispersal pattern differed from that of the previous century.

Chapter 5

CONCLUSION

This thesis focused on a period of time in Hawaiian history defined in Chapter 1 as the protohistoric. This is the period of time after western contact but before physical changes within the culture can be archaeologically identified. The protohistoric period in Hawai'i covers the years between 1778 and 1820. It is meagerly represented by the material remains of trade between Hawaiians and transitory male foreigners that frequented the Islands prior to 1820.

The historical documentation is replete with evidence of traded goods (e.g. beads, nails, and buttons) and the conduits through which these items were distributed. It is also clear that the chiefs or ali'i had control of the trading activities at certain ports. A port generally became established at a place where the ruling chief was in residence and his retinue of priests and attendants were present. Although some historical documents relate trading activities with individuals who were not chiefs, priests or chiefly attendants; these are relatively few compared to the references to trade with chiefs. The identification of archaeological remains and their association to a chief or commoner is a topic in need of more detailed examination. Identifying such socially diagnostic materials is important

for comparative analysis of artifact collections associated with the ali'i and with the maka'ainana.

Although the historical documentation is voluminous information that enables archaeologists to identify specific trade objects with specific time periods is lacking. What we do know is that (1) the dispersal of objects was primarily among those who lived along the coastal areas of the Islands; (2) objects traded were small (in size); (3) the number of days that ships stopped in the Islands to trade averaged 13 days per year between 1778 and 1820, and (4) the average number of ships arriving each year was 3.1 for the same period of time.

Men were the primary people involved in trade during the protohistoric period. Transitory male visitors participating in a marine-based trade network dominated the protohistoric period. It is because of this pattern that little of the protohistoric can be identified in the archaeological record. The post-1820 period was not dominated by marine-based trade but a land-based system that went beyond the coastal villages. The exposure to new people--their culture and to the material goods of their culture--is exhibited in post-1820 sites. The missionaries, their wives and children, and other merchants who had established themselves in the Islands after 1820 became the purveyors of change.

The model of marine-based trade in the protohistoric

period, as outlined here (Figure 5.1), is a representation of how trade goods are initially introduced into a culture. The objective of such trade is to reach those people in power and secure a trading environment that is beneficial to each participant. Although the model is based on work done in the Northwest Coast of America (see Chapter 2) but its application is far-reaching. It is hoped that this model will serve others investigating the protohistoric period in other marine-based settings.

Model of Maritime Trade

The model of maritime trade presented in Figure 5.1 addresses the impact of marine-based transitory traders on the Hawaiian culture. The application of this model should help researchers to identify that pattern which should be peculiar to archaeological assemblages of the period between 1778-1820. While this model will be used to illustrate the Hawaiian case, the basic premises should be applicable to similar contact situations in other island or marine-based locations.

The model presented here helps to explicate the lack of material remains for the protohistoric period in Hawaiian history. The archaeological assemblages that have been excavated reflect a distinctive pattern that, while not unique to Hawai'i, is nevertheless characteristic of early contact situations. Contact in Hawai'i can be defined by five basic criteria (Figure 5.1). The response to contact

under these defined criteria is also presented. A third part of this model focuses on the material correlates of contact that is, what do we expect to find archaeologically?

The archaeological evidence for this model can be viewed from either of two perspectives: First, that there is a scarcity of objects dating from early contact situations compared to objects of a later date that can be more easily identified; second, that although the location of trading in the Islands is known, archaeologically studied sites from these areas do not contain the artifacts one would expect to find. The first perspective suggests that recovered material items of trade dating from this period will be scarce. The second perspective suggests that the expectations of identifying artifacts from this period can not be realized as the sites may not have been identified.

In this thesis both perspectives are accepted as a true reflection of the archaeological record in Hawai'i during the protohistoric. Documents on the general types of goods traded to the Hawaiians are abundant; they indicate that the material traded are limited both in types and in number. Likewise, several protohistoric archaeological sites have been excavated in those areas that were frequented by the male-dominated transitory visitors. The respective artifact assemblages do reflect the model of maritime trade presented here.

The implications derived from the seeming lack or

Figure 5.1

MARINE BASED TRADE - PROTOHISTORIC HAWAI'I

- A. Basic criteria (example from the Northwest Coast (Fisher 1977)):
1. Transitory (visits irregular).
 2. Male-dominated group of traders.
(Primary interaction between male traders and indigenous males with some interaction between male traders and indigenous females.)
 3. Traders focused on leaders of indigenous groups when trading.
 4. Recipient group seen as keen traders.
 5. Returning to known places of trade.
- B. Corresponding response to trade:
1. Accreting objects of trade from small single objects to specifically named items requested for trade.
 2. Leaders stockpiling goods.
 3. Some gender differentiation in items traded. Distribution of goods not always ended up in male hands but females received some items in trade.
 4. Few foreigners leaving the ship, trade primarily on board ship.
 5. The areas more heavily frequented by traders should have a greater percentage of period artifacts.
- C. The archaeological record:
1. Male activity artifact sets change rapidly.
 2. Female activity artifact sets are more stable.
 3. Many artifacts from this period are not time specific.
 4. Fewer items traded than otherwise indicated in the literature.

sparsity of temporally diagnostic protohistoric objects are important. Caution should be taken when considering the age of archaeological features that do not have historic artifacts as part of the assemblage. The archaeological pattern of the protohistoric period is not changed much from the prehistoric assemblage.

We must deal more effectively with the protohistoric period if we ever hope to achieve a meaningful understanding of the dynamics of late prehistoric and early historic Hawaiian culture history. For example, how accurate are the estimates of population when a significant portion of Hawaii's past can not be accounted for archaeologically? How useful are settlement pattern studies derived from the temporally-ordered archaeological data if the protohistoric period is not identified? And undoubtedly studies on disease vectors would be facilitated by a better understanding of this period.

Cultures in contact do not always leave readily identifiable material remains. Also historical documents are good resources but must be used judiciously in their application to past human behavior. Nevertheless this thesis has demonstrated that the protohistoric period in Hawai'i is real, recognizable and critically important for many of our research interests, It is now up to the Hawaiian archaeological community to insure that the protohistoric at last gets the attention and proper recognition that it has so long deserved.

REFERENCES

ABBREVIATIONS

AH -Archives of Hawaii
BPBM -Bernice P. Bishop Museum
HHS -Hawaiian Historical Society

- Adams, A.
1906 Extracts from an ancient log. Occurrences on board the brig Forester of London, from Conception towards the Sandwich Islands. (Reprint of 1816) Annual Almanac, pp.66-74.
- Alexander, W.D.
1894 The Proceedings of the Russians on Kauai, 1814-1816. Papers of the Hawaiian Historical Society, No. 6.
- Allen-Wheeler, J.
1982 Archaeological Investigations in Kailua-Kona, Hawai'i. Conducted for CJWC, Inc. Manuscript on file in Department of Anthropology, BPBM.
- Anderson, G. W.
1784 A new authentic and complete collection of oyages round the World...Cooks first, second, third and last voyages... London.
- Anonymous
1920-1921 Solid Men of Boston. Massachusetts Historical Society Proceedings October, 1920-June, 1921, pp. 9-47.
- Apple, R.
1978 Pahukanilua: Homestead of John Young. National Park Service. Honolulu.
- Beaglehole, J. C. (editor)
1967 The Journals of Captain James Cook on his Voyages of Discovery, III: The Voyage of the Resolution and Discovery 1776-1780. Parts One and Two. Cambridge University Press, Cambridge.
- Bell, E.
1929-1930 The Log of the Chatham. The Honolulu Mercury, Vol. I: pp. 7-26 (part 1), pp. 55-69 (part 2), pp.76- 90 (part 3), Vol.II: pp. 80-91 (part 4), pp. 119-129 (part 5).

- Boit, J. R.
Ms. The Journal of a Voyage Round the Globe. AH.
- Bradley, H.
1939 The Hawaiian islands and the Pacific Fur Trade, 1785-1813. Northwest Quarterly, July.
- 1968 The American Frontier in Hawaii. Peter Smith, Gloucester, Mass.
- Burney, J.
Ms. Journal of the Proceedings of his Majesty Sloop the Discovery, with Charles Clerk Commander...1776-1780. AH.
- Callahan, J. M.
1969 American Relations in the Pacific and the Far East 1784-1900. Praeger Publishers, New York.
- Campbell, A.
1967 Voyage Around the World, 1806-1812. (Reprint of 3rd American Edition of 1822) University of Hawaii Press, Honolulu.
- Carter, L. A.
1978 A Dating Analysis of Historic Artifacts. In Ross Cordy Archaeological Survey and Excavations at Makena, Maui Third Increment, Seibu Golf Course: Fairways 1,7 through 10, & 16 through 18. Manuscript on file Department of Anthropology, BPBM.
- 1979 Analysis of Historic Artifacts from Kapuahilua and Keae. In Late prehistoric and early historic settlement-subsistence systems in the Anahulu Valley, O'ahu. Department of Anthropology Report Series 79-2, BPBM.
- 1982 Non-Indigenous Artifacts from the Mudlane-Waimea-Kawaihae Road Corridor. Manuscript, Department of Anthropology, BPBM.
- 1984a Glass Bottles Recovered from the Halekulani Site. In Bert Davis, The Halekulani Hotel Site: Archaeological and Historical Investigations in Waikiki, O'ahu, Hawai'i. Manuscript on file Department of Anthropology, BPBM.
- 1984b Anachert: An analysis of Anahulu Valley flint. Manuscript in authors possession.

- Caruthers, J. W.
1973 American Pacific Ocean Trade, Its Impact on Foreign Policy and Continental Expansion, 1784-1860. Exposition Press, New York.
- Chamisso, A. von
1986 A Voyage Around the World with the Romanzov Exploring Expedition in the Years 1815-1818 in the Brig Rurik. Translated and Edited by Henry Kratz. University of Hawaii Press, Honolulu.
- Cheek, A.
1974 The Evidence for Acculturation in Artifacts: Indians and Non-Indians at San Xavier Del Bac, Arizona. Ph.D. University of Arizona.
- Cleghorn, P.
1975 Phase I archaeological research at the Seamen's Hospital (Site D5-10), Lahaina, Maui. Typescript in Library, BPBM.
- 1982 The Mauna Kea adze quarry: Technological analyses and experimental tests. Ph.D. dissertation, University of Hawai'i.
- Cleghorn, P., T. Dye, M. Weisler, and J. Sinton
1985 A Preliminary Petrographic Study of Hawaiian Stone Adze Quarries. Journal of the Polynesian Society 94(3):235-251.
- Colnett, J.
Ms. The Journal of Captain James Colnett aboard the Prince of Wales and Princess Royal from 16 October 1786 to 7 November 1788. Typescript in University of Hawaii, Hamilton Library.
- Cordy, R. H.
1972 The Effects of European Contact on Hawaiian Agricultural Systems--1778-1819. Ethnohistory 19/4 (Fall 1972), pp.393-418.
- Daws, G.
1966 Honolulu--The First Century: Influences in the Development of the Town to 1876. Ph.D. thesis, University of Hawaii.

- Deagan, K.
1982 Avenues of Inquiry in Historical Archaeology. In Schiffer, M. B. (editor) Advances in Archaeological Method and Theory, Vol. 5. Academic Press.
- 1988 Neither History Nor Prehistory: the Questions that Count in Historical Archaeology. Historical Archaeology, Vol. 22, No.1, pp.7-12.
- Deetz, J.
1978 Archeological Investigations at La Purisima Mission. Reprint in Schuyler, R. (editor) Historical Archaeology: A guide to Substantive and Theoretical Contributions. Baywood Publishing Company, Inc., Farmingdale.
- Dening, G. M.
1971 Tapu and Haka'iki in the Marquesas. Ph.D. Harvard.
- Dixon, G.
1968 Voyage Around the World 1785-1788. Reprint of 1789, Da Capo Press, New York.
- Fischer, R.
1977 Contact and Conflict Indian-European relations in British Columbia, 1774-1890. University of British Columbia Press, Vancouver.
- Fredricksen, W., and D. Fredricksen
1965 Report on the excavation of the "brick palace" of King Kamehameha I at Lahaina, Maui, Hawaii. Typescript in Library, BPBM.
- French, W.
Ms. Account Book, 1817-1819. HHS Library.
- Friedman, J.
1985 Cook, Culture, and the World. Journal of Pacific History. Vol. XX. No. 3-4, pp. 191-201.
- Golovnin, V. M.
1979 Around the World on the Kamchatka, 1817-1819. Translated by Ella Wiswell. Honolulu, Hawaiian Historical Society and University of Hawaii Press.

- Greer, R. A.
1977 Honolulu in 1838. Hawaiian Journal of History, Vol. 11, pp. 3-38.
- Handy, E. S. C. and M. Pukui
1972 The Polynesian Family System in Ka'u, Hawai'i. Charles E. Tuttle, Rutland and Tokyo.
- Herskovitz, M.
1938 Acculturation, the Study of Culture Contact. J.J. Augustin, New York.
- Hiroa, T. R.
1964 Arts and Crafts of Hawaii. Bishop Museum Press, No. 45. Honolulu.
- Hommon, R.
1975 Use and Control of Hawaiian Inter-Island Channels Polynesian Hawaii: A. D. 1400-1794. Prepared for Office of the Governor, State of Hawaii. Manuscript in authors possession.
- Howay, F. W.
1932 An Outline Sketch of the Maritime Fur Trade. Oregon Quarterly.
- Hughes, I.
1977 New Guinea Stone Age trade the geography and ecology of traffic in the interior. Terra Australis 3. Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra.
- I'i, J. P.
1959 Fragments of Hawaiian History. Translated by Mary Kawena Pukui. Bishop Museum Press, Honolulu.
- Ingraham, J.
1918 The Log of the Brig Hope called the Hope's Track among the Sandwich Islands, May 20 - October 12, 1791. HHS Reprints, No. 3. Honolulu.
- Iselin, I.
1922 Journal of a Trading Voyage Around the World 1805-1808. HHS Reprint.

- Judd, B.
1974 Voyages to Hawaii before 1860. The University of Hawaii Press, Honolulu.
- Judd, L. F.
1928 Honolulu Sketches of the life, social, political and religious, in the Hawaiian Islands from 1828 to 1861. Honolulu.
- Kaeppler, A.
1985 Hawaiian art and society: traditions and transformations. The Polynesian Society, Memoir No. 45, Auckland.
- Kamakau, S. M.
1961 Ruling Chiefs of Hawaii. Kamehameha Schools Press, Honolulu.
- 1964 Ka po'e kahiko: The people of old. BPBM Special Publication 51.
- 1976 The works of the people of old. BPBM Special Publication 61.
- Karkins, K.
1982 Glass Beads. History and Archaeology 59. National Historic Parks and Sites Branch, Quebec, Canada.
- Kerch III, S.
1984 The Subartic Fur Trade: Native Social and Economic adaptations. University of British Columbia Press, Vancouver.
- Kirch, P. V.
1979 Late Prehistoric and early historic settlement subsistence systems in the Anahulu Valley, O'ahu. Dept. of Anthropology Report Series 79-2, BPBM.
- 1981 The Archaeology of Ethnohistory: The Historical Transformation of Hawaiian Society and Economy. Proposal submitted to National Science Foundation. Dept. of Anthropology, BPBM.
- 1983 Socio-political and demographic correlates of production in proto-historic Hawaii: the Anahulu case. Paper presented at the XV Pacific Science Congress, Symposium K.1.c., Dunedin, New Zealand.

- Kirch, P. V. (con't)
 1984 Evolution of the Polynesian chiefdoms. Cambridge University Press, Cambridge.
- 1985 Feathered Gods and Fishhooks. University of Hawaii Press, Honolulu.
- Krusenstern, I. J.
 1968 Voyage Round the World in the Years 1803, 1804, 1805, and 1806. Reprint of 1813 edition. Da Capo Press, New York.
- Kuykendall, R. S.
 1978 The Hawaiian Kingdom. University of Hawaii Press, Honolulu.
- La Perouse, J. F. G. de
 1968 A Voyage Round the World. Reprint of 1799 edition. Da Capo Press, New York.
- Lisiansky, U.
 1968 Voyage Round the World, 1803 - 1806. Reprint of 1814 edition. Da Capo Press, New York.
- Luscomb, M., and R. Reeve
 1976 Archaeological surveillance and salvage during the electrical conduit excavations on the grounds of Iolani Palace, Honolulu, O'ahu. Typescript in Library, BPBM.
- Luscomb, S.
 1967 The Collector's Encyclopedia of Buttons. Bonaza Books, New York.
- Malo, D.
 1951 Hawaiian Antiquities. BPBM Special Publication 2.
- Marin, F. de Paula
 1811-1814 Account records in collection AH, Honolulu.
- McCoy, P. C.
 1972 Archaeological Research at Fort Elizabeth Waimea, Kauai, Hawaiian Islands: Phase I. Department of Anthropology Series 72-7. BPBM.

- Meares, J.
1790 Voyages made in the Years 1788 and 1789 from China to the Northwest Coast of America, to which are Prefixed an Introductory Narrative of a Voyage Performed in 1786, from Bengal, in the Ship Nootka. Logographic Press, London.
- Minson, Jr., W. H.
1952 The Hawaiian Journal of Manuel Quimper. Masters Thesis, University of Hawaii.
- Morgan, T.
1948 Hawaii: A Century of Economic, 1778 - 1876. Cambridge.
- Mortimer, G.
1791 Observation and Remarks made during a voyage...in the Brig Mercury. T. Cadell, London.
- Nagata, K.
1985 Early Plant Introductions in Hawai'i. The Hawaiian Journal of History, Vol. 19.
- Nicol, J.
1931 The Life and Adventures of John Nicol, Mariner. Farrar & Rinehart, New York.
- Noel Hume, I.
1970 A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.
- Orchard, W. C.
1975 Beads and Beadwork of the American Indians. Reprint of Contributions from the Museum of American Indian, Heye Foundation, Vol. 11. New York.
- Patterson, S.
1825 Narrative of Adventures, Sufferings, and Privations. Providence.
- Porter, K. W.
1930 John Jacob Astor and the Sandalwood Trade of the Hawaiian Islands 1816-1828. Journal of Economic and Business History. Vol. 11, No. 3.
- Portlock, N.
1789 A voyage round the World...performed in 1785, 1786, 1787, and 1788. John Stockdale and George Goulding, London.

- Quimby, G.
1948 Culture Contact on the Northwest Coast, 1785-1795. American Anthropologist, n.s. 50.
- 1966 Indian culture and European trade goods; the archaeology of the historic period in the western Great Lakes region. University of Wisconsin Press, Madison.
- 1978 Trade beads and sunken ships. In Dunnell, Robert C. and Edwin S. Hall, Jr. (editors) Archaeological Essays in Honor of Irving B. Rouse. Mouton Publishers, The Hague.
- Ralston, C.
1978 Grass Huts and Warehouses Pacific Beach Communities of the Nineteenth Century. University Press of Hawaii, Honolulu.
- 1984 Hawaii 1778-1854 Some Aspects of Maka'ainana Response to Rapid Cultural Change. The Journal of Pacific History.
- Revi, A. C. (editor)
1974 Collectible Iron, Tin, Copper, and Brass. Castle Books, Sacausus, New Jersey.
- Riconda, D.
1972 Historical archaeology of Makaha Valley. In E. Ladd and D. Yen (editors), Makaha Valley historical project: Interim report no. 3, pp. 3-22. Pacific Anthropological Records 18. Dept. of Anthropology, BPBM.
- Roe, M.
1967 The Journal and Letters of Captain Charles Bishop on the North-West Coast of America, in the Pacific and in New South Wales 1794-1799. London, The Hakluyt Society.
- Rosendahl, P. H.
1971 A report on the archaeological excavation and exploration of the old carriage road at Iolani Palace. Typescript in Library, BPBM.
- Rosendahl, P. H. and L. A. Carter
1988 Excavations at John Young's Homestead, Kawaihae, Hawaii-Archeology at Pu'ukohala Heiau National Historic Site. Western Archeological and Conservation Center Publications in Anthropology No. 47.

- Sahlins, M. D.
1971 An interdisciplinary investigation of Hawaiian social morphology and economy in the late prehistoric and early historic periods. Research proposal submitted by BPBM to the National Science Foundation. Typescript on file Department of Anthropology, BPBM.
- 1974 Historical anthropology of the Hawaiian Kingdom. Research proposal submitted by BPBM to the National Science Foundation. Typescript on file Department of Anthropology, BPBM.
- 1981 Historical metaphors and mythical realities: Structure in the early history of the Sandwich Islands Kingdom. University of Michigan Press, Ann Arbor.
- Schilt, R.
1984 Subsistence and Conflict in Kona, Hawai'i. Department of Anthropology Series 84-1. BPBM.
- Schuyler, R. L.
1978 Historical and Historic Sites Archaeology as Anthropology: Basic Definitions and Relationships. In Schuyler, Robert L. (editor), Historical Archaeology: A guide to Substantive and Theoretical Contributions. Baywood Publishing Company, Inc., Farmingdale, New York.
- Seely, M. D.
1968 The preliminary archaeology of Hale Akala, the royal bungalow. Hawaii State Archaeological Journal 69-1. Dept. of Land and Natural Resources.
- Shaler, W.
1935 Journal of a Voyage Between China and the North Western Coast of America, Made in 1804. Saunders Studio Press, Claremont, California.
- Sleen, W. G. N. Van der
1973 A Handbook on Beads. Musee du Verre, Liege.
- Soehren, L. J. and D. P. Tuohy
1986 Archaeological Excavations at Pu'uhonua o Honaunau National Historical Park, Honaunau, Kona, Hawai'i. Departmental Report Series Report 87-2. BPBM.

- South, S.
1977 Method and Theory in Historical Archeology.
Academic Press, New York.
- Sprague, R.
1985 Glass Trade Beads: A Progress Report.
Historical Archaeology 19(2):88-105.
- Stokes, J. F. G.
1931 Iron with the Early Hawaiians. HHS Papers,
No.18. Honolulu.
- Thrum, T. G.
1905 Land customs of early settlers in Hawaii.
Hawaiian Almanac and Annual for 1906.
Honolulu.
- Townsend, E.
1921 Extracts from the Diary of Ebenizer Townsend,
Jr., Supercargo on the Sealing Ship Neptune
on her Voyage to the South Pacific and
Canton. Hawaiian Historical Society Reprint
No.4, Honolulu.
- Vancouver, G.
1984 A Voyage of Discovery to the North Pacific
Ocean and Round the World 1791-1795. The
Hakluyt Society, London.
- Wallerstein, I.
1980 The Modern World-System II Mercantilism and
the Consolidation of European World-Economy,
1600-1750. Academic Press, New York.
- White, J.
1974 Historic Contact Sites as Laboratories for
the Study of Culture Change. Conference on
Historical Sites Archaeology Papers, Vol. 9,
pp. 153-163.
- Whitman, J.
1979 An Account of the Sandwich Islands,
1813-1815. Topgallant Press, Honolulu.
- Wolfe, E.R.
1982 Europe and the People Without History.
University of California Press, Berkeley.