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THE FLORIDA STATE UNIVERSITY COLLEGE OF ARTS AND SCIENCES

ORAL TRADITIONS AND THE ARCHAEOLOGICAL RECORD OF A WABANAKI MARITIME SOCIETY

By

BRETTAN L. DEWEESE

A Thesis submitted to the Department of Anthropology in partial fulfillment of the requirements for the degree of Master of Arts

> Degree Awarded: Spring Semester, 2007

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For my family.

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ABSTRACT

This thesis examines prehistoric watercraft documented in the region now inhabited by the Wabanaki, an indigenous maritime society living in New England and the Canadian Maritimes, from archaeological and oral traditions perspectives. Archaeological research has been slow to accept oral traditions as valid, independent sources of evidence. The paucity of prehistoric watercraft and associated tool kits in this study requires exploring Wabanaki prehistory through alternative sources. I gathered oral traditions from a St. Francis Abenaki elder, a Wabanaki oral historian and storyteller, and a traditional Wabanaki canoe artist to tie together historical and archaeological data using maritime socio-cultural relations in the form of oral traditions and histories. Watercraft remains have not been preserved in the archaeological record, requiring an alternative approach, defined within the parameters of this thesis as an oral traditions methodology, to study the maritime technological adaptations of the Wabanaki. This methodology may serve as a template for similar archaeological studies, historic and prehistoric, within societies that value the accurate transmission of oral traditions in the absence, as well as presence, of material remains. In particular, I aim to facilitate a better understanding of Wabanaki technology within the maritime environment of New England and the Canadian Maritimes.

CHAPTER I

PREHISTORIC GEOGRAPHY, ADAPTATION, AND IDENTITY OF WABANAKI IN NORTH AMERICA

Introduction

Most of North America is a problematic region for the archaeological recovery of prehistoric indigenous watercraft due to gaps in the archaeological record as a result of poor watercraft preservation. Few prehistoric North American watercraft have been recovered through archaeological excavations and even fewer analyses have sought to comprehend the production, value, or social usage of this maritime technology in differing environmental and ecological zones. Rather, archaeological research in North America has primarily focused on the identification and interpretation of historic watercraft while marginalizing the significance of prehistoric watercraft technologies.

Watercraft construction has been recognized as a specialized mode of technology that required substantial investments of labor and a commitment to perpetuating nautical technological traditions (Renouf 1984:19). Despite the recognized significance of maritime adaptation through technology, archaeological information pertaining to prehistoric watercraft has largely been gathered from rare discoveries of dugouts. An unusual discovery of over 100 canoes at Newnans Lake, Florida, is a dramatic exception (Wheeler et al. 2003:533). Knowledge about various prehistoric watercraft forms and characteristics remains severely limited in archaeological studies. The purpose of this thesis is to evaluate indigenous prehistoric watercraft from New England and the Canadian Maritimes from both an archaeological and oral traditions framework. In the absence of prehistoric material evidence, oral traditions collected from Wabanaki oral historian Joseph Bruchac, St. Francis Abenaki elder Larry LaPan, and traditional Wabanaki canoe artist Aaron York illustrate the significance of a maritime existence and watercraft technology among past and present Wabanaki communities, offering a supplemental evidentiary source in the analysis of prehistoric North American watercraft (refer to Appendices C-E for interview transcripts).

Cultural Geography of New England and the Canadian Maritimes

New England and the Canadian Maritimes (Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland) have a long and rich history of Wabanaki settlement. The name "Wabanaki" refers to "those who dwell in the land of the dawn" (Wiseman 2005:1). The Micmac, Malecite, including the Penobscot and Passamaquoddy, and Western Abenaki are a few of the modern constituents of the Wabanaki population (Figure 1). Prior to European colonization, the Wabanaki lived throughout northern New England and the southern Canadian Maritimes east to Lake Champlain. Modern Abenaki currently live predominately in Vermont, New Hampshire, Maine, and Quebec (Figure 2). Prior to European colonization, an estimated 10,000 Maritime Wabanaki, 20,000 Eastern Wabanaki, and 10,000 Western Wabanaki inhabited New England and the Canadian Maritimes. European colonization brought disease and warfare to the Wabanaki, decimating their populations. Today, there are roughly 12,000 total Wabanaki (Sultzman 1997:1-2).

The first peoples to settle New England and the Canadian Maritimes migrated across North America during the Archaic Period, roughly 12,500 years ago as receding glaciers opened new environments for human settlement (Simmons 1986:10). Glacial activity dramatically altered the New England and Canadian Maritime region. Maritime resources became abundant by the Archaic Period (7,000 years BP), and humans quickly generated technologies necessary to monopolize maritime environments and resources (Bourque 2001:15-16; Snow 1972:212). Changing environmental conditions forced humans to adapt watercraft technology to monopolize available resources.

Archaeological Considerations of Wabanaki Settlements and Watercraft Technology

Few areas in New England and the Canadian Maritimes could not be reached by canoe, making the waterways of New England and the Canadian Maritimes the "highways" of the prehistoric Wabanaki (Wiseman 2005:1). The significance of maritime existence was further represented in the settlement patterns of New England Native American villages, which were often located close to waterways (Day 1998:15). Day (1998:45) suggested that many indigenous villages found in northern New England, including some that may be linked to the Wabanaki,

cycled seasonally to monopolize riverine resources in the fall and coastal resources in the summer.

Prehistoric canoe construction and use differed in terms of geography, resources (both for construction and use), and the human social activities that conditioned the social and behavioral status of watercraft. Variation in the status and production of watercraft provide archaeologists with information regarding both human technological and socio-economic behavior. Investigations of indigenous watercraft provide invaluable insight into the conditions and significance of maritime existence (Wheeler et al. 2003:546-547; Aaron York, personal communication 10/3/2006). In Wabanaki communities, such studies may be used as a theoretical template for parallel maritime archaeological studies.

Societies worldwide utilized boats, canoes, rafts, or alternative forms of watercraft to exploit various aquatic ecosystems, yet little is understood regarding prehistoric or pre-contact watercraft construction in indigenous societies. Small craft, often representative of indigenous boatbuilding technology, are overlooked due to the lack of material remains in the archaeological record (Wilkinson 1988:70). Despite the lack of indigenous watercraft remains, ships and boats were material manifestations of acquired symbolic or technological status among many maritime cultures that enabled exploitation of aquatic resources for transportation, communication, exchange, and access to subsistence resources (Adams 2001:295). In New England and the Canadian Maritimes during the Woodland Period and continuing into the European contact era, dugouts and bark boats were constructed to perform well on both the ocean and rivers. These same vessels were used to exploit aquatic resources and as vehicles for war. Inland watercraft were constructed to maneuver on lakes and shallow rivers, whose waters dictated the structural and performance features of canoes according to function (hunting, portage, or trade). Despite use in different ecological zones and maritime contexts, both coastal and interior canoes demonstrate similarities in watercraft construction across the northeast, including the Micmac, Malecite, and St. Francis Abenaki Wabanaki societies.

Variations in Prehistoric Boat Construction and Use

Jeanne E. Arnold (1995:734) argued that a meaningful interpretation of technologies required the identification of context of origins and use. Prehistoric boat construction in New

England and the Canadian Maritimes developed in association with the environment in which each craft was used. Open water canoes differed in style, size, function, and use from interior craft. Two canoe forms, the dugout and the bark canoe, were common among Native Americans living in New England and the Canadian Maritimes (Greenhill and Morrison 1995:99-100).

Adney and Chapelle (1964:3) suggested bark canoes were the "most efficient watercraft for use in forest travel" while Greenhill and Morrison (1995:97) acknowledged Native American bark boats to be the most developed bark canoe form in existence. Bark canoes of the Wabanaki were predominately used on rivers, which likely increased mobility of people and products (Bourque 2001:91). Simple bark canoes could be constructed in a matter of weeks (Aaron York, personal communication 10/3/2006), but required continuous maintenance to keep in working condition (Greenhill and Morrison 1995:97). The lightweight shell construction of the bark canoe ensured that the boats were easily navigable with a single paddle, could be portaged through forests or over rough terrain, and were more versatile than dugouts or other contemporary craft, both indigenous and European (Adney and Chapelle 1964:3; Greenhill and Morrison 1995:97; Bourque 2001:274). Bark canoes could also be used along the northern Atlantic coast, as recorded by naturalist Edwin Tappan Adney during his travels and research along the New England and Canadian Maritimes coast from 1889-1925. Within this region, Adney identified bark canoes in use among the Wabanaki populations of the Micmac, Malecite, and Western St. Francis Abenaki populations (Adney and Chapelle 1964: 58-98).

In contrast to bark canoes, dugouts were heavy and, in New England, restricted to use on open oceans or lakes. Bourque (2001:93) and Wiseman (2001:33) postulated that dugouts would have been used prior to the invention of bark canoes, but that their weight may have restricted travel and limited efficient travel in riverine environments. Along the coast, dugouts played a significant role in maritime subsistence and were essential to deep-sea fishing (Bragdon 1996:111, 117). In New England, dugouts, unlike bark canoes, were not modified to function in various environmental zones and were restricted in use, widely replaced by the more efficient bark canoes by AD 1600 (Bourque 2001:92).

Changes in boatbuilding technology reflect technological innovations within prehistoric societies (Arnold 1995:733). As watercraft developed from dugouts to bark canoes, the capacity, range, reliability, and versatility of bark canoe watercraft forms increased exponentially, allowing for the exploitation of more remote resources and solidified the role of watercraft in

social life. Arnold (1995:733) suggested that anthropologists have often overlooked the social influence of practical innovations, such as watercraft. My analysis explores traditional Wabanaki watercraft from an archaeological and oral traditions perspective. Wabanaki oral traditions may be used to supplement understandings and interpretations of the archaeological record to address relationships between resource allocation, technology, and socio-economic structures among maritime Wabanaki populations through an exploration of traditional watercraft. Among the Wabanaki, the role of watercraft is more than a mechanism for subsistence. Watercraft have come to represent the social structure, economic foundation, and identity of contemporary as well as prehistoric Wabanaki.

Goals of Oral Traditions Research as Archaeological Supplement

Considering the lack of prehistoric watercraft artifacts in North America, I apply a methodology for using oral traditions in conjunction with archaeological evidence to explore the role of watercraft among indigenous Wabanaki societies in this thesis. Submerged archaeological artifacts located throughout the New England-Canadian Maritime region demonstrate an intricate connection to human labor, supporting the argument that archaeological studies produce representations of past maritime communities.

Supplementing the archaeological analysis of the region with oral traditions is an unusual methodological perspective not often embraced in archaeological endeavors, yet appropriate to comprehend the role, development, and significance of watercraft and a maritime existence among Wabanaki, past and present. This thesis considers the canoe not solely from a static, archaeological material perspective but also from an immaterial, cognitive framework. Oral traditions gathered during interviews I conducted with Wabanaki oral historian Joseph Bruchac, Wabanaki elder Larry LaPan, and traditional Wabanaki canoe artist Aaron York accentuated the reliance of Wabanaki upon maritime resources and watercraft technology. I postulate that the community values of watercraft and a maritime existence, reflected through Wabanaki mythology, personal life experiences, and traditional practices, extends and illuminates the archaeological knowledge of prehistoric North American maritime communities.

Thesis Outline

In this chapter, I briefly outlined the maritime adaptation and existence of the Wabanaki people and provided a framework that will be developed in the following chapters. Chapter II further explores the development of the oral traditional methodology as supplement to archaeological study, discusses the various perspectives of maritime archaeological approaches, the development of a "maritime cultural landscape" (Westerdahl 1992:6), and the oral traditions framework employed in this thesis. This methodological framework will enable the reader to orient the available material data in accordance with the unusual perspective of supplementing archaeological evidence with oral traditions as potentially valid sources of new information.

Chapter III describes the role of watercraft among the Micmac, Malecite, and Western Abenaki through an evaluation and analysis of the available archaeological evidence and material remains, including dugout, tools, and diagrams and measurements collected by Edwin Tappan Adney, whose documentation of Wabanaki bark canoes remain the most definitive and descriptive archaeological records of Wabanaki canoes.

Chapter IV reviews the historical narratives of explorers including Samuel de Champlain, Roger Williams, and Daniel Gookin, who documented traditional Wabanaki watercraft construction and use. The European narratives offer a different perspective than Wabanaki oral traditions and histories gathered during my interviews. From this perspective, oral traditions may be used to supplement the archaeological record by addressing the complex relationship between resource allocation, technology, and socio-economic structure among maritime Wabanaki populations. Recognizing and identifying the traditional foundations of maritime existence is crucial to inferring the archaeological past of complex maritime archaeological sites.

Chapter V discusses the significance of Wabanaki watercraft and this research in relation to the larger field of maritime archaeology and folklore studies. It concludes by offering suggestions and wider applications of the oral traditions framework and offers additional avenues of future research in New England and the Canadian Maritimes.

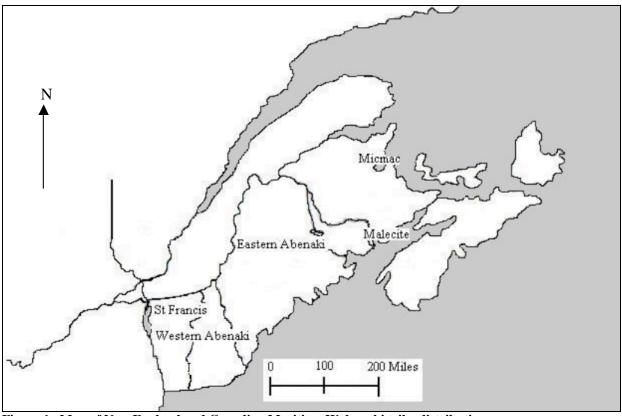


Figure 1. Map of New England and Canadian Maritime Wabanaki tribe distribution.

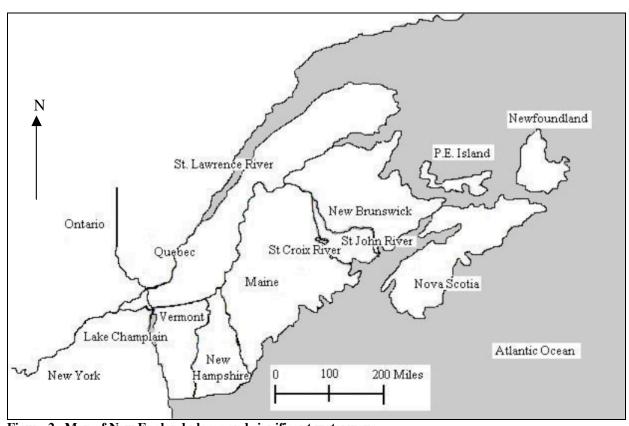


Figure 2. Map of New England places and significant waterways.

CHAPTER II

THEORY AND METHODOLOGY

Introduction

This chapter provides theoretical and methodological context to the archaeological remains and oral traditions studied in this thesis. A general discussion of North American archaeological studies in the Northeast illustrates the difficulties inherent in prehistoric archaeological studies, and in particular, prehistoric maritime studies. Analyses of available archaeological data in Vermont demonstrate the omnipresent problems of preservation, identification, and association of prehistoric watercraft. Finally, an exploration of oral traditions as methodological supplement to the archaeological record is conducted, including a brief summary of prior applications using oral traditions within archaeological studies, thereby demonstrating the versatility of this underutilized yet available resource.

North American Prehistoric Archaeology within a Historical Framework

North American archaeology, in contrast to European archaeology, is often considered hampered by a short historical record. Unlike European archaeology, which is often supplemented with written records dating to the 5th century BC, North American history, as determined by written records, began in AD 1400 (Majewski 2003:77). Archaeological reconstructions of North American prehistory have thus been restricted by the lack of written sources and simultaneously by problems of preservation. Further complicating archaeological studies in North America was the marginalization of Native Americans by early anthropologists as "primitive," static cultures with few technologies and limited histories. Rather than studying the prehistory of indigenous North American cultures, anthropologists of the early 20th century sought to record Native cultures and languages before they vanished. Beginning in the 1930s, archaeologists began to note that the prehistory of Native Americans was more complex than had been assumed (Trigger 1997:vii). Archaeological studies continued to evolve, incorporating

various sources and evidence, including the active participation of Native Americans in the reconstruction of North American prehistory (Trigger 1980:673).

Many North American archaeologists are now attempting to repair damaged relationships while working to interpret past cultures (Watkins 2003:273). Watkins (2003:280) argues that traditional archaeology is limiting as archaeologists "artificially ascribe meaning to artifacts" without consideration of Native peoples. Participation of indigenous peoples in archaeological studies produces a multifaceted perspective of human history and prehistory. Prehistoric archaeological studies are often structured through analogies or comparisons to similar features in modern societies. Archaeology thereby provides one version of prehistory, however many would argue that societies have multiple histories (Trigger 1997:ix). As a multidisciplinary field, archaeology has the advantage of constant redevelopment to use available resources, including oral traditions, to interpret the past (Nicholas and Andrews 1997:2).

Recently, archaeologists working with Native Americans have incorporated indigenous oral traditions to aid recognition of social relationships, culture, technological adaptation, and ecological dependency. The combined approach of traditional archaeology with indigenous oral traditions assists in the interpretation of dynamic past behaviors from static, material objects. Within the scope of this thesis, archaeological analyses of New England and the Canadian Maritimes have revealed people, possibly the Wabanaki, living in the region for over 10,000 years (Wiseman 2001:121). Despite the long period of occupation, few artifacts pertaining to the area's maritime technology were preserved in the archaeological record. The paltry prehistoric archaeological record is exemplified in the state of Vermont, where only seven prehistoric dugouts have been recovered. Theoretical attempts to recognize and illuminate prehistoric maritime societies in North America using archaeology are often approached using inference and analogy. In lieu of material remains, historical, contact-era documentation and oral traditions may serve as alternative evidentiary sources (Majewski 2003:78).

Interpretations of the Prehistoric Archaeological Record

Although preservation remains a problem in the recovery, identification, and study of prehistoric watercraft, seven prehistoric dugouts from Vermont are available for archaeological study. Unfortunately, none of these watercraft have been analyzed beyond radiocarbon dating

and tentative wood identification, and none have been linked to indigenous cultural groups, such as the Wabanaki. Further material evidence, in the form of stone tools, remains fragmentary, as tools have not been found in association with recovered dugouts. An entirely different watercraft form, the bark canoe, was not preserved in the archaeological record. Because of the inherent problems associated with recovering and identifying prehistoric watercraft in the archaeological record, an alternative method for determining prehistoric watercraft and associated cultural existence is therefore necessary. This thesis uses an oral traditions methodological framework that ties together the historical and archaeological data using maritime socio-cultural relations in the form of oral traditions and histories.

Applications of Oral Traditions within Archaeological Studies

Archaeology is a multidisciplinary field of study that incorporates written sources, material evidence, and, within the last two decades, oral sources in the formation of models of human history and prehistory (Echo-Hawk 2000:288). Increasingly, archaeologists are recognizing oral traditions as valid sources of information pertaining to people and places, providing historical recognition and interpretation that is unobtainable through strictly archaeological research (David et al., 2004:172). Archaeologists in Micronesia, Central America, and Canada have demonstrated that oral traditions, in conjunction with archaeology, provide a means of identifying and representing indigenous groups with respect to both local communities and the material culture.

Mua Islanders, an indigenous community located in the Torres Strait separating Australia and New Guinea, possess and maintain vivid oral traditions identifying the modern Mua community with their ancestors and history (David et al., 2004:160). Archaeologists were contacted by Mua Islanders to assist with Mua historical research. Mua elders showed archaeologists the grave of an ancestral islander, known in oral traditions only as "Goba's father," who sacrificed himself to warriors from a nearby island to save his son, Goba. The archaeologists visited the gravesite as well as the rockshelter Turau Kula to further study the death of Goba's father as portrayed on rock paintings (David et al., 2004:160). Within the Mua community, Goba's father's grave is a culturally significant landmark recognized in oral traditions as marking the time before Christianity, which arrived on the island in 1871 (David et

al., 2004:164). Archaeologists recognized elements of the story of Goba's father at the Turau Kula rockshelter, where red paintings depicted an anthropomorphic being climbing a tree as described in the oral traditions (David et al., 2004:164-167). David et al. (2004:167) concluded that the paintings postdated the Goba story, and dated occupation of the rockshelter to between 1400-1850 AD, which is consistent with the elder's dating of Goba's death as prior to the arrival of Christianity on Mua. According to David et al. (2004:170), the historical research of Goba's father's death using archaeology and oral traditions is the first combination of such studies in the Torres Strait.

Oral traditions from Palau islanders have been used to generate comparative models of Paluan traditional village organization. Wickler (2002:40-42) used oral traditions from Paluans on the island of Babeldoab to test the archaeological evidence against Paluan village organization as transmitted through oral traditions. Paluans believed villages were organized around the chief's meetinghouses, which were large, centrally located structures. According to Paluans, a stone path divided the village in half, with lower ranked chiefs located in the divided villages (Wickler 2002:42-43). Archaeological evidence indicated that chiefly platforms were the largest features in the community, as predicted by the traditional village model. The spatial arrangement of the village indicated symmetrical organization, but the archaeological data was varied due to site disturbance (Wickler 2002:43). Wickler (2002:44-45) noted a discrepancy between the archaeological record and the traditional model. Oral Paluan accounts of village organization described sites that were occupied for a short period of time during the last prehistoric into the historic period. Radiocarbon dating of the sites demonstrated a longer period of occupation than previously assumed, leading Wickler (2002:45) to argue that traditional knowledge in the form of oral sources is limited and must be evaluated critically, but remains a significant source of information for archaeological research.

Analysis of a Tzotzil-Maya myth from Chiapas, Mexico, provided an interpretive framework used to generate predictions about the location, contents, interpretation, and age of unidentified but probable human burial sites (Levi 1988:609). "The Wanderings of Vaniko" described prehistoric Jmetic Lubton sculptures, crossed-arm figurines recognized as the Female Mountain Goddess, found in association with prehistoric burials (Levi 1988:610). Excavations near burial sculptures in Chenalho revealed eight ancient Maya burials, leading Levi (1988:615)

to argue that additional prehistoric Maya burials may be found in association with the stone sculptures as illustrated in Tzotzil-Maya myth.

Oral traditions from the Cree of Quebec, Canada, have been used to correct or challenge archaeological interpretation of site function, features, and tools (Denton 1997:105).

Archaeologists from the Wemindji Archaeological Project enlisted Cree elders to identify the oldest places of Cree or European settlement in the coastal zone near Wemindji on James Bay, Quebec (Denton 1997:106). Cree oral traditions recorded the story of Frenchman's Island, one of the oldest coastal European settlements on James Bay, Quebec, where trading and mineral posts were built and European ships docked. Archaeological research has uncovered construction materials, clay pipe fragments, and tools on the island (Denton 1997:110). Denton (1997:120) argues that a combination of Cree oral traditions and archaeological excavation have contributed to a greater understanding of Frenchman's Island as well as the relationship of the island to other related sites, considering oral traditions "indigenous archaeological interpretations."

Folklorist Jane C. Beck (1972:109-111) suggests archaeologists may use Wabanaki oral traditions from New England and the Canadian Maritimes to recognize elements of North American prehistory. Among the Malecite, Beck (1972:109) argues myths of the culture-hero Gluskabe have been used to tentatively identify cultural memories of extinct animals, such as the Pleistocene-era giant beaver (*Castoroides ohloensis*). According to Beck (1972:109, 116), Malecite oral traditions documented the beaver's destructive force and associated specific waterways, including the St. John River, and rock outcrops as beaver territory. Beck (1972:117) argues archaeologists may use the myth to suggest humans and the giant animal may have come into contact.¹

Unlike the partnership between archaeologists and Cree in Quebec, archaeologists have not engaged in discourse with Wabanaki to collectively interpret the past from a variety of perspectives. Little archaeological research has been conducted pertaining directly to the Wabanaki despite their widespread settlement throughout northern New England and the Canadian Maritimes. Wabanaki reliance on maritime resources is recognized archaeologically through the remains of several dugout canoes and orally in myths such as the Gluskabe myths as illustrated by Beck (1972:109). However, archaeologists have not used Wabanaki oral traditions

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 $^{^{1}}$ No archaeological reports confirming Beck's assertions were available to me at this time.

to comprehend Wabanaki technological adaptations to changing environmental and resource demands. Wabanaki oral traditions may therefore contribute to another relatively unrecognized aspect of Wabanaki life: watercraft adaptation. In light of the sparse archaeological record of prehistoric boats in North America, it may be possible to look to Wabanaki oral traditions to contribute cultural memories, illustrate the significance of maritime technological adaptation, and enhance the archaeological record of New England and the Canadian Maritimes.

All societies use oral traditions to process and comprehend cultural practices and history, making oral traditions a legitimate avenue of inquiry in the study of people, society, and objects (David et al., 2004:158). As has been demonstrated in the preceding summary, archaeologists are beginning to use oral traditions as valid, informative sources that provide depth and detail to prehistoric communities unobtainable from strictly archaeological excavations. Oral traditions, as well as the written historical record and archaeological past, should be viewed critically yet be considered legitimate evidentiary sources. This thesis uses oral traditions gathered from modern Wabanaki to supplement the sparse archaeological record of New England and the Canadian Maritimes to better interpret the maritime dependency and watercraft technology of prehistoric Wabanaki.

Methodology

Oral traditions are available, yet underutilized, resources. Among the Wabanaki, oral traditions function within the realm of traditional Wabanaki life, past and present. Oral traditions promote a continuation of norms, ideas, and values from past to present (Bruchac, personal communication 9/11/06). In the case of the Wabanaki of New England and the Canadian Maritimes, oral traditions work to sustain a maritime existence, educate, entertain, and illuminate aspects of Wabanaki prehistory that is unavailable in the archaeological record.

In 2005 and 2006, I conducted interviews with three members of the Wabanaki community. My first interview was with Larry LaPan, a St. Francis Abenaki elder and respected teacher. LaPan described growing up Abenaki in Vermont and relying on maritime resources, including fish and mammals used for food. He further described how his family made many of the things they owned, including funnel baskets used to catch fish. LaPan continues to teach and

educate Abenaki youth in the traditional manner as he was raised, including how to fish and hunt, promoting the continuing tradition of oral education among Abenaki in Vermont.

My second interview was conducted with Joseph Bruchac, Abenaki oral historian, storyteller, poet, and author. Bruchac has worked extensively to promote and preserve Wabanaki culture, language, and traditional Wabanaki practices. He described his years of gathering oral traditions, which began unintentionally as he listened to his grandparents and other Abenaki elders tell stories around a gas stove in his grandparents' general store. Bruchac illustrated the depth of Wabanaki stories and the social and cultural associations inherent in each story, arguing that people use stories both as entertainment as educational tools.

My third and final interview was conducted with Aaron York, traditional Wabanaki canoe artist. York described his artistic craft of creating Wabanaki bark canoes in his interpretation of traditional Wabanaki canoe styles. York described how he learned to construct bark canoes, beginning with studying Edwin Tappan Adney's documentation of Wabanaki bark canoes from the late 1800s and later working with members of the Lake Champlain Maritime Museum. York's interview provided considerable depth to my analysis of bark canoes, including York's perceived differences between coastal and interior canoes, his modern interpretations of a prehistoric technological form, and the inherent difficulties of creating traditional Wabanaki art in the absence of knowledgeable instructors.

The interviews with Larry LaPan, Joseph Bruchac, and Aaron York cover a wide range of experiences and topics, yet central to each interview was the way each relied on the transmission of accurate information in the form of oral traditions from the past to present as a means of educating, entertaining, and guiding Wabanaki people. Supplementation of available material evidence with oral traditions and histories is therefore likely to illuminate aspects of Wabanaki history and prehistory unobtainable in the archaeological record. Similar to written histories, oral histories provide more depth and information central to a group's identity, adaptation, and technology than one can ever hope to be obtained solely through excavation, validating the methodological approach of using oral traditions as archaeological supplement.

Westerdahl (1992:5-6) argued that the best approach to collecting and interpreting a personal maritime perspective is to interview local people and develop recognition of both the material and immaterial (or cognitive) maritime cultural landscape. Within the oral traditional framework of this thesis, I consider how oral traditions may serve as valid, independent

evidentiary sources as supplement to the archaeological record from the perspective of the maritime-based Wabanaki populations. This methodology may thereby serve as a template for similar maritime studies, historic and prehistoric, for which the oral traditions exist in the presence, as well as absence, of material remains.

Conclusions

Few artifacts pertaining to maritime technology have been identified in the archaeological record of the American Northeast. Historic sources do little to supplement the prehistoric technology of indigenous peoples. This thesis argues that a methodological framework that takes oral traditions into consideration as potentially valid, independent sources of evidence may be used to supplement the archaeological record. Interviews with members of the Wabanaki community are used in this thesis to supplement the lack of material evidence pertaining to prehistoric watercraft and investigate the influence and significance of a maritime existence among Wabanaki past and present.

CHAPTER III

ARCHAEOLOGICAL EVIDENCE FROM VERMONT AND THE WORK OF EDWIN TAPPAN ADNEY

Introduction

This chapter describes environmental changes that accompanied the emergence of watercraft and presents and analyzes the available prehistoric archaeological evidence from one area of Wabanaki territory, the state of Vermont. It specifically links three forms of physical evidence to the production and use of watercraft. Ironically, the best source of material evidence pertaining to prehistoric Wabanaki bark canoes comes not from prehistory, but from the historical writings of Edwin Tappan Adney, whose documentation of Wabanaki bark canoes remain the most definitive and descriptive archaeological records of Wabanaki canoes.

Environmental Considerations in the Development of Wabanaki Watercraft

Wabanaki maritime technology, in particular watercraft form and function, was contingent on changing environments and resources that emerged following the end of the last continental glaciation (Simmons 1986:10). Receding glaciers cut deep ravines through the mountains and formed deep and expansive inland seas, including the Champlain Sea in Vermont. Expansive inland waterways, such as the St. Lawrence River, which connected the Great Lakes with the Atlantic Ocean, were formed (Becker 2004:224; Thomas and Robinson 1980:8). Over 700 miles of waterways developed that link the Adirondack Mountains of New York with the rivers and coast of Maine (Smith 2006:28). The first peoples who inhabited New England and the Canadian Maritimes thus navigated a vast array of streams, rivers, lakes, and coasts, which became important features of the region, both in terms of the physical landscape and social and economic resource value (Becker 2004:224).

Terrestrial changes accompanied the changing marine resources following glaciation. New England and southeastern Canadian forests became predominately birch, maple, oak, elm, and pine (Bourque 2001:16). The changing forest resources became critical in the construction of efficient watercraft. White elm and white pine were used in the construction of dugouts (Russell 1980:211-213). Paper birch trees were predominately used to make bark canoes. White cedar, black or sugar maple, and black spruce were also used in the construction of bark canoes (Adney and Chapelle 1964:17).²

Watercraft Tool Technology

Tools involved in the construction of watercraft were made from wood, shells, or stone (Carson 2002:109). Stone tool technologies, including the full-channel gouge (Figure 3) and adze (Figure 4), were likely used in the construction of dugouts (Wiseman 2005:131). Archaeological evidence from Maine demonstrates that adze usage declined at the end of the Late Ceramic Period while the use of small scrapers, used in the construction of bark canoes, increased (Bourque 2001:92). Due to the limited prehistoric remains found in Maine Paleo-Indian sites, which have been identified by sites consisting of small deposits of wood charcoal, bone fragments, and hand-held tools, knowledge of the tool transition from adzes to scrapers and the potential relationship between changing tool technologies and watercraft forms remains incomplete (Bourque 2001:20).

Various tools, including those used to make dugouts, were later used to construct the bark canoes. Adzes declined in significance but were occasionally used to cut down trees, sometimes with fire (Adney and Chapelle 1964:18-19). Crooked knives were developed to peel birch bark, which was then rolled and stored until the framework of the canoe had been assembled (Aaron York, personal communication 10/3/2006; Adney and Chapelle 1964:23). Wooden mauls were used to split wood while small stone scrapers helped to create tapered frames and gunwales (Adney and Chapelle 1964:18-19).³

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² Full tree species names are mentioned here. Future references to tree species will be abbreviated as follows. Elm: White elm (*Ulmus americana*); Pine: White pine (*Pinus strobus*); Birch: Paper birch (*Betula papyrifera*); Cedar: White cedar (*Thuja occidentalis*); Maple: Black or Sugar maple (*Acer nigrum* or *Acer saccharum*); Spruce: Black spruce (*Picea mariana*).

³ See Appendix A: Glossary of Selected Canoe Terms for specialized canoe construction terms.

Large Craft Versus Small Craft: Adaptation, Construction, and Utilization

Prehistoric Wabanaki produced two distinct watercraft forms: the large dugout canoe and the smaller and more versatile bark canoe. Few archaeologists have sought to identify the significance of indigenous watercraft within maritime societies despite the dependence of prehistoric societies on the development of adaptable social and technological tools to monopolize marine resources (Wilkinson 1988:61; Wiseman 2001:31). Dugouts likely developed prior to bark canoes and after skin boats and were likely the most important form of water transportation 6,500-10,000 years ago (Wiseman 2001:121).

Dugouts were built by hollowing out a log, usually white pine (Wiseman 2005:121), to produce a buoyant, watertight structure that could transport heavy amounts of material (Greenhill and Morrison 1995:75). Fire and water were used to soften the wood while wooden wedges were used to separate wood (Fowler 1976:1; Greenhill and Morrison 1995:102). The ends and bottom were shaped to create vessel curvature (Greenhill and Morrison 1995:104). In New England, dugouts often weighed between 250-300 pounds and were designed for use on larger bodies of water (Russell 1980:197). Greenhill and Morrison (1995:101) argue that the, "hollowed log is susceptible to almost limitless development while the very nature of the structure and materials used in rafts, skin boats, and bark boats restricts their development in varying degrees."

Greenhill and Morrison's (1995:102) evaluation of logboats focused predominately on related watercraft found in Europe, Asia, and South America, omitting the limited development of the related dugout in the American northeast. Wabanaki constructed dugouts for use on large, open waterways. Due to the weight of dugouts, the craft were impractical for portage over shallow rivers and streams, which comprised the majority of the waterways in New England and the Canadian Maritimes. Dugouts were widely replaced with the infinitely more versatile bark canoes, which were exceptionally adapted to almost all maritime environments (Bourque 2001:91-92).

⁴ Greenhill and Morrison (1995:75-77) used the term "logboat" to refer to a craft made by, "hollowing out a log and thus producing a basic boat structure," and credited the logboat as the likely predecessor of modern plank and wooden boat building. Many North American scholars chose to use the term "dugout" to represent a similarly constructed craft. I choose to use the term "dugout" to maintain regional terminology to represent a specific Wabanaki canoe technology made by hollowing single logs into canoe form with the use of adzes, scrapers, and fire. I do not suggest that Wabanaki dugouts were the developmental origin of subsequent wooden boats.

Bark canoes exhibited more complex design elements and technological innovations than dugouts. The shell and supportive elements of the canoe consisted of gunwales, inwales, thwarts, and ribs, while bark provided the waterproof element of the craft (Figure 5). The adaptive design of the bark canoes demonstrated the necessity to develop technology that capitalized on the maritime environments and resources of New England and the Canadian Maritimes.

Functionality of Coastal and Interior Watercraft

Wabanaki watercraft forms reflected environmental restrictions of various waterways and the functional purpose of the craft. Greenhill and Morrison (1995:102) documented dugouts in Europe, describing craft stability as derived from length, which made the dugouts ideal for use on large rivers and lakes. Bark canoes were by contrast able to navigate practically all waterways. Bark canoes often featured flat bottoms and flared sides (Adney and Chapelle 1964:28). Lightweight bark craft that could be portaged were ideal for the heavily forested terrain of New England and Canada.

The primary difference between coastal and interior canoes was size (Aaron York, personal communication 10/3/2006). Coastal canoes, both dugouts and bark canoes, were generally larger than interior canoes. Traditional Wabanaki canoe artist Aaron York argued there were two additional components of coastal bark canoes: rocker in the ends and tumblehome. York (personal communication 10/3/2006) identified coastal canoes as having rocker in the bottom and ends of the craft, "where the ends and bottom of the canoe are slightly lifted up, but also the prow at the ends of the canoe are larger." The higher ends prevented ocean waves from entering the canoe. York believes the tumblehome design of Wabanaki canoes created freeboard increasing the height of the canoe sides by 2-3 inches. The tumblehome design allowed the canoe to bob with rather than crash against waves (Aaron York, personal communication 10/3/2006). Craft built with rockered bottoms and added gunwale and cross section support were better suited to navigate rough water and ocean currents (Bourque 2001:274). Wabanaki bark boats likely developed from dugout designs (Wiseman 2001:31-33). To understand the highly specialized and adaptable forms of the bark canoes, an analysis of the development of both dugouts and bark canoes is necessary.

Archaeological Evidence for Prehistoric Dugouts in Vermont

Prehistoric dugouts, despite being considered the most significant watercraft form for 4,000 years (Wiseman 2001:121), have rarely been recovered, identified and analyzed, as exemplified by the analysis of prehistoric dugouts in Vermont (Figure 6). Table 1 illustrates the present state of research pertaining to seven identified prehistoric Vermont dugouts, which consists primarily of site location and craft dimensions.⁵ The lack of associated material evidence is notable in the study of dugouts. Due to the lack of artifacts, it is very difficult to associate an ethnic affinity or group with the recovered dugouts. Identification of the seven dugouts as Wabanaki is inconclusive, as no data describe Wabanaki dugout form, style, or construction. Furthermore, the ascribed prehistoric age of the dugouts is dubious as several radiocarbon dates intersect the time of European colonization and occupation.

Fortunately, at least seven potentially prehistoric dugouts do exist in Vermont and may be more thoroughly studied. Current watercraft documentation in Vermont records primarily dimensions, which do not provide information regarding construction, style, form, or cultural affinity. Additional information, including associated material remains, notable features, and stylistic elements with scaled drawings and photographs may assist in correlating parallel dugout styles and forms which may provide the impetus to initiate association of cultural groups with particular watercraft forms and dates. Initial identification and documentation of canoes and dugouts in all states and provinces may benefit from the use of a standardized recording form such as the proposed VDHP Watercraft Recording Form (Appendix B, modified from a Florida Bureau of Archaeological Research form).

Despite the archaeological recovery of dugouts, the craft were not the ultimate watercraft technology used by indigenous, prehistoric New England populations. Bark canoes, which have not survived from prehistory, arguably played a more significant role in the lives of prehistoric Wabanaki of New England and the Canadian Maritimes.

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⁵ It is uncertain how many prehistoric dugouts have been found in Vermont. Seven dugouts are often considered definitely prehistoric while as many as eleven may indeed date to prehistory (Vermont Archaeological Society Newsletter 1986:5). The list included herein illustrates the seven dugouts that are primarily considered prehistoric and have been studied as such.

Edwin Tappan Adney and the Material Evidence for Wabanaki Bark Canoes

Naturalist Edwin Tappan Adney documented the construction of the Wabanaki bark canoes over a span of four decades, from 1887-1930. Adney described the selection of a paper birch tree, removal of the bark, which was easiest to do in the spring when the sap was flowing, and the sewing together of sections of bark by Wabanaki women using black spruce (Adney and Chapelle 1964:15). Canoe builders constructed ribs and thwarts from cedar, maple, and spruce. Hot water helped soften and bend the wood frames. Water was boiled in wooden containers by heating hot stones and dropping the stones into the water. Wood frames, particularly gunwales, were then soaked in the boiling water or the boiling water was poured over the frames. Once soaked, the wood was bent without breaking by continuously pouring more boiling water on the frame. Frames bent to the proper shape were firmly anchored and cooled, assuming a permanent shape (Adney and Chapelle 1964:20). Once the canoe framework was assembled, the bark was unrolled and kept wet to maintain flexibility as canoe builders sewed the bark together over the frame (Adney and Chapelle 1964:41). Finally, bark seams were covered with melted, tempered spruce gum (Adney and Chapelle 1964:17, 24-25), or occasionally pine resin (Marshall 2002:73), as a waterproofing agent.

Navigable birch bark canoes could be constructed for immediate use in a short period of time, often one to three weeks. Bark canoes meant to last for years, withstand unpredictable and often dangerous waterways, and transport large cargos took much longer to construct, often twelve to fourteen weeks (Aaron York, personal communication 10/3/2006). Adney documented Wabanaki bark canoes constructed according to similar techniques, yet final forms and styles were contingent on individual canoe builders in accordance with environmental restrictions.

Micmac

Adney and Chapelle (1964:58) distinguished Micmac bark canoes according to the highly distinctive, recognizable bow and stern forms that were rounded and circular rather than angular or sharp. All Micmac canoe forms featured rocker in the ends and tumblehome hull design. Micmac bark canoes featured lightweight gunwales and were originally constructed with seven thwarts, which decreased to five thwarts post-colonization (Adney and Chapelle 1964:59-61). Thwarts and headboards were made from maple, battens were made from basket ash or spruce

roots, while the rest of the canoe woodwork was white cedar (Adney and Chapelle 1964:61). Adney and Chapelle (1964:61) documented the unique Micmac construction technique of producing curves in the bow and stern by packing cedar chips into the canoe's ends to form curvature rather than relying on ribs to determine the bow and stern shape. Birch bark covered the exterior of the craft (Adney and Chapelle 1964:58). Adney and Chapelle (1964) identified four types of Micmac birch bark canoes: big river, open or rough water, war, and hunting canoes (Table 2; Figure 8).

Micmac big river canoes used in large rivers such as the Penobscot River featured a gently curved bottom for use on inland waterways (Adney and Chapelle 1964:59; Chapelle 1941:28). Micmac open or rough water canoes were constructed primarily for the open ocean. The open water canoe, the largest Micmac canoe type, had a V-shaped bottom designed to be more seaworthy and a straight or slightly hogged sheer (Adney and Chapelle 1964:59; Chapelle 1941:34).

Micmac war canoes were built for speed with narrow, sharp ends and smooth bottoms (Adney and Chapelle 1964:58-59). Built after the style of large, open water canoes, Micmac war canoes featured a sharper bow and stern profiles, which made the craft faster. The final Micmac canoe type, hunting canoes (also identified as portage or woods canoes), were used in small streams and for portage. The lightweight craft featured a curved sheer and were the shortest of the Micmac canoe types.

Following European colonization of New England, Micmac canoes underwent a series of changes. The open water canoes were occasionally fitted with sails, a feature that cannot be definitively traced to prehistoric North American canoes (Adney and Chapelle 1964:65). In prehistoric and early colonial times, Micmac canoes were used as far south as New England. By the middle of the 19th century, Micmac canoes were generally confined to the northern regions of Nova Scotia and New Brunswick (Adney and Chapelle 1964:65). Eventually, large wooden canoes with peaked ends replaced many Micmac traditional canoe designs (Adney and Chapelle 1964:65).

Malecite

Some of the best documentation for birch bark canoes come from the Malecite of New Brunswick, including populations along the St. Croix and St. John Rivers, and Maine, including

Passamaquoddy Bay, and the Penobscot and Kennebec Rivers. Following European colonization, the Malecite divided into the modern Abenaki and Malecite populations. The original Penobscot and Kennebec Malecite groups became Abenaki while the Passamaquoddy and other populations maintained Malecite identity (Adney and Chapelle 1964:70). Among the original Malecite populations, Adney and Chapelle (1964:88) argued that the traditional Malecite canoe builders were the "most finished craftsmen among Indian canoe-builders" as the traditional Malecite canoes were fastidiously created and elaborately decorated.

The construction of Malecite canoes was similar to those of the Micmac. Temporary and hastily constructed canoes were built of elm bark (Adney and Chapelle 1964:10, 98) while more permanent craft were constructed from birch bark. Malecite canoes could be portaged in the early spring in preparation for hunts (Adney and Chapelle 1964:79). A wide use of decorative forms, including crosses, fiddlehead curves that stretched the length of the canoe, and zigzag lines, embellished the ends and sides of Malecite canoes. The personal mark of the canoe builder or owner was often found on the wulegessis (Adney and Chapelle 1964:72, 82-83). Prehistoric Malecite canoe types included war, racing, hunting, large river and coastal, and river canoes (Table 3; Figure 9).

Malecite war canoes were built for use in both ocean and riverine environments and were among some of the shortest and narrowest of the Malecite canoes. Similar to the Micmac war canoes, Malecite war canoes were narrow and built for rapid travel. Malecite racing canoes featured many of the same construction elements as the war canoes. Racing canoes featured a V-shaped keel piece and were lightly built to travel swiftly on the water. Malecite war and racing canoes were usually decorated. According to Adney (Adney and Chapelle 1964:83), Malecite canoe builders often intended canoe decorations to be comical as they portrayed animal caricatures on the canoes. Typically, only members of the same community could identify the humorous innuendos embedded in the distinctive Wabanaki canoe decorations.

Malecite bark canoes built for use on large rivers or the ocean featured high, peaked ends with marked overhang fore and aft (Adney and Chapelle 1964:70; Bourque 1995:274). Large river and coastal canoes had a strongly curved bottom with a V-shaped bow and stern (Adney and Chapelle 1964:70). The ocean canoes could be used to hunt porpoise and seal (Adney and Chapelle 1964:70, 74). The traditional Malecite high-peaked large river and ocean canoes were

replaced in the 19th century by canoes with rounder, less angular ends (Adney and Chapelle 1964:70).

River canoes of the Malecite featured lower ends and flatter bottoms than the large river or ocean canoes. Both large and small river canoes were fitted with additional protection of two sets of battens to protect the bark from unnecessary wear and disrepair from rocks, snags, or floating ice (Adney and Chapelle 1964:79-80). Surviving examples of Malecite river canoes illustrate a variety of features. Large river canoes feature sharply curved ends while small river canoes were constructed with U-shaped, flat bottoms, which corresponded to Micmac flat-bottomed river canoes (Adney and Chapelle 1964:28, 70).

In 1890, Peter Denis built the only Malecite hunting canoe documented by Adney (Adney and Chapelle 1964:70, 76). Malecite hunting canoes were also referred to as pack or woods canoes. The ends of the hunting canoe were lower and less severe than the Malecite river canoe, although the general pattern of the hunting canoe echoed the structure of the river canoe (Adney and Chapelle 1964:70).

St. Francis Abenaki

Bark canoes manufactured by the St. Francis Abenaki, identified by Adney (Adney and Chapelle 1964:88) as descendents of the original Malecite Penobscot and Kennebec population, represent a little-known but distinctive style of canoe building best described as a hybridization of multiple canoe forms (Adney and Chapelle 1964:89). Both coastal and inland Abenaki developed birch bark canoes of "distinctive design and excellent workmanship" (Adney and Chapelle 1964:88). Adney and Chapelle (1964: 88-92) identified three forms of Abenaki canoes: the open water, portage, and hunting canoes (Table 4, Figure 10).

Abenaki open water canoes retained the construction technique of traditional Malecite canoes and were designed for open water hunting. These canoes were constructed for use on the ocean or on water inland, such as lakes and large ponds (Adney and Chapelle 1964:88). Unlike the Malecite, Abenaki canoe decorations were rare and often restricted to the gunwales (Adney and Chapelle: 90-91).

Inland Abenaki canoes used the form of the coastal Malecite canoes while incorporating technology borrowed from St. Lawrence River tribes (Adney and Chapelle 1964:88-93).

Abenaki portage canoes were designed for use on rivers, with lower ends than open water canoes, and were light enough to be easily portaged (Adney and Chapelle 1964:89).

Adney and Chapelle (1964:89) characterized the final category of Abenaki canoes, the hunting canoe, as the "true woods canoe" among indigenous North American tribes. Abenaki hunting canoes were short and narrow. Hunting canoes were built with a sharply angular bow and rockered bottom, which were ideal for travel in streams and widely adopted by Abenaki as far west as Ontario (Adney and Chapelle 1964:89-90; Bourque 2001:274).

Abenaki canoes after the 19th century featured watercraft with high-peaked ends and quick upsweep at the bow and stern. The bottoms of later watercraft were nearly flat, with end sections that formed a U-shape that approached a V at the centerline (Adney and Chapelle 1964:88). European colonization dramatically changed the form of traditional Abenaki, Micmac and Malecite canoes as many traditional Wabanaki canoe forms were replaced with European design elements. The replacement of traditional canoe designs with European designs was exemplified by the transition of Malecite canoes from sharply upswept bow and stern profiles to more rounded ends as well as the emergence of sails on some canoe forms (Adney and Chapelle 1964:8-10, 70). Within traditional Wabanaki societies, canoes continued to serve as significant symbolic and economic objects.

Symbolic, Economic, and Social Repercussions of Watercraft Production and Possession

Boats were symbols of social status among the Wabanaki, as in many cultures (Adams 2001:292). Mobile and semi-nomadic, Wabanaki depended on reliable watercraft technology for subsistence, transportation, and social reaffirmation of community values (Adney and Chapelle 1964:86-87; Larry LaPan, personal communication 12/23/2005; Aaron York, personal communication 10/3/2006). While all Wabanaki had access to canoe materials, not all possessed canoes and not all community members knew how to construct canoes (Russell 1980:22). Canoe builders were recognized throughout the community and publicized their work by placing their personal mark on the wulegessis of canoes they built.

Canoes reflected the values, status, and cognitive framework of the Wabanaki. Bark canoes of Micmac and Malecite warriors were decorated with the personal marks of each warrior and sachem as reaffirmation of their role as community protectors (Adney and Chapelle

1964:82). War canoes of the Malecite were occasionally decorated with mythical representations of community values and constructs. One Malecite canoe observed by Adney (Adney and Chapelle 1964:83) was decorated with an image of a lynx on one side of the gunwales and a rabbit smoking a pipe on the other (Figure 11). The lynx and rabbit represented natural enemies. According to Adney (Adney and Chapelle 1964:83), the symbolism of the rabbit smoking a pipe represented that rabbit's relaxed confidence in his abilities to defeat the lynx and his relaxation prior to engaging in battle. Adney (Adney and Chapelle 1964:83) suggested that the meaning of the mythical depiction was transferred to the canoe warriors, whose courage and confidence ensured they would defeat their enemies.

While Adney's interpretation of the motif as providing courage and confidence to warriors is probably correct, an alternative explanation may be that the rabbit is smoking a product that Wabanaki may believe provides the smoker with power or heightened awareness or intelligence. Anthropologists have documented the use of natural substances by indigenous peoples, including peyote use among the Navajo. Many Navajo use peyote to achieve an alternative sense of awareness, including entering trance states (Calabrese 1994:495). Perhaps the rabbit smoking a pipe provided the means for Wabanaki to act out a mythological episode over and over as they moved across the landscape. The rabbit figure is emblematic of an empowering action as the Wabanaki view their past as tethered to the landscape.

Canoes that carried tribal leaders, known as sachem, were decorated only with the mark of the sachem to broadcast his status as community leader. The accomplishments of individuals were recognized in decorations on successful racing and war canoes of the Malecite. Exceptional canoes were decorated to accentuate the form, style, and accomplishments of both the canoe builders and individual watercraft (Adney and Chapelle 1964:82-83).

The role of maritime technology, particularly watercraft, cannot be underestimated among the Wabanaki. Economic, social, and symbolic representations of community values, canoes epitomized the influence of a maritime existence among prehistoric Wabanaki cultures. Today, traditional Wabanaki canoes are widely recognized as the ultimate form of Wabanaki maritime technology.

Conclusions

The various archaeological materials identified in this chapter describe the sparse prehistoric archaeological record of Vermont and associated problems collecting, identifying, and analyzing prehistoric watercraft materials. Archaeologists must recognize that prehistoric materials related to the construction and presence of watercraft, while limited, nonetheless are pertinent sources of evidence that need to be thoroughly studied. The proposed Watercraft Recording Form presented in this chapter and Appendix B suggests a universal form of documentation for the discovery of dugouts and associated artifacts. Such universal documentation may lead to increased data collection and analysis of prehistoric watercraft remains. Recognition of the multifaceted symbolic, economic, and social values of Wabanaki watercraft is only marginally attainable through analysis of the archaeological record. Further comprehension of Wabanaki watercraft therefore needs to be explored from alternative perspectives as part of the ongoing effort to recognize the maritime existence of prehistoric Wabanaki in North America.



Figure 3. Full-channel gouge (from Suttie 1995:1).

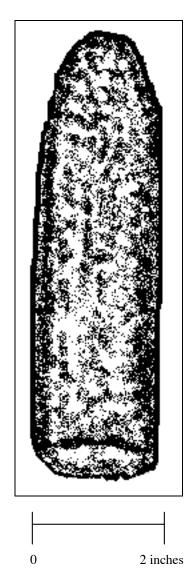


Figure 4. Adze tool (from Bourque 2001:70).

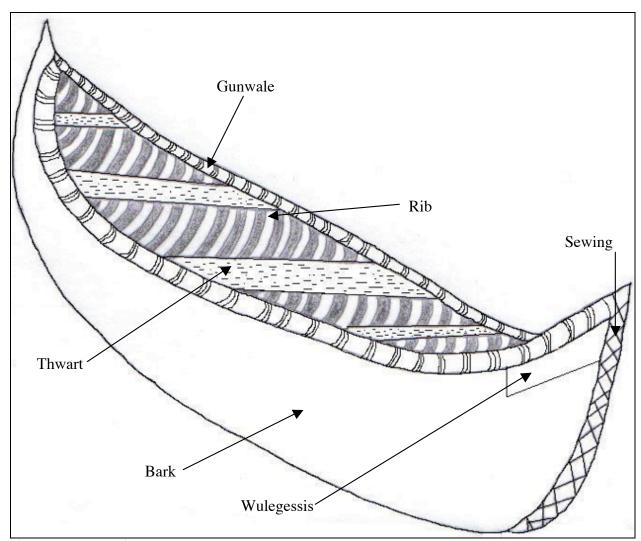


Figure 5. Wabanaki bark canoe.

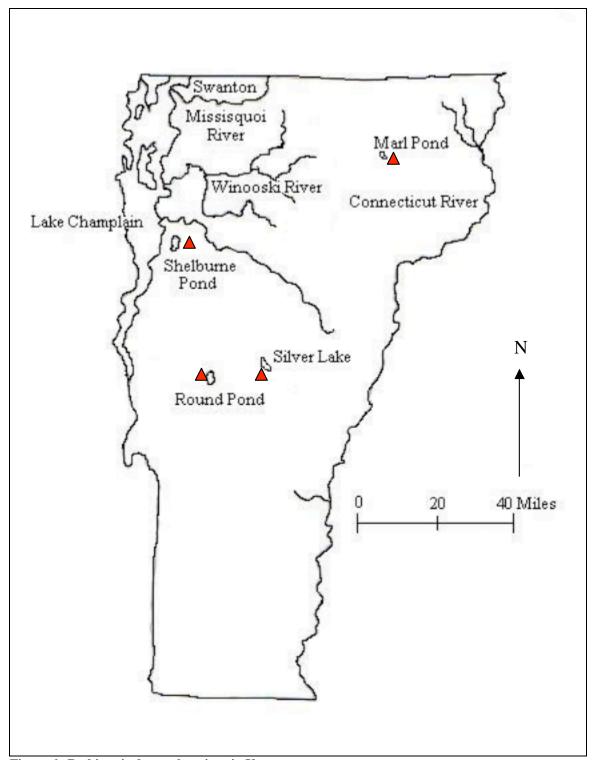


Figure 6. Prehistoric dugout locations in Vermont.

Table 1. Vermont Prehistoric Dugouts.

Canoe Number	Site Number	Location of Discovery	Material	Dimensions	Calibrated C- 14 Date (BP)	Reference
Dugout 1	6	Shelburne Pond	White pine	18'6" long 1'11.5" beam 10.25" depth	100 ± 70	Bazilchuk et al. 1985
Dugout 2		Shelburne Pond	White pine	15'4" long 2' beam 11" depth	440 ± 60	Bazilchuk et al. 1985
Dugout 3	VT-CH-251	Shelburne Pond	White pine	15'7" long 1'11" beam 1'2" depth	510 ± 100	Bazilchuk et al. 1985
Dugout 4	VT-AD-453	Silver Lake	Wood; Type unknown	16'2" long 8" beam 1' depth	380 ± 60	Purdy et al. 1986
Dugout 5	VT-AD-453	Silver Lake	Wood; Type unknown	17'2" long 1'2" beam 1' depth	380 ± 60	Purdy et al. 1986
Dugout 6	VT-OR-86, formerly FS 11	Round Pond	White pine	21' long		Hemmings 1985
Dugout 7	VT-CA-51	Marl Pond		8'5" long 1'7" beam		Robinson 1999

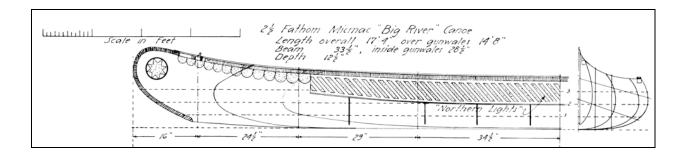
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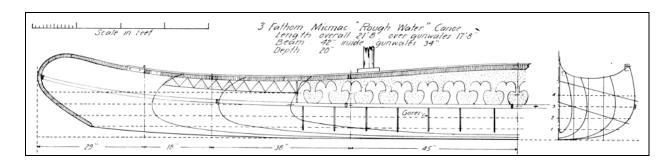
⁶ Elements of prehistoric Vermont dugouts that remain unknown or unstudied are represented thus: "——"

Table 2. Micmac Canoe Typology (adapted from Adney and Chapelle 1964:58-70).

Canoe Type	Environment	Canoe Dimensions	Number of People Carried	Decorations and Embellishments	Craft Characteristics
Big River	Large rivers, such as the Penobscot	15-20' long	7		Slightly rounded bottom
Open or Rough Water	Open ocean	18-24' long		Usual method of decoration was to place a canoe mark on both sides of the canoe at the ends and to decorate a narrow panel along the gunwales Decoration made by scraping away part of inner rind of birch bark, leaving formal design	Straight or slightly hogged sheer Well-rounded or V-shaped bottom Used to hunt seal or porpoise in salt water After the 18 th century, some were fitted with sails
War	Open water Ocean bays Shoreline	18' long	3 – 4 people	Personal mark of each warrior If war leader is in canoe, only his insignia is present on the craft	Narrow Sharp ends Smooth bottom Less beam and sharper than Open Water canoes
Hunting, Woods, and Portage Canoes	Small streams Portaging	9-14' long Occasionally 15' long Are the smallest canoes			Curved sheer Lightweight After the 19 th century, only used in Nova Scotia

⁷ Elements of Wabanaki canoes that remain unknown are represented thus: "——"





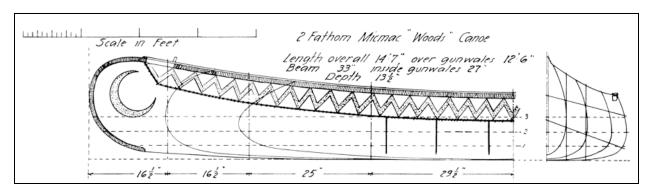


Figure 7. Micmac canoe diagrams. From top: Big river; open or rough water; hunting or woods canoe (from Adney and Chapelle 1964:61-63).

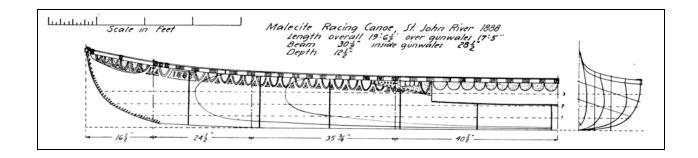
⁸ Adney and Chapelle (1964) did not provide any diagrams of Micmac war canoes. The closest available diagram is the Micmac racing canoe shown above.

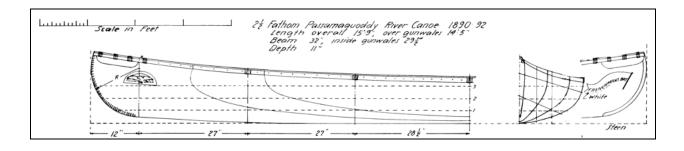
Table 3. Malecite Canoe Typology (adapted from Adney and Chapelle 1964:70-88).

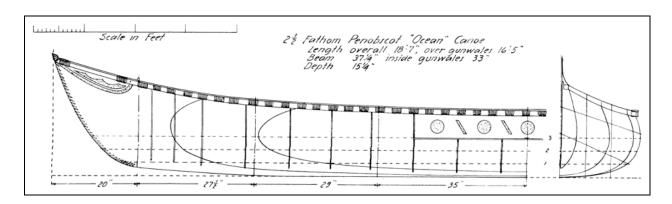
Canoe Type	Environment	Canoe Dimensions	Number of People Carried	Decorations and Embellishments	Craft Characteristics
War	Coast or river	19' long 30" beam 12" depth	4 warriors per canoe; 2 to watch and use weapons, 2 to steer	Personal mark of each warrior under gunwales near ends If war leader is in canoe, only his insignia is present on the craft Mythological stories may be played out on canoes, indicating impressions of self confidence	Short canoe length Old war canoes were of coastal or river type Narrow and built for speed
Racing		19' long 30" beam 12" depth		Winning canoes were highly decorated with mark of distinction, often a humorous item, such as an animal caricature	V-shaped keel piece Lightly built
Hunting, Pack, or Woods	Rivers	15-16' long 32" beam 11" depth		Old models of woods canoes had decorations stretching the length of the canoe and ending below gunwales	Patterned on river canoe with exception of end profiles Ends lower with less rake than river canoes Only one, poor, example

Table 3 Continued.

Coast Co	Large Rivers and	Large rivers	18' long		Personal insignia	High-peaked
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River Ri					design	Cild
River River River Rivers 18' long 35.5" beam 10-11" depth 10-11" depth After 19th Century: Style replaced with rounder ends, profiles in quarter-circles, small radius near sheer Lower ends, less rake, and flatter bottom than coastal or big river canoes was often ends of the canoe Curved ends become strongly raked on later						Ends were V-
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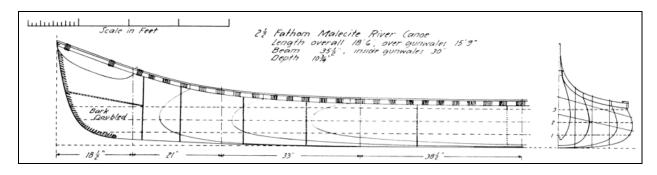
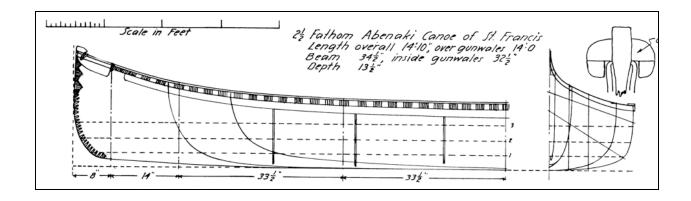


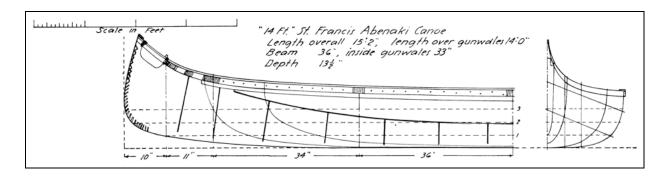
Figure 8. Malecite canoe diagrams. From top: Racing; hunting, pack, or woods; large rivers and coast; river canoe (from Adney and Chapelle 1964:71-76).⁹

⁹ Adney and Chapelle (1964) did not provide any diagrams of Malecite war canoes. The closest available diagram is the Malecite racing canoe shown above.

Table 4. Western St. Francis Abenaki Canoe Typology (adapted from Adney and Chapelle 1964:88-93).

Canoe Type	Environment	Canoe Dimensions	Number of People Carried	Decorations and Embellishments	Craft Characteristics
Open Water	Coast Open ocean	15' long 34" beam 12" depth		Ends of gunwales covered with bark wulegessis	Became extinct before 1890
Portage	Rivers in forested environments Woods	14' long 32" beam 14" depth		Gunwales and bark added along gunwales were sometimes decorated	Ends lower than open water canoes Rockered bottoms
Hunting	Rivers in forested environments	10-11' long 26-28" beam		Gunwales and bark added along gunwales were sometimes decorated	Short canoe length "True woods canoe"





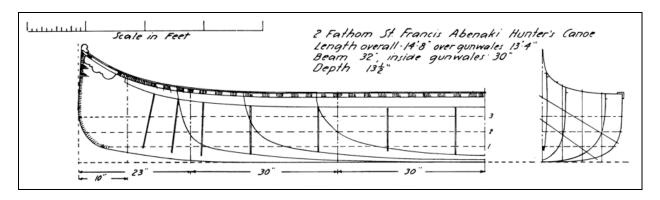


Figure 9. Western St. Francis Abenaki canoe diagrams. From top: Open water; portage; hunting canoe (from Adney and Chapelle 1964:89-91).

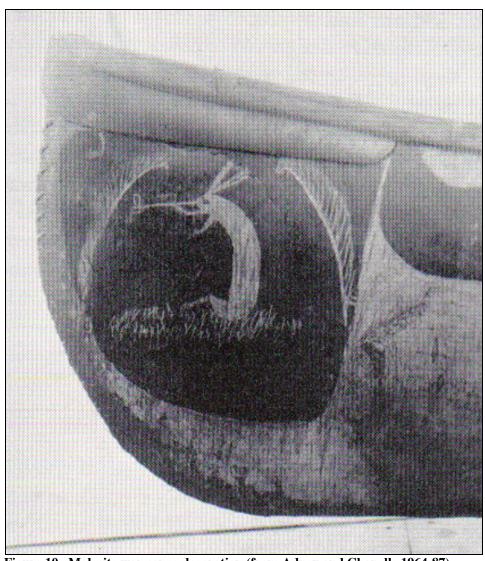


Figure 10. Malecite war canoe decoration (from Adney and Chapelle 1964:87).

CHAPTER IV

ORAL TRADITIONS AND THE ARCHAEOLOGICAL RECORD

Introduction

Reconstructing the prehistory of North America remains a significant archaeological endeavor, especially due to the lack of material evidence. Alternative, independent sources of evidence must therefore be analyzed. This chapter will discuss two forms of verbal information: ¹⁰ the historical narratives produced by Europeans and the oral traditions and histories of modern Wabanaki people. The narratives of European explorers Samuel de Champlain, Roger Williams, and Daniel Gookin will be analyzed according to information they include and exclude. Historical narratives do not, however, illuminate the role of maritime existence and watercraft among Wabanaki, past and present. Oral traditions, including myths, gathered from members of the modern Wabanaki community offer a remarkable source of omnipresent evidence that provides insight and evidence into the maritime existence and watercraft technology of the Wabanaki.

Historical Narratives of the 1600s

Historical narratives dating to the European colonization of North America may be used as independent sources of evidence in the reconstruction of New England prehistory. As Deetz (1996) has shown, historical narratives may be used to complement the archaeological record, particularly narratives that describe the often overlooked dimensions of daily American life and history. Deetz provides an example of a probate record from the estate of Thomas Lumbert, using the estate inventory to describe the versatility of historical documents. Deetz (1996:11-14) argues that inventories are more than mere descriptors, documenting folk taxonomies of people

¹⁰ Both written and oral sources may be considered forms of verbal information. Each form describes a different consciousness of time, space and worldview to express different cultural purposes. Oral traditions, similar to archaeology, often have an affinity both to geography and the landscape, while written sources frame how Europeans look at the past according to a different logic.

and objects in use at the time the record was written. Recognizing that inventories and many historical documents are lacking in detail, Deetz (1996:15, 259) suggests that archaeological excavations may therefore be useful in providing detailed descriptions of identifiable items as artifacts may provide the most immediate, and possibly objective, source of information pertaining to American history. Deetz (1996:15) concludes that historical documents and archaeological analyses may collectively produce a more complete picture of history than either study could produce alone.

Historical narratives alone do not illuminate the prehistory of Wabanaki watercraft and are limiting sources of evidence. Male European explorers produced historical narratives documenting the lives, culture, and actions of Native Americans living in New England and the Canadian Maritimes. Attempts by European explorers to document aspects of Native American life produced general historical narratives, yet the narratives did not extensively explore specific elements of Wabanaki life.

European explorers produced some of the earliest written records of Wabanaki watercraft and provided general comments on the maritime dependency of the Wabanaki (Table 5). For example, when Samuel de Champlain (1906a:109) saw an unusual canoe form, he noted that it surpassed European boats in its ability to traverse all waterways in New England and the Canadian Maritimes. Champlain's documentation of the dugout is significant as it represents one of the first historical records of watercraft used by the Wabanaki. Historical narratives from Roger Williams (1963:132) and Daniel Gookin (1970:18) documented the number of people transported in each dugout, information that has not been obtained through analyses of prehistoric dugouts from Vermont nor from the work of Edwin Tappan Adney, whose focus was on bark canoes rather than dugouts. Prior to Adney, Gookin was one of the only Europeans to document the presence and construction of the bark canoe. Gookin's reference to bark canoes is significant, yet his limited description of canoe building is insufficient to reconstruct the Wabanaki bark canoe.

Historical narratives represent significant sources of evidence that must be analyzed in archaeological studies, yet the narratives by Champlain, Williams, and Gookin contribute little new or revolutionary information in the study of prehistoric Wabanaki watercraft. Unlike Adney's records, narratives dating to the 1600s did not produce diagrams, measurements, or detailed documentation of construction and use. One major problem with the narratives of

European explorers is that they reflect the male experience and perception rather than providing a holistic view of the people and culture represented. Unlike Adney, who described the women's role of waterproofing bark canoe seams with spruce gum (Adney and Chapelle 1964:43), Gookin omitted the role of women in the construction of bark canoes, whether by disinterest or intention. Such omissions may be interpreted as marginalizing aspects of traditional Wabanaki society, producing "incomplete" accounts of Wabanaki culture (Miller 2004:249). Following the historical records of the European explorers of the 1600s, Adney's work, beginning in the 1880s, produced the most notable written accounts of Wabanaki canoe form. Having evaluated both of these sources, it is necessary to explore Wabanaki watercraft from an oral traditions approach in an attempt to understand the role of watercraft from those who have depended on a maritime existence for several centuries.

Role of Oral Traditions in Conjunction with Archaeology

Evidence of prehistoric, indigenous watercraft in New England is fragmentary, often pieced together from narrative histories and the lack of artifacts. While archaeology and historical narratives can provide considerable information pertaining to material components of prehistoric cultures, archaeological studies cannot bridge the gaps among ideology, social behavior, or culture as a mental phenomenon and the material manifestations of a culture, making it impossible to determine precisely what indigenous cultures were like prior to European contact (Trigger 1982:13). To understand the innovative and adaptive maritime capacities of prehistoric Wabanaki culture, an analysis of Wabanaki oral history in the form of mythology, life history, and a revival of traditional canoe practices is necessary.

The role of oral traditions in conjunction with anthropological studies, particularly archaeological studies of prehistoric peoples and events, is often considered controversial. Oral traditions are defined as, "recollections of the past that are commonly or universally known in a given culture" (Cohen 1989:9). Despite the universal attribute of oral traditions, the validity and longevity of oral traditions as cultural memory have been vigorously debated. Many ethnologists such as Amsbury (1995:412) have challenged the idea that a, "reliable oral historical tradition does not necessarily survive the first generation," contributing to the Eurocentric bias of written history against non-written history. Contrary to Amsbury, Burch (1996:131) argued that

oral traditions might survive for hundreds of years, providing three critical criteria overlooked by Amsbury, as well as numerous archaeologists and ethnologists. Burch (1996:131) argued that the perceived community value and recognition of the event, education as a historian, and individual personalities contribute to both the validity and longevity of oral traditions. Wabanaki storyteller and oral historian Joseph Bruchac (personal communication 9/11/06) argued in favor of the validity and longevity of oral traditions. Bruchac recalled his experiences as a Wabanaki storyteller and listener, explaining how people acquired the ability to tell myths, stories, and histories (personal communication 9/11/2006):

I think sometimes we have the mistaken impression that only something that is written is legitimate, or real. When in fact, things that are written are usually the interpretation of a single writer. Oral tradition tends to be more communal than a lot of writing is, because oral tradition would be spoken within the community and agreed upon within the community. So it in fact better represents the community's view of history than one historian's written view.

People would tell a story to those who knew the story, and if they told it wrong, they would be corrected. There was a check and a balance. It's not like a game of telephone, where you whisper in one person's ear, then they whisper in the next person's ear and you don't hear it again until it reaches the end of the line. Instead, all along, people are saying, "No, no, that's not right, there were two horses, not one." Or, "No that wasn't it, it was the year the French people came to our village." So, it would be that kind of corrective relationship in the telling of oral histories.

Ethnologist Gordon M. Day (1972:99) asserted, "American Indian historical traditions are commonly discounted as historical evidence," despite the fact, as illustrated by Bruchac, some Native American oral traditions are transmitted with great care and consideration.

European explorers documented the early history of New England from their own perspectives, yet these formal sources were often incomplete and inadequate at recording local history. While Europeans recorded the versatility of Wabanaki canoes, they failed to describe the features and functions of indigenous watercraft (Fowler 1976:1-2). In contrast, a more holistic perspective of maritime existence can be gathered from the traditions and memories of people who lived in New England and the Canadian Maritimes and depended on a maritime existence (Allen and Montell 1981:viii). Historical narratives from European explorers recorded the first written and published accounts of contact-era indigenous New England and Canadian coastal settlements

Native American as they noted maritime practices, rituals, exchange systems and economics, and social structures (Marshall 2002:59-63). The written records of Native American subsistence practices and social structures produced by white Europeans of Native American are Eurocentric and biased from the perspective of non-participant observer. As a result, gaps were created in the historical record due to incomplete comprehension of prehistoric Native American lifeways.

Oral traditions from indigenous New England populations may be used to orient archaeological studies to focus on issues or questions of concern to Native peoples, as well as clarify gaps, silences, or miscomprehensions in the historical record. Similar studies conducted along California's Pacific Coast among the Chumash enabled archaeologist Jeanne Arnold (1995:741) to comprehend the role and significance of canoes as items of power and status through the supernatural aspect of Nootkan canoes expressed in Chumash myth.

Day (1972:99) argued that Native American oral histories within New England are constructed and comprehended differently than the historical writings of whites pertaining to the same events and practices. Day provided an example of Roger's Raid, a 1759 English attack on an Abenaki village recorded by Major Robert Rogers. Abenaki elders also recorded the raid in oral historical accounts and passed on the stories of the event to future generations. Day discovered that both stories presented different views of the event, but collectively offered a more complete record of the raid (1972:99-104). According to Day, oral traditions may be used as complementary data about indigenous prehistoric New England populations to more accurately reconstruct that past (Day 1972:100). Although oral traditions are not a perfectly accurate representation of past events, traditional statements may provide information pertaining to unrecognized aspects of society and serve as "potential sources of new information" (Day 1972:99).

Explorations of oral traditions have recently emerged as a means of simultaneously analyzing oral traditions and archaeological evidence (Cruikshank 1992:5). Bruce Trigger (1982:16) chronicled the history of Native American studies, arguing that comprehensive studies of Native American history "required information provided by prehistoric archaeologists, ethnohistorians, specialists in oral traditions, historical linguists, physical anthropologists, and comparative ethnologists." Through an integrated approach of archaeology supplemented by oral traditions of modern Wabanaki, one can gain a better understanding of the material culture

of indigenous watercraft from the perspective of indigenous Wabanaki populations (Cruikshank 1992:9).

Significance of a Maritime Existence

Joseph Bruchac provided insight into traditional Wabanaki lifeways and reliance on maritime technology and subsistence, arguing that one cannot speak of Wabanaki traditional lifeways without reference to the values and resources of water (personal communication 9/11/06). During an interview conducted September 11, 2006, Bruchac described traditional Wabanaki communities in New England located on waterways, which enabled the movement of people and goods. Bruchac suggested that rivers served as the "superhighways" of the Archaic Period, as canoes navigated rivers and coasts to monopolize environmental resources. Wabanaki followed the changing seasons along rivers and watersheds, traveling to areas where salmon would be in the spring or shad in the fall. Aaron York supplemented Bruchac's account of maritime resource value during an October 3, 2006 interview, describing canoes as "icons" of Abenaki lifeways that enabled movement on the land and illuminated the maritime existence of prehistoric Wabanaki. York argued that cultural groups could be identified "based on how they moved around or made a living from the land" (personal communication 10/3/2006):

The Iroquois traditionally speaking were primarily [an] agrarian culture: they didn't really have a need to do a whole lot of hunting and moving around because they practiced high-yield agriculture... Whereas just across the way you start getting into Vermont, New Hampshire, the Maritimes, suddenly a different culture that was based on, not entirely nomadic, but being at specific places at a given time of the year and to get from Point A to Point B, that had to be dealt with, with canoes. So canoes were evolved as a means of the peoples' culture and the needs of that technology. So the canoe represents a whole type of thinking. And they got very specific in their designs. Within one area and one tribe, you would have different designs for different uses. So it gets very specific.

As canoes came to reflect the culture and particular needs of Wabanaki maritime technology, canoe forms became more specific to environments and cultures. Within one area and one tribe, York (personal communication 10/3/2006) asserted there were "different designs to meet different needs." Among ancestral Wabanaki who lived on the coast of Maine, part of

the year was spent on the coast while part of the year was spent inland. York described different canoe forms designed to operate on ocean swells, while other canoes were constructed to navigate rivers and inland waterways. The value placed on watercraft and a maritime existence can be traced through traditional oral accounts of mythological heroes, individual life histories, and finally through the revival of a folk art, the once-abandoned practice of traditional Wabanaki canoe construction.

Myths and Life Histories: Emphasis on Maritime Technology and Resource Allocation

Oral traditions of the Wabanaki may be used to illuminate our modern understanding of Wabanaki material culture, watercraft, through an understanding of Wabanaki ideology and conceptualization. Some of the earliest examples of the significance of watercraft are present in the Wabanaki myths of the cultural hero Gluskabe. Modern life histories serve to further solidify the importance of marine resources in the present as a continuation of similar values of the past.

Wabanaki Mythology

Wabanaki mythology revolved around the importance of maritime resources and describes how Wabanaki view their past as tethered to the landscape. Gluskabe, the great cultural hero of the Wabanaki people, was said to have come "in a canoe, which was an island, together with his mother, or in some versions his grandmother" (Day 1998:185). Known not only as a cultural hero, but also as the folkloric character of a trickster and transformer, tales of Gluskabe's actions permeated Wabanaki society, as he was credited with the creation of the modern world (Speck 1935:6). The Gluskabe myths followed a relatively standard pattern among all Wabanaki populations. Each myth shared tales of Gluskabe's transformations and adventures, yet each population embraced individual variations of the legends to make the Gluskabe stories more applicable and personal to particular cultures (Speck 1918:188; Speck 1935:6). Variation within the standard legend pattern is exemplified among the transformer legends of Gluskabe. Among the coastal Malecite, Gluskabe was said to have traveled up the St. John River, transforming the countryside. The Western Abenaki recorded Gluskabe traveling the St. Lawrence River, while the Penobscot and later Malecite recorded that Gluskabe voyaged up the Penobscot River before disappearing into the ocean on his canoe (Speck 1935:6-7).

Wabanaki say Gluskabe transformed the landscape into a safer environment for his descendants during his travels. The legend "Gluskabe Fixes the Rivers and Falls," described how Gluskabe inspected all of the lakes and rivers in New England by entering the rivers that emptied into the ocean by canoe and paddling upriver to inspect each waterway:

Then said Gluskabe to his grandmother, "Now, grandmother, I am going to travel to search for and transform things, so that our descendants may not have such hard times to exist in the future. Now I am leaving, and shall inspect the rivers and lakes. I shall be gone long, but do not worry." Then he started off paddling, and entered all the rivers emptying into the ocean. He inspected them. Wherever there were bad falls, he lessened them, so that they would not be too dangerous for his descendants. He cleared the carrying-places. Then he left his canoe upside down, where it turned into stone, and may be seen there yet (Speck 1918:199-200).

Gluskabe's travels and geographical transformations provided a means of connecting the Wabanaki ancestors and descendants through the Gluskabe myths (Speck 1918:188). According to Levi-Strauss (1976:152), Native American myths operated at the, "geographic, economic, sociological, and cosmological" levels, three of which are inherent in the Gluskabe myths. Specific geographic place-names are not mentioned in "Gluskabe Fixes the Rivers and Falls," yet the similar features of the myth shared by the Malecite, Western Abenaki, and later Penobscot Malecite linked the tales to the maritime region of northern New England and the Canadian Maritimes (Speck 1918:188). Great emphasis was placed on the waterways of the region, such as the St. Lawrence and Penobscot Rivers, by which Gluskabe traveled to carry out his mission to transform the countryside (Speck 1935:6-7).

Gluskabe ensured the safe passage of his descendants by waterway so they would "not have such hard times to exist in the future" (Speck 1918:199-200). Gluskabe was possibly referring to the necessity of safer and easier travel or transport by canoe as well as to issues of subsistence. Aaron York suggests Wabanaki reliance on a semi-nomadic existence depended on, "being at specific places at a given time of the year. And to get from Point A to Point B, that had to be dealt with, with canoes" (personal communication, 10/3/2006).

Sociologically, Gluskabe's relationship with his grandmother is a complex interaction that is only marginally understood in Speck's (1918:199-200) recording of "Gluskabe Fixes the Rivers and Falls." Gordon Day (1998:185) and Frank G. Speck (1918; 1935) collected additional Gluskabe stories that described Gluskabe's relationship with his grandmother and descendents. "Gluskabe's Childhood" described how Gluskabe learned to build canoes from his grandmother and used the canoes to support her by hunting and fishing while he transformed the landscape making travel and transport easier for Gluskabe's Wabanaki descendants (Speck 1918:189-192). Gluskabe's canoe was intended to assist the Wabanaki people in subsistence, economic, and social relations (Speck 1935:8). The Gluskabe myths served to link modern Wabanaki to their ancestors through not only familial affiliation but also through the environment.

Gluskabe's supernatural abilities are the subject of many Wabanaki mythological tales (Speck 1935:7). "Gluskabe Tempers the Wind" described how Gluskabe made his canoes that he used in his journeys throughout the northeast:

Then Gluskabe overturned a rocky point and made of it a canoe for himself. Then he went duck-hunting in his hollow stone canoe (Speck 1918:194-197).

Gluskabe's ability to transform the landscape and transform waterfalls into less dangerous obstacles and clear portage areas for canoes accentuated the superhuman abilities of Gluskabe. The cultural hero's adventures served to both explain phenomena found in the natural world and to entertain, key elements of oral traditions emphasized by Bruchac (personal communication 9/11/06). Perhaps most significantly, the Gluskabe myths served to illuminate the role of maritime resources and the maritime landscape to the lives of Wabanaki. Gluskabe's reliance on canoes to travel throughout the northeast was similarly reflected in the dependency of Wabanaki on canoes for travel, transport, and subsistence.

Concerning interpretations of Wabanaki myths, Bruchac argued that, "You can understand it, just hearing the story. But to know more about the story, you'd have to know more about the culture and background" (personal communication 9/11/06). A reading of "Gluskabe Fixes the Rivers and Falls" identified Gluskabe as a mythical being with supernatural powers who transformed the landscape of the northeast. Deeper information pertaining to the value of canoes to economic and social conditions originating with the arrival of Gluskabe by

canoe is achieved only by exploring the four aspects of mythology as argued by Levi-Strauss (1976:152), and by an understanding of Native American cultural values from the perspective of Native Americans. The Gluskabe myths also provide insight into the critical value of maritime technology in Wabanaki existence.

Gluskabe, as a recognized cultural hero, was intricately connected to the waterways of New England and the Canadian Maritimes. The dependency of Gluskabe on canoes to navigate the environment of the northeast and his concern that future descendants also be able to navigate the waterways demonstrated a complex and dynamic relationship between technological advances to enable inland and coastal travel and transport. Additional insight may be gathered from personal Wabanaki life histories.

Wabanaki Life Histories Illustrating the Significance of a Maritime Existence

Larry LaPan, a respected elder and oral historian of the Sokoki-St. Francis Abenaki Band in Swanton, Vermont, recalled the significance of oral traditions in maintaining a maritime existence among Wabanaki of the twentieth and twenty-first centuries (personal communication 12/23/2005):

I teach how I was taught. Back then, a lot of your elders, they didn' know how to read and write. They taught us by talkin' to us, we had to listen, an' it was hard. Some of your Abenaki are the same way now. I try teachin' the best I could, but if they don' want to learn, that's okay. But I try teachin' the way I was taught.

Now as far as I was taught, my uncle taught me how to make baskets using elm trees.... Well, there's some that are used for trappin' fish and animals. We put them on our back, what they call funnel baskets that are used for trappin'. Back then you'd make your own traps out of baskets with elm bark. The ash they'd use but they'd have to pound the ash. The elm was hard, hard to work with, but it lasted a lot longer and a lot more time consuming. Elm is kinda scarce now, it's hard to find, it's not like the ash or the maple that you can use now... The funnel baskets, they'd make a funnel and they'd [the fish] go in. They narrow down as they go in, so when they go in, they couldn' get out and they'd drown. An' they'd use all the beaver fat to put all over the traps and shoes and seal 'em. More of a coat than anything, 'cause the beaver fat, it's the same thing as seals now. 'Cause if they didn't do nothin' like that, the rain'd come through. And everything they could, they'd coat in beaver fat.

LaPan (personal communication 12/23/2005) described Abenaki life as "hard" and "rough," recalling his family's dependency on surrounding natural resources to survive. LaPan has lived in Swanton, Vermont, his entire life. The area is currently home to an estimated 2,500 Western Abenaki, the majority of whom are congregated around Lake Champlain (Sultzman 1997:1-2). Central to LaPan's description of growing up Abenaki was the reliance on maritime resources (personal communication 12/23/2006):

We snared fish. We snared fish down at the brook over there [referring to the Missisquoi River at the Abenaki campsite John's Bridge in Swanton, Vermont]. We had to use a pole and then hook 'em. So we go down to the bridge and fish. We'd go down there and hook 'em in the snares from the bridge and pull 'em out, instead of a fish hook [he demonstrated the technique by snapping his wrist in a downward to upward motion, indicating how he would "hook 'em"]. Oh, they couldn' get away from you... We grew up on deer, fish, muskrats. Whatever you had you were blessed to have. I grew up on fish, and at this age you don't even care for fish. But that's what you had.

LaPan did not recall any modern Abenaki in his area who built canoes according to traditional Wabanaki technique, although, "A lot of people had a canoe we'd borrow" (personal communication 12/23/2005). Despite the lack of traditional watercraft, LaPan continued to emphasize other traditional practices. LaPan was taught, and continued to teach his children and grandchildren, traditional ways to hunt and fish. He emphasized the reliance of modern Abenaki on natural resources and emphatically asserted the significance and importance of maritime resources to modern Abenaki populations provided by "The Creator and Mother Earth" (personal communication 12/23/2005).

Modern Abenaki Canoe Construction: Revival and Continuation of a Cultural Tradition

Larry LaPan (personal communication 12/23/2006) did not recall any Swanton Abenaki who built canoes, indicating of the loss of the original indigenous watercraft technology in the modern era. Despite the loss of indigenous canoe technologies in the nineteenth through twenty-first centuries, the significance of traditional canoes cannot be underestimated or eliminated from a conversation about maritime Wabanaki technological adaptations. Birch bark canoe construction has been described as the culmination of centuries of work perfecting the bark

canoe form (Adney and Chapelle 1964:3). Traditional Wabanaki canoe artist Aaron York began producing bark canoes according to his interpretations of traditional Wabanaki canoe forms. York's endeavors to revive traditional watercraft technologies and art forms have accentuated the role of watercraft technology in Wabanaki prehistory. York agreed with Adney and Chapelle's (1964:58-93) assessment of Wabanaki canoe forms, suggesting that the Wabanaki bark canoe art form evolved over many generations. York described Wabanaki canoe building as reaching its pinnacle at the end of the 19th century (personal communication 10/3/2006):

The real heyday of bark canoe building ended in the 1880s-1900s, early 1900s. And, they had evolved, from no matter where you're talking about. They had taken different designs from different tribes and evolved the perfect canoe based on everything they knew. So they had taken the art form as far as they could take it.

By the beginning of the 20th century, Wabanaki bark canoes were rarely built (Adney and Chapelle 1964:3-5). Records are lacking in description and detail, but limited historical narratives produced by European explorers including Samuel de Champlain and William Wood provided evidence that canoes were highly developed technological forms (Adney and Chapelle 1964:7; Fowler 1976:1-4). The lack of detailed information about Wabanaki canoes, coupled with problems of preservation in the archaeological record, has severely limited information related to Wabanaki bark canoes. In the face of such adversarial archaeological conditions, traditional Wabanaki canoe artist Aaron York provided a wealth of information regarding Wabanaki birch bark canoe construction technique, design, and use.

York began building bark canoes in 2000 after a self-described "identity crisis" left him searching for the epitome of Wabanaki culture. In the late 1990s, York recalled his stepfather had collected a birch bark canoe from Quebec that "fascinated" him and led him to decide to build a birch bark canoe (personal communication 10/3/2006):

I started building a canoe summer of 2000, but I didn't actually get it to completion. Then I took a couple of lessons from a guy at the Lake Champlain Maritime Museum, and it was like, I kind of learned what not to do from him...Probably about twenty canoes into it, I decided I really wanted to go for the highest quality I could. That was probably 2004. Then I really started researching the more technical designs from the East and really getting into the very difficult types of canoes to build.

York identified difficulties he experienced trying to learn the practice of traditional Wabanaki canoe building, acknowledging that, "Often times, we have to teach ourselves because we don't have those ancestral people there to teach us anymore." York recalled his dependency on Adney and Chapelle's 1964 book, *The Bark Canoes and Skin Boats of North America*, stating, "That is basically the Bible. That's probably the single best reference there is for bark canoe material." Over the last seven years, York has studied, analyzed, and interpreted technologies and approaches to Wabanaki canoe building. York drew his knowledge of traditional Wabanaki canoes from Adney's work in New England and the Canadian Maritimes between 1880-1920, assistance from maritime museum staff, studying old canoes, and building his own canoes. York (personal communication 10/3/2006) argued that while many people can build a "nice boat," only he and two other craftsmen "are intelligent enough and patient enough to really look at the finer points of the canoe and are willing to do what it takes to learn those techniques...to really do it well and say, 'Okay, that's okay, but the next one can be better."

Aaron York embraced his Wabanaki ancestry and revived an ancient cultural tradition. While the craft that York currently constructs are sold for profit, York argued that he has maintained his integrity and faithfulness to traditional construction techniques and design. Despite York's assertion, differences do exist between traditional canoe construction and York's building techniques. For example, Wabanaki canoe builders used stone tools while York has chosen to incorporate both modern and ancient tools to work as efficiently as possible. York validated his choice of tools (personal communication 10/3/2006):

Some people think that it's only traditional if you are building them with just a crooked knife, using all hand tools that would have been available in the 1800s... I personally believe that, uh, the more Native approach and more aboriginal approach is to make life smarter, not necessarily harder. So what I do, is I mix modern tools and old tools to basically build the same thing that you end up with in the 1700s, but there are easier ways to process wood these days. So I've sort of found a balance between traditional or older tools and newer tools.

York outlined his approach to canoe construction, beginning with his decision as to what type of canoe to construct. The designs of York's canoes are the product of York's interpretations of Adney and Chapelle's (1964) work and his analyses of preserved remains of bark canoes from the 1800-1900s. The most critical part of the canoe was the bark. York

(personal communication 10/3/2006) suggested that while other materials can be supplemented, "The one thing you really cannot cheat on is bark, and that is the lowest common denominator of any canoe." According to York, bark was best gathered from the end of April to the beginning of July, as he stated, "Anytime outside of that is just a lot of work to get the bark. So, if you're not in that window of time, forget bark harvesting." As a result, bark harvesting could be the final step of canoe building depending on when work on the canoe began. During the rest of the year, York worked on canoe woodwork, including thwart and rib construction.

York used the strategy or technique of individual canoe styles to determine the build of particular canoe designs. York's research enabled him to identify what he believed distinguished between eastern and western canoe styles (personal communication 10/3/2006):

Some canoes more in the western Algonquian type of tradition, those canoes are made using a building mode, it's like a separate mold, it looks like a diamond, and it's much narrower than the actual gunwales will be. What that's going to do in the final canoe, it's going to make the sides flare out and so that's going to give it a very distinct hull type. Whereas in the east, say in Maine, the traditional technique is to use your inwales as your building mold, which is going to make the canoe much wider, as those canoes are designed to have tumblehome, which is bulging at the side, and they have edge-to-edge planking and other really technical aspects. So it starts out really with just how you're shaping the parts and also how you bend your ribs and what technique you use to bend your ribs has a lot to do with it.

According to York, the primary difference between coastal and interior canoes was size. The Malecite and Micmac canoes in particular were constructed with ocean swells in mind. According to York (personal communication 10/3/2006):

The [canoe] ends, they were designed to have what's called "rocker" in the ends, where the ends and bottom of the canoe are slightly lifted up but also the prow at the ends of the canoe are larger. Not like ridiculously larger, but enough so that there's two-to-three inches more of bulk above where the waves will be crashing.

As a traditional canoe artist, York's insight into Wabanaki canoe craftsmanship may be invaluable to maritime historians and anthropologists. York's work has led him to distinguish, in his perception, what separated a traditional Wabanaki coastal canoe from nearly all other canoes in eastern North America: the tumblehome. He notes (personal communication 10/3/2006):

If the canoe is being hit on the sides, crossways to a wave, it allows that canoe to go both up and down over the wave without leaning into the wave. And most of the other nations were building with straight sides or flared sides. A flared side canoe would just lean right into the waves and be much easier to tip, especially if it was not very heavy...The tumblehome also gave the canoe what's called "higher initial buoyancy."

York's identification of canoe features, construction techniques, and distinguishing differences between Wabanaki canoes and the canoes of other contemporary North American cultures provided a twofold perspective on Wabanaki canoe construction from the perspective of an Abenaki as well as from a traditional canoe builder. York (personal communication 10/3/2006) argued canoes were iconographic of traditional Wabanaki culture and had evolved, "as a means of the peoples' culture and the needs of that technology." York's attempts to follow the form and technique of traditional Wabanaki watercraft have been restricted by the lack of resources illustrating the construction of indigenous bark canoes. The pure Wabanaki canoe forms and designs unfortunately vanished with the declined emphasis on indigenous canoe building and the death of traditional Wabanaki canoe builders in the late 19th century.

York's attempts to revitalize the ancient Wabanaki canoe traditions have produced a hybrid of prehistoric and modern technologies. While York's canoes remain the most complete modern examples of Wabanaki-style bark canoes, questions of traditional workmanship and artistic freedom undoubtedly arise, as York's canoes are his interpretation of traditional Wabanaki designs. Despite uncertainties, York's canoes remain an excellent avenue of exploration and research of Wabanaki bark canoes, providing one recognizes York's artist freedom in the production of his canoes.

In addition to building his reputation as a traditional Wabanaki canoe artist, York has devoted several months to teaching Native Americans his techniques and knowledge of canoe building traditions of their ancestors. Over the past year, York has worked with members of the Dene Indian population in Alberta, Cree in Saskatchewan, and Penobscot in Maine, who were "looking to bring back their ancestral canoe form…[and] regain lost skills" (Aaron York, personal communication 10/3/2006). Interviews with York revealed elements of practical, cultural, and technological significance of birch canoes. York's emphasis on the multidimensional nature of bark canoe forms and functions in everyday traditional Wabanaki life

emphasized aspects of prehistoric Native American culture unobtainable through strictly archaeological research.

York's multidimensional approach to traditional canoe building may help archaeologists recognize the significance of Wabanaki maritime existence in the absence of directly observable material evidence. Omission of bark canoes from archaeological discussions of prehistoric eastern North America does not acknowledge the adaptive technologies of the Wabanaki and omits a significant aspect of their history. The use of oral traditions may allow archaeologists to acknowledge and better comprehend objects of prehistoric value or significance, such as Wabanaki bark canoes, in the absence of material remains. An understanding of the traditional foundations of maritime existence is thus crucial to understanding and inferring the archaeological past of such complex archaeological sites. York's knowledge of his craft and devotion to producing well-constructed watercraft in accordance with his knowledge of traditional Wabanaki canoe forms has led to the revival of an ancient, traditional technological art form in the modern era, the production of traditional Wabanaki watercraft, and the transmission of traditional watercraft knowledge.

Transmission of Information and Interpretation of the Past

Oral traditions may be used to comprehend events and aspects of significance before written language and can provide considerable depth and consideration to archaeological investigations (Cruikshank 1992:5-6). For many Native American populations, the construction of oral traditions and histories was, and continues to be, essential to constructions of identity and social order. Oral traditions from indigenous New England populations may be used to orient archaeological study to focus on issues or questions of concern to Native peoples, clarifying gaps, silences, or miscomprehensions in the historical record. Wabanaki storyteller and oral historian Joseph Bruchac (personal communication 9/11/06) argued that oral stories are valid as they are told in American Indian culture for at least two purposes: "To entertain... [and] to teach." Bruchac emphasized that oral traditions provided a "continuum" of useful information and incorporated aspects of traditional life with modern situations.

Wabanaki myths, life histories, and traditions may provide information pertaining to unrecognized aspects of prehistoric society (Day 1972:99). Narrative histories, while pertinent,

nonetheless lacked information pertaining to canoe designs, features, and functions and created a serious void in the record of indigenous Wabanaki watercraft. Bark canoes are not preserved in recognizable form in the archaeological record, further compounding the issue of archaeological interpretation of prehistoric New England technology and subsistence (Adney and Chapelle 1964:7). Current Native American oral traditions may assist in identifying items of maritime significance, such as boatbuilding tools as well as the symbolic, social, and ideological value of watercraft in the archaeological record.

Few archaeologists are Native Americans, and are therefore excluded from an indigenous perspective of the intrinsic social, ideological, cultural, material, or economic value of material remains. Analyses included herein from Joseph Bruchac, Larry LaPan, and Aaron York demonstrate that a maritime existence facilitated through watercraft epitomized the identity of Wabanaki past and present. Indigenous knowledge of the past may serve as an alternative and valuable source of new or overlooked information to better interpret the prehistoric archaeological record.

Trigger (1997:viii) illustrated a complex interaction between archaeologists and contemporary Native American populations. The discussion of myth, life histories, and technological adaptations presented here shows that oral traditions are valid tools for reconstructing the prehistoric past. Oral traditions, as remembered historical events, may be used as more than mere complementary resources as argued by Day (1972:100). Rather, oral traditions may be considered as *supplements* to the archaeological reconstruction of the past as both archaeologists and indigenous peoples work to interpret historical events, identify ownership of the past, and distinguish the relationships between Native American historical knowledge and archaeological fact (Trigger 1997:viii-ix).

Conclusions

Wabanaki maritime existence is perhaps best represented in the words of those who have lived and experienced such a lifestyle. Historical narratives, while providing descriptive elements that have not been inferred through the archaeological record, remain Eurocentric, male-oriented discussions of vague elements of Wabanaki life in the 1600s. As illustrated in this analysis, oral traditions may be used to distinguish elements of traditional maritime life,

adaptation, and technology not exemplified in other avenues of study. Rather than being controversial sources of evidence, oral traditions serve as valid markers of identity, education, and entertainment within cultures that value the accurate representation of traditions and histories in oral format. Reconstructions of prehistoric Wabanaki watercraft and maritime technological adaptation may therefore be explored through an analysis of oral traditions as alternative sources of evidence. The interpretation of the prehistoric archaeological record of New England and the Canadian Maritimes should take advantage of all available evidentiary sources.

Table 5. Historical Narrative Contributions to Wabanaki Watercraft.

Narrator	Nationality	Narrative Contributions	Reference
Samuel de Champlain (1567-1635)	French	Unknown type of canoe form (dugout) Carried 5-15 people	Champlain 1906a:105, 109, 110, 113, 199
		Made of one piece	Champlain 1906b:6, 198, 205
		Hatchets, fire, stone tools used to make dugouts	
		Canoes able to travel waterways inaccessible to European boats, namely small rivers	
		Described canoe portage around rapids, rocks, and from one waterway to another	
Roger Williams (c1603-1684)	English	Different canoe sizes built to carry 3-40 people	Williams 1963:131-132
		Made of pine, oak, or chestnut	
		Stone tools, fire used to cut down trees	
		Bark removed, log hollowed using fire	
		Took ten or twelve days to finish hollowing log and building canoe	
Daniel Gookin (1612-1687)	English	Carried 20 people	Gookin 1970:18-19
(1012-1007)		Up to 50 feet in length	
		Built canoes by hollowing log of pine or chestnut by burning and tool scraping	
		Described a second canoe type made of birch bark with light frame construction	
		Bark canoes that transported 5-6 were carried by one man	
		Portage around rivers, rocks, rapids	

CHAPTER V

CONCLUSIONS AND FUTURE RESEARCH

Introduction

The previous chapters have examined the role of maritime dependency and technology among prehistoric and modern Wabanaki from a multifaceted perspective. Due to the limited preservation of prehistoric watercraft, inquiry into Wabanaki maritime existence and technology requires the use of an alternative avenue of study, the incorporation and investigation of oral traditions as archaeological supplement. Fundamentally, this thesis concludes that in the absence of identifiable watercraft artifacts, oral traditions may be used as alternative sources of evidence. It remains clear that more research into the structure, organization, retention, and correspondence of oral traditions to archaeological studies is needed to expand the versatility and applicability of this methodological approach to better serve future archaeological studies.

Identification of Wabanaki Dependency on Maritime Technology

Over 700 miles of waterways connect the Atlantic coast of Maine and the Canadian Maritimes with interior states including Vermont and New York, making the region optimal for the production and use of watercraft (Smith 2006:28-30). Various waterways, from rapid-filled rivers to deep lakes and the unpredictable Atlantic coast, necessitated the development of appropriate maritime technology that was adapted to function in specific environments. Inhabitants of New England and the Canadian Maritimes have likely developed and used various forms of boats for over 10,000 years (Wiseman 2001:121). Given the extreme time-depth of maritime technology and maritime dependency in the region, it remains remarkable that little evidence of prehistoric watercraft technology has survived to the present.

Issues of preservation have hampered archaeological studies of the Wabanaki. In Vermont, only seven dugouts have been recovered and tentatively identified as "prehistoric," despite the long period of settlement in the state and likely monopolization of Vermont

waterways. While the archaeological evidence of prehistoric dugouts is meager, dugout fragments do exist and may provide pertinent information to the construction, status, age, and versatility of dugouts that has not yet been realized. This thesis suggests a template (the Watercraft Recording Form) for the documentation of dugouts and prehistoric watercraft artifacts in an effort to capitalize on the available archaeological evidence. Universal documentation of dugout dimensions, features, associated artifacts, calibrated age, and location of discovery may assist future analyses of prehistoric canoe construction and potentially associate individual craft with styles identified as belonging to a particular cultural group.

Adney's work among the Wabanaki at the turn of the 20th century is a significant source of archaeological evidence. Adney's descriptions, diagrams, and measurements provide invaluable documentation of the complexity and versatility of Wabanaki canoe designs and craftsmanship. Intrinsic knowledge of the maritime environment of the New England-Canadian Maritimes region was essential in the development of Wabanaki boatbuilding technology as epitomized in Wabanaki bark canoes. Adney's detailed diagrams and measurements provided the foundation for modern Abenaki canoe artist Aaron York to learn, infer, and recreate the art of Wabanaki bark canoe construction. Despite Adney's contributions, the archaeological record of New England and the Canadian Maritimes remains incomplete and ambiguous, necessitating the study of watercraft from an alternative perspective. As suggested herein, oral traditions may be used to offer independent evidence in the study of the prehistory of Wabanaki watercraft.

Contributions of Oral Traditions to Archaeology

Westerdahl (1992:5-6) argued that maritime cultural landscapes occur in the material as well as immaterial realm. According to Westerdahl, interpretations of the maritime cultural landscape are best gathered from local people who generate personal maritime perspectives. The methodology employed in this thesis considers oral traditions gathered from modern Wabanaki elders, oral historians, and canoe artists as valid sources of information that contribute to the recognition and identification of Wabanaki maritime traditions and oral histories in the maintenance of Wabanaki identity.

Evidence of prehistoric watercraft in New England is fragmentary, even when supplemented with historical documentation from European explorers and Edwin Tappan Adney,

requiring an alternative approach to archaeological studies in the region. Archaeological studies are often limited to artifacts identified in the material record. The lack of watercraft artifacts that may potentially be associated with the Wabanaki presents a daunting challenge for archaeological reconstructions of maritime technological adaptation in New England. Recently, archaeologists worldwide have embraced oral traditions as alternative sources of evidence in the reconstruction of local history, and potentially prehistory. The combined approach of traditional archaeological excavations and analyses with oral traditions may assist in the interpretation of dynamic past behaviors from artifacts. Such research has already been conducted in the Mua and Palau Islands, Mexico, and Canada as archaeologists worked in conjunction with indigenous peoples to generate historical records from non-traditional evidentiary sources. In the absence of material remains as has been discussed pertaining to Wabanaki watercraft, archaeologists may benefit from evaluating oral traditions as potentially contributing to the understanding of the archaeological record.

Archaeology has been slow to recognize the potential wealth of information and evidence available in oral traditions, often operating under the concept that oral traditions are poor markers of cultural longevity and validity (Amsbury 1995:412). Written historical documents, including the narratives produced by Europeans, have instead been favored. The validity of European historical narratives is questioned, yet such documents are typically considered useful and pertinent to historical studies. Historical narratives describing Wabanaki life failed to delve beyond the immediately visual to describe or analyze the cultural manifestations underlying technology and maritime existence. Oral traditions, including those discussed by Larry LaPan, Joseph Bruchac, and Aaron York, represent Wabanaki life from the perspective of those in the Wabanaki community raised within the oral traditions framework, solidifying the role of oral traditions as valid, independent sources of evidence.

Oral traditions may be used to distinguish innovative elements of traditional maritime life, adaptation, and technology that are inaccessible through alternative sources of evidence. Through oral traditions, Native Americans have produced an intricate worldview and concept of time and space that often appears at odds with the logic of traditional western thought. Oral traditions from indigenous New England populations may be used to orient archaeological studies to focus on issues of concern to Native peoples while clarifying or illuminating possible gaps in the historical or archaeological record. Archaeologists now recognize that

comprehensive studies of Native American history require the combined efforts of archaeologists, folklorists and linguists, anthropologists, and ethnologists (Trigger 1982:16).

Future Research: Archaeology and Oral Traditions

Originally, the goal of this thesis was to try to identify watercraft and related artifacts found in New England and the Canadian Maritimes and associate the artifacts with the Wabanaki living there today, but the lack of excavated watercraft artifacts in the region makes this endeavor extremely difficult. Due to the lack of material evidence, I gathered oral traditions from three members of the modern Wabanaki community as alternative sources of evidence pertaining to maritime dependency and watercraft technology. As has been demonstrated, the significance of a maritime existence may be gathered from a variety of sources, including archaeology, historical narratives, and oral traditions.

Due to the limited nature of archaeological evidence for prehistoric watercraft in the region, more thorough analyses of watercraft that are found may be profitable. European explorers documented dugout use exclusively along the Atlantic coast, yet the seven dugouts described in this thesis are considered prehistoric by state archaeologists. The location and identification of the craft as prehistoric should be questioned because dugouts were manufactured and used in Vermont after European colonization. Currently, there is not enough information to conclusively determine whether indigenous peoples or Europeans constructed the presumed prehistoric dugouts in Vermont. Furthermore, dates associated with the dugouts overlap both prehistoric and historic periods (Table 1). The condition and lack of detailed information about the dugouts makes it difficult to determine exclusively when the craft were used and by whom. More research into the construction and period of dugout use in the region may clarify these discrepancies. As more information is gathered regarding indigenous watercraft forms, it may become possible to associate specific indigenous societies with particular construction styles and features, expanding our knowledge of indigenous watercraft technology in North America.

Three interviews are inadequate to study the maritime dependency and technological adaptations of Wabanaki society. Future research into Wabanaki technological adaptations may benefit from extended interviews with a variety of community elders, artisans, oral historians,

and storytellers whose perception of Wabanaki identity and history may provide new or overlooked sources of information to archaeological studies. This thesis has presented merely a sampling of the depth of information available in oral sources as such sources may apply to archaeological reconstructions.

Oral traditions, as underutilized and often unrecognized sources of evidence, provided the impetus for recognizing the various canoe forms, significance, and nature of maritime dependency among Wabanaki peoples. Archaeological evidence of various canoe forms and functions supplemented with oral traditions represents a specific avenue of academic discourse into the study of prehistoric maritime studies that has yet to be realized. This thesis attempts to offer a template for parallel prehistoric maritime studies. Oral traditions can, within societies that value the transmission and retention of oral traditions, supplement the archaeological record.

APPENDIX A

GLOSSARY OF SELECTED CANOE TERMS¹¹

Bark: Waterproof exterior of canoe

Batten: Thin plank or strip of wood used to determine hull curvature

Crooked Knife: Specifically designed tool used to peel birch bark from the tree

Dugout: Specific Wabanaki canoe technology made by hollowing single logs into canoe form with the use of adzes, scrapers, and fire

Freeboard: Distance from the highest point of the gunwale to the water

Gunwale and Inwale: Upper edge of vessel's side, which served as support and reinforcement

Headboard: Oval-shaped supportive structures that were lashed under the gunwale ends to generate tension vertically to the bark cover

Resin: Sealed and waterproofed any holes in the craft, including sewing holes

Rib: Small transverse member that is composed of one or several pieces that stiffened the outer skin of the hull by extending from canoe bottom to gunwale, giving the craft its the shape

Sewing: Spruce root lashings passed through the bark to join together pieces of bark at the bow and stern. Also used to fasten the gunnels

Thwart: Transverse plank used to provide lateral stiffness as cross-pieces, holding the gunwales apart

Tumblehome: Inward curvature of vessel's upper side, rising to maximum breadth at the gunwales. Reduced topside weight and improved stability

VDHP: Vermont Division of Historic Preservation

Wulegessis: Protective bark flaps at bow and stern, which may have been decorated

¹¹ See Figure 5 and consult Adney and Chapelle 1964 or Steffy 1994 for more detailed descriptions of canoe terms, which were used to create the glossary contained here.

APPENDIX B

PROPOSED VDHP WATERCRAFT RECORDING FORM	Field Date:// Form Date://
VMSF Site #:	
Canoe Name:	
County: USGS Map Name/Date:_	
Setting: () Lake/pond / () River/stream/creek / Name:	
Township / Range / Section	/
GSP Coordinates: / (_	
(_	_) NAD 27/ () WGS 83 or 84
Culture: () Native American, prehistoric Condition () Native American, historic () Abenaki () Iroquois () European/American () Unknown/Other:	on: () Complete () End fragment () Deck fragment () End fragment with deck
Radiometric Age:/() uncorrected / Description (include vessel curvature, decorative or stylistic elements, a	angles of bow and stern, etc.):
Notable Features:	
Length: Width: Reporter Name/Address:	• •
Recorder Name/Address:	
Plans on file: () Yes / () No Photos on file: () Yes / () No Associated Artifacts: Current Location:	
References:	

Adopted from the FBAR Canoe and Logboat Recording Form, courtesy of Dr. Ryan J. Wheeler.

APPENDIX C

TRANSCRIPTION OF INTERVIEW WITH LARRY LAPAN¹²

Larry LaPan is a St. Francis Abenaki elder currently in his mid-60s. He continues to live in Swanton, Vermont, where he has resided for his entire life. LaPan was raised within the oral traditions framework of the Wabanaki and continues to teach his children and grandchildren, as well as any who wish to learn, the traditional practices of the St. Francis Abenaki. For the past several years, he has been involved with the Abenaki Cultural Competency Training Program, developed in a partnership with the University of Vermont, the Department of Children and Families, and the Abenaki Community, to provide Abenaki cultural awareness programs to schools throughout Vermont in the hopes of promoting indigenous learning traditions. The Training Program was developed largely on the oral traditions of Abenaki community members and community elders, including those of LaPan, to distinguish between Western and Native models of education and training in the hope of producing a more cohesive learning style for Abenaki children in the public learning system. LaPan has spoken publicly on behalf of the Abenaki community in local schools and education training seminars and expresses a direct link of Abenaki identity with the natural world.

Deweese: Hello, Mr. LaPan. Thank you for allowing me to interview you. Do you mind if I

tape record our conversation so I may transcribe it and go back over it at a later

time?

LaPan: No, that's fine.

What can you tell me about Abenaki oral traditions? Deweese:

LaPan: We use them to try to teach children as much as I was taught. Making baskets, or

> getting' sap. Now as far as how I was taught, my uncle taught me how to make baskets using elm trees. We would make baskets out of the elm. All the baskets, all different kinds of baskets, we'd use the elm for baskets. Boys and girls are

taught how to make baskets.

What are the uses of different varieties of objects, like the baskets? Deweese:

LaPan: Well, there's some that are used for trappin' fish and animals. We put them on

> our back, what they call funnel baskets that are used for trappin'. Back then you'd make your own traps out of baskets with elm bark. The ash they'd use but they'd have to pound the ash. The elm was hard, hard to work with, but it lasted a lot longer and a lot more time consuming. Elm is kinda scarce now, it's hard to

¹² The interview with Larry LaPan was conducted on December 23, 2005.

find, it's not like the ash or the maple that you can use now. With maples back then, they made their own spouts and stuff, they hit the tree. They'd boil it in a fire and made their own syrup and everything like that there. And then they'd boil it down as far as they could into candy. The funnel baskets, they'd make a funnel and they'd [the fish] go in. They narrow down as they go in, so when they go in, they couldn' get out and they'd drown. An' they'd use all the beaver fat to put all over the traps and shoes and seal 'em. More of a coat than anything, 'cause the beaver fat, it's the same thing as seals now. 'Cause if they didn't do nothin' like that, the rain'd come through. And everything they could, they'd coat in beaver fat.

Deweese:

Were canoes in use when you were growing up? Did people still make traditional canoe forms, or how did they get around on the waterways?

LaPan:

No, nobody made canoes anymore. Sure, a lot of people had a canoe we'd borrow. They'd get out there [on the water] one way or another, by using paths and goin' out on the ice. Snowshoes were made out of ash, cause it's a lot easier to get to than elm.

Deweese:

How would you describe growing up Abenaki?

LaPan:

It was hard. We didn' have much. We lived in an old barn, and if we had a bed, there'd probably be four or five of us in the bed 'cause that's the way it had to be. When I was growing up, we never... We always trapped, I never shopped or nothin'. I always trapped with the baskets, makin' baskets. I never shopped. I never hunted until later up in years. The people who lived around us, they made their own baskets, they hunted muskrats. When they could, they sold their baskets. When they got ten cents, they were doin' good. They made all their baskets by hand. Now a lot are made by machine. My boy, he's not much of a hunter, but I'd take him out, he'd get his deer, skin 'em, do the whole process, keep it all. Nowadays they don't keep everythin'. When I was growin' up, we'd keep everything. Now they waste everythin' because they don' know how to process things, they don' know how to do it. I learned from my uncle, I learned from him, and I taught my son and grandson the same way. You learn well from your elders, you learn how to make it on your own. We were poor families, but when people were traveling through, you'd share an' give them whatever you had, food and shelter, whatever. When I was growing up, you always give help, whatever you had. Things today are a big waste, but back then. We didn' waste anythin' and we helped everybody. You appreciated what you had, 'cause a lot of times you didn' have much. It would be hard for kids now to live back then. But like I said, we were happy to have whatever it was. That's the way it was. A lot of people lived in tarpaper shacks with outhouses. It was hard and very rough, but we were happy.

Deweese:

How do you teach younger generations the traditions you were taught?

LaPan:

I teach any, any who want to learn. Lot of people who go out and trap an' this and that won't eat nothin'. All they want is to get somethin'. I teach how I was taught. Back then, a lot of your elders, they didn' know how to read and write. They taught by talkin' to us, we had to listen, an' it was hard. Some of your Abenaki are the same way now. I try teachin' the best I could, but if they don' want to learn it, that's okay. But I try teachin' the way I was taught.

Deweese:

What do you remember as the lessons that your father, uncles, or other people in the community taught you regarding hunting, trapping, or daily life?

LaPan:

LaPan:

Well, I think the main thing I learned that they taught us is how to live, how to be on your own. Everybody helped everybody. We knew how to make baskets out of ash, they taught you everything to make, go fishin', be able to live on our own. I think that was the main thing. If you got a bee sting, you put milkweed on it and it worked perfect, perfect. They knew how to do it. Some people do today. Today some people do it with bakin' soda. So if you got bakin' soda, okay, put it on your body. My dad, one time, he used it on the horse, Snow White. Amazing, it worked, drew it right out. An' you could make anythin' you wanted out of what you had. Half the stuff they made I couldn't make today.

Deweese: Could you describe how you made things, like the baskets?

I only knew three of four people that made baskets. Every summer, they'd make

the baskets. Basket makin' was used for trappin' rabbits that would get caught

into there, in the snares.

Deweese: Is that the only animal that you caught using snares?

LaPan: Nope. We snared fish. We snared fish down at the brook over there [referring to

the Missisquoi River at the Abenaki campsite John's Bridge in Swanton, Vermont]. We had to use a pole and then hook 'em. So we go down to the bridge and fish. We'd go down there and hook 'em in the snares from the bridge

and pull 'em out, instead of a fishhook [he demonstrated the technique by snapping his wrist in a downward to upward motion, indicating how he would "hook 'em"]. Oh, they couldn' get away from you. We made sure we had enough and so did everyone else. We also went froggin'. Frog legs are great. I love 'em. We used to skin 'em with nails and then eat 'em with butter or whatever we had. You caught 'em by hittin' 'em real good and that would kill 'em. We'd can all our stuff and preserve it. We grew up on deer, fish, muskrats.

you don't even care for fish. But that's what you had.

Deweese: Do you still catch fish and frogs in the same way today?

LaPan: No, I don' hear of too many people doin' that anymore. I don' fish too much

anymore. To me, they ruined the fishin'. Now they catch all kinds of fish and

Whatever you had you were blessed to have. I grew up on fish, and at this age

sell 'em all, and I don't think that's right. If you got a bass or whatever you get, they pay you so much for a pound, a dollar or whatever they give ya. To me, it's hurtin', it's hurtin' our fishing. Same as huntin'. Now they go out and get two deer. Go somewheres else and shoot three of four deer. And now unless you got a big, big family and you're feedin' 'em, okay, but otherwise, why do that? Why shoot all them deer?

Deweese: How do modern practices differ from those when you were growing up?

We took what we needed. You didn' want to take anymore, you'd get in trouble. My dad would make sure you got a whuppin'. Nothin' was wasted. Everythin' that I take, I take care of. Nothin' was wasted. I was brought up not to waste. If you're gonna take it, okay. But if you're gonna come down here and take 500 fish and not do nothin'... I went down to the Lake [Champlain] a while ago, and there was a whole string of fish somebody'd caught. A whole string, just left in the water, dead. No good, just left on the stringer. The Creator and Mother Earth didn' put them on the earth for you to do that.

How have modern influences changed the way you have and perceive hunting and fishing?

To me, it's a shame. I don't think there's gonna be any deer soon, the way they let huntin' season go. I think it should go back to the traditional way, bow and arrow, longbow, the way it was. Like I'm teachin' my grandsons, I think it should go back to that, that's the way it should be. I think it should go back to the bow and arrow because there's too modern stuff today, an' too many of the animals are getting' killed. They don' really want to shoot the animals, they just wanna see if they can hit anything. I think it's a shame. An', uh, as far as us bein' Abenaki and stuff, I think we should be entitled to free huntin' and fishin', I don't think we should have to pay for it [licensing]. I'm not puttin' anybody down, but we got a lot of people comin' from different places, and you don' see too many of our people out west. In my category, I don't have the money to go out there, but I think we should be able to hunt and fish here where we have been for years.

How have government policies affecting the way in which modern Abenaki are able to hunt and fish traditional lands?

Yeah, growin' up, you knew you were Indian, but you didn' broadcast it. Now it's more open. People are tryin' to get land claims and traditional rights back. If I could go back to when I was growin' up, I would. I prefer that to today, even without runnin' water and an outhouse. That's the way it was. Everybody was happy. You didn' see all this change, no health problems, nothin' like that. Talk about heart attacks, strokes. Like I said, people were so happy. The only thing we had then was a nurse who come around and take care of us. We'd pay her with bread or some eggs, whatever we could pay her with. I guess back then,

Deweese:

LaPan:

LaPan:

Deweese:

LaPan:

things were different. But everybody got along, no bickerin' on the whole street. If you did somethin' wrong, they'd either tell your mother or father or they'd take care of you themselves. But they were...had a big heart, even though we didn't have a million dollars. We didn' have nothin', but what we had, we were happy with it. We were just as good as anybody else.

Deweese: Mr. LaPan, thank you for your time and insight. You have been very informative.

LaPan: You're welcome. Pleasure to do so.

APPENDIX D

TRANSCRIPTION OF INTERVIEW WITH DR. JOSEPH BRUCHAC¹³

Joseph Bruchac is a Wabanaki storyteller, poet, and author who currently lives in Greenfield Center, New York. He holds a B.A. from Cornell University, an M.A. in Literature and Creative Writing from Syracuse University, and a Ph.D. in Comparative Literature from the Union Institute of Ohio. Bruchac has worked for Skidmore College, directing an education program for a maximum security prison. He and his wife founded the Greenfield Review Literary Center and The Greenfield Review Press. Bruchac has edited several anthologies of contemporary poetry and fiction as well as written numerous poems, articles and stories describing traditional Wabanaki life and culture. Bruchac travels often to perform for schools, Native American organizations, and at events in the United States and Europe (Bruchac 2007).

Deweese: Hello, is this Dr. Bruchac?

Bruchac: Yes, is this Brettan?

Deweese: Yes it is. I was wondering if now would be a good time to speak with you for a

little bit.

Bruchac: Sure.

Deweese: I was wondering if you would mind if I put you on speakerphone and if I

audiotape the conversation for later transcription?

Bruchac: That's fine.

Deweese: That's fine? Okay. Can you still hear me okay, Dr. Bruchac?

Bruchac: Yes I can.

Deweese: Okay. Please let me know if you can't.

Bruchac: Okay.

Deweese: I was wondering exactly what your experience has been gathering oral traditions

and histories and exactly how long you have been doing that sort of work.

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¹³ The interview with Dr. Joseph Bruchac was conducted on September 11, 2006.

Bruchac:

Deweese:

Bruchac:

I began what you might call "gathering oral traditions" before I even thought of it in those terms, because I was listening to the stories my grandparents told me. Not necessarily traditional Native American stories, but stories about their growing up, stories about what it was like in the old days. And also, my grandparents had a little gas station and general store with one of those potbelly stoves in it. It was where everyone came and gathered in the wintertime, all the neighborhood people who were loggers, people who were out working in the woods. And they would sit around and I would hide in the back of the store, I was a little kid then, and listen to them telling stories, which included tall tales, and songs about working in the woods. So I was listening to, and gathering, oral traditions from my very youngest years on. And later on, when I left home and went to college I made it a practice to seek out Native elders wherever I was. For example, when I was at Syracuse University, I used to ride my motorcycle out to the Onondaga Indian reservation, which is just a few miles away from the University. And I would sit around in the store that was run by Dewasentah, an Onondaga elder. She owned what was called the Onondaga Trading Post. And I'd just sit there, and we'd chat, and sometimes she would tell me things. I have a very good memory. I've long felt that people remember more than they think they do, they just convince themselves they forget.

Deweese: Were people often receptive to speaking with you?

Bruchac: Absolutely, because I didn't come at them as a researcher, saying "Tell me your stories so I can write them." I was simply an interested person and friend and sometimes, you know, if somebody needed a ride, I gave them a ride. If they needed to buy groceries, I'd take them to the store. So I was just another person who was sort of like a visitor to the community and a friend. And that's often been my approach to gather oral traditions that way, rather than going to someplace and saying, "I'm writing a book, tell me your stories." Often it's been people I've gotten to know over the years, and then I come back to them and say, "Well, now I'm working on this. Can I get some further help on it?"

Have you noticed any themes in the stories that people have told you over the years?

Well, the one thing I can say in terms of a theme of the stories is that in American Indian culture, when stories are told, they are always told for at least two purposes. One is to entertain, but the other is to teach. And sometimes I would be told stories, or things would be shared with me because they had a point they wanted to make. It was something they wanted to get across. And usually it's something in terms of the proper relationship people should have with each other, how to behave to each other, how we behave to the larger ecosystem, to the earth itself. Some stories, for example, some might talk about deer hunting, you know, and how you should never shoot a mother deer with a fawn. They might relate a story relating to that practice, which is traditional Native conservation, the basis of our modern conservation practices. What Native people knew and did for

many generations, because they realized if you killed the mother animal, you kill the young, and there will be no new generations. I think that is kind of a general way I would put it. You would find stories begin told to you that were appropriate to what you were doing or what was going on around you at that time.

Deweese: What sort of methodologies do you use to gather this sort of information? Is it

strictly memory, or do people allow videotaping, or audio taping?

Bruchac: More often than not, I just listen. Occasionally there have been times when I've

taken a tape recorder with me, never videotape. I've never done that. But it's

mostly just been sitting around and listening and using my memory.

Deweese: How have you generated your poetry?

Bruchac: Well, you mean in terms of the original poetry that I write?

Deweese: Yes.

Bruchac: I think my poetry sort of comes to me in a sense by making myself available to it,

by getting up early in the morning and sitting down in front of my computer to start writing and see what happens. Or maybe I'm traveling somewhere and an idea comes to me, or a few words, and I write them down in a notebook. I don't carry a computer with me. I find that that's just the way poetry works for me. It comes to me when it's ready. And if I make myself available to it, it pays me a

visit.

Deweese: How prevalent is the telling of oral stories or histories, or life histories in such

traditions. How prevalent is this in modern and traditional Native American or

American Indian society today?

Bruchac: It's everywhere. It's just that people might not recognize it because it's not

someone sitting down and saying, "Long, long, long ago... our people, or these people..." People think we always use those formulaic beginnings. Instead, people sit around and start talking, and the story becomes a big part of it. Sometimes it's a story about things that have happened, or people in ancient time,

or sometimes you get things from long ago. But people are always talking. American Indian people are always talking to each other. They're always telling each other stories. Sometimes it's in the form of humor. Like you tell a joke, and

that joke will be just as poignant and appropriate as a traditional tale might have

been.

Deweese: And how does a reader who is not used to reading or hearing such stories, how is

the best way to interpret that sort of inner meaning?

Bruchac: Well, I think what you have to do is be a good listener. And be aware that there

are depths that you cannot understand unless you know more about the culture.

There is always something that you can understand on the surface. But you may learn more as you go along. For example, there is a traditional story about Gluskonba, one of the great culture heroes of the Abenaki people, in which he brags about how powerful he is. Then a woman says, "I think that Djidjis here can defeat you." Well, Djidjis a little baby. And Gluskonba quickly discovers he cannot stop the baby crying when it starts to cry, when he takes away this little toy of his, a little turtle made out of leather. The baby begins to cry and Gluskonba admits defeat. Only the mother can quiet the baby. The story reveals that even a great hero can be defeated by a little baby. But within that story, there are lots of aspects that you have to know more about the culture to understand. For example, the baby's little toy is a piece of leather sewn in the shape of a turtle. Every baby's first toy, in Abenaki tradition, was a little, leather stuffed turtle because the turtle is an animal that is very strong and has a long life. So it's like a good luck charm for the baby. And, that turtle was usually stuffed with the mother's hair. And within that mother's hair would be the umbilical cord of the baby, the umbilical cord that fell off the baby. So you can see, it would be a very powerful object. And when Gluskonba takes that from the baby, he is really doing very wrong, something that is a very negative thing to try to do, as well as taking a toy from a baby. So you can see how that would operate. You can understand it, just hearing the story. But to know more about the story, you'd have to know more about the culture and background. And that's true of most, if not all, American Indian traditional stories. There is always a matrix they exist within and to be able to interpret it fully you need to be familiar with that matrix. It's not a question of anything associated with race. You don't have to be an Indian to understand Native culture. You just have to be in Native culture to understand.

Deweese:

How would you define, or characterize, the role of these stories and histories in traditional life as well as modern life? Is there a difference, or do you think there is a traditional carryover of these concepts and ideas?

Bruchac:

I would say it's a continuum. There is a basic place for story in all cultures, and all human beings are always telling stories. It's part of what we are. In Native American culture, the idea of a story as a means of providing useful information while doing so in an entertaining way still exists.

Deweese:

Do you believe that that basic need is what results in the permeation of stories in all facets of human society?

Bruchac:

I think yes, the usefulness of stories. Just think, all you have to do is go to a cocktail party where someone says, "Let me tell you a story..." Watch how heads turn. Just in ordinary, white, European culture, stories have the same ability to attract attention. To tell a story is really to speak of life itself.

Deweese:

How far back do oral histories and stories go in time? Is it possible to determine, or is it to infinity, the beginning of time?

Bruchac:

Well, everybody has their own way of measuring it, but you do have some things that are very clear markers. For example, if there is a story about an event, which was recorded, like the eruption of a volcano, the flooding of a river, a big fire, and that story is mentioned, you can say, "Well, this happened at this time," then you have a geological record to tie it to. Some of our stories here in the northeast talk about giant monsters that were covered with hair, had big round feet, and two long teeth sticking out in front of them. That sounds like nothing walking around here in North America. But 10,000 years ago, there were mammoths and mastodons. So, therefore, we may logically say, this is a story that comes from the time, whenever that was, when those no longer existing animals were part of the landscape.

Deweese:

Are there particular stories that seem to hold more significance. Are older stories or histories more significant than more recent events? Or do all stories share an equal value?

Bruchac:

Well, I think you really have to take it story-by-story and culture-by-culture. You can't make a broad generalization of which stories are more important. And I also think when we're talking about Native American traditions, we're talking about hundreds and hundreds of traditions. So it would be like an English man saying that he knows everything about the Spanish, or anyone from one culture interpreting another culture, there are always limitations to that. It can be done, but in limited ways.

Deweese:

What sorts of things can oral histories tell us about the origins and lifeways of early people in New England, for instance?

Bruchac:

Well, I think they can tell us they have been there for a long time. They can tell us there was a relation that was not perfect but relatively balanced. There was an understanding that you can see in the stories, of how communities work and work together. There was a functional culture, and a story may show how that culture functioned. For example, a story might be used to caution someone when they were raising themselves above others, an inappropriate thing to do, reminding them that they were part of the whole community. Too much pride, as we say in English proverbs, can lead to a fall. There are a lot of stories like that.

Deweese:

I believe you mentioned in one of our email exchanges, that it was difficult not to speak of water in terms other than traditional lifeways, or to omit that factor from oral histories.

Bruchac:

Absolutely. Well, for one thing, Abenaki communities in New England, let's first talk about the Abenaki, were based on watersheds. People lived in a certain watershed, they went up and down the rivers, up river and down river were much more important directions than north or south. You follow the seasons with the river and the watersheds. For example, if you were on the shores of Lake

Champlain or the Connecticut River, you would use the alluvial soil that was deposited by the spring flood to plant your corn and crops. There would be salmon or the shag, whatever creatures in the river were running, wherever the fish would available, you'd go. For example, there are certain waterfalls you'd go, where the salmon would be coming, up to fish there. So there is that relationship to water in that respect. Plus, so many animals, all animals literally, need water to survive. So that's where you would do your hunting. That's where you would use canoes to move down river. The rivers were the superhighways. I think you're beginning to see what I mean. There's just no way you can talk about Abenaki culture without talking about water. Water is in every part of our life

Deweese:

Are you aware of any differences between inland waterway users and coastal people?

Bruchac:

Certainly the animals and the creatures that they hunted or fished were different. And you would find a little bit of difference in the material culture. For example, you would find, because marine animals have thicker skins, you often have to use different implements for skinning them than deer and moose and so forth. The knives our Abenaki ancestors used for skinning sea animals were similar to the ulu knives still used by the Inuit people of the far north. But, then again, many of our old people were on the coast part of the year and inland part of the year.

Deweese:

So there was a lot of interaction and travel between the two communities?

Bruchac:

Absolutely, and sometimes it was the same community. It was not a fixed residence, as we have here in the United States, where here is your address and you're here twelve months, unless you're a student. Instead, it would be here, for planting, here for hunting, here for fishing, back here for harvest, there's a circle. And, you know, certain things were available certain times. Here were berries. But if you think you're going to stay here year-round picking berries, you're crazy. You always have to know where something is and when it is available. And you would know that after many generations of having lived in this relationship within this large territory that was your home. Your home is not just a wigwam; your home is the natural habitat, the natural world, in many different places following the cycle of the seasons. Sometimes people say, "Indians have no fixed abode. They're nomads. They're wanderers." That's not it at all. We have one home, which is under the sky.

Deweese:

I have a few questions regarding waterway usage, which is something that interests me quite a bit, are you aware of the significance of birch bark canoes in comparison to reed crafts or dugouts? I believe Aaron York is a canoe maker, he makes birch bark canoes, I believe. Is there any difference in birch bark canoes or dugouts in oral histories? If so, why there might be such a difference.

Bruchac:

Well, birch bark canoes are lighter and portable; you can carry them from place-to-place and carry them on long journeys. So the birch bark canoe is a journey canoe. The dugout canoe would be used in a particular body of water, but not carried to another body of water. So that frequently, people would have a dugout canoe in a pond or a lake. When they weren't using it, they would simply put rocks in it, sink it to the bottom. Then when they came back, they'd take the rocks out and the canoe would float back up, so they would start using it again. People still find, occasionally, dugout canoes in marshy areas, at the edge of ponds or lakes where canoes were stored generations ago and never reused, they were just left there. Some of them are several hundred years old. It takes a long time to make a dugout. A birch bark canoe could be constructed in a few days.

Deweese:

Are you familiar with any poems, histories, or myths that are associated with maritime existence, including transport, subsistence, or ideological beliefs?

Bruchac:

Well, I've written a few poems in some of my books, one of them is called *Ndakinna*, have you seen that?

Deweese:

No, I have not. What is the title of that again?

Bruchac:

Ndakinna, "Ndakinna," Our Land. There are some mentions of canoes in there.

Deweese:

How do you feel oral histories can contribute to our understanding of the past and traditional practices?

Bruchac:

I think sometimes we have the mistaken impression that only something that is written is legitimate, or real. When in fact, things that are written are usually the interpretation of a single writer. Oral tradition tends to be more communal than a lot of writing is, because oral tradition would be spoken within the community and agreed upon within the community. So it in fact, better represents the community's view of history than one historian's written view. Often, you will find that there are details in oral history that books written by historians have missed.

Deweese:

Do you feel, that in that manner, oral histories may be supplemental sources of information?

Bruchac:

I think it's sometimes supplemental, sometimes corrective, and sometimes primary.

Deweese:

And how accurate do you believe oral histories are for reflections of the past?

Bruchac:

I think they can be very accurate. People would tell a story to those who knew the story, and if they told it wrong, they would be corrected. There was a check and a balance. It's not like a game of telephone, where you whisper in one person's ear, then they whisper in the next person's ear and you don't hear it again until it

reaches the end of the line. Instead, all along, people are saying, "No, no, that's not right, there were two horses, not one." Or, "No that wasn't it, it was the year the French people came to our village." So, it would be that kind of corrective relationship in the telling of oral histories.

Deweese: And that would permeate throughout generations?

Bruchac: Yes.

Deweese: It would be reaffirmed continually.

Bruchac: Yes, and the people chosen to tell the stories were the people who listened and remembered the best. Not everyone was an oral historian. One mistake some people make is to think that every Indian can tell every other Indian's story. Some people were just really good at remembering and speaking. Some were really good at making things. Some were really good at hunting. So it's like any

culture. There were people who literally became professionals, although the term "professional" wasn't used in traditional culture.

Deweese: Do you have any additional suggestions for how I may interpret your poetry or

other stories?

Bruchac: Well, I think that a lot of times you'll find a story may make reference to one

thing or another. Every story leads to another story, and every poem has more behind it. So the more you go to the things behind it, the more you will

understand what is on the surface.

Deweese: Do you have any additional suggestions for people I may be able to contact who

might be able to speak with me regarding oral traditions or specific stories?

Bruchac: Yes, I would say talk to my sister Marge. She is a terrific historian in terms of

Marge is just finishing off her doctorate at the university of Massachusetts.

Deweese: And I was also wondering if you had any suggestions for how I may be able to get

in touch with Aaron York, if he would be receptive to my asking some questions

about his craft?

Bruchac: I think Aaron would be. Why don't you remind me of that in an email, I don't

have his email address off the top of my head. Did you try Googling him? You

can tell him you spoke with me, and you can email him.

Deweese: I don't want to take up a lot of your time today, but I greatly appreciate this.

Thank you very much.

Bruchac: Well, I hope it was helpful.

Deweese: It certainly was. Would you mind if I email you with any additional questions?

Bruchac: Sure thing, and if you want to send me a transcript of what you write down to

make sure you've got it right, that would be okay too.

Deweese: I certainly will. Thank you very much Dr. Bruchac.

APPENDIX E

TRANSCRIPTION OF INTERVIEW WITH AARON YORK¹⁴

Aaron York is a Wabanaki canoe artist in his early 30s. York describes his work as an effort to help Native American people recover their ancestral art forms. York began building birch bark canoes seven years ago following his graduation from Johnson State College in Johnson, Vermont. Working with members of the Lake Champlain Maritime Museum and studying the work of Edwin Tappan Adney, York began to develop Wabanaki bark canoes, continuously adapting and revising his designs and finishing each canoe with his own artwork. York's canoes have earned him the recognition of the Odanak Abenaki Nation (St. Francis Abenaki), the National Film Board of Canada, the British Broadcasting Corporation, and WoodenBoat Incorporated (York 1999). York currently lives in Quebec, Canada, but is planning to move back to Vermont, where he grew up.

Deweese: Hello, is this Mr. York?

York: Yes it is.

Deweese: Hi, this is Brettan Deweese.

York: Hi Brettan, how are you?

Deweese: I'm fine, how are you? Is this a convenient time for you? Can you hear me all

right?

York: I can, can you hear me?

Deweese: I can. Sometimes my connection is a little poor, so let me know if you can't hear

me.

York: Okay, no problem

Deweese: Thank you very much for taking the time to speak with me. I really appreciate it.

York: No problem. So why don't you tell me what you're looking for? It would

probably be easiest to kind of figure out a way to answer your questions based on

what you need.

¹⁴ The interview with Aaron York was conducted on October 3, 2006.

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Deweese: That would be great. Also, do you mind if I tape record our conversation, just so I

can transcribe it later and review it?

York: That's not a problem. Let's figure this out, what do you need?

Deweese: I've been doing some research into traditional canoe construction, and not a lot of

research is out there on bark canoes, as there are not many left from prehistoric or

pre-contact period.

York: Right, exactly.

Deweese: And as you mentioned, there's not a lot of people out there who are currently

building and constructing these crafts. So I was wondering if you would mind telling me how you became a traditional canoe artist and what the process is for

creating the craft.

York: Well, to kind of start out, um, I'm Abenaki from Swanton and so I had taken an

interest in Abenaki culture and in Native culture in general back in the late '90s. And, uh, I had worn different hats. I was a Tallal singer for a while and had done a few different things. I had kind of gotten tired of the pan-Indian, the common theme that a lot of native peoples tend to do these days. And I really started reaching more into specifics of who we were and what our culture was really about. And back in the late '90s, my stepfather had collected a birch bark canoe from up in Quebec here, near the Odanac reserve in a town called Victoriaville which is only an hour away from Odanac. It fascinated me, and I had that in the back of my mind. I graduated from college and was going through an identity crisis, I didn't know what I wanted to do, and actually had a big motorcycle accident and had all this time on my hands. So I ended up saying that I was going

building a canoe summer of 2000, but I didn't actually get it to completion. Then I took a couple of lessons from a guy at the Lake Champlain Maritime Museum and it was... I kind of learned more what not to do from him. It at least gave me the confidence to try again. I got married and moved to Quebec and I was living just outside in Lachine, which is a suburb outside of Montreal. And I had a

to build a birch bark canoe. And, uh, that's really the start of it. And so I started

garage, I had a shop finally, a place where I could do some of this stuff and make a mess and have my tools and have a workshop, 'cause I had never had that. And, uh, I set up a building platform in my shop and built my first canoe there. And it was just kind of a whim, but that one sold, I needed the money, and I sold that one

for peanuts to the Bruchac family. That's the one that's on the cover of the book.

Deweese: The canoe with the bear?

York: Yeah, that's my very first canoe. So that was my first boat, and then I decided,

well, maybe I could make a few bucks. I was unemployed at the time and going through immigration and all this other crazy stuff after moving to Quebec and Canada. There's really a lot of work dealing with immigration and the border and

being homesick and used to Vermont. It was kind of therapeutic for me for a while. Then it really took on a life of its own and I moved on. After about ten canoes, I started getting better at it and people started to know who I was a little bit more. Probably about twenty canoes into it I decided I really wanted to go for the highest quality I could. That was probably about 2004. Then I really started researching the more technical designs from the East and really getting into the very difficult types of canoes to build. And that started getting me noticed. That really got my reputation as a refined builder that put me on the map more or less.

Deweese:

What sorts of materials did you find during your research that instructed you how to refine your craft and build the canoes you currently build today?

York:

There's one book that almost everybody has. It's called *The Bark Canoes and Skin Boats of North America*, by Edwin Tappan Adney and co-written, it was actually written, the research material was done by Adney, but it was actually written by Chapelle, who was associated with the Smithsonian Institute. In 1964, they finally got this book out. It was based on Edwin Adney's research on bark canoes. That is basically the Bible. That's probably the single best reference that there is for bark canoe material. And there's other ones, there's other little bits and pieces of information, but really aside from Adney's book and models, that are down in Virginia now, really the only way to understand these canoes is by trial and error. And, looking at old canoes.

Deweese:

Are there a lot of old canoes that you were able to fine?

York:

Well, there's... You know, it seems like they're a real rarity, and I guess relatively speaking, they are. But, uh, once you start to know where there's a few, you start finding a few more, and this museum has two in their collection, and this museum has a few. Somebody puts one on eBay, and you start finding one here there and everywhere. So once you start finding them, and once people know you're looking for old canoes, people send you an email and say, "Hey, I was at this little obscure museum and they have this Abenaki canoe from 1893." So then we go visit, go out there and check I tout. A lot of maritime museums in the East, that are geared specifically towards boats and nautical displays, usually do have two or three in their collection.

Deweese:

Do you use traditional tools and technology to make the craft, or do you use more modern tools?

York:

Well, the way I kind of look at it, there's two schools of thought on this. Some people think that it's only traditional if you are building them with just a crooked knife, using all hand tools that would have been available in the 1800s. And my... I know how to use a crooked knife, I make them and I'm quite well-known for them, but I personally believe that, uh, the more Native approach and more aboriginal approach is to make life smarter, not necessarily harder. So what I do, is I mix modern tools and old tools to basically build the same thing that you end

up with in the 1700s, but there are easier ways to process wood these days. So I've sort of found a balance between traditional or older tools and newer tools.

Deweese: And I saw on your website a picture of you climbing a birch tree.

York: Yeah.

Deweese: Is that the first step when you set out to start to build a bark canoe? Does that

dictate the shape of the canoe?

York: I don't know if you could call that the first step. The bark obviously is the single-

most important part of a canoe. You can supplement other materials. Let's say if you don't have enough cedar, you could use spruce. If you don't have enough root you can use other types of cordage or even modern nails or wooden pegs, so you can really reduce the amount of spruce root. The one thing you really cannot cheat on is bark, and that is the lowest common denominator of any canoe. So if you plan on building one, the best thing that most people start out with is, "Well, you gotta have the bark." So most people go out and get the bark first. However, if you've done this a few times, you know probably where you can get some and a lot of guys will actually start with processing the woodwork. Getting the gunwales done, making the ribs, getting the planks ready, maybe digging root. Sometimes the last thing they do is go out and get bark. Because a lot of guys, myself included, know you can only peel bark really well from about the end of April to the first two weeks in July. And, uh, anytime outside of that is just a lot of work to get the bark. So, if you're not in that window of time, forget bark harvesting. What you're really looking at is you've got to do something else,

which is why a lot of people do woodwork.

Deweese: About how long does it take you from start to finish for each individual craft?

York: Well, it depends on the artwork and the state and level of embellishment.

Sometimes the technical aspects of how much, what type of sheer the canoe has, the kind of sharp upturn at the end. Sometimes those gunwales need to be trained over a week, another week dedicated just to bending and training gunwales. If it's a relatively low, moderate sheer, and you're not doing any artwork on the canoe, then I think in order to do it without going completely insane, probably I would say you're better off to give yourself two months, at least. It can be done in a lot less time, but it's not fun, and you're under the gun. I find I always end up having to make sacrifices, leave things that I don't really like. If I have more time, I would redo those parts. So I say two months. If you're adding or factoring in all the harvesting, all the preparation, all the building time, just make sure that everything it takes, it's probably more like two and a half months. Then if you start adding artwork, edgework, or painting, then you start adding weeks more to the actual process. So you could be looking at three, three and a half months at

the most.

Deweese:

What dictates whether you put that embellishment and extra artwork into the craft? Is it the individual buyer, or is it what you want to put on the craft?

York:

Yeah, um, sometimes... Basically it's usually the client will specify they want something, some kind of artwork up on the deck flaps or up on the bow. Maybe a design that runs the whole length underneath the gunwales. Sometimes they go crazy and say, "Just decorate the whole damn thing." And, um, so in that, of course I have to charge more for a canoe that is basically serving as a canvas for artwork. If the client is willing to pay me for my time, then I'll go ahead and do that. Of course if somebody says "I want something for nothing," I kind of can't justify spending a week or two more on something if I'm not getting paid for it. So generally, if the client's willing to pay for it, and that's what they want, I'll do it. In a few cases, though, I'm just inspired and I might have a client that I really like, and I might just go the extra mile, even if they haven't really specified, and I'll do some artwork or some traditional motif on the side just as a way to make my signature on the canoe and make them feel a little better about the project.

Deweese:

What determines the structure or shape of each individual craft? You mentioned some have a steeper sheer than others. What determines the end shape that it takes?

York:

Well, there's several different designs that are found in North America. So depending on what your objective is, say you have a little experience, you've built a handful of canoes, enough so you have a fair amount of skill, and you're intelligent enough to look at the plans or old canoes to really interpret what you're seeing accurately. So then you know, you look at a specific region and say, "Okay, this is a Western Abenaki style, and..." or, "This is an Ojibway or more of a Penobscot/Eastern Abenaki from the coast," or whatever. There's a whole number of different styles. So first thing you do, in your brain, is you would say, "What am I going to build, what am I supposed to be building for this client, or what do I want to build," and, um, and then the way the rest of it's shaped is based on the strategy or technique used to build that specific design. So in some cases, some canoes more in the western Algonquian type of tradition, they build those canoes are made using a building mold, its like a separate mold, it looks like a diamond, and it's much narrower than the actual gunwales will be. What that's going to do in the final canoe, it's going to make the sides flare out and so that's going to give it a very distinct hull type. Whereas in the east, say in Maine, the traditional technique is to use your inwales as your building mold, which is going to make the canoe much wider, as those canoes are designed to have tumblehome, which is bulging at the side, and they have edge-to-edge planking and other really technical aspects. So it starts out really with just how you're shaping the bark and also how you bend your ribs and what technique you use to bend your ribs has a lot to do with it. A lot of people will look at the spine of the canoe and say, "Oh well" ... A lot of people make this mistake. They'll look just at the front, and they'll say, "Oh, well the profile of the ends looks like an Abenaki or it looks like a Maliseet or it looks like this..." But there's so much more that goes into that

than just how the end is shaped. That may be the first really obvious sign of what style it is or what the design was. But in reality it's the whole canoe. And a lot of builders out there really don't understand that. There's only a few guys that really understand that it's not just how the end looks, it's how the whole thing is built.

Deweese:

Is that what you meant, when you mentioned that only a handful of people are true canoe craftsmen? Is that what sets you apart from the others?

York:

I'm kind of a snob when it comes to that. It's not that I want to be a jerk about it, it's just that, there's, I kind of... For one thing, I got into this because of my Abenaki ancestry, my Native ancestry, and I personally feel that we have an obligation to... Okay, let me back up a little bit. The first process is that our ancestors, the ancestral builders, the real heyday of bark canoe building ended in the 1880s-1900s, early 1900s. And, they had evolved, from no matter where you're talking about. They had taken different designs from different tribes and evolved the perfect canoe based on everything that they knew. So they had taken the art form as far as they could possibly take it. There's a lot of subtleties that only a trained artist or craftsmen would really be able to look at and understand and then say, "Well, this is an important part of the canoe." What happens nowadays, a lot of people have picked it up, but they're missing a lot of that, a lot of refinement that really makes, say, an Ojibway longnose. They tend to leave out things that are really critical to what the Ojibway longnose canoe really was. And again, they look at the shape of the ends and say, "Okay, there you go. It's an Ojibway longnose because the ends look that way." But if you know what you're looking at, it's night and day between that one and the standards that were set by the ancestral builders in the 1800s. So, there's only a few guys that really do that well and really are intelligent enough and patient enough to really look at the finer points of those canoes and that are willing to do what it takes to learn those techniques. 'Cause often times, we have to teach ourselves because we don't have those ancestral people there to teach us anymore. So, um, to really do it well and be willing to say, "Okay, that's okay, but the next one can be better," and to keep pushing the envelop to really understand that. And I really only know of maybe two guys other than myself that have really done that, and there's some guys out there that can make a nice looking boat, but to the trained eye, there's a lot of differences between those and the old ones.

Deweese:

I believe you mentioned in one of the emails that the canoe is an icon of Abenaki lifeways: Can you elaborate on that?

York:

Well, um, the, basically the whole concept of watercraft and how people moved on the land, whether they, speaking of any aboriginal group anyway. But as far as Indians go, in North America, you can almost determine the type of culture that people come from based on how they moved around and how they made a living from the land. So, if you're dealing with the East, here, you have the Wabanaki and the Iroquois. The Iroquois traditionally speaking were primarily an agrarian culture. They didn't really have a need to do a whole lot of hunting and moving

around because they practiced high-yield agriculture. They stayed in one place for ten years and planted a ton of corn, and everything else, and everything they need they grew. Whereas just across the Lake you start getting into Vermont, New Hampshire, the Maritimes, and it's suddenly a different culture that was based on, not entirely nomadic, but being at specific places at a given time of the year and to get from Point A to Point B, that had to be dealt with, with canoes. So canoes were evolved as a result of the peoples' culture and the needs of that technology. So the canoe represents a whole type of thinking and way of making a living on the land. And they got very specific in their designs to meet different needs. Within one area and one tribe, you would have different designs for different uses. So it gets very specific. To me, it's a real symbol of what's called a mixed economy lifestyle. Most Abenaki people depended a small degree on agriculture, but to a larger degree on hunting and fishing at specific places at specific times. And the canoe is a product of that thinking.

Deweese:

What makes a coastal canoe different from an interior canoe that would be used on rivers and lakes?

York:

Size mainly, that's the main difference. The Wabanaki canoes, when I say "Wabanaki," it's used to refer to the ancestral Abenaki that were from the central coast of Maine and then of course the Penobscot and ancestors, the Passamaquoddy, Malecite, and Micmac, they spent a fair amount of time inland and they spend a lot of time on the coast, too. And those canoes had to be designed to deal with... If you've ever been on the ocean, you know what its' like when the waves come crashing in. They break, and you'll have this swell of water coming at you that's three feet high. If you're trying to launch a canoe in that when part of your canoe is still on the beach and part of your canoe is in the water with the waves crashing in, you can easily fill your boat up before you even get out on the water. So the ends, they were designed to have what's called "rocker" in the ends, where the ends and bottom of the canoe is slightly lifted up but also the prow at the ends of the canoe are larger. Not like ridiculously larger, but enough so that there's 2-3 inches more of bulk above where the waves will be crashing. That also enabled people to come in with the waves when they were beaching canoes when they were turning. Again, the reverse would be true, you'd be getting hit by these waves again before your canoe hit the sand or the beach. Another real important thing that separates Wabanaki canoes from nearly all other canoes in North America is the tumblehome design and the edge-to-edge planking. The sides of Wabanaki canoes, ocean canoes, were themselves a bit deeper, maybe 2-3 inches deeper than a lake canoe would be. And the sides are also very tumblehome, which give you many advantages. If the canoe is being hit on the sides, crossways to a wave, it allows that canoe to bob up and down over the wave without leaning into the wave. And most of the other nations were building with straight sides or flared sides. A flared side canoe would just lean right into the waves and it would be much easier to tip, especially if it was not very heavy. And the straight-sided canoe just really doesn't have a lot of advantages in any way. So the tumblehome also gave the canoe what's called

"higher initial buoyancy." And so there's a number of different aspects, but mainly length, size, and the way the tumblehome was used that are the three main criteria in a rocker.

Deweese: That helps clarify things a little bit, thank you.

York: It's a lot of technical stuff.

Deweese: I was also wondering if you would mind or be wiling to let me come up to look at

some of your crafts or work in your workshop.

York: Oh yeah, sure. That's fine, come anytime

Deweese: I also noticed online that you have some building classes. Do a lot of people take

advantage of that?

York: This last year, at least, I've kind of been turning away... Classes take a lot of

energy. I'm really picky about what I produce, and one of the toughest things for me is when I'm out of my shop and I don't have my tools where I wan them, and I'm not as comfortable in a different building facility, and I have a lot less time, it's very difficult to build a canoe with a group of people how have never done it before. It takes a lot of energy and a lot of focus and it basically really burns me out at the end. So I'm now trying to focus that energy that I do have to do that on working with different Native communities that are looking to bring back their ancestral canoe forms and so that... Like this year, I was out in Alberta and I was working with the Cold Lake Reservation, they're Dene Indians. And, um, I worked with them and, uh, it looks like I'll be returning again to Cold Lake to build a second, larger canoe. I've also worked with the Cree out in the same region in Saskatchewan. And this year, I also went and worked with Tukasa, a guide, and we built a Penobscot ocean canoe. So a lot of my energy at this point, I would prefer, if I'm going to burn myself out, I would rather it be a rewarding experience for something, for the community to regain lost skills. And one of the

things I don't really enjoy so much is, like I used to teach in Maine at the Wooden Boat School, which is where they produce *Wooden Boat Magazine*, and they're quite a well-known establishment. And they have these courses that they have

people come up and in one week, we're supposed to build a canoe, and it's just awful. It's a great place, and it's right on the ocean, and it's really cool, but it's just a total burnout because you're really trying to do something in one week that you really should be taking months to do. So you really don't get a lot of work

done, you take a lot of shortcuts. It's not my favorite thing to do anymore.

Deweese: I think I saw that online, I believe it was at the museum, build a canoe in one-to-

three weeks.

York: Yeah, I'm getting out of the one-week business, that's for sure. I think three

weeks is reasonable, but even that is a grind. That's a lot of work.

Deweese: Well I certainly don't want to take up too much more of your time. This was very

helpful. And if you don't mind, I would love to come up and look at some of

your stuff.

York: Send me an email when it gets closer to when you want to come up.

Deweese: I will be in Vermont the week of November 20th.

York: Thanksgiving week.

Deweese: Yes, Thanksgiving week.

York: I should have a canoe mostly done at that point

Deweese: Really?

York: Yeah, I've been taking some time off and need to get started building this next

canoe, so that would be a good time. A family has commissioned five canoes, and I need to get to work on this next one for them. All of them except for one, well one is a 22-footer, a large ocean canoe, but the other four are little kid's that are basically scale models, but they're big for models, they're 9 feet. And they're basically real canoes, the kids can paddle them, but they're mainly just decor pieces. They're built exactly and are ready for the water, but they're going to be used as decorations for the house. But I should have at least one of them done by

then. Give me a call a week or two beforehand, and we'll play it by ear.

Deweese: Thank you so much.

York: You're welcome.

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