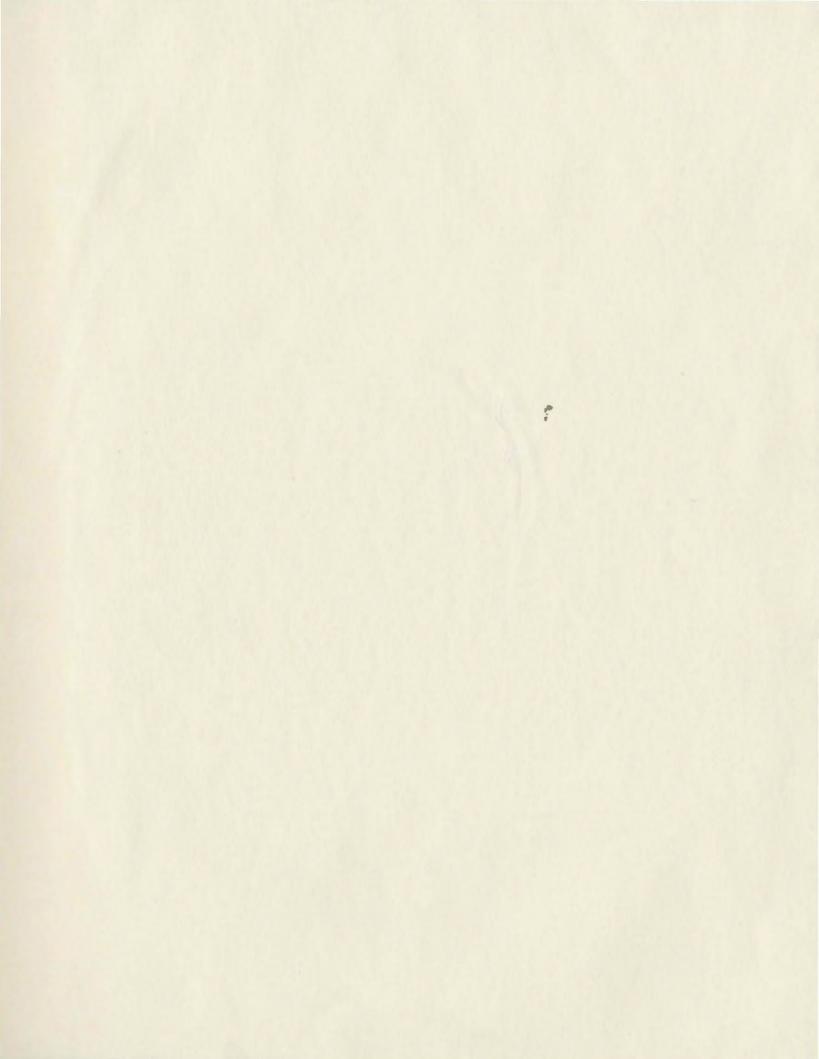
# THE DESIGN, CONSTRUCTION AND USE OF THE BAY OF ISLANDS DORY: A STUDY IN TRADITION AND CULTURE

CENTRE FOR NEWFOUNDLAND STUDIES

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# THE DESIGN, CONSTRUCTION AND USE OF THE BAY OF ISLANDS DORY: A STUDY IN TRADITION AND CULTURE

by

Paul Dwyer

A thesis submitted to the
School of Graduate Studies
in partial fulfilment of the
requirements for the degree of
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Abstract.

This study is an examination of dory building in the Bay of Islands in western

Newfoundland using the analytical categories of design, construction, and use. Tradition
and culture are separated to show how culture, the time specific part of boat building,
operates within tradition, the components of boat building which persist through time.

This study explores the significance of dory use and how the information gained by the
builder through use may influence change in design, and therefore, construction.

Most of the material presented came from data collected in interviews with the area's boat builders who received their training from other builders. The boat types, which have been built and used in the area, have changed greatly over time. At first, original settlers brought boats with them from other parts of Newfoundland and then altered them upon reaching the Bay of Islands. After living there for about one hundred years the economic and technological contexts changed and fishermen and boat builders looked to a different boat design to meet the requirements of the change. At this point, the dory became the central focus of boat building activities.

Once it was evident that the dory would become the new boat for the area, builders began to experiment with design and construction in response to these environmental changes. During the past fifty years, the dory has developed from a row dory into an outboard powered dory used for lobster fishing, the mainstay of most inshore fishermen of the area. Dory development in the Bay of Islands took place within the confines of tradition, culture, personal expectations and innovation. While the tradition of boat building has remained in the area, it has undergone cultural changes in the form of the boat in which the tradition is manifested.

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Both my parents Arlene and Ray Dwyer and my mother- and father-in-law

Mary and Bud Corbin were always there to offer me many different types of support, especially during the fieldwork portion of the project. I thank my father again for suggesting the topic in 1992. Since then the dories have become as much a part of me as they are a part of Newfoundland. I owe a special thanks to Denise Iacobucci for her encouragement and to Sue and Marcus Martin for help with the final drafts. Finally, I owe an extra special thanks to Sonya for her love, patience, and never ending support during the entire project.

#### CHAPTER ONE:

#### INTRODUCTION

I first became interested in studying dories from the Bay of Islands when taking an undergraduate course in material culture at Memorial University of Newfoundland in 1992. I chose to study dories in this area mainly because I believed my uncle Roy Dennis was the last dory builder in the bay. Upon talking to my uncle about dory building, I soon discovered there were many builders of all ages; more than I could ever interview for a term paper. Therefore, I concentrated on his work. A copy of that research project titled, "The Bay of Islands Dory in John's Beach," was subsequently published in <u>Culture & Tradition</u> 15 (1991-1992): 5-32.

During fieldwork for that paper I discovered there was much more to dory building than simply making a boat. Because I had grown up near the area and having been in several dories, I was at least familiar with them but I did not realize the effort required to produce boats as a part of a way of life nor was I aware of the subtle differences present in dories built by different people. To discover more about dory building, I decided to enter the Master of Arts program at Memorial University of Newfoundland with dory building as my general thesis topic.

#### 1.1 Research Framework

My basic research framework is based on the analysis of the design, construction and use of the Bay of Islands dory. During the summers of 1992 and 1994, I focused my research on the dory itself. As I reviewed my research materials. I discovered that to find out more about the dory and its place in the culture of the Bay of Islands, I would have to know more about other types of small wooden boats built and used in the area in the past. During the summer of 1995, I continued to study the dory but, as an additional interest, I questioned my informants about herring boats. Throughout this thesis, I make reference to boats and dories. Boat building includes the construction of all types of boats, including dories, while dory building refers only to those boats. Figures 1.2 and 1.3 present the Bay of Islands dory as it was used in 1994 and 1995. Compare Figure 1.1 of a herring boat to the dories in Figures 1.2 and 1.3 to see the basic differences in the herring boat and the dory. The most prominent difference is in their hull shape. The dory has a flat bottom and flared sides while the herring boat has a rounded bottom with a keel and rounded sides.

Builders transferred some of the skills they used when building herring boats to building dories. Additionally, boat designs from other regions like Bonne



Figure 1.1. Herring boat in Trout River, north of the Bay of Islands.



Figure 1.2. Dory built by Jim Wells of Cox's Cove with parts identified.



Figure 1.3. Dory built by Freeman Sheppard of York Harbour with parts identified.

Bay or Nova Scotia could be influential in dory building. The technological and design influence transferred from these regions to the Bay of Islands was most significant in shaping the face of boat building in the bay. External design influences have had an impact on dory building and I considered how boats were built in the past in order to see the relationship among external influences, traditional rules and cultural interpretations, and manifestations of outside influences and rules.

Studies which focus on a regional folk artifact are important in material culture studies. Various regional boat types have been documented (see Basil Greenhill and Eric McKee), but little has been written about the folkloric development of contemporary objects like the dory<sup>1</sup>. In this case, the folkloric development includes the changing social significance of boat building skills as fishermen and dory builders become fewer. Recent trends, such as the use of fibreglass boats and declining fish stocks, reduce the need for traditionally produced wooden boats in western Newfoundland. This may change the existing tradition associated with the dory in the Bay of Islands. In the past, the herring

<sup>&</sup>lt;sup>1</sup>Pocius, Gerald L. "Material Culture Research in English Canada: Antiques, Aficionados, and Beyond." Canadian Folklore canadien. 4:1-2 (1984) 26-42.

boats were significantly, although not totally, erased from the historical record of the Bay of Islands when the herring fisheries collapsed and the economic situation changed.

Thomas Schlereth feels researchers should view material culture as a process whereby we attempt to see through objects (not just the objects themselves) to the cultural meaning to which they relate or might mediate<sup>2</sup>.

Ultimately, we seek ways of explaining the parts of human experience that heretofore have received little notice or understanding. Schlereth explains material culture as that segment of man's physical environment which is purposely shaped according to culturally dictated plans. Material culture, as suggested by the dories studied in the Bay of Islands, is the objects people create using traditional methods while considering cultural rules. For example, in the Bay of Islands, it is traditional to build dories out of wood yet the colours the people paint them are culturally based.

According to Richard Bauman, the term tradition is conventionally used in

<sup>&</sup>lt;sup>2</sup>Schlereth, Thomas J. "Material Culture or Material Life: Discipline or Field? Theory or Method? <u>Living in a Material World: Canadian and American Approaches to Material Culture</u>. Ed. Gerald L. Pocius. St. John's: Institute of Social and Economic Research, 1991. 231-240.

a dual sense, to name the process of transmission of an isolable cultural element through time and also the elements themselves that are transmitted in this process<sup>3</sup>. The traditional components of dory building persist through time, but the cultural aspects are time specific because they change in response to environmental (economic and technological) changes. Tradition, so reconceptualized, is seen as a selective, interpretive construction, the social and symbolic creation of a connection between the aspects of the present and an interpretation of the past<sup>4</sup>. Based on my three seasons of research in the Bay of Islands, I have found this interpretation of material culture, traditional rules and cultural rules, to best illustrate boat building there.

Change is a constant feature in folklore studies. Sandy Ives, when discussing folksongs, said "something happened" to the songs when they entered tradition or entered "a" tradition<sup>5</sup>. He later mentioned how the tradition edits the introduced item<sup>6</sup>. It is possible for an item to change after it enters a tradition, but

<sup>&</sup>lt;sup>3</sup> Bauman, Richard. "Folklore." <u>Folklore, Cultural Performances, and Popular Entertainments: A Communications Centered Handbook</u>. Ed. Richard Bauman. New York: Oxford UP, 1992, 29-40, 31.

<sup>&</sup>lt;sup>4</sup> Bauman. 31-32.

<sup>&</sup>lt;sup>5</sup>Ives, Edward D. <u>Joe Scott: The Woodsman Songmaker</u>. Chicago: U of Illinois P, 1978, 414.

<sup>&</sup>lt;sup>6</sup>Ives. 423.

while tradition may impact the item, it is culture, governed by tradition, which actually edits the introduced item. This means that dories are built following a certain form; with the end result being a dory. Over time, dories are built with different personal and time specific variations. As an item is used, time-specific stimuli act to change it (such as the introduction of new technology in the case of the dory), and these time-specific stimuli edit items while at the same time define "a" tradition. In the Bay of Islands, numerous factors have acted over many years to change the originally introduced row dory.

Although the scope and content of Newfoundland studies has always included fisheries, there seems to be an increasing anxiety and urgency for doing more especially in light of recent fisheries problems. In the Bay of Islands, the traditional fisherman and dory builder are becoming fewer, and the skill of building dories and its social significance is diminishing accordingly. Recent trends, such as the use of fibreglass boats, reduce the need for traditionally produced wooden boats and this may change the existing tradition associated with the dory in the Bay of Islands.

Dories are generally characterized by their propulsion system (ie., oars or outboard motors); by place of origin, (ie., Lark Harbour); by materials, (ie., plywood

or plank); by builder, (ie., Roy Dennis or Stan Park). There are several types of dories along the northeastern Atlantic coast of north America. The most famous of these are the Gloucester dory, the Lunenburg dory and the Shelburne Dory. In Newfoundland there are the Monkstown dory in Placentia Bay, the Grandy dory on the Burin Peninsula, the Bay of Islands dory in the Bay of Islands, and in St. Pierre and Miquelon, the St. Pierre dory. All of these types are based on and conform to the basic dory form: flat bottom, flared sides, plank-on-frame construction, and pointed at both ends.

All types of row dories were used in the period from the late nineteenth century until they gradually went out of use by the 1960s. In Nova Scotia, the Lunenburg and Shelburne dories are the two predominant row dories<sup>7</sup>. Of the two Nova Scotia dory types, there are five or six versions of each, as many as there were independent dory factories. These Nova Scotia dories are representative of those used in Grand Banks dory fishing which ended in the 1960s but was in

<sup>&</sup>lt;sup>7</sup>In Nova Scotia there are three museums which feature dories, the Maritime Museum of the Atlantic in Halifax, the Fisheries Museum of the Atlantic in Lunenburg and the Dory Shop in Shelburne.

decline since the 1920s.

The Bay of Islands dory, as will be demonstrated later, is related to both the Lunenburg and Shelburne dories. There are even subtypes of the Bay of Islands dory that generally reflect where a craft is built in the bay. For example, types of dories are sometimes named for the community where they were built or for the person who built it.

In 1994, funded by the Institute of Social and Economic Research (ISER), I focused my attention on dory building in the Bay of Islands and the influence from the United States and Nova Scotia on local builders' activities. I conducted my study of dory building in the Bay of Islands during the summers of 1994 and 1995. It was an incredible learning experience for me because I did not know the process of dory building prior to the 1992 project. My final research effort in 1995 concentrated on relating past Bay of Islands boat building activities to the current pattern of dory building. Associating meanings and patterns in herring boat building made the patterns of dory building more significant and meaningful.

Figure 1.4 is a map of Newfoundland highlighting the Bay of Islands and the communities where I focused my research. In addition to fieldwork in the Bay of Islands, I conducted research in St. John's at the Memorial University of

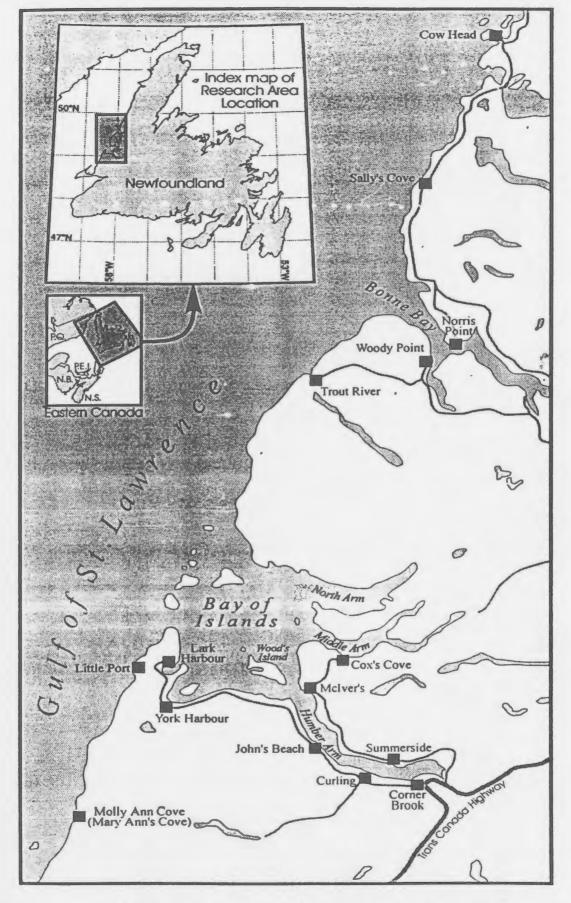


Figure 1.4. Map of Newfoundland featuring the Bay of Islands research area.

Newfoundland Folklore and Language Archive, the Centre for Newfoundland Studies Archive, and the Provincial Archives of Newfoundland and Labrador. In Nova Scotia, I conducted research at the Fisheries Museum of the Atlantic in Lunenburg, the Maritime Museum of the Atlantic in Halifax, and the Shelburne Historical Society in Shelburne.

## 1.2 Research Techniques

The practical techniques used to carry out this study are similar to that of David Taylor's research on boat building in Winterton, Trinity Bay. These techniques include the use of descriptions of the three-piece adjustable-mold design, of a detailed description of the operations of a representative boat builder, and the analysis and presentation of various design techniques. In Taylor's survey of traditional systems of boat design, he calls for greater attention to the process of design in material culture studies through systematic analysis of the physical properties of the object, verbal statements by its makers and users, and observation of its design, construction, and use. The components of this process were adhered

<sup>&</sup>lt;sup>8</sup> Taylor, David A. <u>Boat Building in Winterton, Trinity Bay, Newfoundland</u>. Ottawa: National Museums of Canada, 1982.

<sup>&</sup>lt;sup>9</sup> Taylor, David A. <u>A Survey of Traditional Systems of Boat Design Used in the Vicinity of Trinity Bay, Newfoundland, and Hardangerfjord, Norway</u>. St. John's: Memorial University of Newfoundland, 1989.

to for the present study through interviews, photographs, measurements and drawings of dories and dory components.

My thesis research in the Bay of Islands involved eleven primary informants: Roy Dennis in John's Beach (Figure 1.5); in York Harbour, Freeman Sheppard and Charlie Kendall, in Lark Harbour, Harvey Sheppard and the now late Robert J. Park (Figure 1.6); in Cox's Cove, Stan Park (Figure 1.7), John Payne (Figure 1.8), Ben Wells (Figure 1.9), Jim Wells, in Summerside, Leslie Loder and the now late Joe Lundrigan. During the course of the project, I interviewed approximately forty people.

I contacted most of my informants through people I knew in the area, asking if they knew of any dory builders. From there, I asked the dory builders I spoke to if there was another person they could refer me to. Everyone had a suggestion of at least one person. Occasionally, I met people who did not have information on dory building but their stories about other aspects of life around the bay provided me with insight into the traditions and culture in which the dory exists.

I tape recorded most interviews and this yielded a total of about eighteen hours of useable material. The only exception occurred when people preferred not



Figure 1.5. Roy Dennis of John's Beach.



Figure 1.6. The late Robert J. Park of Lark Harbour holding a model of a motor dory he built.



Figure 1.7. Stan Park of Cox's Cove showing how he uses a batten to shape a dory floor and the placement of a timber.



Figure 1.8. John Payne of Cox's Cove with his model of a Bay of Islands herring boat which he modified to look like a Cape Islander.



Figure 1.9. Ben Wells of Cox's Cove.

to be interviewed on tape. For example, sometimes we would be moving around the dory-building shed or on the beach near the boats, and it was more efficient to take field notes, measurements and photographs. For almost all of the interviews, I recorded written notes while conducting taped interviews. Other times, I made drawings and took measurements when a person showed me a series of techniques.

For convenience, I sometimes wrote notes in a notebook while talking to a person. Following those interview sessions, it was useful to also write follow-up notes about it. This technique was important because, as my concept of dory building developed, I could plan my next interview questions. If one informant, for example, made a comment of interest I had not heard before, I would ask him to clarify. Later, when I made notes about the interview, I would make a point of asking the next person I interviewed about it.

During the interview sessions, I found photographs tremendously important.

When I took a photograph of a boat or a part of one, I discovered that the informant would talk about what he felt was important about dory building. As a technique was explained to me, I took photographs to have an accurate visual record for writing about the process, technique, or feature. The photos were also useful to show to informants in follow-up interviews as aids in asking questions

about other aspects of dory building. Using this method, I could more easily clarify technical details and the names of parts. As well, by showing informants pictures of dories built by other people, I gained their opinions of other building methods. For these reasons, I found the role of photographs to be essential.

In addition to fieldwork in the Bay of Islands, I found it necessary to conduct research in Bonne Bay, north of the Bay of islands. My informants said boat building activities in that location were important to the study, and to clarify or to discover new information, it was necessary to travel to other areas outside the Bay of Islands region. For example, I once went approximately one hundred kilometres inland to Howley to find out about Bay of Islands dories used in fresh water lakes. Regardless of where I went during my study, people were cooperative.

## 1.3 Chapter Overviews

This introduction described how I researched dory building, and the context of dory building in the Bay of Islands. The theoretical perspective I have taken to study and present the Bay of Islands dory and the people who use it is historic-geographic. As Brunvand notes, "the oldest and perhaps still the most common technique of folklore analysis is comparison, usually of different versions of the

same item...The most elaborated form of this kind of research [is] the historicgeographic method (or "Finnish Method")." 10 "The works of the so-called Finnish school, applying the historic-geographic method, are often regarded as purely folkloristic. This school endeavors to find evidence of the paths of migration of individual...types...Through careful comparison of all known variants, it attempts to establish a family tree of subtypes and finally to identify an archetype, or at least a basic form," according to Lüthi<sup>11</sup>. This comparison is explored through the dory's form, construction and use, which as David Taylor points out, are the three key elements of any object of material culture<sup>12</sup>. This comparative method was deemed most appropriate to answer my basic research question of "what is a Bay of Islands dory?" As noted earlier, Bauman views tradition as a creation of a connection between the past and present, further lending support to this historicgeographic method because connections among dories found in one geographic area are essentially connections among the shared history of the area.

In the following five chapters, I will present an historical perspective of Bay

<sup>&</sup>lt;sup>10</sup> Brunvand, Jan Harold. <u>The Study of American Folklore</u>. New York: W.W. Norton & Company, 1986. 25.

<sup>&</sup>lt;sup>11</sup> Lüthi, Max. <u>The European Folktale: Form and Nature</u>. Trans. John D. Niles. Ed. Dan Ben-Amos. Bloomington: Indiana UP, 1982. 123.

<sup>&</sup>lt;sup>12</sup> Taylor, David A. <u>Boat Building in Winterton, Trinity Bay, Newfoundland</u>. Ottawa:

of Islands boat building activities, detail features of the Bay of Islands dory, and explore characteristics of its design, construction and use.

Chapter Two presents the changes in past boat building activities in the area, and contextualizes present boat building activities there. First, the two older styles of herring boats are discussed along with the changes they have undergone. With outside design influences from Nova Scotia, changes in boat use and design over time, and the introduction of the outboard motor in the 1950s, the outboard motor dory became the most important design. Additionally, a history of fisheries in the area is presented to show how the species of fish most commonly sought have affected boat types and how the dory became the predominant fishing-boat type.

The dory described in Chapter Three is the most commonly used type from 1992 to 1995, and represents the design, construction and use for this time.

Chapter Three describes how older boat types became replaced by the row dory and eventually the outboard-motor dory. Construction changed to suit localized

rules of design (the dory form proved itself useful outside of fishing activities and became used in connection with woods work, demonstrating the form's versatility). Before the first dories were built, it was necessary for builders to transfer their skills from building herring boats to building dories. Both processes had similar layout procedures, and the language used to describe parts and procedures remained relatively unchanged. During my study, it became evident that there were two distinct methodologies for the design and construction of herring boats.

Design, construction and use comprise the three fundamental components of a material object<sup>13</sup>. Chapter Four deals primarily with the design component of material culture. Design is the least evident of the three as it primarily consists of the builders' own considerations, combined with traditional and cultural rules. Dory design is essentially the builders' interpretation of the traditional and cultural rules. Construction and use are more obvious visually. When the boat is completed, the design considerations become more apparent. Throughout Chapter

<sup>&</sup>lt;sup>13</sup>Glassie, Henry. Pattern in the Material Folk Culture of the Eastern United States.

Four, details of design considerations are demonstrated with photographs and drawings of methods used for building herring boats and dories.

Chapter Five discusses how the Bay of Islands dory is built. The procedures followed by two dory builders are presented in detail to compare and contrast dory building of the past and in the present. The method used by late dory builder Robert J. Park of Lark Harbour represents past methods used on the south shore, and the methods followed by Stan Park of Cox's Cove demonstrates those currently employed on the north shore.

A change in use—like using different types of fishing equipment—will force a change in the design and construction. Chapter Six describes the significance of dory use and how the information gained by the builder when using a dory may influence change in design, and therefore, construction.

## CHAPTER TWO:

THE HISTORY OF CHANGING BOAT USE IN THE BAY OF ISLANDS
2.1 Early History

In terms of Newfoundland settlement history, western Newfoundland has been settled relatively recently as the most dramatic population increases occurred after 1860<sup>1</sup>. The Bay of Islands had only begun to be settled by the mid-nineteenth century, whereas settlement was well established in eastern Newfoundland by this time<sup>2</sup>. Eastern Newfoundland was the main population source areas for the Bay of Islands during early settlement. Early settlers brought their fishing boats with them but abandoned their designs soon after settling there. Settlers fished for cod, herring, lobster, salmon and mackerel in these boats—unlike today when people mostly fish for lobster in dories.

The dory has been the most widely used boat over the longest period of time in the Bay of Islands. The dory has even worked its way into other aspects of life in the west coast with the bay as the source area. The Bay of Islands dory, as it has

<sup>&</sup>lt;sup>1</sup>Mannion, John J. "Settlers and Traders in Western Newfoundland." <u>The Peopling of Newfoundland: Essays in Historic Geography</u>. Ed. John J. Mannion. St. John's Institute of Social and Economic Research, 1977. 239.

<sup>&</sup>lt;sup>2</sup>McManus, Gary E. <u>Atlas of Newfoundland and Labrador</u>. St. John's: Breakwater, 1991. Plate 7.

come to be known, has been used in logging in the interior, for driving logs down rivers, as a row dory form in the 1920s and 1930s, and it has been used lately as a pleasure boat for cabin owners.

I have not been able to find out the types of boats the early settlers were using, but my informants have given me some details of their basic form. Two designs were generally used. The smallest boat (12-14' overall length) had lapstrake (clinker) (see glossary) hull planking with steamed timber (see glossary) framing. It was powered by a set of oars, a sculling oar, a sprit sail, or any combination of these. The larger boat (25-30' overall length) was similarly built but with edge-to-edge (carvel) planking and powered with either or both of a sculling oar or a sprit sail. When questioned about the earlier types of boats used in the Bay of Islands, John Payne of Cox's Cove in Middle Arm said that the older, small boats were like punts. He was not sure exactly where the people came from originally, but he was certain that they brought this boat type with them.

John Payne's grandfather came from Chimney Cove and Trout River before that, both places are located on the coast north of the Bay of Islands. His grandfather used a 20-22' top length punt with a straight/vertical counter which he

built. This boat was powered by a four horsepower Acadia motor<sup>3</sup>.

Since the early settlers came from different places like Conception Bay, the Avalon and other areas on the east coast<sup>4</sup>, it is likely the settlers would have provided the area with a variety of boat designs and styles. As life in the Bay of Islands progressed, some locally distinctive boat building traits developed. Though the outboard motor dory is the most common type of small boat built by local builders, there has been a process in the past century for builders to build boats of differing forms and on occasion to drop one form in favour of another. Maybe the spirit of boat building lies predominantly in the willingness to be adaptable and build different boats as the context prescribes.

Early in my research Roy Dennis told me that one influence on the local dory form was the introduction of a Shelburne, Nova Scotia, dory by the Dennis family during their boat building activity in the 1880s<sup>5</sup>. The Dennis family built boats primarily for their own use in lobster fishing, but some dories were built for sale to other fishermen. Since the late-nineteenth century until the 1960s, the Dennis family built dories in either of two sheds located on the beach by John's

<sup>&</sup>lt;sup>3</sup>Interview with John Payne in Cox's Cove, Bay of Islands, August 16, 1994.

<sup>&</sup>lt;sup>4</sup> Mannion, 239.

<sup>&</sup>lt;sup>5</sup>Interview with Roy Dennis in John's Beach, Bay of Islands, September 2, 1992.

Brook in John's Beach. In the years following the 1960s, when a highway was built between most of their homes and the beach, the dory building activity was done in sheds closer to their homes.

The dory design came into use in the Bay of Islands via a process of changing boat use and design selection over many years. The dories came to the bay as Roy Dennis says in the 1880s. External factors as outlined below by John Mannion most likely added to the circumstances which brought row dory-carrying schooners to the Bay of Islands.

After the treaty of Washington (1871) the door was opened for American transactions with the settlers and the spiralling demand for bait for New England bankers resulted in a steady stream of American fishermen and traders to Bay of Islands and Bonne Bay during the Herring season. Up to sixty schooners would appear in each bay each fall and the residents would load these vessels with fresh herring which were promptly salted in the hold; once loaded, the vessels sailed for New England on the Banks, discharged their cargo and often returned for a second or third load before freeze-up<sup>6</sup>.

Up to this point, the late 1880s, there are no customs records of the first

<sup>6</sup> Mannion. 261.

arrival of dories to the Bay of Islands. Customs records of the early 1900s do however indicate that people in the Bay of Islands purchased new and used row dories, from schooners trading primarily in herring at Woods Island and Lark Harbour, and from the port named simply, the Bay of Islands<sup>7</sup>. It has been recorded that Nova Scotia boats came to the Bay of Islands to get herring for bait. A similar situation existed in Harbour Breton on the South Coast where the customs records for the 1840s, 1880s and 1890s exist. The Bay of Islands and Harbour Breton have similar current use of outboard motor dories and similar past influences from outside sources for dory designs<sup>8</sup>.

According to the customs records at the Provincial Archives of

Newfoundland and Labrador in St. John's, there were 65 dories imported into the

Bay of Islands from an unspecified date in the 1890s to November 9, 1909. For

the period October 19, 1894 to December 10, 1896 there were 19 dories imported

<sup>&</sup>lt;sup>7</sup>This information is from the Provincial Archives of Newfoundland and Labrador (PANL)file number GN 11/8/A/3.

While I have conducted my research in all areas I have suspected dories to be found, I was not able to get to Harbour Breton or the Bay D'Espoir area. I was fortunate however to find some <u>Decks Awash</u> contact prints in the Centre For Newfoundland Studies Archives depicting the construction of a dory. The contact prints numbered E679, E707, E718, E736 and E738 depict the process from material preparation to construction and the finished dory in the water and on a beach.

into Harbour Breton. It is interesting to note that Roy Dennis had told me that his uncles and grandfather got an old dory that was built in or originated from Shelburne, Nova Scotia, in John's Beach, Newfoundland, about 1880<sup>9</sup>. In the Bay of Islands, 14 of the 65 imported dories were classified as second-hand dories and were of lesser value than new dories (Table 2.1). In a similar case in Harbour Breton, six dories were recorded as second hand and one was recorded as an "old dory," the distinction between old and second hand is not clear (Table 2.2). While I could not find a reason why people bought dories from outside the area, Roy Dennis reported they did.

## 2.2 History of Boat Building in the Bay of Islands

Since the first settlement of the Bay of Islands, about one hundred and fifty years ago, people have used, many different types of small boats. Figure 2.1 illustrates the types of boats used and some paths of use, development and discontinued use over time. Two significant periods of boat introduction are

<sup>&</sup>lt;sup>9</sup>Interview with Roy Dennis of John's Beach, Bay of Islands, September 2, 1992.

TABLE 2.1. Dory Imports Through Bay of Islands and Woods Island Customs Offices, 1890s to 1908.

PORT	DATE	# of DORIES	VALUE (\$)
Bay of Islands	November, 1890s	2, second hand	not given
Lark Harbour	November 9, 1900	2	not given
Bay of Islands	December 15, 1901	4, second hand	not given
Lark Harbour	December 15, 1901	4, second hand	not given
Lark Harbour	October 30, 1902	4, second hand	8.00
Woods Island	January 2, 1904	1, second hand	not given
Bay of Islands	December 7, 1904	4	6.00
Channel, NF	December 13, 1904	5	not given
Bay of Islands	December 14, 1904	4, second hand	not given
Lark Harbour	October 18, 1906	10	not given
Woods Island	November 25, 1906	2	not given

Woods Island	December 5, 1906	8	not given
Woods Island	November 7, 1907	4, second hand	not given
Woods Island	November 12, 1905	5	not given
Lark Harbour	December 18, 1907	2	5.00
Woods Island	October 28, 1908	2	not given

Source: Provincial Archives of Newfoundland and Labrador (PANL file GN 11/8/A/3).

TABLE 2.2. Dory and Boat Imports into Harbour Breton 1889 to 1897.

PORT	DATE	# of BOATS	VALUE (\$)
Harbour Breton	December 21, 1889	1, second hand*	30.00
Harbour Breton	November 21, 1891	1, second hand*	30.00
Harbour Breton	December 29, 1891	4, second hand	12.00
		dories	
Harbour Breton	May 14, 1892	2, second hand	8.00
		dories	
Harbour Breton	December 10, 1894	1, dory	not given
Harbour Breton	October 17, 1896	1, dory	1.50
Harbour Breton	October 19, 1896	2, dories	4.00
Harbour Breton	December 14, 1896	2, dories	8.00
Harbour Breton	March 9, 1897	1, dory	2.50
Harbour Breton	March 22, 1897	3, fishing dories	Not given

Harbour Breton	November 7, 1897	1, old dory	1.00
Harbour Breton	November 13, 1897	2, dories	Not given

Source: Provincial Archives of Newfoundland and Labrador (PANL file GN 11/8/A/3).

<sup>\*</sup>These are not dories but a second-hand seine boat and a second-hand herring boat.

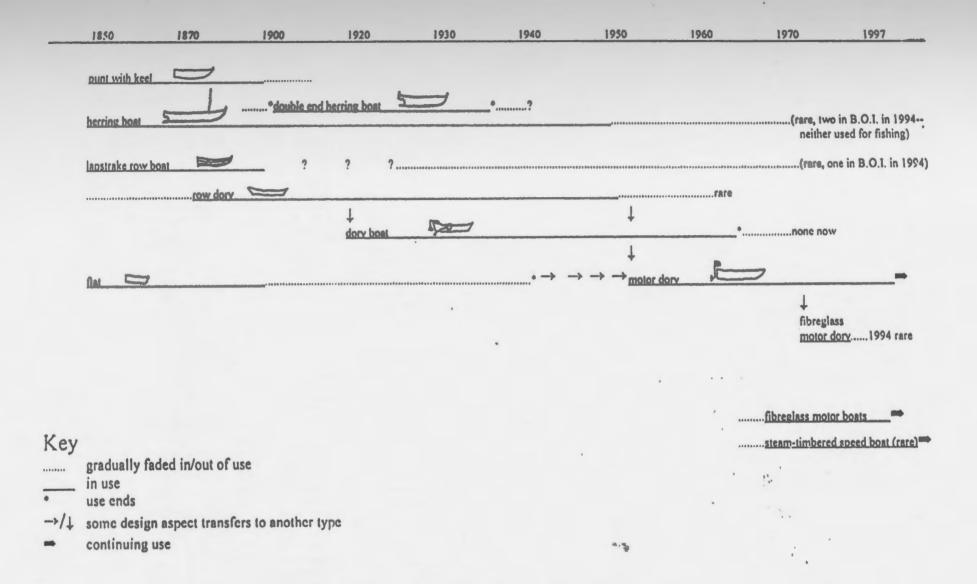


Figure 2.1. Boat use in the Bay of Islands: Early settlement to present.

evident; those boats brought with the original settlers and those introduced after permanent settlement was established. The information about the original settlers' boats is not clear, but I am mainly concerned with the boats in the second wave of boat introduction, especially the motor dory, as described by Harvey Sheppard.

P.D.: When you went from herring boats and row dories to motor dories, what kind of changes did you make?

H.S.: Well they're all together different, the row dories have two stems more or less. These outboard motor dories got a wide stern on them to put the motor on them.

P.D.: I guess there was a lot going on then when you were changing the style?

H.S.: It's something different.

P.D.: Did people think much of that when you first changed the dories?

H.S.: It was a wonderful thing. You had a ten horsepower then, my son you had some power. It was a big change. The first ones you do weren't what you call, [great], but they gradually picked up from there and didn't take long to see the

difference of what you thought was good 10.

Two forces influenced the Bay of Islands people to change the type of boat they used: economics and new fishing technologies. Economics included the availability of a desired type of fish, its current price, and the amount needed to be profitable. The practicality of a boat is related to the type of fish taken, and the method. Technology includes the type of gear used for fishing and the type of boat used. All of these factors have had some impact on the types and shapes of boats in use in the Bay of Islands.

In Harbour Breton, Francois, Monkstown and St. Mary's, and throughout the Bay of Islands, dories were bought and then rebuilt to suit the specific needs of those places. For example, in the Bay of Islands, builders like Harvey Sheppard of Lark Harbour adapted old row dories for outboard motors by changing the aft section. Each case is similar, as dories were bought from source areas in Shelburne, as Roy Dennis reported, and Lunenburg, Nova Scotia, as Robert Park said, and then adapted to suit specific purposes in each community.

<sup>&</sup>lt;sup>10</sup> Interview with Harvey Sheppard in Lark Harbour, Bay of Islands, May 13, 1994.

P.D.: So when you first started building...did you go from the row dory to [the outboard motor dory].

R.P.: Yes, well the outboard motors came out, we were using the outboard motors here on the gunwale...this [mounting the outboard on the counter] is what we come up with. It was took from the mainland speedboat and all how to install the motor. I didn't use them on the gunwale. I used them on the on the stern when I used tem. But there was fellows had them and they used them on the gunwale...on the two-stemmed dories, didn't know the difference. I was probably one of, the first ones to widen the bottom out here probably 35-36" so you have plenty of room to work away at it [handling the motor and fishing]<sup>11</sup>.

Jack Monk in Monkstown, Placentia Bay, said the dories built there were influenced by Lunenburg, Nova Scotia, dories. The first dory to come to the area came from Lunenburg in the late 1800s. Jack's father bought the dory from a Lunenburg schooner in Burin; he called it a, "dutch dory." Once the dory was repaired they took plans off it and began to build dories to supply schooners. They did change then over the years and kept improving them with each building<sup>12</sup>.

Similarly, in John's Beach, Bay of Islands, Roy Dennis said the most

<sup>11</sup> Interview with Robert Park in Lark Harbour, Bay of Islands, May 17, 1994.

significant influence for them was from the Shelburne, Nova Scotia, dory. Roy and Ralph Dennis from John's Beach have shown me some original parts considered to be from a Shelburne dory which they believe to be over one hundred years old. These parts, consisting of the floor, five timbers from one side and the stem post, are possibly of Nova Scotia origin<sup>13</sup>. These parts are important for their historical and structural value because they are possibly the only parts needed as templates to build new dories. Otherwise, what would be the value of keeping all the timbers of only one side, the stem-post and the floor? The most reasonable explanation for disassembling the old dory would be to use its parts as templates to build a row dory. The other parts of the old dory may have been reused, discarded or burned to warm the builders as they built a new dory to replace the old one. This says much about the dory building activity of the Dennis family in John's Beach. Les Dennis's nephew, Roy Dennis said in an August 1992 interview that Dennis used old Shelburne dory parts to build new dories about a hundred years

<sup>&</sup>lt;sup>12</sup> Interview with Jack Monk of Monkstown, Placentia Bay, August 10, 1994.

The dory timbers discussed here are made with a three-piece clip-type mechanism joining the two arms of the timber. Timbers were built in this manner in the late nineteenth century and originated, it is believed, in Shelburne, Nova Scotia. Roy Dennis said in an interview in May, 1993 that the parts came from a Shelburne dory. The Dennis family in John's Beach have a set of five of these dory timbers and these timbers may be unique in all of my study area.

ago. Les's use of the old parts up until 1992 suggests that the parts originally used to build row dories were still significant, as they represented the transfer of skills and ideas from building row dories to building outboard motor dories. The design of this old dory built over one hundred years ago was still contemplated and fitted into a revised, related form; the outboard motor dory.

To summarize, the dory in the Bay of Islands arrived as a feature of a system of trade between the area and Nova Scotia. From the 1850s to the present day there have been, in my estimate, ten different types of boats in general use in the Bay of Islands. The dory became the most important type of boat in the Bay of Islands with the introduction of the outboard motor in the 1950s. Eventually, it became a part of a changing system of boat use and design in the Bay of Islands.

In some cases, I was not able to find out specific information about the older boats like the punt<sup>14</sup>. Appearing from 1920-1930, possibly from influence in Bonne Bay, is a large boat (25-30' overall length) which had the equivalent of a stem at each end even though it was motor powered. The boat is described by

<sup>&</sup>lt;sup>14</sup> My informant John Payne, in his late eighties, sometimes said, "fishing and boats was all a long time ago and is not important now." It was sometimes difficult to get him to elaborate on many of the things he said he knew about.

Richard Park as a two-stemmed boat<sup>15</sup>, with the stern and stem alike in shape and construction, as though there were two stems. The underwater part of the stern was hollowed to make space for the propeller to fit. The boat was powered by a 4-8 hp Acadia, Barnes or Atlantic make-and-break marine engine. It was used primarily for fishing for herring, cod, salmon and lobster. It also appears the boat may have had another use. I have been able to find three photographs and one drawing of boats similar to this one. Figure 2.2 is a profile shot of one of the boats in use on the lower Humber River and it looks as if it were used to transport. A large boat like this one needed to be moored off out in the water and required a smaller tender, locally referred to as the "flat," which was aptly named for its flat bottom. When the flat was used to row out to the larger boat, moored off shore, the flat was said to be used for "going to the collar." The flats were only used as long as the larger boats were; without the larger boats, the flats had no practical purpose.

<sup>&</sup>lt;sup>15</sup> In an early MUNFLA file (accession number 68-17H), Richard Park presents an excellent summary, with drawings, of the types of boats and other items of material culture used in the past in Gillams and the Bay of Islands.

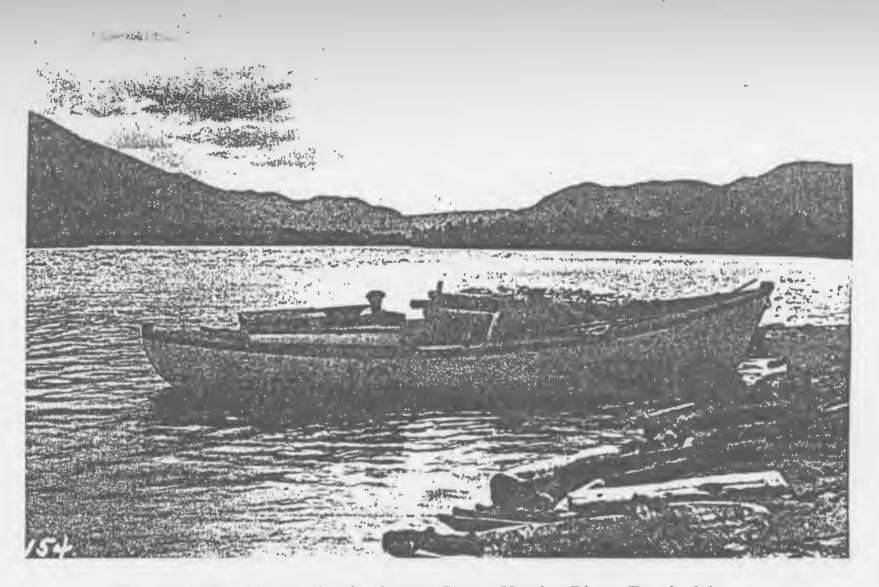


Figure 2.2. Double-stem herring boat on Lower Humber River. (Provincial

Archives of Newfoundland and Labrador Photo #VA 9-86).

The two-stemmed boat declined around 1930, while at the same time people began to use the herring boat, an adaptation of the two-stemmed boat which had a wider transom or counter. In addition, the overall dimensions grew up to 6-7' depth, 8-9' beam and 28-30' overall length. Similar boats found in Trout River and Bonne Bay were also used for herring fishing. In both boats, the engine was mounted in the aft section with the propeller shaft coming out through the keel. Like the two-stemmed boats, these were planked in the carvel style providing a smooth finish on the outside.

While my informants could easily relate a chronology of fishing boat use, they were less certain as to the origins of dory use in the area. Harvey Sheppard said, "...the dory has been there as long as anyone can remember 16". The dory form in general was possibly adapted for industrial-like fisheries such as the handline cod fishery, sometime before 1850. It may have been adapted from another design or invented for cod fishing. When the dory came to the Bay of Islands, it was used for similar fisheries, but what is more important, it was used as

<sup>&</sup>lt;sup>16</sup> Interview with Harvey Sheppard at his home in Lark Harbour on May 13, 1994.

a tender for the larger herring boats and may have replaced the flat.

The dory form in the Bay of Islands evolved in three major phases; the first is the archetypal row dory (Fig. 2.3), the second is the motor dory or dory boat (Fig. 2.4) and the third is the present day outboard motor-powered dory (Fig. 2.5). It is important to note that while the boat's form has changed, the name has remained, suggesting slow, gradual refinements. In places in Bonne Bay and north along the Northern Peninsula the outboard motor dory is called a flat, or a speed dory, but when the dory is referred to in the Bay of Islands today, it means the outboard motor dory. The original type of dory is referred to as a row dory or an old type of dory.

The row dory is not built on a regular basis today, and has not been used much since about 1955. From that time period on, it would have no longer been useful as a tender for the herring boats because the herring fishery collapsed. The herring boat--not useful for lobster fishing--began to be used less.

The dory boat is an adaptation which evolved from the original row dory when the make-and-break marine engine was introduced near the beginning of the twentieth century. This boat represented a new type of fishing in the Bay of Islands. The salmon and lobster fishery expanded in the early twentieth century,



Figure 2.3. Row dory built by Roy Dennis of John's Beach.

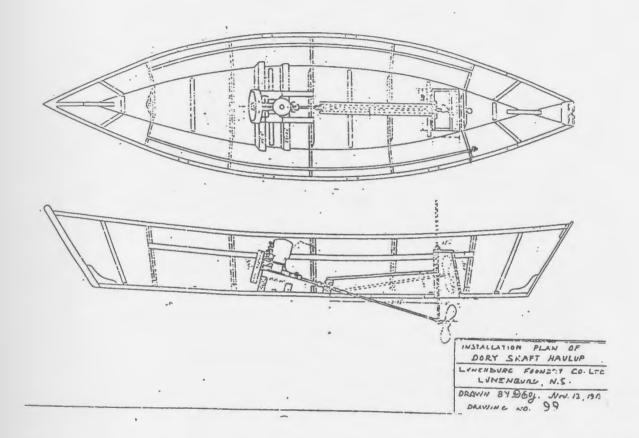


Figure 2.4. Dory Boat. Drawing of a dory with an inboard make-and-break marine engine installed. This drawing from the Lunenburg Foundry Company Limited typifies what would have been called a dory boat or motor dory in the Bay of Islands. It is basically a row dory with a motor installed in it. (Photocopied sheet of paper from the Lunenburg Foundry Co. Ltd., Lunenburg, N.S. Date is believed to be 1919)



Figure 2.5. Outboard motor dory. Ralph Dennis stands by an outboard motor dory in Mary Ann's Cove, south of the Bay of Islands.

and a boat smaller than the herring boat was more appropriate. The dory boat, as indicated by the name, combined features of the row dory and the herring boat. It used the shape of the row dory and utilized some of the construction techniques the builders had learned when installing inboard motors in the larger herring boats. In the mid-1950s, the outboard motor was introduced to the bay. Subsequently, builders began to combine design cues from the flat and the row dory to synthesize a new form, the outboard motor dory.

Around the same time, the outboard motor was introduced to the bay and the row dory began to be replaced by the outboard motor dory. These indications indicate the influence of economic and technological changes on boats used in the fisheries. Jim Wells, in Cox's Cove, said he used, "...a row dory in the early 1960s to collect driftwood from the beaches of Humber Arm<sup>17</sup>. It was also used for collecting kelp to fertilize potato beds. Row dories were generally 14-16' bottom length, 4½' in beam and 1½-2' draft. They had three seats (locally re-ferred to as "tots"), two forward and one aft, and five shoes on the bottom. Shoes are thin (11/2" x ½" x dory length) strips of spruce or hard wood which run the length of the dory along the middle of the bottom, and along the length of each outer edge

<sup>&</sup>lt;sup>17</sup> Interview with Jim Wells in Cox's Cove, May 18, 1994.

of the bottom.

The outboard motor dory is similar in its basic form to the flat described earlier but it has more sheer, more rake on the counter and is powered by an outboard motor. In addition to fishing for lobster, salmon and cod, the outboard-motor dory was preferred for pleasure use as well. The first outboard motor dories were simply row dories with a flat counter replacing the narrow, pointed transom. Robert Park of Lark Harbour was one of the first in the area to modify the row dories for the new motors.

These first outboard motor dories had many problems with control, as builders experimented with the shape of the bottom, flare of the sides, shape of the counter and length of the boat. It appeared they had the basic elements but as yet had not refined them into a suitable form. While the basics were present, a suitable dory-based boat with a wide counter upon which to attach an outboard motor had yet to be developed. By 1968, a new technology added to this redefinition of the dory form as marine plywood replaced the occasionally splitting planks which were usually used for the sides.

In refining the new outboard motor dory form, three major structural changes from the row dory were important: the broadening of the counter, the

lengthening of the dory overall and the addition of a crook or curve of the dory bottom. Each change required time for development, experimentation and testing. The earliest developments involved simply cutting apart and partially disassembling built row dories to add in new shapes. These alterations required the least amount of time and investment of materials. The dory was changed from 14-15' bottom length up to an optimum of 16', which made the dory easier to handle and manoeuvre. The crook in the bottom prevented the dory from digging into the waves when running with the wind. Boat builders combined the threeinch curve of both the fore and aft of the row dory to become the six inches of crook required for the fore end. The word crook describes the way a dory is curved upwards, and measurements describing it refer to how far it bends upward from a horizontal plane. Much of this change occurred as the culmination of a changing dynamic of use, economics and technology. Although many different types of boats have come and gone out of use in the Bay of Islands, the dory has been the most fluid form, the one that has been most altered by the users without total abandonment in favour of a different form.

The dory may have become popular in the Bay of Islands because economics dictated a smaller boat to catch lobsters. The area had a plentiful

supply of spruce and fir trees suitable for dory building and the dory's flat bottom was practical for hauling up on the sandy beaches in the Bay of Islands. In these ways the dory suited the area in an almost natural manner.

Some types of small boats have come into use in the Bay of Islands both in limited numbers and for short periods of time. The first in this category is the speed boat. It is a small, 15-16' overall length, carvel planked, steam-timbered boat with a slightly raked stem. Though it has been used for a few decades, only two or three are used in the bay in any given year.

A subcategory is the fibreglass speed boat. Many fishermen are not fond of this type of boat. Structurally, it will probably last ten years but its high price as well as its slippery, potentially dangerous interior surfaces makes it a choice of few fishermen. The fibreglass boat is made from a mould, a rigid form, that is nonadaptable. Each boat made from it is an exact copy of the others from the same mould. The wooden boat represents a more fluid form, one that may be changed each time its moulds and templates are set up for construction. The wooden dory has a much more human connection, because in most cases, the builder or designer is also the user. As the builder uses the dory, he keeps in mind changes in design which will be needed in the next boat and incorporates them into the design for the

new dory. The next fibreglass boat, however, will be the same as the last one with its design inflexibility contributing to its unpopularity.

Perhaps the most recent introduction to the collection of boats in the bay has been the fibreglass motor dory. This dory was produced at the Fibreglass Shop in Mt. Moriah, Bay of Islands. To make the fibreglass dory, a wooden form is built then coated in fibreglass to make the fibreglass mould which is removed from the wooden dory form. The mould is then coated on the inside with fibreglass and, when dry, is removed as the shell of a fibreglass dory. Wooden parts, such as seats, gunwales and some timbers, are attached using fibreglass sheeting. The problem with this dory is that it could not stand up to the demands of the fishermen just as the fibreglass boat could not and so fishermen do not buy them today.

## 2.3 Economic and Environmental Changes Affecting Boat Types

I have discovered during my research that, at differing times, changes in economic and environmental features have had an effect on boat use and design, as previously mentioned. As market conditions changed or availability of a type of fish changed, the need for certain types of gear or boats to catch other varieties was noticed. One example was the crash of the herring stock in the Bay of Islands area by the 1950s. At this time, fishermen switched their activity from herring to

lobsters and found the herring boats to be unsuitable for lobster fishing. Boat-building concerns turned to developing a smaller boat—the dory—for use in the lobster fishery as Harvey Sheppard said, "They were all together different. [Herring] boats were more or less for heavier work, handling all the gear. ...the dories were more or less for lobster fishing and cod fishing" 18. The combination of economic and environmental factors contributed to the development of the dory as the primary type of boat now used in the Bay of Islands. The tradition of building and using wooden boats continued, but the culture changed to one of dories from that of herring boats.

The following is a summation of the comments I found in a file titled

Chronological History of Newfoundland Fisheries. The file includes sets of

chronological points forming patterns of cod, herring and lobster fisheries.

According to several of my informants, Bay of Islands boat types and designs have

changed in accordance with environmental (including economic) factors. In this

early chronology of the types of fisheries carried out in the study area, it is evident

<sup>&</sup>lt;sup>18</sup> Interview with Harvey Sheppard in Lark Harbour, Bay of Islands, May 13, 1994.

the boats referred to by my informants correspond to the species of fish taken. A categorized summary of these details is included in the following eight paragraphs<sup>19</sup>.

Clearly, there are two significant scenarios in the history of Bay of Islands dory building. American schooners were in the bay since before 1892 and may have carried Nova Scotia dories, as my informants have indicated. These dories may have been sold to Bay of Islands residents, establishing a starting point for dory building in the bay. Newfoundland Banks schooners were there at the same time, most likely carrying the same types of dories, and may have sold some dories to area residents as well.

With the settling of the French Shore Question on April 8, 1904, fishermen flocked to the west and northeast coasts of Newfoundland. This migration facilitated the transfer of material culture and fishing technologies, especially for

<sup>&</sup>lt;sup>19</sup> Chronological History of Newfoundland Fisheries. Reprinted from the official papers of his excellency, Govenor Sir William McGreggor, 1907. This document outlines the early fisheries of the Bay of Islands in great detail.

boat designs coming to these areas from other parts of Newfoundland. This influx marks the appearance of the punt and early examples of the herring boat. The final general comment relevant to the west coast is that in 1905 disturbances occurred in connection with the fall herring fishery in the Bay of Islands. These disturbances indicate that herring fishing must have been a dominant type of fishery for residents. This also suggests there must have been a significant number of boats used for the herring fishery. Indeed, many of my informants—especially John Payne, Robert J. Park, Harvey Sheppard and Benny Wells—concur that the herring boats were among the earliest types used in the Bay of Islands.

There are a few comments in the <u>Chronological History of Newfoundland Fisheries</u> about the years from 1879 to 1905 which indicate that cod fisheries on the west coast may not have been as important as herring and lobster proved to be. In 1879, the cod fishery on the French Shore was uniformly bad. In 1892, the west coast fishery was described as "hardly average." An important comment from 1897 is that the cod fishery on the west coast has been stifled by the lobster fishery—meaning lobster fishing was more important, profitable and practised by more people. The cod fishery was profitable in 1903 but had declined by 1905.

From the end of the nineteenth century, lobster fishing was more commonly

practised.

Although herring, like lobster, was more important than cod, herring did have its fluctuations in availability. There were many more comments about herring on the west coast than there were for cod. In 1881, there were 180 boats at Bay St. George (Port-au-Port area) fishing for herring. In 1889, the winter herring fishery is noted as the mainstay of some of the inhabitants of the west coast. In 1892, there was a six-week successful season when 200 baiters in the Bay of Islands took 10,000 barrels by October<sup>20</sup>. In October of 1897, the herring were plentiful at Birchy Cove (Curling), but by the next year the west coast fishery in herring had failed. When there were fluctuations in one type of fish, people changed to other types.

By 1899, herring was again the major fishery in the area. From October 31,

A baiter is a boat engaged in catching caplin, herring and squid for use as bait in the cod fishery on the offshore grounds. G.M. Story, W.J. Kirwin, and J.D.A. Widdowson. Dictionary of Newfoundland English. Toronto: U of Toronto P, 1990. 16.

1898 to January 15, 1899, 40,000 barrels of herring were caught and sold for \$1.25 per barrel by 300 families living in and around the Bay of Islands. Three years later in 1902, it is noted that over 2000 people visited North and Middle Arms of the Bay of Islands for the winter herring fishery. By the end of October of the same year, with good numbers of herring taken, the Americans had bought it all.

Herring was economically important and Americans did visit the Bay of Islands to buy it. When these American ships came for herring, most of these American ships were banking schooners equipped with dories for fishing on the banks of Newfoundland and Nova Scotia. Bay of Islands residents needed a small craft like a dory to serve as an auxiliary for the herring boat when nets were hauled. The final comment from the Chronological History of Newfoundland Fisheries on herring adds to this statement because in 1903 a total of 150,000 barrels were produced in the winter fishery in Bay of Islands, Bonne Bay, Fortune Bay and Placentia Bay. In 1904, there were also 67 American vessels in Newfoundland, taking 94,000 barrels of herring. Dories may have been introduced to the area during these schooner visits.

In the same chronology, I found notes about lobsters dating from 1858 to 1902. In 1858, lobsters were first canned on the west coast near the Bay of Islands

and by 1873 a factory was established. By 1884, the lobster export was valued at \$60,000. In 1887, there were 16 factories on the west coast. According to Roy Dennis, a factory only needed four men and one small building to operate. By 1897, the lobster fishery on the west coast was more important than the cod fishery. A case of canned lobster selling for \$9.00 left the factory with \$4.00 clear profit per case. By 1905, a case sold for \$12.50<sup>21</sup>.

This examination of early fisheries demonstrates that herring and lobster were the two most important in the Bay of Islands. It is from these types of fisheries that the boats in this area developed. The types of fisheries carried on in the bay were influenced by markets for the fish and availability of a species. The combined effect of economics and environment on use have shaped the nautical material culture of the Bay of Islands resulting in the main type of tradition-based boat in the bay in the early- to mid-1990s being the outboard motor dory. The flat and the herring boat have had the most significant impact on the design of this Bay of Islands dory as the outboard motor took design cues from the flat, and the dory

Chronological History of Newfoundland Fisheries. Reprinted from the official papers of His Excellency, Governor Sir William McGreggor, 1907.

replaced the herring boat as the main type of fishing boat used in the bay.

Given the problems with the herring fishery in the 1950s, there would have been a change in the type of boat used in the Bay of Islands whether the dory was introduced or not. The row dory provided a prototype which was adapted for use in the bay. As it happened, the dory form was accepted as a replacement for the herring boat when there was a need for a new fishing boat.

The row dory was used in the Bay of Islands for about sixty years before it became the main type of boat used. There are several reasons why the dory finally replaced the herring boat. When fishermen found it more profitable to concentrate on lobster fishing, they began to abandon the herring boat in favour of the smaller dory. When I asked Harvey Sheppard about this he commented that, "They [fishermen] found them [dories] good I guess. A different style of living and that's what was used for everything, cod fishing and lobster fishing." As the dory developed, builders took design cues from the flat, and built the dory to accommodate the new outboard motors of the 1950s and soon developed it into a lightweight, manoeuvrable craft, one perfectly suited to lobster fishing. The flat-bottomed craft was equally well suited to the flat, sandy beaches of the bay, and in most cases one person could beach and launch a dory. Most of the forest

surrounding the Bay of Islands area consists of spruce trees, a material useful in boat building and used by builders for many years in making herring boats. In these ways, the dory was suited to the lives of Bay of Islands fishermen.

This chapter provided the history of changing boat use in the Bay of Islands. In chapter three, the outboard motor dory is described in detail, comparing past and current forms to show the extent of the use of the dory form in the area. Herring boats of different form, used before dories, will be presented to demonstrate how their building procedures relate to the current practice of dory building.

### CHAPTER THREE:

#### THE BAY OF ISLANDS DORY

## 3.1 The Outboard-Motor Dory

The Bay of Islands dory, the focus of this study, is the outboard-motor dory described in Chapter One. The outboard-motor dory is unique because it differs from the row dory. Dories are generally characterized by their propulsion systems and thus design; by place of origin and quality of build, materials and builder.

What is the Bay of Islands dory? This is a question which demands consideration of the traditional and cultural rules of design, construction and use.

Since accepted dory forms reflect changing cultural rules, a dory considered to embody all the desirable characteristics in a given period may not be held in the same esteem in the years following. The dories presented here are those built and used in the bay since about 1993, and they represent design, construction and use of this time period. One group of dories illustrates how design may change.

During my investigation, I was only able to examine a small sample of the dories in the Bay of Islands, but that sample was useful for eliciting much information about the nature of dories and dory building in the area.

The following description of a typical Banks dory and similarly a row dory is taken from Ray MacKean and Robert Percival's <u>The Little Boats: Inshore</u>

Fishing Craft of Atlantic Canada<sup>1</sup>:

A dory is a flat bottomed boat with flaring sides and raking ends which became very prominent in the days of salt bank fishing. The dory was strong, light, and could be carried one within the other on the deck of the mother ship.

As I have mentioned, the contemporary dories in this study differ from this in that they are designed and used differently in new contexts of fishery technology.

Borrowing MacKean and Percival's format, the Bay of Islands dory may be described as follows: it is a flat-bottomed boat with flaring sides, a raking stem and wide slightly pitching counter. The Bay of Islands dory is a direct descendant of those craft Bay of Islands people bought and adapted for their own purposes. It is now used for lobster fishing near shore in the Bay of Islands and along the west coast of Newfoundland.

### 3.2 Distribution of Similar Dories on the West Coast

As demonstrated in the table in Chapter One, there have been many

<sup>&</sup>lt;sup>1</sup>MacKean, Ray and Robert Percival. <u>The Little Boats: Inshore Fishing Craft of Atlantic Canada</u>. Fredericton, NB: Brunswick, 1979. 108.

different types of boats used in the Bay of Islands in the past. Eventually, all boat types, regardless of their use, became supplanted by the row dory and in later years by the motor dory. The dory replaced other boat types as fishing changed and as dories were more economical and convenient to buy, build and use in comparison. The dory was adaptable. Max Vardy of Steady Brook, Newfoundland once worked with dories driving pulp logs in rivers and ponds in the area of the Bay of Islands<sup>2</sup>.

- M. V.: We didn't use any dories in the [Humber] river except when we were cleaning the river, sacking we called it, cleaning. We used dories in places and ponds where there was shallow water.
  - P. D.: And like you said they wouldn't draw much water.
- M. V.: They wouldn't draw much water and we didn't, and any place in shallow water you'd use a dory ... we didn't have any motor dories, just the row dories, and pull or push with a pick pole.

<sup>&</sup>lt;sup>2</sup> Interview with Max Vardy in Steady Brook, Newfoundland, May 14, 1994.

To get an idea of some other boats used along the west coast, I did field research on the western coast of the Great Northern Peninsula. Most of the dories used on the Great Northern Peninsula today in the area of Gros Morne National Park from Cow Head to Bonne Bay are similar to Bay of Islands dories. In this area they are referred to as "flats." Beginning in Trout River south to possibly the area of St. George's Bay, on the south side of the Port-au-Port Peninsula, the boats are called dories and are much more lightly built.

Although the two types may be similar or even related, they differ in name, bulk of build and quality of construction. Because the builders of flats use large rough lumber and plywood, the form does not appear to be as refined. Its curves and joints are not as carefully formed into the "finish work," as mentioned by Charlie Kendall in the Bay of Islands<sup>3</sup>. For example, one abandoned flat I saw near Sally's Cove on the Northern Peninsula had a gunwale made from an uncut spruce tree. The inner structural part of the gunwale was made from a long, 1½-2" wide spruce tree with the branches removed but the bark still on it. It did have the

<sup>&</sup>lt;sup>3</sup>In a non-tape recorded interview with Charlie Kendall in York Harbour, Bay of Islands, Newfoundland he said that what characterized the dories built in the area was the builders' attention to detail and, "finish work." This term refers to careful attention to the fit of the component parts of each dory. Interview conducted on May 13, 1994.

wraps put in place on the sides and top, and the whole assembly was painted.

Since this flat had been cut in three sections, it was possible to see the cross section, showing where spruce poles had been used on both gunwales.

The rule for gunwales in the Bay of Islands requires a smooth curving sheer. To meet the criteria of producing an acceptable design which works well, the builder needs to use three pieces of spruce to make the shape. Because the shape requires the wood to twist and bend all at once, the three pieces of wood need to be the same dimension and type. Together they all run the length of the dory from counter to stem. (Figures 3.1 and 3.2).

The flats constructed on the Northern Peninsula are also more substantially built and their heft is evident (Figures 3.3 and 3.4). They are built as if exaggeration in construction will compensate for shortcomings in design. An example of this is the stem post. I have seen the stems of many flats which were the roots of trees with the bark still on them and in their rounded tree-like condition. The only preparation these stems received was shaving them to make them fit into the planks or to make the planks fit onto them. The Bay of Islands



Figure 3.1. Gunwale in a dory built by Roy Dennis of John's Beach, Bay of Islands.



Figure 3.2. Dory built by Roy Dennis of John's Beach, Bay of Islands. Note the curve of sheer in the forward section.



Figure 3.3. Flat at Sally's Cove, Great Northern Peninsula.



Figure 3.4. Flat at Sally's Cove.

design is different. The stem is similarly formed from a naturally curved tree root or a crooked tree but it is cut down to 1½" wide and from 2-4" in thickness depending where the curve is measured. The stem post proportionally matches the rest of the structural timbers used in the dory for a uniform look in final construction.

Besides the boats described in Chapter One, I have been able to find some photos in the Provincial Archives of Newfoundland and Labrador which offer examples of the different uses of the dory form for other than fishing. One photo (A10-124) shows three dory-like logging boats, commonly used in rivers, sitting in an unidentified brook in Newfoundland. There is no date given, but it is likely in the first quarter of this century (Figure 3.5). Row dories have also been used by the pulp mills in Corner Brook and Grand Falls to service rivers where the companies moved logs. The river dories in the photo are similar to the row dory. They are both flat-bottomed boats with lengthwise planked, flared sides, and they both have raking, pointed ends similar to the batteau described and illustrated in John Gardner's, The Dory Book<sup>4</sup>. The dories differ from the river dories mainly in

<sup>&</sup>lt;sup>4</sup>Gardner, John. <u>The Dory Book</u>. Mystic, CT: Mystic Seaport Museum, 1987. 18-24.

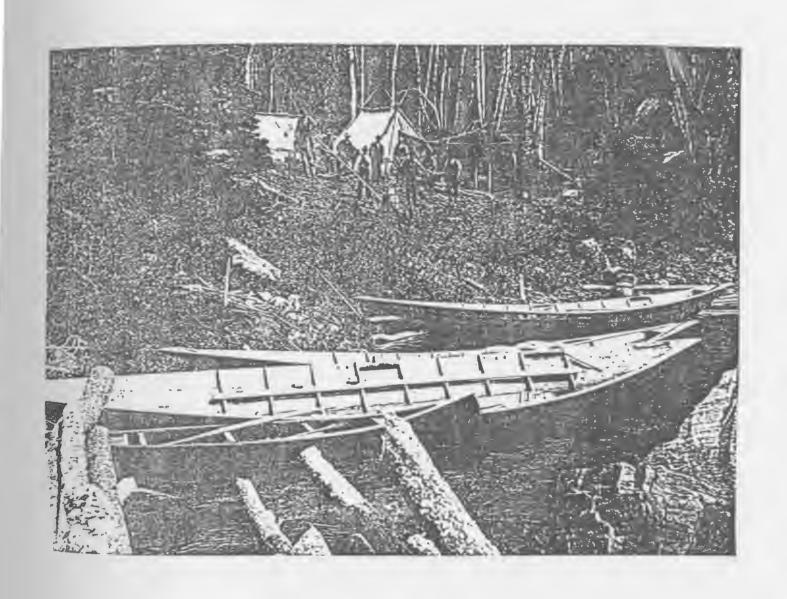


Figure 3.5. Pointers. (Provincial Archives of Newfoundland and Labrador. A10-124)

proportion; it appears they were both of comparable widths, but the dory may have taller sides and is possibly only a little over half as long. Dories were desirable mainly because they were cheap, could be built by local workers who were accustomed to building dories, and had similar handling and durability characteristics as the river dories.

As the pointers wore out, they were replaced by an abundant supply of new and used local fishing dories. Roy Dennis of John's Beach remembers selling row dories to Bowaters for use in the woods work<sup>5</sup>. Dories were built at Deer Lake and Howley specifically for use in the woods work of the Bowater's paper mill at Corner Brook. Willis Goulding, an ex-Bowater employee told me the dories were especially useful in shallow ponds and streams because they, "...would not draw much water..." meaning they would not sink low in the water and could travel in areas where the water was shallow<sup>6</sup>. The row dories were additionally useful

<sup>&</sup>lt;sup>5</sup>Interview with Roy Dennis in John's Beach, August 15, 1992.

<sup>&</sup>lt;sup>6</sup>Interview with Wills Goulding in Corner Brook, May 16, 1994.

because of their stability and light-weight construction; they could easily be hauled over sandbars by woods workers.

For a short time, dories were built in Deer Lake by Bowaters to supply the woods and river workers with dories to drive logs in the inland waterways of Western Newfoundland. The logging and fishing dories were built the same way. While the fishing dories were the result of a design transfer from Nova Scotia to the Bay of Islands, the later logging dories were the result of a design transfer from the Bay of Islands to Deer Lake and Howley.

The Old Town Dories (built by Old Town Dories in Old Town, Maine) used in logging operations may have looked similar to the pointers in Figure 3.5. As Max Vardy said, "The dories that they used to use there [in the river] were what they called Old Town Dories and they were built in Maine. They were really rough water dories they were. They were built, they were not like the dories we have here. See the stem and the stern is the same and they were long sloping..."

There is some relation of the town dories to the fishing dories as the following note from Howley in July, 1995 indicates<sup>7</sup>. The Town Dories were 5'

<sup>&</sup>lt;sup>7</sup>This information was collected for me by Barbara Windsor of the Humber Valley Development Association in Deer Lake after an inquiry about boat building in Howley in

wide, 18-20' long, and had a double stem. They were similar to the Grand Bank boats (dories). They were used from about 1895 to about 1960 and were made specifically for, "sacking lakes and rivers, and ten people could work from them," as Max Vardy said. The advantage of these boats was that their design allowed for use in hard-to-get places where other boats could not be used. They were also useful for towing booms, small floating enclosures of pulp wood. The dory in its various forms has been popular in western Newfoundland for many years, and this widespread use and adaptation represents the form's versatility.

### 3.3 The Language and Practice of Dory Building

The dory builders in the Bay of Islands also built other types of boats as

July of 1995. She contacted Darryl Kelly who spoke to his uncle Leo Kelly of Howley.

<sup>&</sup>lt;sup>8</sup>Sacking means cleaning grounded pulpwood from the shores of the lakes and rivers and sending the wood back into the flow of the water so it could be carried to the mill.

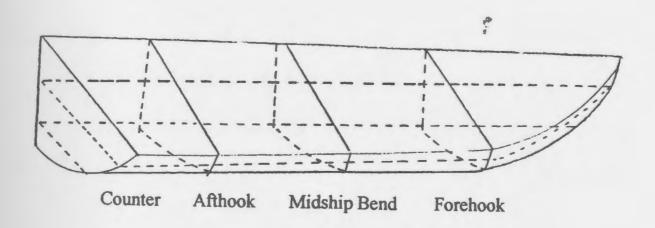
well and they transferred the skills and language commonly used for that to building dories. While discussing boat building skills and techniques, it is inevitable for language to be a major part of that discussion. The most common technique is the layout and order of assembly for structural timbers. Specifically, the dory is built based on measurements taken from the position of the midship timbers on the dory floor. The forehook, midship bend, and counter are the most common terms used by dory builders. Generally the language used for dory building is specific to that craft type, and herring-boat building terminology is rarely used.

The most widely used terms for herring-boat building were the forehook (the forward-most mould in a boat, about half way between the stem and the midship bend), the midship bend (the mould at the middle of the boat) and the afthook (the mould half way between the midship mould and the counter) (Figure 3.6). Although these words are most commonly associated with the practice of larger boat building, builders now use them, with the exception of "afthook", for dory building. The midship timber is placed half way along the length of the dory bottom and the forehook halfway between that and the stem. For dory building,

the afthook is not needed as a straight line is drawn along the flat dory floor from the outer bottom edge of the midship timber to the outer bottom edge of the counter forming the shape of the aft section. A batten is put on from the counter around the midship mould to the stem, and then the rest of the timbers are fitted into place. There are no references to the afthook in recent dory building as its function has become combined with that of the counter.

Boats are designed and built employing various design and construction methods. Two of the major classes of boat design are represented in the bay: those designed by what David Taylor refers to as a three-piece-adjustable mould and those designed by the half-model method. The adjustable moulds formerly used in the Bay of Islands seem to be similar to the one described by David Taylor as, "...the three pieces [of the mould] consist of: a small, rectangular piece called the "rising square"; a narrow piece in the shape of a curve, called a "half bend"; and an unnamed third piece in the shape of a gradual curve." Robert Park of Lark Harbour used a similar system when he built herring boats and similarly referred to

<sup>&</sup>lt;sup>9</sup> Taylor, 1982. 87-89.



Half-model method of boat design. Measurements are picked off each of these four sections and then transferred to full size moulds.

Figure 3.6. Drawing of a half-model showing measurements required to make boat moulds.

the rectangular piece as a, "riser board." The three-piece-adjustable moulded boats are typically built with the naturally grown timbers and the half model with steam bent timbers 10. In two visits to the Bay of Islands, it appeared that the half-model method of boat building was the only one practised in the bay. I later found out, by accident, that the timber frame boats were built on the north shore in Lark Harbour. Boat builders in Lark Harbour changed their double-pointed, chopped timbered boats (those built with naturally- curved wood which had to be "chopped" to fit into the shape of the boat) to square-stern style when they were introduced to square-stern, steam-timbered boats from the north shore of the bay.

Builders on each side of the bay came from a different tradition of boat building. On the north shore, builders built herring boats with steam-bent timbers whereas builders on the south shore of the Bay of Islands used naturally curved wood for timbers. Despite these differences in early boat building influences, builders from both sides now build dories in similar manners. It appears the change from boat to dory building was easier for the cut-timber boat builders than for the steamed-timber boat builders. Table 3.1 describes each of the three

<sup>&</sup>lt;sup>10</sup>For a more detailed description of the three-piece adjustable mould method and the half-model see Taylor, 1982, 87 & 100.

construction methods to illustrate how the traditional practices of herring boat building are similar to and different from traditional dory building. Through comparison, the close relationship of timber frame boat building to dory building is also shown<sup>11</sup>.

Considering the brief sequence of each of these three types of building, it is evident the methods used in the cut-timber and dory building most closely resemble one another. Although they differ in design, they share the same basic

structural method and sequence of construction, and similarities can be recognized (Table 3.2).

Both the herring boat and dory are built on a foundation, and a hull is planked over a naturally-curved timber frame. The steam-timbered boat is different because it has the steamed timbers fitted into place in the nearly completed hull.

<sup>&</sup>lt;sup>11</sup> See also Taylor, 1982, 175-178 for general sequences of boat building practices.

Table 3.1 Comparison of Three Construction Methods (presented in order of construction)

## 1: CONSTRUCTION OF THE CUT-TIMBER HERRING BOAT

- A. Lay a keel
- B. Put midship mould on keel
- C. Put forehook mould on keel ahead of midship mould
- D. Put stem on keel ahead of forehook mould
- E. Put afthook mould on keel aft of midship mould
- F. Put counter on aft of aft hook mould
- G. Put on two battens beginning with the top edge of all moulds stem and counter on both sides and attach the second batten at the bilge curve.
- H. Put in and shape (chop) the timbers to fit the battens
- I. Plank over the timbers (sequence unknown)

# 2: CONSTRUCTION OF THE STEAM-TIMBER HERRING BOAT

- A. Lay a keel
- B. Put on a midship mould
- C. Put a forehook mould ahead of the midship mould

## Table 3.1 (continued)

- D. Put on the stem ahead of the midship mould
- E. Put on an afthook mould aft of the midship mould
- F. Put on counter aft of the aft hook mould
- G. Plank boat around the moulds
- H. Fit in steamed timbers into the shell of the hull
- I. Replace the three moulds with steamed timbers

## 3: CONSTRUCTION OF THE OUTBOARD-MOTOR DORY

- A. Lay out the bottom
- B. Put on the midship timber
- C. Put on the forehook timber forward of the midship timber
- D. Put on the stem forward of the fore hook
- E. Put on the counter aft of the midship timber
- F. Put a batten along the top of all of both moulds, stem and counter on both sides
- G. Fit the rest of the timbers into the battens and the outer edge of the bottom
- H. Plank over the timbers beginning with garboard working up to gunwale

Table 3.2. Comparison of Herring Boat and Dory Building Sequence and Terminology<sup>12</sup>

HERRING BOAT BUILDING (cut-timber)	DORY BUILDING
1. KEEL	1. DORY BOTTOM
2. STEM	2. STEM
3. MIDSHIP MOULD	3. MIDSHIP TIMBER
4. FOREHOOK MOULD	4. FOREHOOK TIMBER
5. COUNTER	5. COUNTER
6. AFTHOOK MOULD	6. AFTHOOK NOT USED
7. BATTENS	7. BATTENS
8. TIMBERS	8. TIMBERS
9. BOARDS ON SIDE	9. STRAKES

<sup>&</sup>lt;sup>12</sup>In dory building, a straight line is drawn along the aft section of the dory floor from the midship to the counter making the afthook unnecessary. For this reason, the counter and afthook share a similar purpose in shaping the aft section of the dory.

Chopped-timber and steam-timber herring boats were built in the Bay of Islands until the 1950s, and few now exist. Those builders making the chopped-timber boats would have to have made a much less radical transition converting to dory building than those making steam timbered boats because both the builders of the chopped-timber boats and the dory made much more extensive use of naturally grown tree roots than did the builders of steam-timbered boats. Through the traditional practice of making cut-timber boats, those builders were better suited to make dories, a form not too different from those they had been accustomed to doing; primarily because of the timbers used and the way they had to be prepared for construction.

Communities on the south shore of the Bay of Islands are known locally for making the best dories. John Payne of Cox's Cove on the North Shore said that the Lark Harbour dories were best because, "...good work went into them." Most of my informants say those areas on the south shore, especially Lark Harbour, were renowned for making good boats, just as they are today known for making good dories. The outboard-motor dory in the Bay of Islands shares physical similarities with row dories of the early part of this century. In its regional context, the

outboard-motor dory shares certain form characteristics with boats in other bays and along Newfoundland's west coast. For example, comparing figures 3.2 and 3.3 it is evident that they look similar but there are different qualities of workmanship in them. The building pattern relates it to older boats formerly used in the area and represents how some aspects of boat building in general do not necessarily need to change even though the type of boat has. This change to a new boat type happens when builders consider the cultural rules of design, construction and use through time, and with reference to outside influences like the introduction of the dory and economic factors like the collapse of the herring fishery. The following three chapters describe the design, construction and use of the Bay of Islands outboard-motor dory. The next chapter will deal primarily with design. It will be demonstrated that design primarily consists of the builders' own considerations combined with traditional and cultural rules. This will be realized by carefully comparing features of several dories, which also reveals much about the culture of dory building and the interaction of personal and regional rules of design.

### CHAPTER FOUR

#### THE DESIGN OF THE BAY OF ISLANDS DORY

### 4.1 The Importance of Design

Boat designs are ideally selected for their suitability to fishing activities and physical environmental conditions, and for their safety. Henry Glassie considers the three fundamental components of a material object to be form, construction and use<sup>1</sup>. Design, like form is evident in the finished product, for example the shaping and spacing of timbers. In my study area, there appears to be developed rules for each of these fundamental components. These rules are presented in the following section discussing design and construction features.

The rules of dory building change slightly over time; fifteen years ago, dories were painted grey and builders were making them with less flare then they do now. Some parts of the boat building tradition change through time and I see them as cultural interpretations while the traditional parts are those features which essentially persist through time. Ralph Linton makes sense of culture by classifying it as overt or covert. The overt bits, which he calls material and kinetic, may be likened to construction and use, respectively. The covert part of culture,

<sup>&</sup>lt;sup>1</sup>Glassie, Henry. <u>Pattern in the Material Folk Culture of the Eastern United States</u>.

which he terms psychological, may be likened to design because in this study, design may include personal contemplation and mental manipulation of design features such as timber shapes. The covert, psychological aspects of design are those intangibles which are not actually clearly visible in construction and use but which encapsulate the process of design considerations. He believes people develop ideal patterns of overt and covert considerations of culture, and I believe these may be explained in terms of developed aesthetics of design, construction and use<sup>2</sup>. My consideration of the rules the builders adhere to in this stucky are like Linton's ideal patterns in that they represent a norm of behaviour in thought and in action. These ideal patterns are also like James Deetz's, "mental template," which is the idea the craftsman uses as he makes the object<sup>3</sup>. The builder gets his idea from tradition and experience as the ideas are passed from one generation to the next. The builder makes changes to this idea and the traditional rules by interpreting new information and technology in relation to the rules layed out by tradition.

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Philadelphia: U of Pennsylvania P, 1968. 7-8.

<sup>&</sup>lt;sup>2</sup>Linton, Ralph. <u>The Cultural Background of Personality</u>. New York: Appleton., 1945. 38-54.

<sup>&</sup>lt;sup>3</sup> Deetz, James. <u>Invitation to Archaeology</u>. Garden City, NY: The Natural History P.

Tradition and culture have become two important components in this study and before discussing them further, it will be important to define them. Tradition represents the inherited, established and customary activities of boat building. Culture represents the values and material traits of the dory builders. These terms overlap and cultural values take reference from tradition. The values of culture, while influenced by tradition are also dependent on the individuals involved in the activity and in the context which they operate. In culture, the momentary values of the group are sometimes passed on to the next generation along with traditional attitudes and rules. Culture is made of ideas, it is pattern in the mind, it is expressed by action<sup>4</sup>. As each generation accepts tradition, they change it slightly and pass it along the next generation. What changes in culture is the ideas that make it up. While the products of the competence do not change, the rules of it do<sup>3</sup>. In this way, tradition and culture are linked as well. Each has a preceding effect on the other, while they exist simultaneously.

This study of dory building includes notions of tradition and culture. While tradition and culture are often used interchangeably, the two terms are different, as

<sup>1967. 45-46.</sup> For an additional discussion of mental templates and boat building, consult page 5 of David Taylor's, <u>Boat Building in Winterton, Trinity Bay, Newfoundland</u>.

<sup>4</sup> Glassie, Henry. <u>Folk Housing in Middle Virginia: A Structural Analysis of Historic</u> Artifacts. Knoxville: U of Tennessee P. 1975. 17.

outlined above. Both influence dory building in the Bay of Islands. Tradition can be considered a characteristic method, manner or style, while culture is a set of shared attitudes, values goals and practices. Tradition is a temporal concept, inherently tangled with the past, the future, with history. Culture compromises synchronic states of affairs. This research of dory building in this area of Newfoundland suggests that culture influences tradition. Culture is the set of rules which govern the building of dories<sup>6</sup>. Over time it is demonstrated these rules have changed in the Bay of Islands. Consequently, the tradition of dory building has only changed slightly. Naturally, there is cultural continuity in the custom of dory building. And like the culture of dory building in this area, the tradition of dory building is a transmitted pattern of knowledge, behaviour and beliefs. It is important to recognize the relationships between these two important concepts as the differences are not always as apparent as their similarities. Likewise in this paper, while tradition and culture are treated as discrete forces on dory building in the Bay of Islands, in reality, the boundaries overlap and are often blurred. This occurs because as Glassie pointed out, design, construction and use merge into one

<sup>&</sup>lt;sup>5</sup> Glassie, 1975. 110.

<sup>&</sup>lt;sup>6</sup>Glassie, 1975. 10

product<sup>7</sup>. The experiences from which ideas are drawn and abstractly formed are used in other realms. That is how culture shapes into consistency<sup>8</sup>.

Culture, viewed as a system demands connection; it includes ideas in a perpetual state of dismemberment and development by individuals. Culture leads out of chaos into dilemma<sup>9</sup>. Meaning is made out of moving from pattern to change, creating a new useful totality. Culture, the collective patterns of thought, are developed out of conditions<sup>10</sup>.

## 4.2 Past and Present Bay of Islands Boat Design Techniques

There have been three major fishing-boat design techniques used in the Bay for all small boat building: the three-piece adjustable mould method associated with chopped-timbered boats; the half-model method associated with steam-timbered boats; and, the layout strategies associated with dory building. Each employs varying methods of arriving at boat shapes. All the methods allow the builder to envision the craft before it is built, and to make design changes based on features he notices in the new boat or in other boats he has designed, built and used.

<sup>&</sup>lt;sup>7</sup>Glassie, 1975. 51.

<sup>&</sup>lt;sup>8</sup> Glassie, Henry. Passing the Time in Ballymenone: Culture and History of an Ulster Community. Philadelphia: U of Pennsylvania P, 1982, p. 436.

<sup>9</sup> Glassie, 1982. 290.

The earliest type I have been able to document associated in this area with chopped-timbered boats, is the adjustable-mould method. This was a herring-boat design, commonly employed on the south shore of the Bay of Islands in Lark Harbour, but is no longer used by anyone I interviewed during this study. The design process involved a three-piece adjustable mould (Figures 4.1 and 4.2), which was used to make the shapes of the three primary design moulds: the midship bend, afthook, and forehook. By arranging the mould components differently, the builders could outline each required mould.

The second traditional boat design system associated with the steamed-timbered boats of the north shore of the Bay of Islands, Trout River and Bonne Bay is the half-model method. Of all my informants, Benny Wells was the only one who used the half-model method. The half-model system involves two steps: designing the boat and building it. Design begins as the half-model is conceptualized and carved. Here the builder, Benny Wells, makes decisions based on the previous boat he built. As the new model is built, the design may be altered and these interstitial decisions come about as part of the creative process the builder makes slight changes as he builds a boat or a dory. It offers perhaps the

<sup>&</sup>lt;sup>10</sup> Glassie, 1982. 642.

most design flexibility as the hull shape may be carved out of a piece of wood, then

Moulds are made from measurements, "picked off," the model<sup>11</sup>. This allows the builder to see the shape before the boat is built, he can make changes based on drawn or cut into sections (refer back to Figure 3.6). Because this method allows his feel for the shape he is creating or altering.

This process was explained to me by Benny Wells of Cox's Cove while he was in the process of making a sixteen-foot speedboat (Figure 4.3). He made four moulds from his carved model. To give the boat better shape in the forward section, he chose to add another mould half way between the fore hook and the midship bend.

Benny used a scale of one half inch equal to one foot for his sixteen-foot speedboat. With a set of dividers, he, "picked off," the measurements of the fore-hook, the aft-hook, the midship bend, stem and counter. To fix a hollow carved with a knife in his model, Benny picked off another mould between the fore

<sup>&</sup>lt;sup>11</sup>Picking off means to transfer and convert the measurements on the model to the moulds for the full-size boat. These moulds are used only a guides when building the steam-bent timbered boats and they are put into place on the keel and removed as the boat is built. They may be reused for another boat without readjustment. The moulds used for the chopped-timber boats are used as guides to make timbers which become part of the boat; these moulds must be readjusted to outline each of the three timbers.

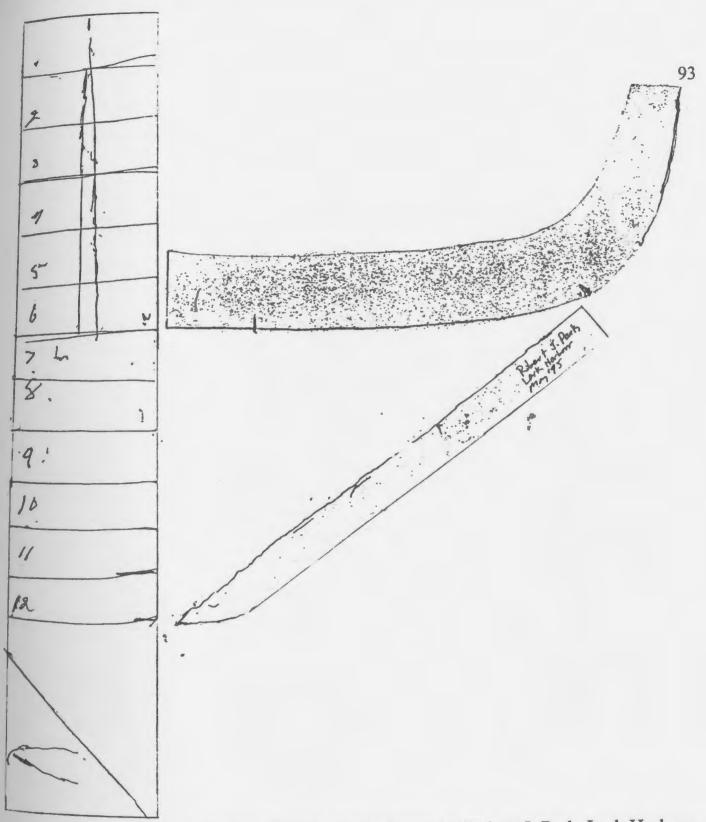


Figure 4.1. Three-Piece adjustable mould drawn by Robert J. Park, Lark Harbour. He called the vertical piece a riser board but did not have names for the other two pieces.

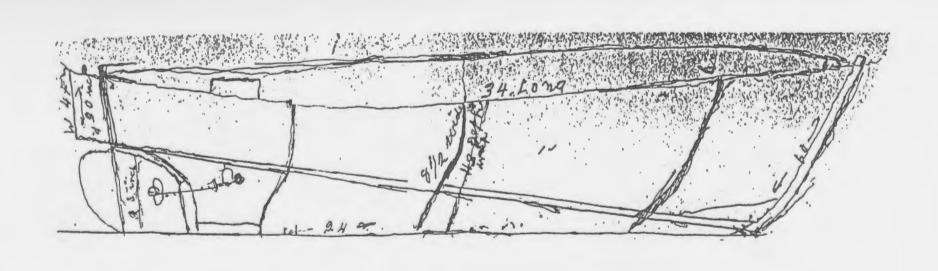
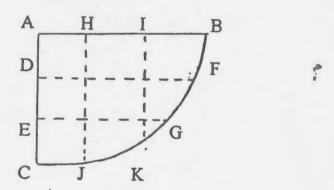


Figure 4.2. Drawing of a chopped-timber herring boat. This type of boat was built based on the three-piece mould method. (Drawn by Robert J. Park)

hook and the midship. Skillful and competent, his workmanship would usually not allow for mistakes; however, when one happened, he had the ability to recognize and fix it. To make a sixteen-foot speed boat, he usually uses three sets of moulds, but in this case he used four. The fourth mould was used to eliminate the hollow in the half-model, and this was evident when the boat was completed. Benny made the moulds for his boat by drawing the shapes on board frames then cutting them out. As the measurements were, "picked off," the half-model, they were marked on the wooden frame to make the mould, then doubled to make the curve on both sides. When a mould is made, a perpendicular line is drawn dividing the rectangular frame into two equal halves. When the builder picks off the half-model, it is important to consider both height and width at the point where the measurements are taken. By doing so, he ensures the mould will match the section he is copying. The moulds Benny built from his carved half-model are shown in Figures 4.4 to 4.8<sup>12</sup>.

"Picking off," as Benny says, is one of two ways to get measurements from a half-model. Benny has used an alternate method of cutting the half-model

<sup>&</sup>lt;sup>12</sup> In <u>Boat Building in Winterton, Trinity Bay, Newfoundland</u>, David Taylor presents a set of moulds used by Winterton baot builder, Herbert Harnum. The moulds used by Benny Wells in Cox's Cove, Bay of Islands are similar to that set of moulds. See Taylor, pp. 97-99.



Transferring the measurements from the half-model to the mould is called "picking-off." At each section, counter, afthook, midship bend, and forehook, measurements are taken with attention to height and width according to the scale 1":1'. The values are made into real size and a full size mould is made in a process called lofting.

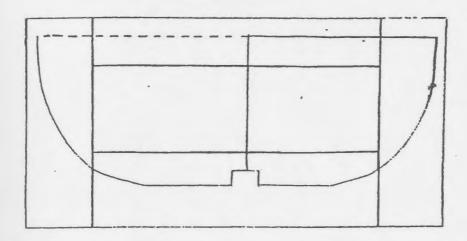
Counter mould shown

Figure 4.3. "Picking off," measurements from the half-model.

at each of the sections mentioned above and then measured off directly using a ruler or measuring tape. Using either method, the moulds must be made strong enough to be nailed through their sides and, along with the stem and counter, they must be able to support the entire hull of the boat before the steamed timbers are put in place.

All those I have spoken to invariably said the half-model method is associated with steam-timbered boats and the three-piece adjustable mould, locally referred to by Robert Park as "a set of moulds", is associated with the chopped-timber boats (see Table 4.1 for a description of the process Benny used when he built his sixteen-foot speed boat). Neither method, however, is used with dory design.

The third type of boat design technique used in the B-ay of Islands is the one used for dory building. The dory is the major type of work boat used in the Bay of Islands today. Its layout was derived from measuring and dismantling original Nova Scotian and American dories for templates, as was dome the Dennis family of John's Beach, Bay of Islands. Dory design, then, is based on the skill of boat builders combined with the measurements and templates taken from introduced dories. Each builder of dories in the Bay of Islands uses different methods to lay out all the parts before and during construction.



It will be necessary to refer back to the drawing in figure 4.3 for the following sequence. Measure AB=3", the actual measurement with the scale of 1"=1' is 3'. Measure also AC, DF, GH, HI, and IK. These dimensions are marked on the rectangular board frame and only the width is doubled from the center line. When all the lines are drawn, referenced from the center line, the shape of the half model is drawn on the mould. Once this is completed the mould is ready to be cut out and placed on the keel of the boat.

Figure 4.4. Making moulds from the half-model.



Figure 4.5. Forehook mould for Benny Wells's sixteen-foot speedboat.



Figure 4.6. Midship bend mould for Benny Wells's sixteen-foot speedboat.



Figure 4.7. Afthook mould for Benny Wells's sixteen-foot speedboat.



Figure 4.8. Counter mould for Benny Wells's sixteen-foot speedboat.

## TABLE 4.1 The Basic Outline of the Process Benny Wells Used When He Built His Sixteen-Foot Speed Boat.

- 1. Lay keel
- 2. Put on stem
- 3. Put on counter
- 4. Put in fore-hook, midship bend and aft-hook moulds
- 5. Put on batten to steady the moulds
- 6. Plank the boat
- 7. Put in steamed timbers
- 8. Replace the moulds with steamed timbers.

The dory begins as a flat surface made of spruce plank on which as many as eleven sets of timbers are placed to form the skeleton or framework of the dory.

This framework is wrapped with three lapping planks on each side made of scarphjoined plywood<sup>13</sup>. Essentially, the dory is an assemblage of flat surfaces joined by an extensive but simple set of naturally curved spruce roots (Figures 4.9 and 4.10).

The first two methods for building herring boats involved, to differing degrees, some naturally crooked spruce roots for their stems, knees and for timbers in the chopped-timber variety. By comparison, the present-day dory takes all its parts, with the exception of the side boards and gunwale, from the naturally curved root section of spruce trees.

Using drawings in conjunction with construction details, I will briefly present how the dory is laid out in order to highlight design features. Dories are built from the bottom up to allow builders to work both inside and out 14. The

<sup>&</sup>lt;sup>13</sup>A scarph joint according to Walter J. Simmons (<u>Pigeons and Gudgeons</u>. Lincolnville Beach, ME: Duck Trap P, 1993. 69.) is "A woodworking joint consisting of complementary bevels arranged so that the outer point faces aft. This arrangement comes from the days before waterproof epoxies, when a plank scarph could open. If a joint faced forward, the motion of the boat through the water could rip the joint open and more serious problems would result. Scarphs are used to gain sufficient length, to align the grain more favourably in a plank with considerable shape, or to replace an inferior damaged piece."

<sup>&</sup>lt;sup>14</sup>Kelland, Otto P. Dories and Dorymen. St. John's: Robinson-Blackmore, 1996. 37.



Figure 4.9. Naturally curved roots used in a dory for structural parts.



Figure 4.10. Naturally curved spruce roots forming dory timbers.

construction process begins by preparing the bottom with either plywood or plank.

With the bottom laid on top of the wood horses, the joins in the wood are made smooth with a belt sander and electric plane. Once the dory bottom is prepared, the builder lays out the measurements for the moulds on it.

The first and most important part of the process is to locate the centre of the bottom by finding the intersection of lines drawn centred along the length of the bottom and a line centred across the width (Figure 4.11). Once this point is found, all the measurements are made from it, starting from the centre measured sixteen inches apart, and installed from the midship timber to the front end first.

In determining the width of the dory, Roy Dennis uses a set of recorded measurements for each set of timbers used in construction. These are measured from the longitudinal centreline and are 43", 42", 39", 32" and 20", which indicate the widths from the midship to the set of timbers before the stem (Figure 4.12). For example, the 43" measurement would consist of two 21.5" components on either side of the centre line. Using these lines as guides for construction, the builder is better able to ensure proper layout before construction.

Once the measurements are complete, the front half of the dory from the midship bend to the stem is laid out. The aft section of the dory only requires three

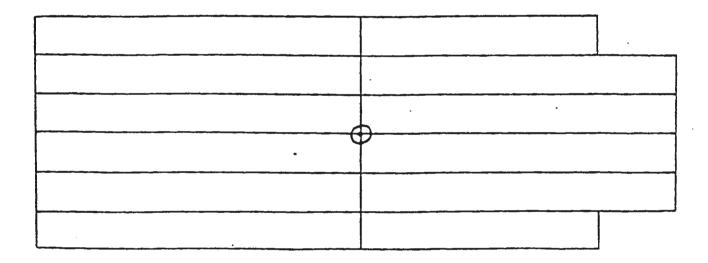


Figure 4.11. Reference point for placing all timbers.

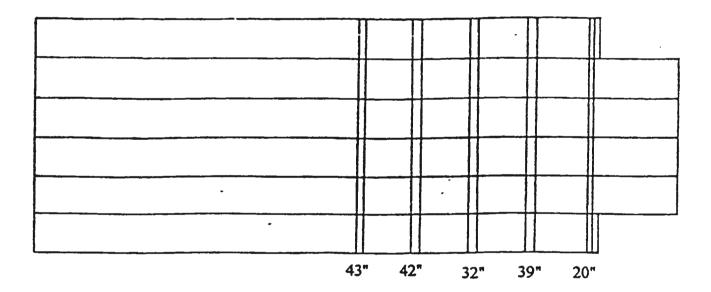


Figure 4.12. Timber widths are drawn on the dory bottom.

measurements: the width of the midship bend, the distance from the centre of the counter to the centre of the midship bend, and the width of the counter. A line is drawn along the dory floor from the outside edges of the midship bend to the outside edges of the counter making the shape of the dory floor. The distance between each of these two outer lines along the dory floor provides the builder with the width of the bottoms of the timbers required (Figure 4.13).

With the layout of the dory floor complete, attention again turns to the forward section. A finishing nail is driven into the outer end point of each forward transverse line. A batten, a thin piece of flexible wood, is bent around each nail to form a smooth sweeping curve. When traced, it will establish the outboard shape of the forward section of the floor (Figure 4.14). Once the line has been drawn, the batten and nails are removed, and the shape of the bottom is cut out using a hand saw. The angle of the cut is approximately the same as that of the flare the dory will have, but the exact angle will be adjusted later with a plane. The construction of the counter involves one set of timbers, three planks and a counter knee. These are all nailed, glued and bolted together and then painted.

Additionally, the stem is bolted into place on the front of the boat.

Next, the top surface of the bottom of the dory is painted with one light coat

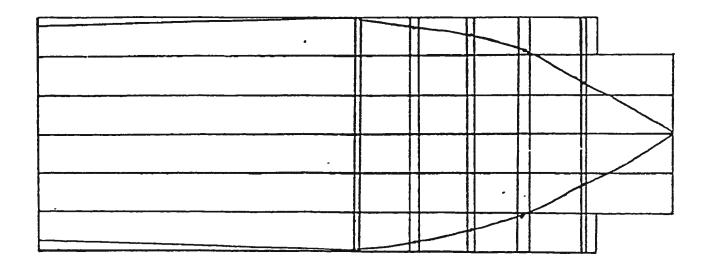


Figure 4.13. A batten is used to make the shape of the bottom.



Figure 4.14. Batten used to mark dory floor boards.

of marine paint. Orange is the most common colour, though some are painted grey. These are the colours used for motor dories: no motor dories are painted the yellow colour of the old row dories. Following painting, the timbers are arranged on the dory's floor. Facing the stem of the dory, the right side timber is always placed in front of the left side timber. The design advantage to this arrangement is not evident except that it always works without any structural problem, and therefore the process is repeated. The counter and three sets of timbers forward of it have increasingly wider angles and are placed further apart laterally as the dory floor gets wider approaching the midship timbers. The midship timber and the timbers forward of it all have the same angle but are spaced laterally closer together as the dory floor narrows approaching the stem. The timbers form the curve in the dory as they are placed closer together, and narrows toward the stem. Each pair of timbers is nailed together and then nailed up through the bottom. Before the timbers are put in place, notches, called limbo (limber) holes, are cut out of the outside bottom corners to allow water to run freely through the dory for drainage.

Now the skeleton of the dory (the floor with the timbers, counter and stem) is moved from the wood horses to a low bench which Roy Dennis calls, "a jack

horse," (Figure 4.15). The jack horse is an important tool for two reasons: it allows for a more convenient application of the side boards; and, from a design perspective, it allows the builder to put a bend or crook in the forward section of the dory floor. The crook allowed dories to ride up over waves and not dig into them, and there are two ways to design it. The first is to put a block at least six or eight inches high under the stem and a brace from the ceiling to a point on the dory floor behind the block, forcing the dory to bend to the desired shape. The second method is the same except the dory is bolted to the bench through a hole in the dory floor while the stem is wedged up off the bench. Both devices remain in use until the sides and gunwales were installed. To have a properly finished dory, it is important for the shape to remain unchanged as the construction progresses. To maintain the desired shape, some builders temporarily construct a series of cross braces from the ceiling of the work space to the timbers of the dory (Figure 4.16).

As the builder nails the sides on the timbers, he has one more opportunity to make a last-minute design change. To have more or less sheer on a dory, the builder can plank the sides of the dory higher or lower on the timbers. In a process Roy Dennis calls, "sheering," the longer ends of the timbers are cut off at a height

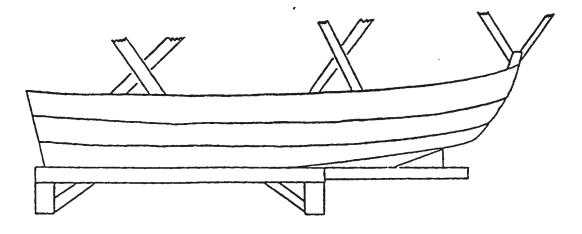


Figure 4.15. "Jack horse," as used by Roy Dennis, John's Beach, Bay of Islands, Newfoundland.



Figure 4.16. X-braces holding dory during construction in Roy Dennis' shed in John's Beach, Bay of Islands.

matching the upper edge of the top plank (sheer strake). Following this process, three more features are added which contribute to the structure's strength. The tops of all the timbers are tied together with the sheer strake by the gunwale, which is additionally reinforced by the second feature, a sheet-metal strip about one inch wide which helps secure the gunwale to the timber. The third feature which adds strength to the dory is the "risins." They consist of 1"x 3" strips of wood which run the length of the dory on the inside, just nine inches below the gunwale.

Conveniently, the seats or "tots," also rest on the risins 15.

To finish, the inside is painted orange and gunwales green and then the dory is turned over for the first time. The glue is sanded off the joints in the bottom and the seams are all made even with a belt sander. Wood filler is applied over the nail heads, allowed to dry and then sanded. A triangular plywood plate, about 12" on each side, is nailed on the bottom of the stem as protection and reinforcement.

Connected to this plate are three strips of hard wood (usually maple) that run the length of the bottom of the dory from the plate to the stern on both bottom edges

<sup>&</sup>lt;sup>15</sup>The seats in the dory are called thwarts but pronounced "tots." In his book, <u>Pigeons and Gudgeons</u>, Walter Simmons refers to a Thwart as "Properly, the name applies to a transverse seat in a round bottomed boat" (204). Many dory builders and users in the Bay of Islands refer to the seats as "tots." On page 559 of the <u>Dictionary of Newfoundland English</u> a tot, or tawt as it is spelled, is a board across an undecked boat on which a rower

and along the centre. They are called "shoes" and provide protection for the bottom of the dory, and make it easier to pull up on a beach, launchway or slipway. When these final parts of construction are completed, the dory can be painted. Most dories are painted orange with green gunwales, tots or garboard strakes depending on the builder/owner. Recently, dories have been painted grey with green, but in their earlier form as row dories, they were painted buff (lime yellow) with green.

The builder of a folk object is in large part directed by his own decisions about various features of design. Three features to notice here are selection and arrangement of colour, the number and positioning of strakes on the side of the dory and the design and construction of the painter. These features of dory

sits.

<sup>&</sup>lt;sup>16</sup>As the fisherman comes ashore to get something he needs--more bait, for example, or to replace a set of spark plugs-the dory may just be run up on the beach for a few minutes. Launch ways are constructed of a 5 'x 8-9' frame of small 3" diameter spruce sticks with four evenly spaced sticks across it for the dory to slide on. A launch way is used when coming ashore for a short period of time, like a lunch or dinner. Each launchway is portable and if the tide is rising or there are waves, a few of them in a row may be used to haul the dory up on. Depending on the conditions, the dory may or may not be tied to the slipway. The slipway is made from two larger spruce sticks (20-30' long) with a series of transverse smaller spruce sticks about two feet apart; each is a permanent structure. The slipway is anchored to the beach with large rocks or sandbags. The slipway only moves with ice in the spring or high tides during the summer. The slipway is essential to getting the dory away from the potentially dangerous shoreline.

construction illustrate a builder's style, and demonstrate a deviation from the shared group rules into the realm of personal satisfaction and interpretations of the accepted form.

There are as many different ways to paint a dory as there are dory builders. A builder can be distinguished by painting his dory in a special pattern of colour. For example, one builder may paint his dory tots orange with green centres while another may paint them green with orange centres. Some builders use grey in place of orange and on other areas of the west coast, like in Bonne Bay, Green Point and Sally's Cove, red or blue are also used. The colours used help to distinguish boats when they are on the water.

A builder may also express individuality through the number and spacing of the strakes. Again, there are as many ways to do this as there are builders. Some configuration of three strakes appears to be most common and may consist of three even width, evenly spaced strakes or one wide garboard strake and two smaller even width upper strakes. Some builders may use as few as two or as many as six strakes. Builders generally use the same configuration of strakes each time a dory is built.

Another area of design and construction where individuality is expressed is

in what Roy Dennis refers to as the, "the painter." The painter is the upper section in the stem through which rope is tied<sup>17</sup>. For banks row dories, the painter and the counter served as places to tie rope through at both ends, and were used as a means for the dories to be vertically lifted into or out of the water. The painter exists now only in the inside upper part of the stem on the outboard motor dories because the counter has been broadened, and the boat is no longer hoisted from above. Bill Dennis of John's Beach, reported that dory builders could be identified by the design of their painters, "...everyone makes them different." For example, his father's consists of one single piece of wood but other builders use two or three pieces of wood arranged and shaped differently.

Fishermen all use dories because they are best suited to the Bay of Islands environment, with the swell offshore and the flat sandy beaches where they are commonly pulled up. Looking quickly at the dories in this area, they all appear very much alike, but by examining the above elements of design and decoration it is clear they are very different from each other. Individuality is evident, however, in aspects of dory design which are manifested in construction including their

<sup>&</sup>lt;sup>17</sup>The painter is really the rope itself but the part the rope is tied through is also referred to as the painter. Typically, the part of the dory is called the painter and the rope is called the dory painter or painter rope.

skills and techniques of woodworking.

## 4.3 Selection of Materials

The process of material selection is easy for the traditional builder because he relies on design systems used by others in the community of boat builders. Built into a design are the materials required. For example, chopped-timber boats do not require strips of juniper wood as required for steam-timber boat building. The first step in boat building is to know what the use of the boat will be. Once the person knows what it will be used for, the design is easily selected. Currently, the most common use for boats in the Bay of Islands is for lobster fishing, and dories are the most common type of boat selected and built for that fishery. In fact, with the exception of herring for lobster trap bait, lobster is the only fishery for which dories are now used.

The current choices for a new boat are a motor dory, a fibreglass dory or a fibreglass outboard powered boat. Fibreglass dories are built using a full size wooden dory as a male mould and a female mould is made by covering the original in a series of fibreglass coatings. From this, the outer shell of fibreglass is removed and its inner surface prepared to make it smooth and nonadhesive to any fibreglass which will be sprayed into it. The fibreglass dory is made as layers of

fibreglass string and resin are sprayed evenly into the mould formed from the real dory. After it dries, the new fibreglass dory is removed from the mould, and some inside parts, such as reinforced corners and seats, are put in place. In an area where dories are built by individuals using community design aesthetics and personal design features, a fibreglass dory built on one person's design would not likely meet the design or performance expectations of the buyers. For those not familiar with dories, the version "frozen" in the fibreglass form may be suitable. All users know what they want in a dory which they then build themselves or have built by someone they know. Each builder builds a slightly different dory and each one may change the design slightly each time. Because of this, the wooden dory is widely used in the area. The fibreglass dory is not suitable for people familiar with this type of boat building activity and this may have contributed to the market failure of the fibreglass dory. On the surface, a solution to this problem would be for the fibreglass dory manufacturer to look for the best dory in the bay and then copy it. Lark Harbour builders are reputed to build the best dories because they take time to do a quality job. However, I have heard comments from other builders and users in the bay who say that while the dories were well built, they did not have the shape these people were looking for in a dory. Some said they had too

much or little flare, or too much or too little crook. While the fibreglass dory is no doubt durable, it does not meet the varied needs and aesthetics of builders in the bay. Most people in the bay who use boats opt for the wooden outboard motor dory.

One of the most problematic parts of boat building is the selection of naturally occurring materials, such as curved spruce tree roots. An eighteen- foot dory requires as many as twenty-eight roots, and because of the time and care they require to produce, the builder must plan ahead.

According to local builders, wood has to season (dry or age) for eight to ten months before it is ready for dory building. Seasoned wood is cut and allowed to dry slowly in a storage shed. It may be allowed to dry outside for a short time in winter and spring in its rough-stock form. Then it will be cut into timbers and other knees to be ready for building. Once the timbers are cut, they are stored in a shed or a loft to season for about a year before use. Harvey Sheppard said, "Sometimes, you'd get it [wood] a year ahead to let it season...seasoned timber we called it, its better too. It's stronger and easier to work with. We'd use wet wood and it would be no good." Similarly, Freeman Sheppard said, "A good dory needs good, seasoned wood."

Because this wood dries slowly in winter and spring, and then in storage, it does not go through dramatic temperature changes and thus as it dries it does not warp. Although drying and preparation for building is a slow process, seasoned wood ensures that once a dory is built, there is no worry of wood warping or splitting. Seasoned wood will perform flawlessly in its desired use.

Spruce and fir are commonly used for bottoms, stems, stem knees, counter knees and timbers. It is best if seasoned from one to one and a quarter years. To meet the aesthetics of design, construction and use, the builders need to plan ahead to have the appropriate materials on hand when the time is ready. Timbers are often cut during late summer, after lobster season, to be used late the next winter.

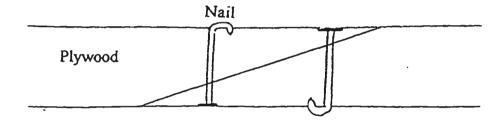
In addition to the handmade parts from raw materials, already manufactured materials are purchased. These include different sizes of nails, paint, powdered glue and plywood. The four-by-eight foot plywood sheets are usually cut into 16" x 8' pieces and then, "scarph joined," to make the sides of the dory 18. For the

<sup>&</sup>lt;sup>18</sup> Roy Dennis like most other dory builders use this, "scarph joined," plywood for making dories. I first saw this while interviewing Roy Dennis in his sawmill where he builds dories on August 15, 1992.

forward end, the plywood is joined with a slight crook to allow for the curve in the dory (Figures 4.17 and 4.18).

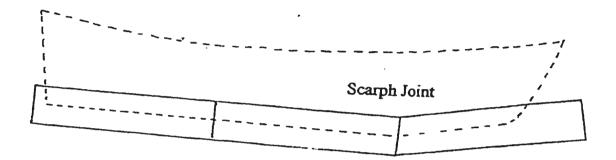
Planning is an important aspect of dory building. Many measurements taken or considered in the course of planning and construction are not readily recognizable in the finished dory. For example, a batten is made by the builder though it is not used as a dory part. A batten, essentially a tool used to shape the bottoms of the dory is a one-inch by one-inch, twenty foot long piece of flexible spruce wood. It is used as a guide to mark shapes on the dory floor or it may be clamped into place along the top of dory timbers to indicate the possible shape of the gunwale.

Building a dory involves making more than the craft itself. This planning and preliminary preparation of construction necessities—like battens—is necessary to enable dory assembly to be done in about a week. Many builders, like Roy Dennis, Charlie Kendall, Robert J. Park and Harvey Sheppard, say it takes a week to build a dory if everything is ready beforehand. Freeman Sheppard says, "It takes me about three weeks to build a dory now. I was faster before [when he was younger]." For builders who sell dories, the time it takes to build a dory is included in the price, though it appears the time used in preparation is not.



Three-quarter inch plywood scarph joined. These joints are glued and nailed.

Figure 4.17. Scarph joint.



To make one strake, two and one-half pieces of three quarter inch plywood, eight feet long and sixteen inches wide, are required. Three of these joined strakes are used per side.

Figure 4.18. Scarph joint used to make a dory strake of plywood.

I have discovered during the course of my field work there is a pattern of use for certain types of wood by the dory builders. Plywo-od is bought at a lumberyard whereas other wood, like spruce, is obtained in the hills behind the communities. The suitability of woods was tested as dories were used. A summary from my field recordings of the builders' observations about the suitability of certain woods for dories follows.

Besides spruce, juniper is one of the types of wood used for boat building for the longest period of time in the Bay of Islands area. It was used for steamed timbers in the older herring boats, and now its application in dory building is for risers. It can be cut into pieces of small dimensions and still be strong. For the herring boats, it bent easily when steamed without splitting, and had a sufficient strength-to-weight ratio.

Spruce and fir are used interchangeably for strakes, bottoms, timbers, knees, stems, gunwales and oars. Oak, bought from local building suppliers, is sometimes used for gunwales and shoes. White maple bought from lumber yards is used for shoes, gunwales and wraps. Seasoned yellow birch is sometimes used for shoes. Yellow birch is occasionally found in the woods near the communities of the Bay of Islands and it was formerly used in John's Beach for timbers as Roy

Dennis told me. The curved part formed by a large branch off the tree trunk was commonly considered better than the root. One-half or three-quarter inch thick plywood is used for the strakes on the sides of the dory, stem plate and, sometimes, the bottom. Marine plywood is generally difficult to get. Plywood, while suited to many uses in dory building, has problems with the laminated layers coming apart and blistering. Consequently it sometimes requires patching with fibreglass or another piece of wood. Generally speaking, wood of all kinds is best if seasoned.

### 4.4 Preparation For Building

In the late nineteenth century, the dory was mass-produced in factories in Nova Scotia and adjacent areas in the United States. As boat builders in the Bay of Islands bought used dories, their task was to recreate the dory form. To do this, they had to devise methods of building which gave them the desired shape and handling characteristics.

The boat builders already had the skills required for building small rowboats, flats and herring boats; they also had general skills and competence in handling various types of marine-related materials and tools. In the Nova Scotian dory factories, parts for the dories were cut from moulds in great numbers and

a small bench and the ceiling, it could not be moved through the building.

Therefore the workers moved through the factory and fitted their own parts on the dories. No dory was built by one person; instead, it required a team of apprentices and skilled workers who did their own specific jobs.

As dories came to Newfoundland, they were used by many boat builders who took the form and developed it to replace existing boats and designs. The boat builders were experienced in building boats from one or both of the chopped-timbered or steam bent-timbered methods. As the dories were reproduced in the Bay of Islands, they were interpreted in a new context of design, construction and use. What both types shared was the design terminology of the three most important structural timbers: the midship bend, the forehook and the afthook (Figures 4.19 to 4.21).

Builders of the herring boats, who were active when the dory form was introduced, began to use the same terminology from traditional herring boat design

As herring-boat builders figured methods of dory building, use of either type and apply it to building dories. Today all dory builders I have spoken to use some of these tradition-based terms for dory building. The most common

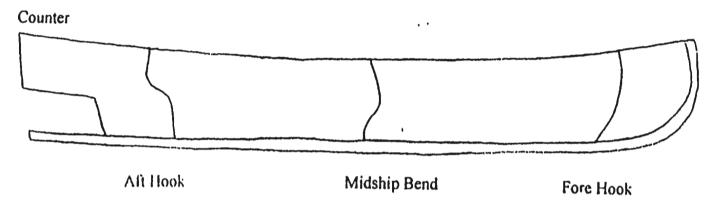
are the references to midship bend, forehook and afthook. As Robert Park said, "...what I'm going to give you here is what you calls the flare...you want to get the flare for the midship bend and he [the midship] is the main bend to a dory...this one [flare] is for the forehook." With the outboard-powered dory, the midship bend and forehook are the most important hull design features, and the design function of the afthook and the counter have become combined or, alternatively, the afthook neglected outright (Figure 4.22)<sup>19</sup>.

The afthook mould may have become merged with that for the counter.

Builders accustomed to laying a keel, putting on a stem and a counter, and a set of three moulds soon realized how design functions of the afthook and counter could be combined in dory building since the dory floor followed a straight line from the midship bend to the counter. The dory builders draw a straight line along the dory

<sup>&</sup>lt;sup>19</sup>The <u>Decks Awash</u> contact prints show the construction of a dory in Harbour Breton on the south coast of Newfoundland. The dory is built beginning with only one board in the centre, as if it were a keel. On this, the stem, counter and timbers are attached. The dory is built upright and the two shear strakes on each side are put in place. The dory is then flipped upside down, the bottom is finished and the garboard is put on. This is similar to keel boats which are built with the keel laid down first and then planking put on from the sheer line down or from the keel up. The dory in the photos is planked from the sheer line down and then from the centre board, making the middle of the bottom then finishing the process with the garboard. This is similar to the process used by the former Bay of Islands boat builders and possibly even the Harbour Breton boat builders. The dory builder, in this case possibly familiar with the ways of keel boat building, may have been using the same method or steps as in keel boat building for dory building.

# Steamed Timber Method (North Shore)



# Chopped Timber Method (South Shore)

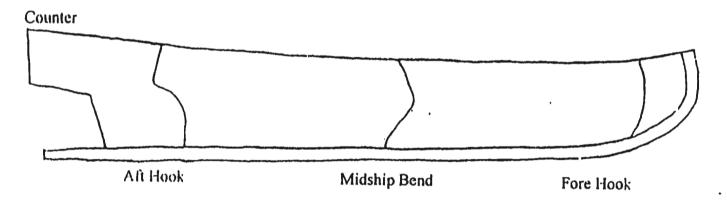
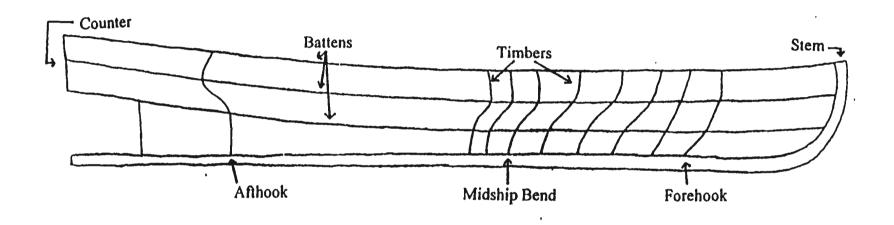


Figure 4.19. Chopped and steam-timbered mould methods and placement. In both places, moulds are termed the same and placed in similar locations.



Battens are attached to the moulds along the length of the boat and timbers are shaved and chopped to fit into the battens. When all timbers are in place, the three moulds are removed and replaced with timbers. Following this, the boat is planked.

Figure 4.20. Chopped-timber construction method.

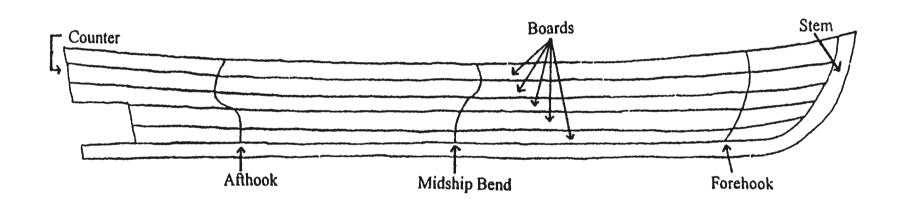
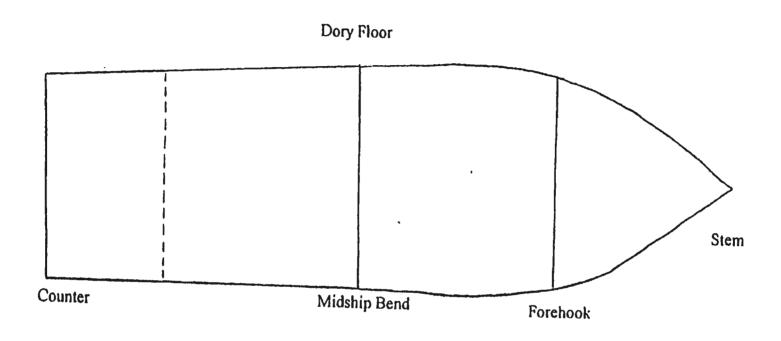


Figure 4.21. Steamed-timber construction method.

The whole boat is planked on both sides atop the outside edges of the counter, stem and three moulds. When planking is complete, steamed juniper timbers are forced into place and the hull is finished. The moulds are then removed and replaced with the final steamed timbers.



Since a straight-edge is used to make the line from the midship bend to the counter and the timbers are fitted into battens, the afthook is not necessary. The function of the afthook is combined with that of the counter.

Figure 4.22. Counter and afthook in dories.

floor, from each of the outer edges of the midship timbers to the outer edges of the counter. Because only the points at the counter and midships are used, the intermediate afthook mould is not necessary.

Lark Harbour builders had the most experience with the cut-timber method of boat building and it is not surprising that they applied it to the task of shaping timbers for dory building. They also had the most practice working with plank-onframe construction. Therefore, it may have been much easier for them to make the transition to dory building than those accustomed to building boats with steamed timbers because, unlike the steam-timber builders, they have had more practice working with naturally curved timbers. They changed very easily from one type of boat to the other because it was very similar to what they had been building all along. Having used this method for so long, Lark Harbour builders would have been accustomed to doing fine work in boats such as smoothing the outer edges of the frame timbers to ensure a smooth hull when it was planked. This early requirement for doing fine work in boat building likely lent itself to refinement in dory building.

The builders of steam-timbered boats on the north shore have had less practice with these methods and do not produce boats of the same quality. It is not

a function of poor craftsmanship but rather one of the amount of traditional practice or experience with technique. Those builders on the North Shore would have been better suited to deal with a change to another type of boat more closely akin to those they had been building all along.

When building the dory, the builders in the bay began with the broad flat floor, just as they began with the keel in herring boat building. Dory building most closely resembles the sequence of cut-timber boat building method but without the three-piece adjustable mould. The laminated dory floor is measured and marked off in a process whereby the builder exactly measures the location of each mould and timber. Timbers at each mould are nailed to the dory floor, and this is where the differences and adaptations of the old methods can be seen.

Builders of herring boats with chopped timbers laid a keel, put in moulds, stem, counter and then built a hull around that frame. In a similar manner, dory builders make the floor, attach moulds, stem and counter and then build the hull around the timbers. Herring boat builders have had experience with a similar form based on their experiences with herring boats. Although the dory is shaped differently from herring boats, the builders still had some degree of tradition-based practice working with the naturally curved timbers the dories required. In a sense,

they were traditionally predisposed to dory building.

The herring boat builders had come from a practice of selecting naturally curved timbers and trees and so used these skills in finding and using similar wood for dories. The builders of the steamed timbered boats had less practice with even though those boats made some use of naturally curved wood. Those building cut-timber boats would have had the traditional experience of finding and working with trees and roots for naturally grown timbers as well as other parts. The steam-timbered boat builders would have certainly sought timbers to be used for stems and knees but they did not need to find as many timbers as those using the cut-timber type of boat building. For this reason, the builders of steam-timbered boats did not have the same degree of traditional practice as the cut-timber boat builders.

It was also observed that builders who did not have experience with other types of boats, and who only built dories, did not use the same terminology as those other builders—terms such as midship bend, forehook and afthook. Dory builders begin building dories by constructing the floor first. The pattern of building is the same for both the experienced and the inexperienced builder.

Inexperienced dory builders learn by observing others who build dories. They get

the basic steps and copy measurements from completed dories and, in some cases, they borrow templates and moulds for timbers. All Bay of Islands dories are built beginning with the floor, stem, counter and timbers, and then the garboard strake with the planks is added in a clapboard-like fashion (Figure 4.23).

The steps Stan Park used for building his dory illustrate how planning and carrying out preliminary activities are critical to dory building. Building preparation includes planning, collecting materials, and laying and measuring the floor/bottom. Following this, actual construction begins.

### 4.5 Designing the Bay of Islands Dory

Builders of herring boats had design systems to rely on when building boats. The dory builders rely on their own and occasionally on other builders' experiences in designing, building and using dories to try to devise better design innovations. Though builders work to develop better dories, some design aspects remain for a period of time while others change. Referring back to Stan Park's building practices, he has the numbers 24, 37 and 43 written on his shed wall to remind him of the width of the first three timbers aft of the stem. He makes them nineteen inches apart centre-to-centre. He has used this formula for many years and will continue to do so. Even if the length of a dory changes slightly Stan still

uses this same formula.

The dory is built with plank-on-frame construction but with a different design system as the other two older methods of herring boat building. Stan Park's dory begins as a flat, wide bottom about forty inches wide and about twenty-one feet long. The dory with a flat bottom has no keel. Many experienced builders still experiment with effective ways to build the bottom. There are many ways to join the bottom but the goal is to make it water tight. Methods include biscuits, dowels, jointed wood with glue, jointed wood with a combination of wool strings and glue, tongue and groove boards and finally plywood.

Once the bottom is laid out and shaped, it is important to have a properly shaped stem. Although the stem shape depends upon available wood, it is also dependent upon personal preference. Each builder makes his painter different from others. For example, Roy Dennis makes his painter using one piece of plywood, covering the inboard part of the top of the stem, whereas in a dory built by Stan Park, there are two pieces of wood beside the top inboard side of the stem without covering it. The painter is a representative feature of the subjectiveness of dory building.

The culture of dory building is as dependent on personal aesthetics as it is

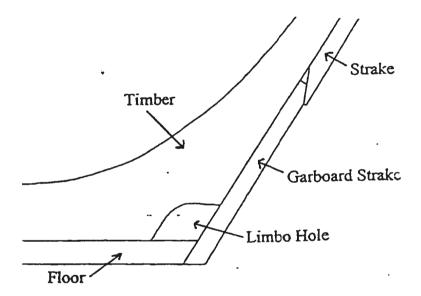


Figure 4.23. Dory planking.

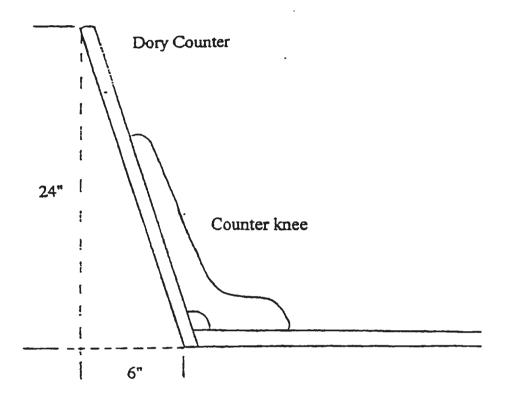
on regionally recognized features. Just as factors work to regionalize the type, so too do personal factors work to individualize the type. Because it has a straight, flat surface, the counter can be measured more exactly, thus it exhibits less variation than stems. Most builders can recite a particular formula for what they call the counter pitchers, or pitch on the counter; it is stated as "six-on-twenty-four" and prescribes how much flare there is on the counter. The shape and pitch of the counter can be exactly controlled as the builder desires (Figure 4.24).

The timbers connecting the sides to the bottom are fitted into the shape prescribed by the battens. As each dory is built, the dory builders learn how to make adjustments and refinements to their style of work which makes the activity more orderly if not easier. Even if built on the same moulds, no two dories are ever identical because some of the naturally curved wood may be used even if the shapes are not exact. I have seen builders who use only one timber mould for all the timbers, others who use four, and sometimes as many as nine different moulds are used. All builders, regardless of their design influence or building method, claim they can never build the same dory twice. It simply does not work out that way because there are too many variables. These include the time of year,

of the wood; the available shapes of the wood; and, mistakes made during set-up or construction.

All builders make dories which have the flat bottom, wide counter and broadly flaring sides. Doug Hussey, of Cox's Cove, makes two observations about design features of the dory. First the flare of the forehook is equal to the rake of the stem. The dory has the same flare all around the stem, from the forehook timber around the stem to the other forehook timber on the other side. His second observation is that the forward curve of the outside edge of the dory bottom is equal to the curve of the sheer of the forward section of the dory. Builders and fishermen have discovered that a wider bottom, combined with broad flaring sides, makes the dory more stable in the water when hauling lobster traps.

By varying the crook in the bottom and combining this change, at different times, with changes in the counter pitch, and different and increasing sizes of outboard motors, the builders produced handling characteristics which they could change to suit their needs. For example, the large motors made the bow of the dories rise up too far. To accommodate the weight, some builders put more pitch on the counter to make the bow come down a little bit. Builders took into account all they knew about materials, design, tools and performance aspects of the dory



This counter pitch is referred to by Robert Park as, "Six on twenty-four."

Figure 4.24. Counter pitch as was used by Robert Park of Lark Harbour.

and combined it to create the dory design they needed.

#### 4.6 The Dory as Folk Craft and Folk Object

A folk craft may be thought of as a traditionally designed or produced item.

Form is changed to suit a new context of use and, additionally, each person reproducing the item will change it to suit personal aesthetics. The original dory was taken and built for use in and around the Bay of Islands. At first, it was used as a general purpose boat, as a collar boat or a tender for the larger herring boat and as an auxiliary boat in hauling herring nets.

Although the traditional form may be maintained, it is possible to observe creativity, variation and experimentation as the object is built repeatedly over time by one person or many persons. The folk craft conforms to traditionally-developed aesthetics of design, construction and use. Through a tradition of construction and use, the dory becomes a folk object. Simon Bronner says folk objects exhibit repetition and variation common to other forms of folklore such as tales, songs, proverbs and riddles. Folk objects are those traditionally exchanged from one builder to another and from one generation to another. In the Bay of Islands, it is

primarily the idea about the objects which is exchanged and passed down<sup>20</sup>.

Dory building is a useful context for exchange and learning. Community members come together to discuss dory building or the upcoming season for lobster fishing, and in the spring they sometimes talk about such diverse topics as hockey playoffs. The groups are fluid; they come and go as they wish. If a few of them come together at one time, the builder may accept the occasion as a diversion from boat building but sometimes the group is an annoyance. John Payne, of Cox's Cove, said it could get so distracting sometimes that he would have to drive people out in order to get his work done.

As this chapter has illustrated, a close relationship between design and construction exists. To fully explore some design considerations, it was necessary to present them as they became evident in parts of the construction process. The design of the Bay of Islands dory was a result of necessity and a process of

 <sup>&</sup>lt;sup>20</sup>Bronner, Simon J. "Folk Objects." Folk Groups and Folklore Genres: An Introduction.
 Ed. Elliott Oring. Logan: Utah State UP, 1986. 199-223.

experimentation and adaptation, a willingness to change form depending on the new situation, and the ability of the builders to transfer their skills to a new form.

The combination of all these factors resulted in the development of a new type of boat for the area, the dory.

As an object is used and becomes accepted, it develops into a feature of that area. During the past fifty years the outboard-motor dory has accomplished this in the Bay of Islands. This development may have begun when the first row dory was copied by a Bay of Islands boat builder. The dory, as described, suited the physical environment and the required fishing activities.

Regarding the dory form as the only suitable choice for a fishing boat, some builders began to personalize it. One example is the way each builder makes a dory painter. As each builder in this study built more dories, they developed a sense of which local woods were suitable for dory building. For example, only seasoned spruce tree roots were recognized as suitable for making dory timbers.

The culture of dory building is as dependent on personal use as it is on regionally recognized features. Generations of builders took all they knew about materials, design, tools and performance aspects of the dory and combined it to create the dory design they needed.

This chapter examined how the builder is influenced by his own appreciation of various features of design. The features of design individuality demonstrate a deviation from the shared or traditional rules into the realm of personal satisfaction and interpretations of the accepted dimension of the form. For example, part of the design system involves selecting appropriate types of wood for dory building applications. Over time, builders have developed a value system for different kinds of wood appropriate for specific dory parts.

Some construction features were mentioned in this chapter for the purpose of the discussion of design elements. In Chapter Five, detailed aspects of dory construction are addressed to illustrate how builders using similar methods all produce different dories. Though dory builders share a common aesthetic of the basic structure of a dory, their different systems of measurement, shaping and construction techniques add to enhance the individualistic nature of the activity.

#### CHAPTER FIVE:

#### BUILDING THE BAY OF ISLANDS DORY

Construction of the Bay of Islands dory takes place once many design features have been considered and prepared for. Two dory builders are presented in this chapter to illustrate different dory building techniques and practices. From these two perspectives, discussion turns to general patterns of material selection and use for construction of dories in the Bay of Islands. Dories are built throughout the Bay of Islands with reference to personal, community and regional rules.

### 5.1 Shapes and Measurements

Moulds and half-models are not used for dory building. Builders use three means of determining the shapes of the wood they collect to make dory parts: templates, battens and formulas. A template is a representative boat part.

Templates are usually made of thin planking in one or more pieces, or ½" plywood. The builder uses it to trace out a section of wood, especially timbers taken from tree roots. Templates are used for two purposes: to provide an approximate size for rough sawing and as an exact size when making parts. For example, a dory timber is cut from a spruce-tree root by first holding the template

by the tree root to match the approximate size and shape. When the root is exposed by digging, it is cut out with a chain saw. In the workshop, when the root has been sawn lengthwise, the template is used to make the exact shape of the timbers.

Battens are used in many parts of dory building but serve the same purpose for all. A batten is a thin, long piece of flexible spruce wood which may serve as a guide for drawing curved lines on the dory floor or any other place where a curved, flowing outline is needed. It is used to form the shapes of parts as they relate to each other. For example, once all the dory timbers are attached to the dory floor, a long thin batten is nailed to the upper, outside edge of all the timbers to outline a smooth, flowing curve. The curve is lower in the middle than at the ends and marks the shape of the gunwale. Once a suitable curve is formed, the timbers are cut off above the line formed by the batten. When a dory is completed, its smooth curving sides and gunwale give evidence of the effect produced by the builder's use of battens in the construction.

For dory building, builders have changed the shapes, dimensions and relationship of parts and features over many years of building and using dories.

Today, they set-up the stem, forehook, midship bend, counter, sheer line and

rocker of the dories as they have found they work best. Because the dory builder is in most cases the dory user, he knows by his own experience and intuition what design and construction decisions will work best. Each builder is able to create a product which is unique to him while at the same time using the same basic design as the other builders.

The following are examples of dory construction by Robert J. Park, of Lark Harbour, and Stan Park, of Cox's Cove<sup>1</sup>. In <u>Boat Building in Winterton</u>, <u>Trinity Bay. Newfoundland</u>, David Taylor presented the building process of one boat to illustrate representative building methods for that community of builders at the time<sup>2</sup>. The builders presented here are selected because they are representative of dory building in the Bay of Islands, and they bring to light the process of dory building. Robert Park's building process represents how dories were built in Lark Harbour in the past and Stan Park's building process represents how dories are built in Cox's Cove in the present<sup>3</sup>.

5.2 Robert J. Park, Lark Harbour

<sup>&</sup>lt;sup>1</sup>Interviews with Robert J. Park, of Lark Harbour, on May 17, 1994 and May 12, 1995. I interviewed Stan Park, of Cox's Cove, on June 4, 1994.

<sup>&</sup>lt;sup>2</sup> Taylor, 1982. 136.

<sup>&</sup>lt;sup>3</sup> For a similar exploration of a selected boat builder see David Taylor's, <u>Boat Building in</u>

Robert J. Park is a retired fisherman, and boat and dory builder who has developed his own way to measure and build a dory. He described to me how he built dories in the past. Generally a dory is built by making a flat floor, putting on the timbers, stem and counter, finding and cutting the correct height of the sides, attaching the strakes (boards) to the sides, putting on the gunwale and painting the whole thing. The first step was measuring the dory by finding the centre of the length and width of the floor. He commonly made floors of either plywood or joined spruce planks. With the centre of the length and the width of the bottom found, the rest of the measurements are made indicating where timbers would be attached.

The middle of the floor was usually forty to forty-six inches wide, the forehook (the first set of timbers back from the stem) was twenty inches, and the counter measured thirty-five inches. These measurements he says, "...are all that's required." (Figure 5.1). A batten was put around all these points and the curve of the outer edge of the bottom was traced. When the bottom's shape was drawn, it was cut out and the midship timber, forehook, stem and counter were all attached

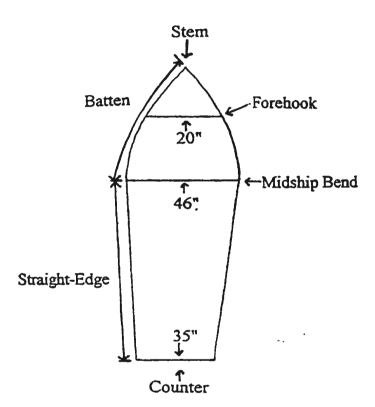
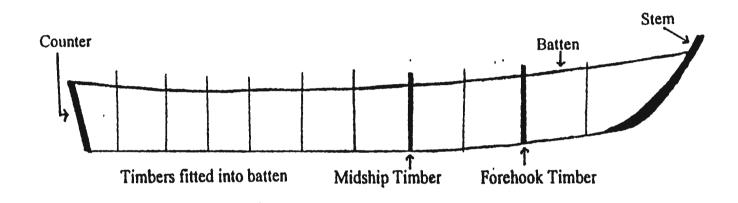


Figure 5.1. Dory floor with stem, forehook, midship bend, and counter

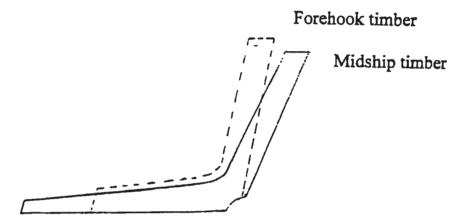
by nailing up through the bottom into the timbers. Each pair of timbers in a set were nailed to each other. At the upper edge of each of these timbers, a batten was nailed from the counter around the midship bend and the forehook to the stem (Figure 5.2). The additional timbers--placed sixteen inches apart--were not measured exactly but shaped to fit the bottom and the inner edge of the batten. He ensures that the bottom of the timbers fit squarely on the dory floor and flush with the edge of the floor, while fitting with a batten running along the top edges of the stem, midship timber and counter. Each of these timbers are fitted inside the curve of the batten. A final batten, or the same one, is used to form the shape of the sheer on the gunwale of the dory. To do this, the timbers were marked along the top of the batten and then cut off along that line.

Each of the stem, forehook, midship bend and counter had specific shapes derived from a template or formula. The stem and midship bend were made based on templates. The forehook was made considering Robert's own rule, "that the forehook have one inch less flare than the midship bend." The midship and forehook timbers are represented in Figure 5.3. A midship timber has twenty-three and one-half inches of flare while the forehook timber is one inch less. Robert Park's counter typically followed the same pattern of dimensions for many years.



The counter, timbers, and stem are all cut off along the top of the batten forming the sheer.

Figure 5.2. Dory showing all timbers and the batten forming the sheer of the gunwale.



Notice the forehook timber has less flare than the midship timber.

Figure 5.3. Comparison of the flare of the midship timber and the forehook timber.

He built the two timbers based on templates, and other dimensions were approximated based on the shape of the timbers. Figure 5.4 is a dimensional drawing of how one of his typical counters would look. The dimensions are presented as he described them, "...there's your counter, here you got 35" here [across the bottom] and 50" on top, up 24"straight across."

Before all the timbers were fitted into place, the bottom had to be bent to make a crook in the forward section. The stem was lifted eight inches and blocked up. The floor was forced down at a point centred on the dory floor seventy inches back from the stem to form a curve in the floor. A batten was put along the top of the counter, midship timber, forehook, and the stem. Only one batten was needed, because the outside edge of the timber would be straight, and if it matched the outside edge of the bottom and the batten, then it matched the desired flare.

The garboard plank, the bottom-most plank when the dory is upright, is attached to the timbers, counter and stem, followed by the other planks to the top of the timbers at the gunwales. Each plank is bevelled from one-half inch thickness to one-quarter inch over one-and-one-half inches from the bottom edge and then lapped over the next like clapboard. At the stem and stern of the dory, the boards are lapped flush up to six inches from the ends, giving a non-lapped

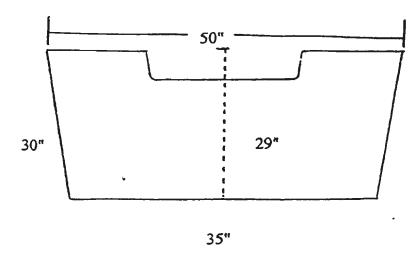


Figure 5.4. Dimensional drawing of Robert J. Park's counter.

appearance.

Robert says, "that when a dory was built, we [he and other builders] could look at it and see what change had to be made." Once a change was noted and considered, the builder would have commonly made that change in the next dory he built. Sometimes a builder would notice more than one change. These observations were the vehicle for change and development of the design of the Lark Harbour dory. Robert feels this attention to detail and years of consideration of the features of dory building have contributed to the renown of Lark Harbour dories. Robert Park expresses his opinion of why the Lark Harbour dories are the best dories in the Bay of Islands.<sup>4</sup> "Then after all that is done [a dory is built] you could see all through it and any changes on the next one, you could say I'm going to make a little change in this one, that's how it goes, that's how the Lark Harbour dories came to get their name, they're the best dory is built anywhere in the Bay of Islands or any part of the island."

#### 5.3 Stan Park, Cox's Cove

Stan Park lives in Cox's Cove on the North shore of the Bay of Islands<sup>5</sup>.

<sup>&</sup>lt;sup>4</sup>Interview with Robert J. Park in Lark Harbour on May 17, 1994.

<sup>&</sup>lt;sup>5</sup>I interviewed Stan Park in Cox's Cove on June 4, 1994. This summary comes from hand

For Stan, "Dory building is a bad weather job." It is the type of job which can be done during winter or as a way to use time when the weather is not suitable for fishing in the spring and summer. He represents many dory builders in the bay who have built dories for many years and are still active. Like other dory builders in the area, he builds the bottom of the dory first, "It's the most of the work, it's the main job in a dory." He begins by making the shape of the bottom which will be sixteen feet long. The first set of timbers will be placed back nineteen inches from the stem and all other timbers nineteen inches from the one before it. Stan has written the widths of the first three timbers from the stem on his shed wall: twenty-four, thirty-seven, and forty-three inches. Though these are written, he knows they each have to be nineteen inches apart and the counter has to be thirty inches across the bottom. With this in mind he marks the centre of the bottom and finds the point for the stem. He makes the marks for the first set of timbers nineteen inches back from this and marks twelve inches on each side of the centerline to the edge of the bottom making the line twenty-four inches wide. The next two marks, thirty-seven and forty-three inches are made the same way. Sixteen feet back from the stem mark, the counter is marked out with fifteen

written notes.

inches on each side. The counter is thirty inches wide along the width of the bottom.

To make the outline of the bottom of the dory, a batten is put around each of the three forward marks and stem, and then the curve of the forward part of the bottom is drawn out along the edge of the batten (Figure 5.5). A line is drawn along a straight edge placed from the outer edge of the counter to the outer edge of the third (forty-three inch wide) timber. This is done on each side. These lines, combined with the curved lines around the three forward timber measurements and the line across the counter, form the outline for the dory floor. Next, the bottom is cut out following those lines and curves. The stem, counter and three sets of forward timbers are all attached to the bottom. The counter is attached with two counter knees because this is where the outboard-motor is mounted; the extra strength is required for motors over forty horsepower. Stan uses a set of nine timber moulds and because he cuts all his timbers according to the moulds, he finds he does not need to rely on a batten to fit the shapes of the timbers. The, "flan" or flare of the sides formed by the present set of moulds he uses are the best he has found to date and he feels, "...the most flan is the best." Stan uses plywood for his garboard strake and spruce board from the woods near



Figure 5.5. Stan Park uses a batten around the three forward marks on his dory floor.

Cox's Cove for the other four strakes, making five total. Plywood is used for the garboards only, because it does not split like is possible with spruce boards. This feature is important because the garboard ties together the floor, timbers, stem and the counter connecting all the important structural parts. One garboard on each side of the dory gives it its strength. He uses, "...black spruce for the other strakes."

Once the three timbers, stem and counter are installed, Stan moves the floor plus parts from the set of wood horses to four wooden box-like stands on the floor. Each stand is eighteen and three-quarter inches long, ten inches wide and thirteen inches high. One stand is situated under the third timber aft of the stem, and the remaining three stands are spaced evenly from there to the counter. In addition to the stands, a twenty-five and three-quarter-inch-long piece of two-by-four lumber called a stem block, which is twelve and three quarter inches higher than the stands, is placed under the stem. When a spruce pole is forced into place between the third timber and the ceiling, a curve is made in the dory floor. This curve represents the crook in the dory floor of twelve and three quarter inches; the same amount the stem block is taller then the stands. The height of the bottom of the

the dory forward of the midship turns upward.

Stan uses moulds for all his timbers. He still finds that using a batten along the upper edge of the counter around the three forward timbers and to the stem helps him to make smooth sides. The timber shapes are determined but the batten is used to place them evenly thus making the sides and the gunwale smoothly curve. He says "it makes a good smooth job on the side" (Figure 5.6). The batten is also used to control the height of the timbers. At the counter, the batten is attached at twenty-six inches and then at twenty-four inches at the midship timber. The stem shape is a matter of taste, and thus has no measurement. For a stem, "...you have to look out for a root that looks good. After building so many dories, you can spot a good stem." The forward sheer from the midship timber depends on the height of the stem. Most of these measurements are dependent on the builder's preferences.

Looking at these two examples, and the others presented earlier in Chapter Three, it is evident that each builder has adopted his own system to measure the parts needed to build the dory and therefore, each dory builder makes his own version of the same type of boat.



Figure 5.6. Stan Park's set of numbered timber moulds. There is a mould for each timber.

## 5.4 Dory Assembly and Patterns of Material Use

Many dory builders in the Bay of Islands use only specific wood for certain parts of dories as evident in sections 5.2 and 5.3. Their preferences are based on many years of experimentation with different types of wood and on what they learned from other builders. The preferred local types are white spruce, black spruce, juniper, balsam fir, white maple and yellow birch. Most people cut the trees and roots themselves, and have them sawn at local saw mills.

Spruce is the most popular; it is used for major structural components like timbers, knees and the stem post. Of all the wood they use, spruce wood offers builders the best characteristics of strength and workability. Spruce is also the most common tree in the area. The roots of the tree are used to make timbers, the most difficult and dangerous components to make (Figures 5.7 and 5.8). The timbers come from the root, and are commonly cut on a large circular saw-type mill. The hazard comes in this activity as the L-shaped wood is often irregular shaped and has convoluted, twisted grain that increases the risk of the saw jamming. Each root yields about three timbers; for a sixteen-foot motor dory, as many as eight roots will need to be cut. Usually only one root per tree will be sufficiently large for timbers. Spruce cut in six or eight inch wide boards was once



Figure 5.7. Spruce tree roots on a trailer in Irishtown, Bay of Islands.



Figure 5.8. Dory timbers. One of several rough-cut dory timbers from spruce tree roots in Roy Dennis's dory building shed.

common. Stan Park is the only builder I spoke to who used spruce boards because it, "...is strong and has no joins." While plywood is presently fashioned into boards, there is no replacement for spruce tree roots for timbers.

There are other woods included in the raw material repertoire of the builder. Hardwoods are used by many dory builders but they do not use them as consistently as they use spruce. Charlie Kendall, of York Harbour, uses juniper boards for the risers, which run the inside length of the dory along the timbers and support the seats<sup>6</sup>. He also finds the wood useful for gunwales and wraps. About forty years ago, Roy Dennis, of John's Beach, used large yellow birch branches and trunks for dory timbers<sup>7</sup>. Because that tree is relatively rare in the area, and the timbers were difficult to make, Roy began to use spruce roots and still does today. In boat and dory building, it was generally recognized that birch is not practical for dory construction because it tends to crumble in applications where it does not stay in the water<sup>8</sup>. In a further example from different experience, Jack

<sup>&</sup>lt;sup>6</sup>Interview with Charlie Kendall in York Harbour on May 13, 1994.

<sup>&</sup>lt;sup>7</sup>Interview with Roy Dennis in John's Beach on August 15, 1992.

<sup>&</sup>lt;sup>8</sup>In his book <u>Tidewrack</u>, Robert Cunningham makes comment on the use of several types of trees in the marine environment for ship building. He says yellow birch (actually black birch) was favoured by ship builders who found no use for white or paper birch (48-49). White birch is relatively common in the area of the bay but is not used by dory

Monk, of Monkstown, Placentia Bay, said birch was acceptable for schooners but not dories because, "...it crumbles when it gets dry." Charlie Kendall uses oak for gunwales and Robert Park used oak when he built dories. Dory builders know the best wood for their construction requirements and use the same types of wood consistently.

Plywood came into use about the time when dories changed to outboardmotor power. It is used now for the sides of the dory and is valued for its strength in that application. Although plywood is a favoured material for strakes, it is not commonly used for building dory bottoms because it is too thin to nail through its edges and maintain strength when the garboard is attached. To make plywood

builders. They have only used the yellow birch in the past for timbers as a substitute for spruce and before there were chain saws to get at the spruce roots.

<sup>&</sup>lt;sup>9</sup>Interview with Jack Monk in Monkstown, Placentia Bay, on August 10, 1994.

wooden sides for the dory, the builder rips the eight-foot sheet of plywood into three equal strips of sixteen inches wide and eight feet long. Two of the eight-foot pieces and one four-foot piece are required to make each strake for the dory sides. The strakes for one sixteen-foot dory will require four full four-foot-by-eight-foot sheets of plywood and a part of a fifth sheet. Although marine plywood was once available, it has been difficult to get and builders have had to use regular spruce plywood. The latter is the commonly used stock now.

Dory builders spend much of their time looking for and making wooden materials for their boats. Builders store wood in and near their sheds; some even build additions to sheds just to store wood. The devotion to finding, making and storing wooden parts is necessary as all builders commented that finding suitable material was becoming increasingly difficult.

### 5.5 Rules in Dory Building

In the Bay of Islands, there are two levels of rules related to the dory building activities: community and personal. Community rules are those which are widely recognised in a particular community or in an area of the bay. For example, a community rule for a dory may be that it must be either grey or orange with green trim. To further explore the rules of paint colour, the builder may decide to paint

his seats green while another builder may decide to paint only part of his seats green, leaving the centre section of the seat orange. Variations of rules occur when a person makes a decision because he prefers his own way of doing things. This includes the personal rules of dory building dories, most people use the same practices repeatedly but they sometimes make minor changes.

All dories have different shapes and sizes but they share the same basic structure. In chapter one, it was shown that the dories changed over time. This change can be illustrated by noting the primary and secondary characteristics of the dory building tradition. Primary characteristics are those features of a tradition which turn up in every example of the tradition; they are used to define the type into which an example fits. Secondary characteristics are attributes of the form which, though they may be culturally significant, are not of use in the definition of the type 10. Builders develop an appreciation for and interpretation of these rules.

Based on descriptions by six dory builders, some primary and secondary characteristics of the dory can be identified<sup>11</sup> (see Table 5.1). These characteristics

<sup>&</sup>lt;sup>10</sup> Glassie, Henry. <u>Pattern in the Material Folk Culture of the Eastern United States</u>. Philadelphia: U of Pennsylvania P, 1968. 8.

<sup>&</sup>lt;sup>11</sup>These rules were derived from conversations with Robert J. Park (May 17, 1994, August 12, 1994, May 17, 1994 and July 25, 1995), Stan Park (June 4, 1994), Roy Dennis (August 21, 1992, May 6, 1993 and May 8, 1994), Harvey Sheppard (July 25, 1995),

# Table 5.1 Primary and Secondary Characteristics of the Dory

# Primary Characteristics:

- 1. Measured by the bottom length
- 2. Have naturally-grown, curved, spruce timbers
- 3. Crook in the forward end of the floor to the stem
- 4. Broadly flaring sides
- 5. Broad counter made for an outboard motor
- 6. Shelburne-type stem; stem-post is not above gunwale
- 7. Variable stem shape
- 8. Forehook and midship timbers used to define hull shape
- 9. Made of wood
- 10. Between fourteen and sixteen feet in bottom length
- 11. Between five and six feet wide
- 12. Between twenty-four and twenty-eight inches deep

## Secondary Characteristics:

- 1. Painted orange with green trim
- 2. Painted grey with green trim
- 3. One or two counter knees
- 4. Good quality of workmanship, refinement and finish work according to local standards

Charlie Kendall (May 13, 1994) and Freeman Sheppard (August 12, 1994).

make clear what the builders and users of these boats see as most important. The rules are sometimes difficult to ascertain. For example, all builders strive for good quality of workmanship but not all achieve it. Dory builders recognize a dory with these characteristics, but breaking them down into primary and secondary characteristics clarifies what they see. Although a builder may have an appreciation for the rules, his skill and personal interpretation may limit his ability to produce a boat which will meet these rules.

Rules of dory building have implications for the community and the individual. The individual can innovate with his interpretation of community rules. Over time, these innovations may become accepted and included in the community rules. This is one example of how cultural rules occasionally change over time.

Because the dory has remained a major part of life in the Bay of Islands, personal, family, community and regional rules developed. Over a period of time, and through a process of time and design, construction and use, people create defining characteristics of what a dory is, how it works and how it should look if it is to work properly. Through experience with the boats, people develop conceptions of what is essential in all three parts; in design, in construction and in

use. As the dory design was accepted, used, and changed, the dory became better integrated with the environment into which it was introduced. As people lived with dories, the dories became one of the defining features of that environment. How can we account for this? The next chapter explores the significance of the use of the object, and how it relates to design and construction.

#### CHAPTER SIX

DORY USE: TESTING THE PRINCIPLES OF

## **DESIGN AND CONSTRUCTION**

As the third and most important part in the tripartite exploration of material culture, use examines how design and construction are tested. By using a boat, the fisherman or builder gains feedback on his design and construction. Exploring how the dory is used also allows the researcher insight into why the dory design was selected and built as it was. The reasons why builders selected materials, and designed and constructed dories as they did become evident when exploring dory use.

## 6.1 Handling in Fishing Activities

The Bay of Islands dory is built and used mainly for lobster fishing. It is generally recognized, as Stan Park stated, that dories could, "bear up a good load."

This means the dory can hold increasingly heavy loads of fish or supplies without sinking too low in the water. Additionally, a dory could run into the waves, run along the length of a wave, or run in the same direction as the waves without overturning or swamping.

In general day-to-day use, dories in the Bay of Islands are not subjected to

heavy loads, but a dory used for lobster fishing sometimes needs to carry as much as one thousand pounds. During the lobster season, there are four circumstances when a dory is required to carry heavy loads: (1) travelling to areas on the coast to fish carrying supplies such as bait, lumber for building repairs, and food; (2) setting lobster traps; (3) selling lobsters to the collector boat and getting supplies from it; and, (4) retrieving lobster traps at the end of the season. In May of 1994 and 1995, while in Mary Ann's Cove with Roy Dennis, I witnessed three circumstances when dories carried considerable loads. Leaving Little Port to go to Mary Ann's Cove a few days before setting traps in the spring of 1995, the dories carried several large and heavy items. These heavy loads did affect the dory's performance; the fishermen had to travel slower than when empty because the dory sat lower in the water.

Travelling to Mary Ann's Cove involves a one hour trip in a dory under favourable conditions. In May of 1995, Roy Dennis and myself, along with parties in four other dories, left Little Port for Mary Ann's Cove. Our dory carried 2"x4" lumber, wall board panelling, lobster traps, a chainsaw, two hundred pounds of herring for bait, food, fuel, tools and other miscellaneous items. One dory carried an all-terrain vehicle. Most of the cargoes were packed low in the dories to

increase stability. A stability feature built in by design is the wide flat bottom combined with broadly flaring sides. As weight is added to the dory, it sinks in the water. As it sinks, the stability increases because the flare increases the surface area of the sides, therefore becoming more stable as it is forced into the water.

Perhaps the two most hazardous occasions when a dory is used is when setting lobster traps at the start of the season and hauling them at the end of the season. When traps are set, it is necessary to pile as many as twenty-five of them in a dory (Figures 6.1 and 6.2). The total weight for a load is about one thousand pounds. When the boat is pushed off the beach, the fisherman must clamber up over the traps to get to the back of the dory to control it. Even climbing around in the dory in a few feet of water is dangerous. Traps are set near the end of April, when the water temperature gives a person approximately five to seven minutes to survive. The stability provided by the wide, flat bottom and wide, flaring sides of the dory is greatly appreciated by dory users.

When heavily loaded, the dory must be handled carefully. It could swamp or capsize if handled incorrectly. Although there are an infinite number of scenarios for trouble, swamping while in a loaded dory is the greatest fear for



Figure 6.1. Dories loaded with lobster traps in Mary Ann's Cove.



Figure 6.2. A flat loaded with lobster traps in Cow Head on the Great Northern Peninsula.

fishermen.

The best way to avoid problems is to load according to water and weather conditions. If, for example, there is a large swell or large breaking lops on the water, the load may be reduced from twenty-five to fifteen traps. As a consequence, more time will be required to set the traps. It is much more likely for a dory to swamp than to roll over. But there is an economic incentive for taking more traps. Fishermen set traps a mile or two off shore from the camps in Mary Ann's Cove. Though they stay in the general area of the cove, they have no set locations where each man puts his traps. On the day the traps are set, there is a race-like situation to get the traps in the water; the first people out usually get the best spots.

Carrying heavy or bulky loads when supplies of fuel, bait or traps are received from the collector boat is also dangerous (Figure 6.3)<sup>1</sup>. With a load like

<sup>&</sup>lt;sup>1</sup>The collector boat serves a dual role. Its primary function is to collect live, crated lobsters and its other role is to be a supply boat. When the season begins, it is common for the boat to carry drums of fuel (forty-five gallon containers) for the dories, and extra traps the fishermen have arranged to have carried down. It also serves as a general store with slightly higher prices. The collector boat stocks bread, canned food, liquor and beer, lube for the outboard motors, and sparkplugs. It is also a carrier service for messages and for people coming to and from the area to help or visit. The boat is a source of information about the latest news on how lobster fishermen in other areas are doing. Its primary function, though, is to buy lobsters from the dories and pay cash for them or sometimes issue receipts.



Figure 6.3. Loading supplies into dories from a collector boat at Mary Ann's Cove.

this, the fishermen are also in fear of swamping because there is reduced freeboard. In this situation, when a dory is fully loaded, only six inches of the sides may be above the water. A typical cargo from a collector boat could possibly consist of one or two drums of gas (three to six hundred pounds), four or five hundred pounds of bait, and possibly two to four people, for a total weight of about two thousand pounds. Dories with a load like this are very stable; they steer well but have to be driven slowly and carefully. A common comment about row dories also applies to motor dories: they are a safe boat as long as you know how to use them.

Dories are used almost daily from the day the traps are set in late April or early May to late July when the traps are taken in, repaired and put away in sheds. The dory in this day-to-day use carries comparatively little. During this time it has probably two hundred pounds of bait, a lobster trap, a crate, a scrap bucket for old bait taken out of the lobster traps, some tools, a compass, the hauler motor and one or two people. As the lobster crate is filled, the bait jack (bucket) gets emptied as traps are rebaited. The scrap bucket also gets filled and then later dumped away from the lobster grounds.

Lobster traps attached to wooden buoys by twelve to seventeen-fathom-long

ropes are dropped over the side of a dory in depths of water corresponding to the lengths of those ropes. Traps are typically laid out in a straight line one hundred or so feet apart running parallel to the shoreline. Once the traps have been in the water for a day, they are hauled out and checked, lobsters taken out and new bait put in. First the buoy line is hooked with the gaff and hauled in the boat. Then the rope is given one wrap around the "nigger head" on the hauler motor. As long as the fisherman keeps a tension on the rope the motor will haul it. As the trap nears the surface of the water the speed of its ascent is controlled by the tension held on the rope. When the trap breaks the surface, the rope is given a quick tug to release it from the hauler and the dory's design is used to get the trap out of the water.

By positioning footing on the dory floor, the dory can be made to lean to either side allowing the water to meet the gunwale. Sometimes it is necessary to place one foot on the riser and lean the body weight on that leg causing that side of the dory to go down into the water and, while doing this, pull the trap up and slightly out so it rests on the gunwale. Then, with a tug on the rope and a shift of weight to the back leg, the dory tilts back level, hauling the trap with it. This manoeuvre saves the fisherman from hauling a water-soaked trap about two feet from the water into the dory, which is an awkward and strenuous task.

Manoeuvring the dory to do some of the work is an additional option for the fishermen because of the shape of the dory. This may be done as many times in a day as there are traps. In the two years I went to Mary Ann's Cove in 1994 and 1995, there were between two hundred and fifty and three hundred traps hauled per day.

#### 6.2 Outboard Motors

Outboard motors have been the primary means of propulsion for Bay of Islands dories since the 1950s. Since this time, the use of outboard motors has influenced both major and subtle dory-design changes. One obvious major change was when the double-pointed row dory was changed from a craft with a narrow transom to a craft with a wide counter. Over time, there have been many minor changes to the shape of the counter spurred on by various influences. The most recent design change, as a result of the use of larger outboard motors over forty-horsepower, has been to change the amount of a dory's counter pitch. In the last few years, some fishermen have begun to use fifty and fifty-five horsepower motors. These large motors, when mounted on a dory with a counter designed for smaller outboards, force the forward section of the dory out of the water. Large motors are not practical for use in fishing since the dory is sometimes used at low

idle and then accelerated to the next trap a few hundred feet away. The dory is not commonly used on extended trips, and larger motors not only make operation dangerous but they are also not fuel efficient. For most fishermen, a thirty-horsepower engine has a sufficient ratio of speed to power.

Through use, some parts of the dory may change. The counter gets more or less pitch, and the stem or forward section of the bottom gets more or less crook (Figures 6.4 and 6.5). Features like crook, flare and sheer cannot be easily measured or described as exactly as a feature such as counter pitch, but they conform to the builder's personal tastes. The shape is the product of the builder's experiential perception of form as it is developed through consideration of design in use. If a dory needs alteration, then the design, and possibly the construction method, need to be changed. Then it is used again and reevaluated, and here design may be reevaluated and then changed or accepted as it is.

The width of the bottom is also determined by use. In an effort to make the dory stable, it was discovered that the wide, flat bottom, when used with the flaring sides, made the dory more stable than the original version with the narrow, flat bottom and flared sides. The width of the dory bottom is determined by use.



Figure 6.4. Dory built by Freeman Sheppard with counter wedges in place. The counter wedges were used to change the pitch on the counter of the dory without alteration of the existing counter. At the time of this photo in 1994 Freeman Sheppard was experimenting with different wedge sizes. The extra pitch provided by these wedges was to be built into the next dory.



Figure 6.5. Dory built by Freeman Sheppard with counter wedges in place.

### 6.3 Performance Correlatives

What makes a good dory? David Taylor essentially asks this question in his article, "What Makes a Good Boat?" He attempts to discover the accepted features of boat design which the builders and users of the boats felt were the best. It is an excellent question to ask for boats. I used this question to discover the primary and secondary characteristics of what was a good dory in the Bay of Islands. People know what a good dory is through experience. Considering primary and secondary characteristics, I gathered information about dory design and construction features. I determined that there were two components to dory building; the traditional and the cultural. The traditional are the diachronic elements which persist through time, like dories having flat bottoms. The cultural are the synchronic elements which people changed depending on information they received in the time they were building dories, like changing from using wooden planks to using plywood.

A survey of my field notes reveals that practically all those interviewed had similar opinions about what made a good dory. They said it had to have timbers

<sup>&</sup>lt;sup>2</sup> Taylor, David A. "'What Makes a Good Boat?' Toward Understanding of a Model of Traditional Design." <u>Canadian Folklore canadien</u>. 4:1-2 (1982) 77-82.

made of naturally curved spruce tree roots, a crook in the bow, flared sides, a broad, slightly raked counter for an outboard-motor, and that it had to be built with attention to producing a good finished product. With all these factors and individual considerations, it was felt a good dory could be produced.

In its most basic form, tradition can be that which people create through thought and action, and is handed down from the past to the present, from one generation to the next<sup>3</sup>. A common consideration of tradition is the appearance of the past in the present. In his article, "Tradition," Henry Glassie says tradition is the creation of future out of the past, and that tradition is refined in conjunction with history and culture<sup>4</sup>. Objects may be kept and used over time, and so can the rules for how to manipulate those objects. For the case of the dories in the Bay of Islands, it is apparent that the rules of design, construction and use of the boats are maintained from the past, with slight changes over time.

It is probably more appropriate here to consider tradition as Hobsbawm does when he discusses it as exhibiting a combination of flexibility in substance

<sup>&</sup>lt;sup>3</sup>Shils, Edward. <u>Tradition</u>. Chicago: U of Chicago P, 1981. 2.

<sup>&</sup>lt;sup>4</sup>Glassie, Henry. "Tradition." <u>Journal of American Folklore</u>. 108:430 (1995) 395.

and formal adherence to precedent<sup>5</sup>. For the purposes of this study, I am likening the substance of tradition to that physical part of it. Precedent represents the rules of the tradition. David Taylor discusses boat builders who attempted to manipulate design variables to achieve properties resulting in hull forms (substance) which successfully met use requirements (precedent)<sup>6</sup>. I have begun to understand the nature of substance and precedent by investigating the dory culture of the Bay of Islands.

<sup>&</sup>lt;sup>5</sup>Hobsbawm, Eric. "Introduction: Inventing Traditions." <u>The Invention of Tradition</u>. Eds. Eric Hobsbawm and Terence Ranger. New York: Cambridge UP, 1993. 2.

<sup>&</sup>lt;sup>6</sup>David Taylor. "What Makes a Good Boat?' Toward Understanding of a Model of Traditional design." <u>Canadian Folklore canadien</u>. 4:1-2 (1982) 77-82. Edward Ives makes a similar reference to the question, "What was a 'successful' song?" in <u>Joe Scott: The Woodsman Song Maker</u>, 413. The answer to this question had to do with the acceptance of a song or not. George M. Foster, in <u>Traditional Cultures and the Impact of Technological Change</u>, (18) makes four premises about culture. His fourth premise is that every culture has a value system. We classify phenomenon of our experience into categories of good and bad, desirable and undesirable, right and wrong.

Substance, with reference to boat building in the Bay of Islands, includes innovation, creativity, adaptation of new technology, and the acceptance of some new forms and designs. Adhering to precedent means the builders attempt to make boats which will exhibit the same qualities repeatedly; such as handling well in rough water.

While working on the relationship of substance and precedent to tradition, I realized there was yet another manifestation of the rules of tradition I had missed. When reviewing my field notes, I discovered there were some *blason populaire* which hinted at the rules for the tradition. The *blason populaire* are jokes or joke-like statements which are often derogatory in nature. It is a folklore form which brings to light some of the covert expressions of the aesthetics of design, construction and use<sup>7</sup>. In the following examples, stated by people in

<sup>&</sup>lt;sup>7</sup>Winefride Bennett in her article in <u>Lore and Language</u> 9:1(1990) 19-35, "The *Blason Populaire* Tradition in English Culture: A Dynamic Model of Social Structure," looks at forms of *blason populaire*. Her last set of those forms are associated with the work techniques, arts and crafts which produce the surviving and modified *blason populaire* traditions of material culture (30). In Jacqueline Simpson's article in <u>Lore and Language</u> 3:6a (1982) 61-73, "Multi-Purpose Treacle Mines in Sussex and Surrey," she talks about the versatility of *blason populaire* in function, content and context (61). Finally, David Buchan's article, "Social Function of Traditional Scottish Rhymes." in <u>Folklore Studies in the Twentieth Century</u>, edited by Venetia J. Newall considers the function of *blason populaire*. He says its function can be difficult to determine because it depends upon context (54).

communities other than where the *blason populaire* was directed, hint at the rules for boat building and use.

Dories need to be made with care and some builders comment about the appeal of the shape of a dory to them. If the shape or quality of the construction was not pleasing, then they would make a joke about it. I heard the dories from one community described in a derogatory manner as being "built like battle ships." Another comment about the same community was that its dories were "built like bananas." This meant their curve of sheer and crook of bottom were too exaggerated for the person who made the comment. In the community, the person is from, the crook of a dory is much less than the crook of dories in the community he was commenting on.

Just as dories had to be designed in a manner to make them look good, they also had to be built in a manner with quality craftsmanship. The only comment I heard explicitly about the construction of dories from one community by someone from another was that the dories of one place looked like they were "built with chainsaws." The person's comment meant the construction lacked the care and attention to detail which would have been achieved had the builder's quality of build been in the realm of "finish work."

In the Bay of Islands, dories are most commonly used with only one or two people in them. The following two examples of blason populaire illustrate how one community was targeted about the rules for use of a dory. The joke was, "How do you know a dory from McIvers?" The answer is, "It has three people in it." In most cases in the Bay of Islands, it is not practical for a dory used in lobster fishing to carry more than two people. The second was a comment I heard in May of 1995 when I was doing some concluding fieldwork in Mary Ann's Cove, near the Bay of Islands. I stayed there for a week helping Roy Dennis set his lobster traps. When the week was up, the three of us who were helping got in Tom Child's dory and he took us out to the collector boat. As we were getting from the dory to the collector, one of its crew said, "By the look of the dory with the four of ya, I thought you were the crowd from McIvers." These examples of blason populaire represent some of the rules of design, construction and use in the Bay of Islands during the time of this study.

Boat types in the Bay of Islands have been changed, adapted, replaced or reappropriated at least nine times in a hundred years, as illustrated earlier in Figure 2.1. There has been great diversity in the types of small wooden boats used in the past century. Taking into account this great proliferation of boat types in

conjunction with the tradition of boat building in this area, it is evident that there is not one type which can be considered traditional. What is evident is that the acceptance of new types and making them fit into a new context of use is traditional, not so much the product. Tradition encompasses the process of passing information and materials from one generation to the next, or even the passing within a generation, and includes consideration of how the information and materials are used. It has to have a lasting significance to be passed on and in this sense tradition also covers the unchanging features of boats and dories. The developed attitudes and practices which are relevant in an area may represent the tradition more precisely than the type of boat used at a particular time.

The *blason populaire* revealed some of the rules of design, construction and use. For the McIvers jokes, there were too many people in the dory for the liking of those who felt any more than three was not an acceptable crew size. Joe Lundrigan and Leslie Loder of Summerside, near McIvers, said crews of three or four were most common for the herring boats of the past<sup>8</sup>. But now with the dory as a smaller boat and with different economic contexts, the aesthetic of boat use has changed. The dory is most commonly used with one or two people in them

<sup>&</sup>lt;sup>8</sup>Interviews with Leslie Loder and Joe Lundrigan in Summerside on August 19, 1994.

because that is all required for lobster fishing.

The design process has changed. Builders now make boats by relying more on intuition for some parts and shapes, such as the stem, and relying less on quantifiable elements, like formulas for those parts. Although builders use templates where they once used adjustable moulds and half models, they still follow the rule that a boat must be designed appropriately for the type of fishing and water it is to be used for. But the builders' desire to maintain a boat design appropriate for the type of fishing and water conditions has remained. Within the design aesthetic falls the acceptance and trial of new forms. It is evident the aesthetics of construction have been maintained, though some new tools have been used in the name of making a good dory with sound construction. The importance of these aesthetics is realized in the comparison of fibreglass dories to wooden.

# 6.4 Wooden Dory Compared to Fibreglass Dory

Over a long process of design, construction and use, the present day dory has developed. One of the latest developments in dory construction has been the production of fibreglass dories at the Fibreglass Shop in Mt. Moriah, on the south shore. The process was described earlier but the attitude toward and the overall rejection of the fibreglass dory is important to the study of the wooden dory. By

considering what we know about the process involved in the design, construction and use of the wooden motor dory, and applying some analytical concepts from the study of folk literature, it will be evident why the fibreglass dory has been widely rejected in this area. There are as many variants of dories as there are dory builders. All these versions come from one now supposedly lost original type called the urform (Figure 6.6)<sup>9</sup>.

There are primary and secondary characteristics for each of design, construction, and use. The primary characteristics for the Bay of Islands wooden dory are a flat wide bottom; flared sides with a broad, pitched counter; a slight crook in the bottom of the forward end; and, dory timbers make up the structural form onto which planks are attached. Some secondary characteristics include from seven to ten sets of timbers planked over with two to five boards on each side, and either a plank or plywood bottom.

<sup>&</sup>lt;sup>9</sup>An information sheet from the Fisheries Museum of the Atlantic in Lunenburg, Nova Scotia begins with an allusion to the urform. The sentence is "Dories have existed for centuries, although their origin has been lost with the passage of time." This urform or original type represents that from which the oikotypes like American, French or Portuguese have derived. The information sheet by Heather-Anne Getson is titled, "Dories, Part of Lunenburg's Past." Lunenburg, NS: Fisheries Museum of the Atlantic, n.d.

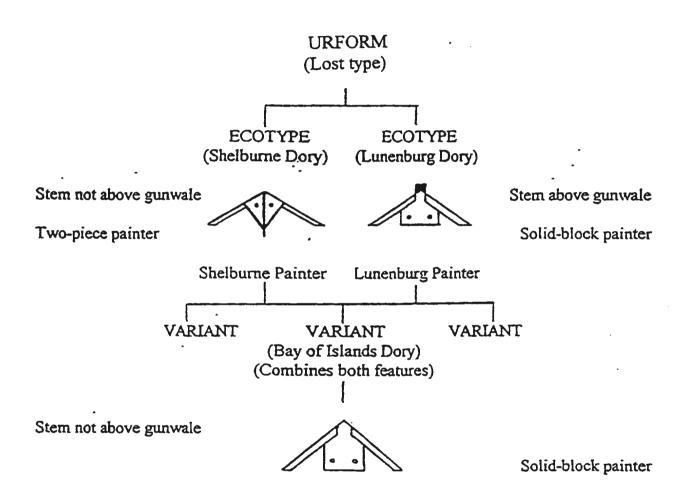


Figure 6.6. Lineage of the Bay of Islands dory. The stem is the most recognizable feature of dories which can be traced with some reliability.

The primary characteristics of dory construction are that it is built on a flat bottom with planks nailed onto its timber frames, and its painter is a signature piece for builders. Secondary characteristics of dory construction depend entirely on the individual builder.

The dory's primary characteristics of use are that it is used with outboard motors and for hauling lobster traps. Secondary characteristics of use are few but they include moving supplies to the fishing area and use for recreational purposes in the bay.

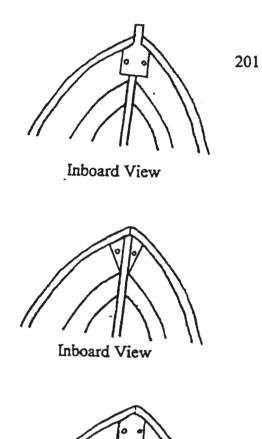
The dory is a work boat, made to be a primarily utilitarian object. It would seem that a dory made from a more durable material than wood—like fibreglass—would be readily accepted. But there are many reasons for the rejection of the fibreglass dory. Some reasons for rejection are practical, such as the fact that the fibreglass dory is too heavy and requires a larger motor burning too much gas, and that it slaps too hard on the water making it difficult to control. These are valid statements but the true reason these boats have been rejected is because each builder prefers his own boats with its design features, which he has decided are best for his purposes.

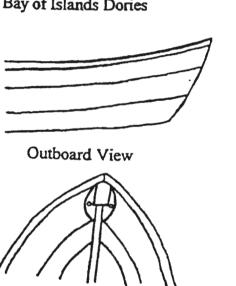
The dory, as illustrated in chapter one, was developed primarily from the

dories of Lunenburg and Shelburne, Nova Scotia. Influences of both of these Nova Scotia types exist in the area, but all the examples I have seen have the Shelburne-type stempost. Some have either the three-piece Shelburne painter or the Lunenburg one-piece painter but they have all had the Shelburne type stem. Though the influence of both ecotypes is evident in the design, the Shelburne-type influence appears to be greatest (Figure 6.7).

As these painter configurations were used by builders, they became the way for an individual to put his signature on his dory. Regardless of the technological and economic changes which have affected dory design in the past, Bay of Islands boatbuilders' method of making a painter has remained the same. The expressed individuality, while not functional in a utilitarian sense, does personalize the dory by the builder's own method of making a painter.

In combination with these signature pieces, there are the shapes of the crook of the dory, pitch on the counter and flare on the sides. The shape of these is purely utilitarian, and their making and combination when assembled is individualistic. Each builder has his own shapes, like flare of sides or shape of counter, and accordingly his particular use of them in combination with his





Inboard View B

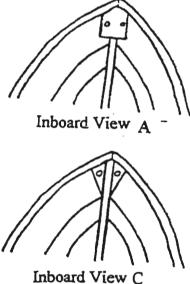


Figure 6.7. Design transfer and painter configurations of the Bay of Islands dory.

Each of the Bay of Islands dory painters is different depending on the builder.

Each builder, as stated, makes the painter differently: A. Roy Dennis, B. Tom

Childs, C. Freeman Sheppard.

signature painter indicates that person's dory.

The fibreglass dory produced in the late 1980s was not accepted in the Bay of Islands because its form could not change between constructions. Unlike fibreglass, discoveries made by other builders could be incorporated into new wooden dories they built. Each version was developed to suit the needs of the individual who made it. For these reasons, the shape of the fibreglass dory is only appropriate for the person who designed, built and used that shape. For everyone else, it would not be a good dory as it would not suit any of their artistic or utilitarian aesthetics of what a dory should be. I found one fibreglass dory in use in the Bay of Islands, compared to an estimated several hundred wooden dories, at the time of this study.

### 6.5 Physical Environment Features and the Dory

The dory is the best boat for use in the Bay of Islands. With cod fishing finished, halibut fishing uncommon, and salmon and herring commercially fished by larger boats, the dory is only used for lobster fishing.

The builder may design and build an object, in this case a dory. In dory building, as the builder repeats the building of a similar object, and uses and reuses it, he learns about its shortcomings, and the strengths of his design and

construction. When the dory is used, it provides feedback to the builder about the features of design and construction that have been incorporated. Through many years of designing and building boats and dories, the contexts of use have changed. As the contexts of use have changed, so have the design and construction of boats and dories.

Over time, however, and with the changes in the type of boats used, there has also developed a value system which I refer to as the aesthetics of design, the aesthetics of construction and the aesthetics of use. Of design, construction and use, the aesthetics of use are most susceptible to change thus affecting the other two. If the dory had to be used for transporting hay, for example, its sides may have had to be built higher. Understanding how an object is used may lead to clues about how its design and construction change. By the same token, use may provide clues as to why design and construction remain the same.

This thesis allowed me to explore the meanings of the terms tradition and culture. My interpretations here come from a later realization of the significance of the late David Buchan's comments in some introductory graduate classes in folklore at Memorial University. In an article by Buchan, titled "Performance Contexts in Historical Perspective," he discussed the study of the ethnographic

present with neglect for past tradition. He followed this by saying, "To be a holistic discipline, folkloristics requires due consideration for both the synchronic and the diachronic." For my study, I have equated tradition with the diachronic parts of boat building to show how certain elements persisted through time, and I have equated culture with the synchronic parts of boat building to show how in the present or in particular time periods people have radically altered the practice of boat building.

Referring to Glassie's scheme of primary and secondary characteristics, the primary characteristics may be linked to the diachronic tradition elements to give them substance. The primary characteristics, representative of the traditional sets

<sup>&</sup>lt;sup>10</sup>Buchan, David. "Performance Contexts in Historical Perspective." New York Folklore. 11:1-4 (1985) 77. Diachronic refers to dealing with phenomena as they change over time while synchronic refers to phenomena in a limited time period ignoring historical antecedents.

rules, have persisted through time even though the types of boats built with those rules have changed. Primary characteristics are represented in each of design, construction and use. Secondary characteristics can be linked to the synchronic, cultural parts of boat building in the Bay of Islands. These synchronic, cultural parts are those representative of particular periods in the history of boat building in the study area<sup>11</sup>.

Based on these ideas, and the different periods of boat use in the area, it appears the dory may not be a traditional type of boat though it has been used for about eight years. During the area's history, builders have changed boat types a number of times and the dory is the most recent. The dory has not been used as long as the herring boat has for fishing as a predominant type. Chapter Seven, the concluding chapter, will explore this consideration.

<sup>&</sup>lt;sup>11</sup>Glassie, Henry. <u>Pattern in the Material Folk Culture of the Eastern United States</u>. Philadelphia: U of Pennsylvania P, 1968. On page 8 he describes primary characteristics as those used to define the type into which the example fits. On the same page he describes secondary characteristics as other attributes of the form, which though they may be culturally significant, are not of use in the definition of the type.

#### CHAPTER SEVEN

#### CONCLUSION

During the past century, the types of fisheries in which Bay of Islands inhabitants have engaged influenced the types of boats they used. There has always been a predominant type and presently, the outboard motor dory is the most common. This dory developed as its design was selected over that of the herring boat for lobster fishing. Coincidentally, the introduction of the outboard motor occurred simultaneously with the collapse of the Bay of Islands herring fishery which had required herring boats. Following this, a new type of boat was needed and people began building and using dories in greater numbers.

The change from row dories to outboard-motor dories was essentially a forced change. When the herring fishery collapsed, people had to rely on the lobster fishery. It was more efficient to use a smaller boat to fish lobster because the smaller boat requires the fisherman to lift the lobster traps a shorter distance out of the water than would be necessary with a herring boat. People began to develop the dory through a process of necessity: they needed a new type of boat. The development included a process of experimentation and adaptation, a willingness to try a new type and the transfer of skills from herring-boat building

to dory building.

At the same time, during the 1950s, reliable outboard motors were introduced to the area, and many boat builders subsequently began to adapt row dories to use for outboard-motor power. This development eventually led to the evolving form present there today. The design, construction and use of this folk object includes a certain flexibility in design and construction. Although builders began to build dories rather than herring boats, they still used some practices similar to those used for herring-boat building such, as the use of naturally curved timbers for the structural frame parts.

Some builders in certain communities in the Bay of Islands produce 'better' boats than builders in other communities. This difference may be accounted for by considering, with reference to past tradition of boat building, how much traditional experience the dory builder has transferred from building herring boats to building dories. In those same communities, builders would have also influenced subsequent builders of dories. I can speculate that those who built boats requiring similar techniques as dory building are better traditionally equipped and skilled in dory building. It is evident that present day dory builders from communities which built herring boats with chopped timbers are better dory builders. Dory building

employs many of the skills required to build herring boats with chopped timbers.

Design and construction are two closely linked boat and dory building activities which developed within the context of personal, cultural, and traditional rules of design, construction and use. For the individual, there may be an aesthetic appreciation for dory features, but these are still influenced by traditional and cultural rules. Of significance is that the personal aesthetics and cultural aspects are, in a sense, governed tradition as they develop, and are used in the practice of everyday life. In this way dories became a predominant feature of the area.

Though a builder may work within the confines of the rules, he may also innovate through his interpretation of them. Because the dory became a representative part of life in the Bay of Islands, personal, family, community and regional aesthetics developed. The way a dory is used is most susceptible to change and will also affect the way a dory is designed and built. The context of use is an important analytical tool in material culture studies because it provides information about why objects are designed and built as they are.

By studying the traditional and cultural rules of dory building, patterns of each can be recognized. Tradition, like the primary characteristics and diachronic parts of boat building, are those which persist through time like making timbers

from naturally curved tree roots and measuring along bottom lengths. Culture, like the secondary characteristics and synchronic parts of boat building, is time specific, such as the way dories are painted orange with green trim today but were grey with green trim a decade ago. In several instances, I found that while the general process for building dories has remained the same, there were some builders experimenting with alterations on the shape of the dory in an attempt to improve it because of recent changes in outboard motors.

Folklore can be viewed as traditional expressions. The way a folklore example fits into a person's distinctive continuum of experience makes it relevant and meaningful for the individual<sup>1</sup>. All of the boat builders who participated in this research used the dories they produced. Their experiences, and their reflections on those experiences, significantly shaped their building methods and dory design.

<sup>&</sup>lt;sup>1</sup>Georges, Robert A. and Michael Owen Jones. <u>Folkloristics: An Introduction</u>. Bloomington: Indiana UP, 1995. 269.

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#### **GLOSSARY**

Afthook:

The afthook is the timber or mould which is located approximately half of the way between the midship bend and the counter. Its purpose is to provide shape in the aft section of the boat as it is built. The afthook, a common feature in herring boat building, is not used in dory building.

Batten:

A thin piece of flexible wood which is bent around nails or timbers to form smooth sweeping curves. For dory building, battens are used to shape of the forward section of the dory floor.

Chopped-timber:

Timbers shaped or chopped out of curved spruce trees or spruce roots. Builders of herring boats with chopped timbers laid a keel, put in moulds, stem, counter and then following the shape of battens, fitted in timbers.

Counter:

The wide, flat back end of the outboard motor dory where the outboard motor is attached. The construction of the counter involves one set of two stern knees, timbers, three planks and a counter knee.

Counter Knee:

Similar to a stern knee, the counter knee is a gusset-shaped piece of naturally-curved spruce which is used to connect the counter with the floor. This piece provides support where the strain from the outboard motor is greatest.

Counter Wedge:

The counter wedges were used to change the pitch on the counter of the dory without alteration of the existing counter.

Dory:

A small, flat bottom wooden boat with flared sides and plank-on-frame construction. The row dory is pointed at both ends and the outboard motor dory has a broad, slightly pitching counter.

Forehook:

The timber approximately half way between the stem and the midship bend. In dory building it is used to serve as a reference for the forward curve of the dory floor.

Garboard strake:

The garboard strake ties together the bottom, sides, counter and stem.

The lowermost and first installed of the side-boards of a dory.

Gunwale:

A system of bands of spruce wood which cap the tops of all timbers and connect them to the uppermost strake, counter and the stem.

Half model:

A carving of the hull of a herring boat which will be constructed in the steam timber fashion common to the north shore of the Bay of Islands. It represents one half of a boat from stem to stern. The boat builder records measurements from the half model for the counter, afthook, midship bend, forehook and stem.

Jack Horse:

A low bench used in dory building which runs the length of a dory. The jack horse allows for a more convenient application of the side boards it use as a tool for putting the crook in the forward section of a dory floor.

Lapstrake:

A method of applying the side boards or strakes to a dory which give the sides a lapped, clapboard-like finish.

Limbo hole:

Notches cut out of the outside bottom corners of a dory timber to allow water to run freely through the dory for drainage.

Midship bend:

A midship timber is located approximately along the centre of the length of a dory. It is the widest part of a dory or herring boat. Similar to the forehook and afthook, it is used to shape the boat or dory as planks are bent around it.

Mould:

A piece of shaped wood used by dory builders to approximate shapes of timbers and the stem.

Painter:

The inboard, upper part of the stem of a dory. The rope which ties through this section is also referred to as a painter.

Riser:

They consist of 1"x 3" strips of wood which run the length of the dory on the inside, nine inches below the gunwale. It adds strength to the dory sides and supports the seats.

Scarph Joint:

A joint made by lapping two thinned ends of plywood to make strakes for dory sides of sufficient length. The joins are nailed and glued.

Sheer:

The curve of the forward section of the dory A final batten, or the same one, is used to form the shape of the sheer on the gunwale of the dory. To do this, the timbers were marked along the top of the batten and then cut off along that line.

Steamed-timber:

A steamed timber is a juniper strip which made soft with the application of steam and then forced into place within the battens, keel and framework of a herring boat. This method was practised on the north shore of the Bay of Islands.

Stem:

The stem formed from a naturally curved tree root or a crooked tree and is cut down to 1½" wide and from 2-4" in thickness depending where the curve is measured. The stem post proportionally matches the rest of the structural timbers used in the dory for a uniform look in construction.

Stern Knee:

This is a gusset-shaped piece of naturally-curved spruce and one is applied to each side of the dory where the counter meets the gunwale. The stern knee serves to reinforce this connection.

Strake:

One of a set of three long boards made from spruce or more commonly scarph-jointed plywood which covers the dory sides. The lowermost strake is called the garboard strake an the uppermost strake is called the sheer strake. There is no special name designation for the middle one or two strakes.

Template:

A template represents dory parts. Templates are usually made of thin planking in one or more pieces, or ½" plywood and are used it to trace out a section of wood, especially timbers taken from tree roots. Templates are used for two purposes: to provide an approximate size for rough sawing and as an exact size when making parts.

Timber:

A naturally curved piece of spruce tree root which is cut out and is used to form the framework of the sides of the dory.

Tot:

The seats in a dory made of planks which sit across the dory resting on the risers.

