

**FROM WORKPLACE TO HOME SPACE:
ARCHAEOLOGY AT THE JAMES M. ROGERS SAWMILL,
SCOTS BAY, NOVA SCOTIA (BHDC-16)**

by

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ABSTRACT

When Nova Scotia's lumber industry peaked in the mid to late nineteenth century, water powered sawmills could be found on essentially every river, brook, or stream in the province. While large-scale sawmills were important to the greater economy, mills varied in size and function: there were hundreds of small, family-run operations sawing for local use. Regardless of size, most were influential to their immediate communities, providing employment and necessary building materials. In an effort to learn more about these small-scale enterprises, and their wider implications, an archaeological investigation was carried out the site of the James M. Rogers Sawmill (BhDc-16), in Scots Bay, Kings County. Built in the late 1850s or early 1860s, the James M. Rogers Sawmill was used opportunistically to supplement an income made primarily through agricultural activities. Research at the site focused on three primary objectives: determining the layout and scale of the mill; establishing the operation's function within its owners overall economic strategy; and situating the sawmill within Scots Bay's wider industrial economy.

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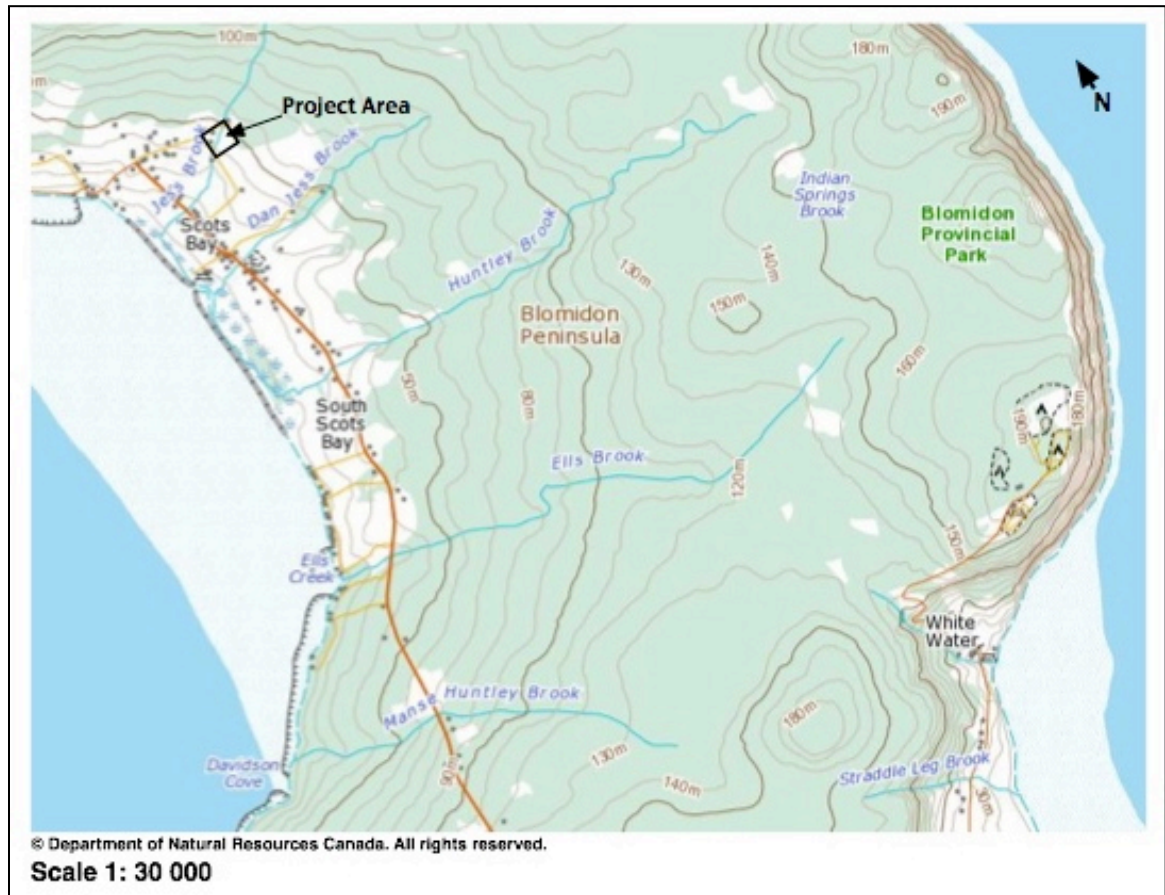
CHAPTER 1: INTRODUCTION AND RESEARCH OBJECTIVES

The business known as the “Lumber Business” is so extensive and varied and its ramifications penetrate and extend throughout all the subdivisions of this vast continent to such a degree, that few, if any, of the other branches of trade can equal it in magnitude. But with all the different divisions of this vast trade we have little or nothing to do, excepting the simple process of sawing different kinds of logs into various grades of lumber (Craik 1870: 177)

In August 2012 an archaeological survey and excavation was carried out at the site of the James M. Rogers Sawmill; a middle to late nineteenth-century mill located in Scots Bay, Nova Scotia (Figure 1). The James M. Rogers Sawmill was a simple water-powered operation located on a small brook directly behind its owners’ home. It was one of hundreds of similar household lumber enterprises that were littered across Nova Scotia during the second half of the nineteenth century. These small-scale mills represented only one facet of their owners’ overall economic strategy. They did not produce the quantity of board feet required to export to international markets, and they did not foster wealthy lumber barons. They *were*, however, important to the general livelihoods of those who owned them, and to the prosperity of their immediate communities (Robertson 1986).

Before the 2012 field season, little was known about the James M. Rogers Sawmill or its role in the functioning of its owners’ household. This is not surprising, as few historical records typically exist regarding such operations. While much has been written about the trials and triumphs of Nova Scotia’s largest sawmills, the prosperity of the province’s wealthiest lumber barons, and the technological aspects of early milling

(i.e., Ferguson 1967; Johnson 1986; and Robertson 1986), far less consideration is given to small-scale mills or the social implications of household lumber production.



**Figure 1: Scots Bay 1:30,000 topographic map , indicating location of Rogers Mill site.
(© Department of Natural Resources Canada)**

One reason for this research gap may stem from a lack of easily accessible data. Inquiring about the social implications of small-scale industries can be challenging. As Michael Deal points out: “[l]ocal Nova Scotia industries, especially during the period of the great Industrial Revolution (late eighteenth to late nineteenth century), are often

poorly documented” (Deal 2010: 124). Such is the case with moderately sized industrial enterprises, and even fewer records exist for small household industries.

Although the James M. Rogers Sawmill no longer exists, its footprint remains in the form of archaeological features and artifacts. It has also survived – and continues to survive – in the memories of its surrounding community. This community displays great continuity. Since the construction of the Rogers’ home in approximately 1857, the house and property have continually been owned and occupied by descendants of the Rogers family. For over 150 years these people have worked, played, and lived within a cultural landscape created by their ancestors. The physical environment has become a palimpsest inscribed with the actions of many generations, and as this family has transformed their surroundings, they have simultaneously been affected by that landscape.

The site’s chronology can be broken into three primary phases according to those who lived there: the Rogers household (1857-1923), the Steele household (1923-1932), and the Huntley household (1932-present). While possessing different surnames, each group is related through descent. In addition, they are all farming families who have supplemented their income through active engagement with the timber industry. The aim of this research is to further examine the role that the James M. Rogers Sawmill played in the forestry activities of these families.

1.2 Research Objectives

The following four objectives were established at the beginning of this research:

1) Determine the layout and scale of the James M. Rogers Sawmill.

Water powered sawmills varied in terms of size and function, ranging from large-scale operations – which exported to international markets – to small, backyard endeavors, and those that catered to specialized industries such as shipbuilding or furniture manufacturing. While mills of all shapes and sizes were necessary, their influences differed. Typically major operations were important to the larger economy, while smaller mills were necessary for their immediate communities. Understanding the size and function of the James M. Rogers Sawmill will aid in determining its economic and social implications. This objective also lays the groundwork for the following two research goals.

2) Establish the James M. Rogers Sawmill's function within the household's overall economic strategy.

While this study will attempt to interpret the James M. Rogers Sawmill's relationship to the community, constructing a sawmill was, first and foremost, an economic decision made by its owners. With that in mind this research will aim to determine how the sawmill fit into the Roger's overall household economy.

3) Situate the James M. Rogers Sawmill within Scots Bay's overall industrial economy.

Sawmills were critical to the development of many of Nova Scotia's communities. They provided building materials, and necessary employment. At least 17 sawmills are

known to have operated in Scots Bay over a 200-year span. With such a high quantity of mills in one spot, this project will aim to determine how the James M. Rogers Sawmill fits into the broader industrial economy, and as such, what its wider community-based implications were.

4) Examine the effects of farmyard succession and changes in household economy.

The James M. Rogers Sawmill no longer exists. It went out of use in the late nineteenth century. There is no record of another sawmill ever being reconstructed at the spot, or any indication that earlier water-powered technology was replaced with new technological innovations. Nevertheless, those who lived at 152 Rogers Road continued to pursue an income made – in part – by engagement in the forest industry. In addition to researching the James M. Rogers Sawmill this study will examine farmyard succession, and the evolving role of forestry within the household economy.

From the late nineteenth century until the middle of the twentieth century, Nova Scotia's culture and economy underwent fundamental changes. The province witnessed the birth of Confederation, the decline of an industry based economy, and a shift from traditional lifeways towards the culture and values of today's modern world. Many of these changes also had a drastic effect on the lumber industry and those associated with it. In the chapters to follow, this study will explore the implications that these transitions have had on one piece of land, and the multiple generations who have called it home. This

will be achieved primarily through the use of archaeological research, but it will also include the analysis of historical records and family histories.

Chapter 2 sets the stage by presenting relevant background information. Included is an overview of Scots Bay's historic forestry – more specifically the community's sawmills, the industry's social history, transportation routes and the relationship between lumbering and shipbuilding – as well as previous archaeological work carried out in relation to the community's timber trade.

Chapter 3 explains the methodologies, as well as the theoretical and analytical approaches used to address the James M. Rogers Sawmill. Methodologies include the establishment of spatial controls, archaeological survey and mapping, subsurface excavation and testing, and artifact analysis, along with the examination of historical records and the collection of family narratives. The analytical methods used to inform this research are industrial archaeology and a micro-historic approach. The guiding theories are household archaeology and landscape archaeology.

Chapter 4 is concerned exclusively with the James M. Rogers Sawmill and those who were affected by it. Included is an outline of the site's history, an overview of the Rogers' economic landscape, and a discussion of the archaeological features and material culture that were recorded and collected. It finishes by readdressing the first three research objectives mentioned above.

Chapter 5 looks at 152 Rogers Road in the time following the Rogers' occupation. This includes the social setting, as well as the evolving landscape, and the continued role of forestry as an aspect of the household economy. Because a considerable amount of

artifacts discovered during the 2012 field season date to this later phase of the site, they too will be presented. The chapter will finish by readdressing the fourth research objective.

Chapter 6 concludes this work with a discussion of the implications of the research and major findings.

CHAPTER 2: BACKGROUND CONTEXT

2.1 Historical Context

When the French arrived on the shores of Nova Scotia in the early seventeenth-century, they encountered a land with vast and diverse forests. It was from these rich and ancient forests that they harvested the wood required to construct Nova Scotia's earliest Euro-Canadian settlements (Johnson 1986). Timbers were initially squared using broad axes and boards were milled with pitsaws, but there soon emerged the need for more substantial lumbering operations (Johnson 1986). By the end of the seventeenth century water-powered sawmills had been built at Port Royal, Grand Pre, and Beaubassin (Robertson 1986). From that point onward, sawmills became an essential component of almost every new community (Robertson 1986). As such, they played a critical role in the transforming of wilderness into today's cultural landscape, and they served as one of the first structural representations of a distinct phase of colonization. Sawmills were also influential in allowing new communities to reach self-sufficiency (Priam 1976).

While sawmills were fundamental to the establishment of new settlements, by the late eighteenth century a profitable lumber export had also emerged (Johnson 1986). Prior to the Napoleonic Wars the vast majority of Britain's timber imports came from the Baltic. During the war, however, French vessels blockaded British access to the Baltic and Atlantic Canada quickly emerged as the Empire's new timber supplier (Johnson 1986). By 1810 wood replaced furs as Canada's primary export (Robertson 1986).

Following the war, the industry continued to grow as markets diversified. It eventually peaked in the mid to late nineteenth century at which point small one to two

person water-powered operations could be found on essentially every brook, river, and stream in the province (Gesner 1849). In 1861, the industry's peak year, there were 1401 sawmills reported throughout Nova Scotia (Robertson 1986).

The province's international, and even national, trade was relatively small when compared to neighboring New Brunswick, though the industry still made major contributions to Nova Scotia's economy (Robertson 1984). Despite exports being comparatively low, hundreds of mills produced small quantities of lumber for local use and for specialized markets such as furniture making, and, perhaps most importantly, shipbuilding (Robertson 1986). It has been argued that small mills, which catered to local markets, were in fact more vital to the province's development than their larger counterparts (Craig 2009).

The sawmilling tradition has been integral to Nova Scotia's development, both economically and structurally, but it has also been a source of pride and self-identification for many of those involved. As historian Barbara Robertson (1986) notes in her historical account of forestry in the province, descendants often place a great deal of pride in their ancestor's lumbering activities. Moreover, mills were regularly passed down from father to son, with some remaining in continuous operation for over a century. As machinery aged and technology became obsolete there were those who continued to saw - driven by pride and tradition, rather than the incentives of economic prosperity. Today, there are many communities in which people still tell the stories of their ancestor's mills (Robertson 1986).

Throughout the course of the province's history, the production, distribution, and use of sawed lumber went through various stages; it evolved, as needs changed, as technology advanced, and as markets transformed. Similarly, many of Nova Scotia's communities either emerged, or were shaped by, this ever-transforming industry.

This chapter will provide an overview of the history of lumbering activities in one such community: Scots Bay. It will begin by highlighting the community's sawmilling past, and then discuss life and work in the area's lumbering woods. Lastly, it will look at the role of shipbuilding in Scots Bay, and the important relationship between sawmills and shipyards.

2.1.1 Sawmilling in Scots Bay, Nova Scotia

"Three of the largest of the streams before mentioned were selected for mill seats & a saw mill was erected on each, and it would thus appear that lumbering was the first inducement to form a settlement" (W.A.T. 1870: part 3). In the early 1760s Europeans permanently settled Scots Bay (Eaton 1972). As in many other communities, forestry was amongst the first industries. According to community historian Abram Jess: "[t]he first houses [in Scots Bay] were built of logs, and ... it is safe to say that since the first settler came, whoever he was, not a winter has passed without logging operations being carried on" (Jess 1941:17). The need for more substantial dwellings quickly emerged, requiring the construction of sawmills capable of providing residents with sawed lumber.

Throughout the course of its history at least seventeen sawmills have operated in and around Scots Bay (Jess 1941, Martin 2005). Some lasted for many decades, continually changing hands, with new buildings being constructed atop the remains of older ventures. In addition to these permanent mills several portable outfits frequently travelled, within the community, and outside of it, in search of new timber supplies (Martin 2008). Scots Bay's mills continually transformed to meet diversifying needs (Jess 1941, Deal 2010). Among these requirements was the manufacturing of ship planks. Unfortunately few mills can be directly linked to shipbuilding activities, however, speculations have been made (Deal 2010) and they will be presented when appropriate.

Information on Scots Bay's lumbering operations can be gleaned from various sources. Historic maps (Church 1872) reveal the locations of sawmills now long gone (Figure 2) and, unpublished community histories tell of their functions and chronologies. Area residents still share narratives that have been passed down, and in some cases, even point out the areas where physical remains can be found.

The first written account of a sawmill working in the area was in 1783 when a man by the name of Thomas Andrew was said to have owned one fourth of a mill located on the Ells Brook (Jess 1941). It is not known who Andrew's partners were or when the mill was actually constructed. Nevertheless, the Thomas Andrew Mill, a combination sawmill and gristmill, was surely a fundamental component of the early settlement's development.

Church Map 1872

Figure 2: Ambrose Church's 1872 Map of Scots Bay with industrial sites highlighted.
(Image courtesy of Michael Deal)

The Thomas Andrews Sawmill is thought to have used an overshot water wheel to power a single up-and-down saw (Deal 2010). Up until the nineteenth century, water was used to power all of the sawmills in Scots Bay (Jess 1941) and the vast majority of mills province-wide. Such operations were slow and could only operate seasonally, but their machinery was simple (Lee 2007) and they were affordable to small business entrepreneurs (Craig 2009). (For period information on the architecture and operations of water powered mills see Evans 1859 and Craik 1870).

Following the construction of the Thomas Andrew Sawmill, at least six additional water-powered mills were built in Scots Bay. These include the John Pingree Sawmill, the William D. Huntley Sawmill, the James M. Rogers Sawmill, the Albert Tupper Sawmill, the William Jess Sawmill, and the Ardent C. Tupper Sawmill (Jess 1941, Deal 2010).

The John Pingree Sawmill first appears in historical documents in 1813, at which time it was included within Pingree's will (Jess 1941). The mill was located on the George Jess Brook (also known as the Joseph Jess Brook), and it was used to saw lumber for house construction (Deal 2010). George Jess later owned a mill located on the same spot. It is unknown whether Jess used the same mill as Pingree or if he built a new one at the same place (Deal 2010). This operation lasted until 1872 (Jess 1941).

William D. Huntley constructed a sawmill on the Huntley Brook some time before 1846, at which time documents indicate that he sold half a share to Asa Huntley (Jess 1941). Deal writes that "[w]hen the mill was in operation, a sluice from the pond ran under the road (which ran along the mill dam) and the water fell onto an overshot wheel.

Logs from the pond were pulled over the road to the mill” (2010: 116). During the course of its existence several individuals owned the Huntley Sawmill, but it appears to have continued to stay within the same family for its entire duration. The last owners included Joshua Huntley, and his son Everett. Everett’s son Stanley Huntley was employed at the mill when it closed (Martin 2004). While in operation, the mill is thought to have been used to saw house planks and possibly ship planks (Deal 2010).

Albert Tupper also owned a water-powered mill on George Jess Brook. This mill is not shown on the 1865 Church map, thus indicating that it was constructed at a later date. It was used to saw house and possibly ship planks.

William Jess built a third water-powered mill on George Jess Brook some time after Church’s survey. His mill, like the others, was used to saw house and possibly ship planks (Deal 2010).

The last water-powered mill in Scots Bay was owned by Ardent C. Tupper, and was located on Ells Brook (Jess 1941). The Ardent Tupper Sawmill was built some time in the late nineteenth century, most likely at the same location as the Thomas Andrew Sawmill. Tupper sawed barrel stock and shingles (Deal 2010). The mill was passed down to his son Harmon who operated it with his wife Augusta (Martin 2004).

Scots Bay’s water-powered sawmills had a turbulent relationship with the rivers and streams on which they were situated. While running water was required to power the mills it could also be the source of their ruin. This was the case in Scots Bay when a great freshet hit during the spring of 1873. At the time the John Pingree, Albert Tupper, and William Jess sawmills were all simultaneously operating on the George Jess Brook. The

storm caused each mill's pond to flood and its dam to break. Similarly, both William D. Huntley Sawmill and the Ardent Tupper Sawmill were destroyed in a flood caused by a freshet in 1927. None of the operations were ever rebuilt (Jess 1941). While natural elements could bring the demise of a water powered mill, the introduction of steam power seems to have been the last nail in the coffin of Scots Bay's age of water power.

In 1824 the Albion Mines in Stellarton imported the province's first steam engine for use in their foundry. Within a year it was powering the company sawmill. Despite this early start, no other Nova Scotian sawmills used steam technology until the 1840s. Even during the industry's peak in 1861, these mills made up only one percent of the provinces total operations. By the end of the century, however, the technology was used in nearly two thirds of the lumbering enterprises (Robertson 1986).

Scots Bay's first steam powered mill was built sometime between the late 1870s or the early 1880s. The mill – known as the David Jess Sawmill – is believed to have been owned by a company but operated by Jess (Jess 1941). It was a large operation equipped with “a rotary, edger, planer, shingle machine, a trenail turning machine and other machinery...”, and the mill exported large quantities of lumber (Martin 2004: 9).

Steam powered mills were complicated, expensive to set up, and - due to a high risk of fire - expensive to insure. However, they had three major benefits: (1) they provided increased power (2) they could run throughout much of the winter, and (3) they only required enough water to keep the boiler filled, meaning they could be built in convenient locations (such as along a railway) thus eliminating their dependence on running water (Lee 2007). By the end of the century portable steam mills were also being

produced in Nova Scotia allowing sawmilling operations to move directly to their source of timber (Robertson 1986). While some water powered mills continued to operate into the early twentieth century, no new ones were constructed.

In addition to the David Jess Sawmill, four other permanent steam mills operated in Scots Bay. Included were the William Tupper and Sons Sawmill, the Hatfield Sawmill, the W.B. Condon Sawmill, the Cyrus Steele Sawmill, and the Bigalow Sawmill (Jess 1941, Deal 2010).

The William Tupper and Sons Sawmill, built in 1919, was located at a new site just east of the Pingree Sawmill on the George Jess Brook. The mill was used to saw barrel stock and shingles (Jess 1941). A local unpublished history suggests that: “[w]ith a small wood lot, their sawing was generally for the public. Logs were brought and placed atop of [a] hill.. and rolled down the hill to the mill” (Martin 2004). This operation went out of use some time after 1941 (Deal 2010).

The Hatfield Sawmill was owned by a family from Cumberland County. Their operation, located at Clam Cove, Cape Split, consisted of a steam mill (probably portable), a cookhouse, a boarding house, and stables. The buildings were floated to the site on a barge where logs were milled at their source. Lumber was then exported from the mill to Cumberland County by way of barge (Deal 2004).

Little is known about the Condon Sawmill. Reportedly, however: “Mr. W.B. Condon had a steam mill. He rented land in the summer months from Ozrow Huntley and cut house planks. He worked the land from Phil and Gwen Huntley’s home to the south side of the Huntley Brook in the early 1930s” (Martin 2005: 12).

From 1947 until 1953 a steam mill (most likely a portable operation) owned by J. & W. Bigalow was located at Kinsman Cove, Cape Split. As with the Hatfield Sawmill, ready-made buildings were brought to the site, however, the Bigalow's did so by tractor. This mill was equipped with a circular saw (Deal 2010).

The community's last operating steam mill was the Cyrus Steele Sawmill which operated from the early to mid 1940s until 1972 at the site which now houses Hustle Farm (Deal 2010, Martin 2004). Cyrus Steele used the same building that was once owned by Harmon Tupper on Ells Brook, which suggests that Tupper may have constructed a steam mill following the destruction of the family's early operation (Deal 2010). Steele used Herbert Tupper Brook as a source of water to fill his boiler. Prior to opening his own permanent sawmill, he owned a portable mill with his cousin Joe Steele (Martin 2004).

While steam power came to dominate Nova Scotian sawmills, many previously established operations introduced water turbines. Turbines operated in a similar manner as earlier vertical wheels, utilizing the same type of pond and much of the same machinery. They were more expensive and slightly more complicated but, in addition to providing extra power, they had a longer operating season (Lee 2007). The first turbine was introduced to the province in the 1870s and the technology soon served as an alternative to steam (Robertson 1986). Surprisingly, there are no reports of turbine-powered sawmilling being used in Scots Bay.

By the second half of the twentieth century combustion engines had essentially replaced all other power sources used within sawmills in the province (Robertson 1986). In Scots Bay, there were two sawmills that ran on this type of engine. Joe Steele operated

one that ran off diesel power and Elmer Tupper had another that used gasoline (Deal 2010).

The Joe Steele Sawmill was in operation following World War 2. It was located on the old Huntley millpond. The Elmer Tupper Sawmill operated from 1972 until the 1980s. It was located on the George Jess Brook (Deal 2010). Elmer Tupper also used the same builder as Cyrus Steele and Harmon Tupper. Research for this project suggests that the Elmer Tupper Sawmill was the last permanent mill in Scots Bay. Nevertheless, it is likely that portable mills continued to operate in the area.

From Forest to Mill and from Mill to Market: Transportation and the Timber Trade

One of the most important things that needed to be considered when constructing a sawmill was an appropriate transportation route. This route needed to be sufficient to move raw materials to sawmills and export finished products from sawmills to the marketplace. In many parts of the province, lumber camps were located along navigable water sources (Robertson 1986). These rivers were efficiently used to haul supplies into the camps before the winter freeze and then drive logs out of the forests when the water thawed in the spring (Lee 2007). Conveniently, sawmills were often located along these same water courses thus allowing logs to be transported directly from forest to mill.

In Scots Bay, however, water sources are small and there are no reports of log driving. Instead, draft animals – usually horses – were used to haul logs down snow roads (Jess 1941). For Scots Bay loggers, the first task of a new operation would be to cut roads

through the forest, after which a camp could be constructed (Martin 2005). Unfortunately, there are few accounts of where these camps were located. Jess (1941) does, however, provide some insight into the locations of certain tree species and thus may shed light onto possible locations:

There was abundance of timber of high quality for [shipbuilding], the Ridge or northern edge of Cape Split and on toward Blomidon was principally hardwood, maple, birch and beech, while the southern slope of the Cape and land to the eastward of the Village was covered with heavy growths of softwood, spruce of various kinds and fir (Jess 1941: 28).

The majority of Scots Bay's mills were located along the community's main road (now route 358) and the transportation of lumber was actually a consideration when planning road construction (Jess 1941). Moreover, the David Jess Sawmill and the Hatfield Sawmill – the two mills known to have exported lumber – were both conveniently situated on the Bay itself, allowing for easy lumber exports. Reportedly, lumber for export "... was loaded onto scows and transported by tugboat around Cape Split, sometimes pulling two scows at a time, to a larger docked freighter waiting in Parrsboro to ship the lumber overseas" (Martin 2005: 12). Robertson provides a detailed account of Parrsboro's lumber exports during the last part of the nineteenth century:

In the 1890s Parrsboro Harbour was alive with vessels carrying deals to Britain. In 1895, 37 vessels (total 45,000 tons register) carried more than 42,000,000 superficial feet of lumber out of Parrsboro – one-third to one-half the total shipment from Nova Scotia. In 1896 shipments were even more spectacular. About 49,000,000 superficial feet of lumber were shipped from Parrsboro in 1896 on 33 vessels, total 49,935 tons registered, including 18 barques, 9 ships, and 6 steamers (Robertson 1986:88).

With such massive exports, Scots Bay's mills would have been simply one component of a major commercial lumber industry based out of Parrsboro.

Life and Work in Scots Bay's Lumber Woods

In the nineteenth and early twentieth-century thousands of men and boys descended into Nova Scotian forests to pursue an income. These early loggers often lived in small isolated camps and eked out a living through the endurance of intense physical labor. In his article *Old Boy, Did you Get Enough of Pie? A Social History of Food in Logging Camps*, Conlin (1979) argues that no other contemporaneous profession was as physically demanding as forestry. Loggers were believed to have burned a minimum average of 4000-6000 calories a day, with some burning as many as 9000 calories daily (Conlin 1979).

In the early days, logging was centered on simple, small scale operations. Typically logs would be cut throughout the winter and then sawed into boards during the spring and summer in one of the numerous sawmills. All work was done by hand with timber being cut using axes and cross cut saws (Martin 2004).

In Scots Bay, lumbering was a family business. As mentioned, operations such as the William D. Huntley Sawmill and the Ardent Tupper Sawmill were passed down through kinship lines. Others, such as the W.C. Tupper and Sons Sawmill and Joe Steele and Cyrus Steele's portable mill, were partnerships among family members.

Within this community, as in most places across eastern Canada (MacKinnon 1991, Lee 2007) the majority of men working in the woods were of mixed professions, primarily farmers and fishermen, who logged during the winter as a means of supplementing their income. While logging was a subsidiary income for many, as forestry operations escalated the industry gave rise to professional loggers. These men worked in camps during the winter, transported logs to sawmills in the spring, worked as mill hands in the summer and fall, and then returned to camps in the winter (Lee 2007). In Scots Bay, there are no direct records of professionals operating in the community though it is possible that some did.

A more intimate glimpse into life in Nova Scotia's lumber woods can be found in historian John Bell's article *Fragments from the Lumberman's Life: Labour in the Nova Scotia Forest Industry 1890-1920*. Bell's paper outlines the experiences of labourer Thomas H. Randall. According to the author, when Randall was employed in the trade, the logging season lasted for approximately 100 days during which time men would work 10 to 12 hour days for little pay. Randall tells of how his first job (in the late 1880s) earned him 11 dollars a week and in 1910 the average worker made approximately \$1.50-\$1.70 daily. Apparently even the bosses made very little money (Bell 1975).

Bell also provides insight into the hard physical work endured by those who owned and operated small water-powered sawmills such as those found in Scots Bay:

Small mills, usually single-saw, were installed on small brooks, usually run by one man and a hand, or his sons. I remember a little mill at Herring Cover Lake. The owner used to drive back there at daylight from his home on Moose Hill, taking the ox and harness. He and his men would work all day at the logs they had hauled to the lake in the winter, pushing 'em in and sawing 'em up. It was a slow

business. They had to take advantage of the water while it was at a working head. They used to work all day and on until midnight. I remember we used to say the saw kept singing “ All-day-and-half-the-night, all-day-and-half-the-night”. That was how it sounded to us anyhow. At midnight they would load the day’s cut, usually 500 board feet, on top of one extra wide board. They would bind one end with a chain and hitch that led up to the pole behind the ox, and come home over the rough road dragging the whole load on the end of that one wide board. Only a very stout wagon would have stood the trip over the road -- and they hadn’t got such a thing (Bell 1978: 25).

Traditional forestry practices continued to exist up until the mid twentieth century. In Scots Bay, tractors and chainsaws were not employed until the 1950s. Cyrus Steele was the first person in Scots Bay to log with a tractor (Martin 2005).

While sawmilling was an important part of Scots Bay’s timber based economy, shipbuilding was also a significant component. In order to properly understand the community’s industrial economy, an overview of shipbuilding practices is required.

2.1.2 Shipbuilding in Scots Bay

From the first half of the nineteenth century up until 1918, at least twenty-six vessels were constructed in Scots Bay. These were built in three separate shipyards. The Steele Shipyard built 10 ships before 1884, the Lockhart Shipyard built 15 vessels between 1864 and 1918 and the Wharf Shipyard built one ship in 1879 and one in 1880. The most famous ship built in Scots Bay, and the last one constructed, was the *Huntley*. It was a four-masted schooner completed in 1918 by J. Harris Thorp in the Lockhart Shipyard (Deal 2010).

Shipbuilding has long been important to Nova Scotia and the industry exploded in the nineteenth century, largely as a result of British demand (Deal 2010). Some shipyards constructed their vessels with broad axes and adzes right into the twentieth century. As early as the eighteenth century, however, many others were either purchasing planks from local mills or constructing their own sawmills (Robertson 1986). Historian Barbara Robertson emphasizes the importance of this shipbuilding-sawmilling relationship:

Shipbuilding created one of the earliest demands for lumber. Vessels were needed by the fishing industry, as trade items, and to transport people and product – supplies and passengers along the coast, immigrants and forest products across the ocean, lumber and fish south in exchange for salt, sugar, molasses and rum. From the 1600s there was a demand for shipbuilding materials for the construction and repair of French and British naval vessels. The need for ships and shipbuilding materials provided a crucible for the lumbering industry (Robertson 1986: 102).

Scots Bay's ships were built using a combination of lumber milled at local sawmills and beams that were shaped in the yards using hand tools (Deal 2010). The James M. Rogers Sawmill is known to have provided lumber for the construction of many of the vessels built in the Steele Shipyard (this will be discussed in detail in chapter 4). Similarly, within the Steele Shipyard the iron used on the ships was hand-forged locally. Reportedly, with a simple shop, blacksmith Lamuel Ells could do what few other blacksmiths could. He is said to have provided almost all of the iron used on the ships built in close proximity to his shop (Jess 1941).

2.1.3 Summary

Scots Bay serves as an excellent case study of a community centered on a timber-based economy. When the first settlers arrived in the 1760s they discovered a land with bountiful forests. Over the course of the next 200 years, these early pioneers and their descendants developed a rich heritage of lumbering and related forestry activities.

One of the first activities of the early sawyers was the determination of adequate mill seats. Three main spots – along the Ells Brook, the George Jess Brook, and the Huntley Brook – were chosen, and they would remain central lumbering hubs for the duration of Scots Bay’s timber industry. Scots Bay’s first sawmill – the Thomas Andrews Sawmill – was built in 1783, and since that time at least thirteen other permanent mills have been in operation, along with an unknown number of portable endeavours. From the eighteenth through to the end of the nineteenth century, all of the mills in the community would have used water to power a simple up and down saw. Eventually as new technology emerged, water powered mills were replaced by steam power, and eventually combustion engines. During the course of its history, these activities would shape the community both physically and culturally as the landscape was transformed and traditions were established.

In many ways, though, Scots Bay forestry practices correlate with other known provincial trends. For example, the community had a small number of export mills with a far greater quantity of small-scale, locally oriented operations. In addition, the mills catered to specialized markets by producing items such as barrel stock and shingles, and were actively involved with the shipbuilding industry. Moreover, most of those who were

employed by Scots Bay's timber trade were men of mixed occupations. Farmers and fishermen, for example would log in the winter as a means of supplementing their incomes.

Also in tune with much of the province is a lack of readily available data regarding the more intimate details of Scots Bay's forestry. The information that *is* available is primarily in the form of unpublished community histories and oral histories. Nevertheless, by looking at the archaeological record – the actual physical objects left behind, and the area's industrial landscapes – and combining the result with community narratives, it is possible to piece together a greater understanding of the operations of these small industries and the life and culture associated with them. The first attempt to examine Scots Bay's industries archaeologically was carried out in July 2004 by Michael Deal of Memorial University. This research will be discussed in the following section.

2.2. Previous Archaeological Research

Archaeological outreach can take many forms, sometimes geared toward specific communities and other times focusing on the general public. It has always been an important part of the archaeological fieldwork in the Minas Basin, including public presentations, site and laboratory tours, artifact exhibits, website summaries, newspaper interviews and student training. In fact, several Memorial University graduate students have worked in the region, and some have written theses on Minas Basin archaeology (Deal 2010: 123).

Despite their frequency and historical significance Nova Scotia's sawmill sites have seldom been the topic of extensive archaeological research. Cultural resource management companies have, however, recorded the locations and remnants of dozens of

mill sites, and a very small quantity of examples –such as the Big Branch Mill in Colchester County – have received limited testing. Despite this, such sites rarely move beyond the initial stages of research. The first academic archaeological study into the subject was carried out in the community of Scots Bay by Deal (Deal 2004).

Deal has worked in the Scots Bay area since 1988 as part of the Western Minas Basin Archaeology project, and through the course of this research, has remained dedicated to community interests and involvement. Motivated by community enthusiasm, in July 2004 he began a survey of the village’s sawmilling and shipbuilding sites. The aim of the survey was to locate and record the remains of these industries in order to register them in the Maritime Archaeological Resource Inventory, and thus designate them as official archaeological sites (Michael Deal, Personal Communication, 2011).

In addition to motivating the research, area residents also played a paramount role in its execution. While many of the earlier sites appeared on Ambrose Church’s 1872 map of Scots Bay and were mentioned in Abram Jess’ 1941 unpublished community history, their exact locations and the intimate details of their operations, could only be discovered with the assistance of community members. Moreover, information regarding twentieth-century mills was obtained almost entirely through local narratives.

In total, during the course of the project 17 sites were documented, including 13 of the area’s 17 known sawmills, along with all three shipyards, and Lamuel Ells’ blacksmith shop. Some sites have been heavily disturbed and now contain few indicators of their previous use. Others exhibited well-preserved remnants that can still clearly be seen on the contemporary landscape (Figure 3).

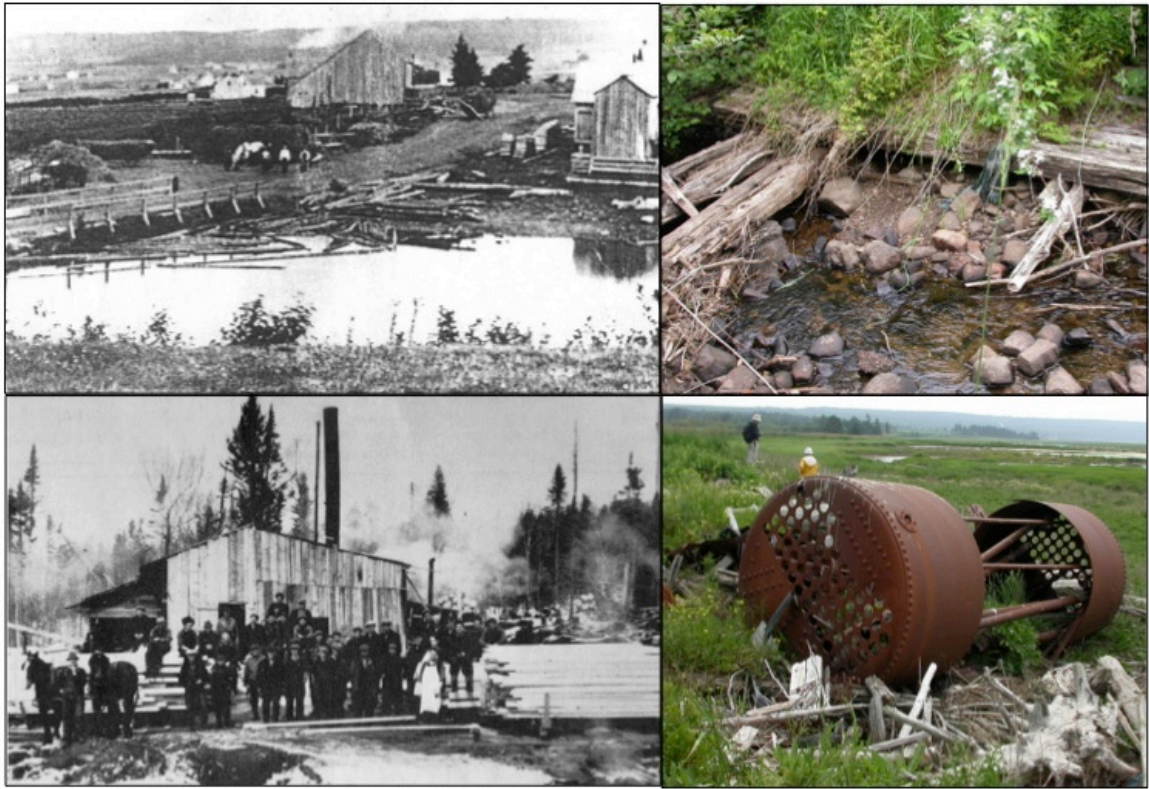


Figure 3: Top left, the Huntley Sawmill millpond while in operation. Top right, remains of the Huntley Sawmill recorded in 2004. Bottom left, the Cyrus Steele Sawmill while in operation. Bottom right, the Cyrus Steele Sawmill boiler remains as recorded in 2004. (Images courtesy of Michael Deal)

2.3 Qualification for Further Research

While Deal's survey provided an excellent starting point, his primary research objective was to record the location of these industries. Emphasis was not placed on the interpretation of their remnants. In order to develop a more encompassing understanding of a sawmill's operations as well as its social history, a more thorough survey and excavations were planned for the James Mr. Rogers Sawmill. This would be the first professional excavation of a sawmill site in Nova Scotia.

With a total of thirteen sawmill sites recorded, the James M. Rogers Sawmill was chosen for further research for three primary reasons: 1) it is from the peak period of milling in the province; 2) the site appeared to be relatively undisturbed suggesting a high level of archaeological potential; and 3) the Roger's original home, built in 1857, is still standing and is now owned and occupied by Rogers' great grandson, Roger Huntley; a genealogical connection offering the possibility of rich oral histories.

With these factors in mind, fieldwork began in 2012 at the James M. Rogers Sawmill site (BhDc-16). The following chapter is an overview of the methodologies carried out during the course of this research.

CHAPTER 3: METHODOLOGICAL, THEORETICAL, AND ANALYTICAL APPROACHES

3.1 Methodological Approaches

3.1.1 Archaeological Methods

Archaeological fieldwork was carried out between August 1st and August 22nd, 2012, directed by the author, and supervised by Michael Deal. The total crew size ranged from two to four people and was comprised of students from Memorial University in Newfoundland and Saint Mary's University in Halifax (Figure 4), as well as additional volunteers. Fieldwork methods included surveying and mapping, excavation, and subsurface testing. This endeavor aimed to locate and record the sawmill's remains and its associated features with the goal of garnering a better understanding of the mill's form and function. In addition, artifacts were sought with the goal that they could be used to interpret aspects of the property's social history.

Establishing Spatial Controls

When arriving at the site in 2012 the first task was to enact spatial controls. In order to achieve this objective a datum point was established in a pasture southeast of the sawmill's location. A large peg was inserted into the ground and flagged. This peg served as a permanent datum. After determining the datum, grid lines were placed, running north and east of that point. Wooden stakes were driven into the ground every 20m and flags

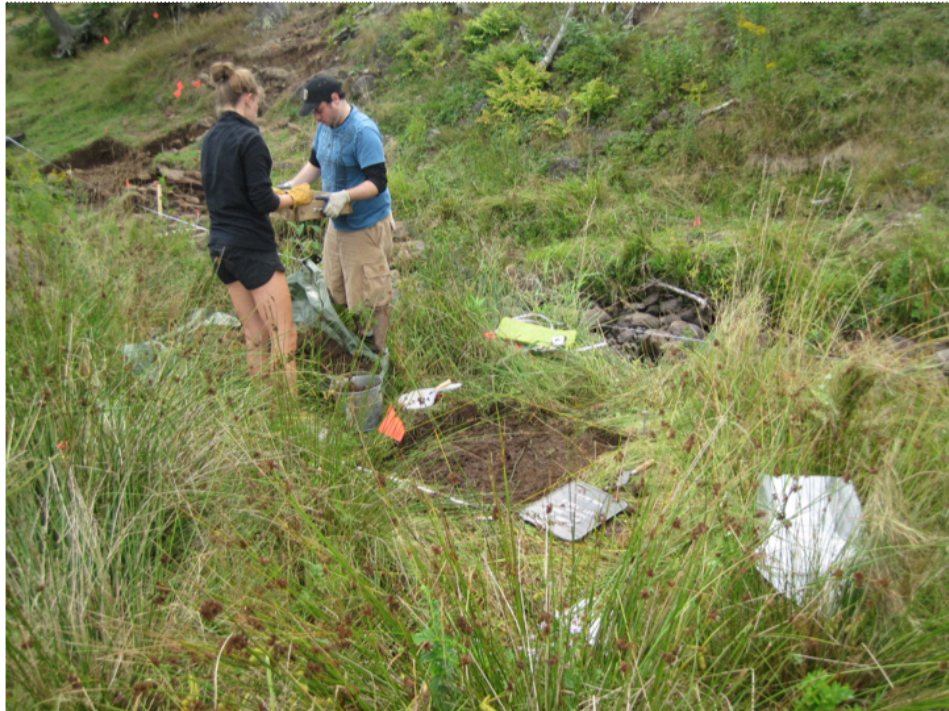


Figure 4: Saint Mary's University student volunteers.



Figure 5: Mapping archaeological features using a total station.

were placed in between at the 10m marks. In ideal circumstances a total station would have been used to shoot in this grid system, but this was prevented by weather conditions. As such, a sighting compass and measuring tapes were employed. While this traditional methodology was not optimal, it did result in an acceptable amount of accuracy. All surveying measurements were taken from the datum point, and the grid lines were used to plot in excavation units.

Archaeological Survey and Mapping

An extensive archaeological survey was carried out at the site in order to locate remains of the James M. Rogers Sawmill. Once remains were identified they were mapped using a total station (Figure 5). In addition to archaeological features, the farmhouse and barn were mapped, as was the Jess Brook. Due to the short nature of the fieldwork and the limitations of a small crew, detailed scaled drawings were only done for features that were destroyed or threatened.

Excavation Units and Subsurface Testing

During the course of the fieldwork a total of sixteen 1 meter square excavation units were dug. Excavation units were named according to their location within the grid (for example, 1s17w) and they were placed in areas determined to have high potential due to their close proximity to significant features and surface artifacts (Figure 6). All

excavations were carried out by hand using trowels and shovels (when deemed appropriate). Soil was screened using a quarter inch mesh.

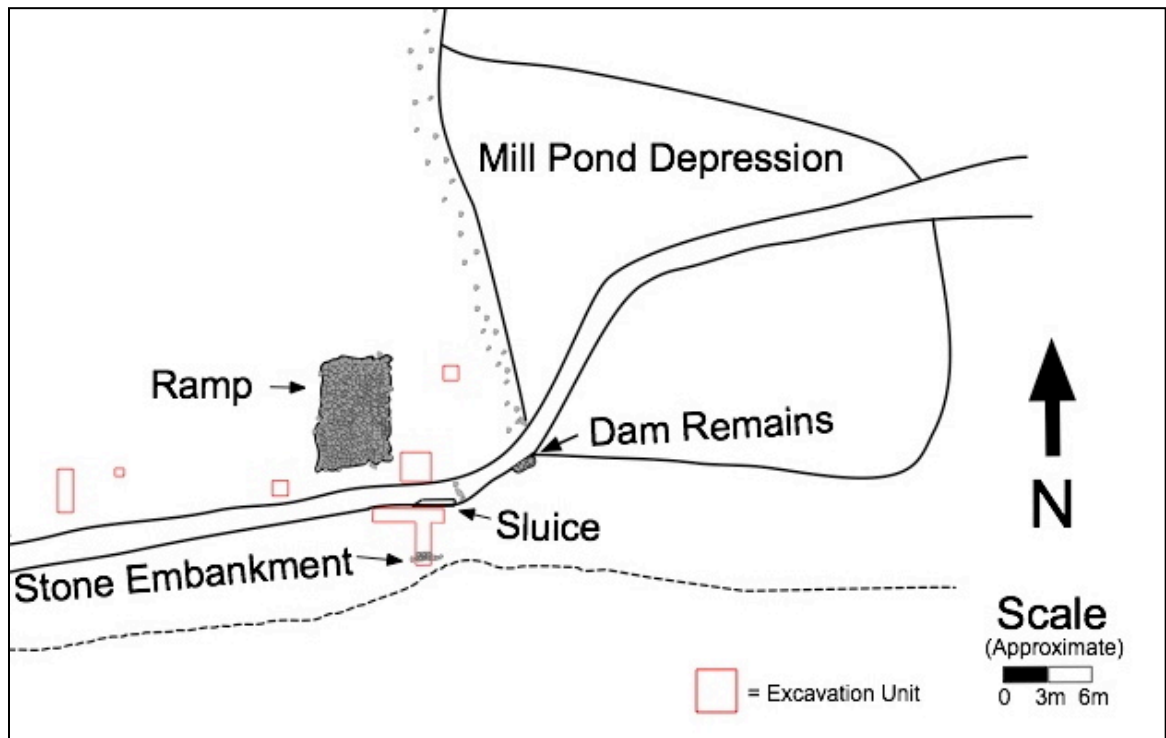


Figure 6: Map illustrating the location of excavation units.

Within the excavation units, all soils were dug stratigraphically according to their determined lots. All lots containing cultural material were photographed and recorded using standardized lot forms. In addition, profile drawings and profile photographs were taken in order to illustrate the site's stratigraphic sequence.

In addition to excavation units, nineteenth shovel tests were dug. Each test was approximately 40cm x 40xcm and they aimed to identify culturally constructed soil horizons. Eighteen of the test pits were placed just south of the mill site in a field known

by the Rogers' descendants as "Mill Field". The additional test was placed just north of the site in a small, shallow depression. Each shovel test was photographed and its stratigraphic sequence recorded.

Lab Methodology

All lab work was conducted in Memorial University's archaeology department in Queens College, St. John's, Newfoundland. Artifact analysis was undertaken at MUN's paleoethnobotany laboratory, and material culture was stored in the department's artifact storage facility. Metal, leather, and wooden artifacts requiring conservation were treated in artifact conservation laboratory. In addition, each artifact was cataloged according to Nova Scotia Museum's guidelines.

3.1.2 Non-Archaeological Methods

While the principle focus of this study is archaeologically oriented, additional resources such as primary documents and family narratives have provided decisive information regarding life and work at the site. They have been used to garner understandings of the Rogers family's history, genealogy, and personal profiles. They have also contributed details about the mill itself, particularly regarding ownership and clientele.

The value of informing historical archaeology by means of written documents has long been recognized:

Documentary archaeology is an approach to history that brings together diverse source materials related to cultures and societies that peopled the recent past. Documentary archaeological interpretations offer perspectives and understandings of the past not possible through single lines of evidentiary analysis. (Wilkie 2006: 13).

Similarly, oral histories are integral to the study of First Nations archaeology. They provide an important resource in annotating the history of ancient peoples. Thankfully, an increasing number of historical archaeologists (Mrozowski et al.1996 and Cassella and Croucher 2010) are now recognizing their valuable contributions to historic site interpretation (Moshenska 2007).

Despite the James M. Rogers Sawmill predating even the oldest residents of Scots Bay, the community has lengthy families histories and a rich understanding of their past. Among those who lived at the residence was Maude Amelia (Webb) Huntley, a granddaughter of James M. Rogers and his wife Julia A. Steele, who grew up in their house. In 1962, at the age of 91, she wrote a passage about her life as a child. Her piece has been immensely valuable, revealing information regarding life at the property and the household's daily activities. The property's current owner and resident, and the great grandson of James M. Rogers and Julia Steele, Roger Huntley, lived in the home as a child. Informal discussions carried out with Mr. Huntley during the course of excavations have been critical in providing insight into the later period of the site's history and the evolution of its physical landscape. Additional information was collected through communication with descendents, both in Scots Bay and abroad, through email correspondence and via social media and genealogy websites. These unorthodox sources

are increasingly proving to be a useful means of connecting with interested and invested individuals.

Intriguingly, available information regarding the site's social history becomes scarcer for the period following the Rogers' occupation. This is due in large part to its recent date, as primary documents relating to living people – or those whose direct kin who are still alive – are not easily accessible. In addition, descendants seem to have withheld information, perhaps because these informants either did not think that such details were important to an archaeologist or because they are hesitant to share information that is related to their direct families.

3.2 Analytical and Theoretical Approaches

Household Archaeology and Landscape Archaeology will be used here to create a microhistory of the Rogers site. This microhistory will primarily emphasize the family(s) that occupied the home and property between the 1850s and the 1950s. As this research is focused on the affects of the lumbering industry, it is also an example of Industrial Archaeology. This section will explore the aforementioned theoretical and analytical approaches, and explain how they will be used in the investigation of the James M. Rogers Sawmill.

3.2.1 Analytical Approaches

Industrial Archaeology

Industrial Archaeology is a subfield of archaeology that focuses on the production, distribution, and consumption of commodities (Casella 2005). Traditionally, many industrial archaeologists have placed a considerable amount of attention on the recording and documenting of a site's architectural and mechanical features. While this approach proves valuable in illuminating the technological components of a particular enterprise, technology is, at this point in time, one of the most well documented aspects of the industrial past (Palmer and Neaverson 1998). In order to develop a more encompassing understanding of industrial history, additional aspects must also be considered. Since the mid-1990s, many researchers have done so by turning their attention towards interpreting an industry's social frameworks (see Symonds 2005). This has been done, in part, through an examination of the life and culture of common workers and their families. The "everyman" and "everywoman" has frequently been left out of the historical record. By examining the physical objects that these people have left behind, archaeologists have the ability to fill in historical gaps, allowing researchers to move towards a greater appreciation of the social and cultural aspects of industrial history. In essence, many industrial archaeologists are shifting their attention toward the question of how people lived and worked instead of how machines and companies performed or functioned.

A significant amount of previous work carried out by industrial archaeologists has focused on large-scale enterprises and settlements (Palmer and Neaverson 1998). This is addressed in studies by archaeologists such as (Mrozowski et al.1996) and Cassella and

Croucher (2010). The research for this paper differs in that it analyzes a small-scale industry's role in the functioning of a household. Studying a small, family run venture allows for a more concentrated and controlled analysis of the industry's overall impacts. Inquiring into the small-scale is a fundamental characteristic of the microhistoric approach.

Microhistories

The term microhistory is used to define “the intensive historical investigation of a small area” (Szijártó 2002, 209). This analytical strategy has been used to explore a wide array of topics including the history of single events, properties, buildings, families, and individuals, among other things. It is often the study of those who have been left out of larger, overarching histories; it targets the poor and middle class as opposed to the rich and powerful, and small operations rather than major enterprises. In essence, it considers singular components of everyday life. Microhistory centers on the concept that many isolated pieces combine to create poignant, expansive wholes. By diligently examining a small area, researchers have the ability to focus on intimate details, ponder their meanings, and illuminate meaningful but otherwise overlooked historical and social aspects. In other words, a microhistorical methodology involves the investigator telling a detailed, personal story and then relating that narrative to a larger context. Historian István Szijártó argues that this ability grants microhistory four major advantages: “...it is appealing to the general public, it is realistic, it conveys personal experience and... the lines branching out from this reach very far” (Szijártó 2002, 209).

The unification of microhistory and historical archaeology is not new, but as Mary Beaudry suggest, archaeologists are still faced with distinct challenges:

... archaeologists face special challenges in writing accounts of the past because their work compels them to weave together simultaneous interpretations not just of texts but also of inscriptions in material corporeal form. This process calls for experimentation, a sense of playfulness, and more than a dash of imagination... It also means that historical archaeologists cannot “do” microhistory in the same way historians do; rather, we need to adapt the methods of microhistory to suit the demands of our own discipline (Beaudry 2008: 177).

An example of the “adaptation of microhistory to suit the demands” of archaeology can be found in *Patriots, Tories, Inebriates and Hussies: The Historical Archaeology of the Abraham Staats House, as a Case Study in Microhistory* (Veit and Gall 2009). Veit and Gall’s article explores the lives of one family of New Jersey farmers from the late eighteenth to late nineteenth century and the affects that societal change had upon them.

As Beaudry (2008) points out, microhistory’s focus on small-scale, everyday events results in a path that is often biographical in nature. This particular characteristic is also shared with the theoretical approach known as Household Archaeology.

3.2.2 Theoretical Approaches

Household Archaeology

Household Archaeology is concerned with the complexities and changes that exist within household units. In the past, academics such as Sheets (1992) have utilized the analysis of households within studies of Mesoamerican archaeology. Recently, though,

Household Archaeology has gained popularity and recognition amongst historical archaeologists (King 2006).

It is difficult to compose a definition of what constitutes a household. This is due to a vast diversity of cultural, economic, and ecological factors (Wilk and Rathje 1982). According to historical archaeologist Julia A. King (2006), a large part of the problem stems from the confusion over what differentiates families from households. While a household may be made up of family members, not all families are households, and not all households include family members. Archaeologists Wilk and Rathje (1982) define a household as: "...composed of three elements: (1) social: the demographic unit, including the number and relationships of the members; (2) material: the dwelling, activity areas, and possessions; and (3) behavioral: the activities it performed" (Wilk and Rathje 1982: 618). While this definition may work for some researchers, others are discontent with its presuppositions. In order to move beyond this definitional problem, many have now chosen to focus their attention on "what a household *does* (or did), rather than on what a household *is*" (King 2006:297).

Wilk and Rathje (1982) suggest that the primary functions of a household are production, distribution, and reproduction (though a household is not required to carry out all of these functions). While this classification laid the groundwork for Household Archaeology, it has been forced to expand its framework alongside evolving theoretical and cultural paradigms. For many of today's contemporary theorists "such approaches have generally given way to understandings of household activities as more complex social practices, and the process through which social life is constituted and transformed"

(King 2006:297). This has come to include focusing on elements such as class, gender and ethnicity and their effects upon a household setting (King 2006:297). Such archaeological analysis is often inspired by the “...use of intensive, small-scale research” such as micro-histories (King 2006:297).

Issues such as gender dynamics, class relationships, and social practices emerge when applying a Household Archaeology approach to the study of the James M. Rogers Sawmill Site. This thesis explores these issues by using Household Archaeology to interpret social impacts associated with the lumber industry in rural Nova Scotia.

For many rural Nova Scotian households, the social dynamics of daily life extended from the domestic sphere to outside activities. Areas such as yards, pastures, and woodlots served as settings for employment, daily chores, duties, and leisure. Natural environments were transformed by the actions of humans, and people were changed by their experiences with the landscape. This reciprocal relationship can be explored through the application of the Landscape Archaeology approach.

Landscape Archaeology

According to archaeologist Patricia E. Rubertone “landscapes are vital sources of historical evidence on American life, work, and ideas” (1989:50). Landscape Archaeology is concerned with human’s relationship *to* and interactions *with* their surrounding environment. In the past, research carried out by historical archaeologists has focused almost exclusively on buildings and artifacts. The landscapes on which these

structures and objects were located were seen as merely a site's physical backdrop (Anschuetz et al, 2001).

Beginning in the 1970s and increasing in the 1980s and 1990s, attitudes began to shift. The contemplation of landscapes emerged as an important and wide-ranging theoretical approach. Today, researchers continue to move towards a greater understanding of the significance and implications associated with landscapes.

This shift in perspective has largely emerged as a result of archaeology's growing attention to "cultural landscapes"; a term historical archaeologists Suzanne M. Spencer-Wood and Sherene Baugher define as "...a landscape permanently altered by human activity... Cultural landscapes are natural landscapes altered by human actions" (2010:464). Patricia Rubertone suggests that:

Landscape is neither space in the geographical sense, nor is it environment as defined by naturalists. It does not exist separate from the society, but is determined by it. As such, the study of landscape cannot be limited just to the study of land use... the ways in which people organized and arranged their economic activities in space. While this analytical approach may provide some insight into the physical and spatial variation among homelots, it does not address how households produced space to define social relations, attain political ends, and express beliefs (Rubertone 1989: 51).

There are virtually endless human actions that can alter a site's natural environment. These range from the drastic physical transformations associated with industry, to the intangible, subtle, emotional connections associated with memory and ancestral ties. The results of these landscape alterations can be seen in various ways, shapes, and forms in the historical and cultural record. While some can easily be viewed by the naked eye, others require more intense inquiry.

Archaeologists Kurt F. Anschuetz and others (2001) argue that Landscape Archaeology is most effective when amalgamated with other complementary theoretical approaches. The following section will outline how Household Archaeology and Landscape Archaeology will be used to tell the micro-historical story of the Rogers site and those who have called it home.

3.2.3 Summary

Combined, the outlined theoretical and analytical approaches allow for a detailed examination and interpretation of the James M. Rogers Sawmill site. Household archaeology will be used to facilitate inquiries into the social dynamics of general life and activities of each phase of occupation, as well as the implications that the lumber industry had on the livelihoods of those who called the site home. Landscape Archaeology will inform observations regarding the sawmill's dependence on, and alteration of, its natural environment. By examining an industrial site from a microhistoric perspective, it is hoped that this research will contribute to the continuation of industrial archaeology's new focus on the social aspects of our industrial past.

CHAPTER 4: THE ROGERS PERIOD

In 1857 James M. Rogers purchased a parcel of land in Scots Bay, Nova Scotia from Abraham C. Ells (Jess 1941). Oral history suggests that in the same year construction began at what would become the Rogers' family home (Jerry Huntley, personal communication, 2012). The construction of the house marked the beginning of the Rogers' occupation of the property, located at what is now 152 Rogers Road, and its first known permanent habitation by people of European descent. Since that time, three households have called the place home. All are related through descent, and each made a living through a combination of agricultural and forestry activities. Using information obtained through primary historical documents, unpublished written histories, and family narratives, this chapter will discuss the first of those households: the Rogers. It will focus initially on their household composition and economic landscape. This will then be followed by an overview of their lumbering operations, and finally by a presentation of relevant archaeological data. Finally, it will culminate in a discussion of the Rogers' time at the property as it relates to this study's research objectives.

4.1 The Rogers Household

On Thursday, March 27th, 1851 James Moore Rogers and Julia Ann Steele (Figure 7) were married at the Congressional Church in Habitant, Nova Scotia (Tomaselli 2010a). This union laid the foundations of what would become the Rogers household. When the couple was first wed they are believed to have resided with Julia's parents in a home that

was located only a short distance from their future residence (Roger Huntley, personal communication, 2012). Julia and James' oldest children were likely born under Julia's parents roof. When they moved into their new house in 1857, the Rogers' family was made up of the young couple and their first three children: Joseph Henry (b. abt. 1852), Selina Huntington (b. abt. 1853), and Harris (b. abt. 1855) (Census of Canada, 1871).



Figure 7: James M. Rogers and his wife Julia Anne (Steele) Rogers.
(Photo courtesy of Tracy Tomaselli).

Shortly after moving into their new home, the Rogers household began to expand. Around 1857 son Eugene was born, followed by daughter Emiline (b. abt. 1858), son

Fales Newell (b. abt. 1860) and their daughter Prudence Rebecca (b. abt. 1863) (Census of Canada, 1871). However, tragedy hit the Rogers' as it did many families of the Victorian period. In 1873 their son Eugene died from an abscess at the age of 16 (Tomaselli 2010a). Sadly, this was only the first of multiple deaths to touch the Rogers' before the turn of the century. In 1891 Prudence died shortly after giving birth to her daughter Maude Amelia (Tomaselli 2010a). Following Prudence's death, Julia and James cared for young Maude and raised her as their own daughter (Martin 2004). As Maude recalled in 1962: "I lived with my grandparents as my mother died when I was four months old. So I never knew any other mother" (Martin 2004: 50). Between 1891 and 1892 Fales' wife Lizzie Dewolf also died during childbirth, and their infant daughter Regina May passed away soon after (Tomaselli 2010a, Scots Bay Union Cemetery, visited August 2012). In 1912 Fales Rogers was re-married to a woman by the name of Mary Belle Crowe (Province of Nova Scotia Marriage Register 1912). The following year their daughter Mary Belle Rogers was born (Province of Nova Scotia Marriage Register, 1932). Crowe died a short while later (Scots Bay Union Cemetery, visited August 2012).

Over the years the household would continually transform. Glimpses of these changes can be identified within historic censuses at the Nova Scotia archives. These records show that in 1881 James' mother Abigail Rogers was living at the home, as was James A. Macdonald, a sixteen-year-old labourer, and Oliver Cogswell, a 24-year-old schoolteacher (Tomaselli 2010a). James A. Macdonald was the son of James Rogers' cousin and he came to live within the Rogers household after his mother died; his father spent most of his time at sea (Tomaselli 2010a). The relationship between Oliver

Cogswell and the Rogers is unknown. Historic census' also show that in 1891 Julia Thorp, a thirteen year old domestic servant, was living with the family (Tomaselli 2010a). She was the first cousin once removed of both James Rogers and Julia Steele (Tomaselli 2010a).

Much of the literature that surrounds the Rogers household speaks to their social involvement, both within the community and in faith groups. They were devout Methodists whose spiritual affiliation played a paramount role within their lives (Tomaselli 2010a). Reportedly, during a party for his and Julia's 60th wedding anniversary James stated that the two events which most shaped his life and built his character were meeting his wife and finding Jesus (Tomaselli 2010a).

In addition to their deep Methodist faith, the Rogers were devote teetotalers (Tomaselli 2010a). In the mid-nineteenth century, the temperance movement arose as a form of social activism. Led mainly by members of the middle class, the movement preached the total abstention from alcohol and tobacco smoking, under the pretense that these habits wreaked havoc amongst working and lower class families.

Besides being a Sunday school superintendent, James was also involved in overseeing the construction of Scots Bay's North Schoolhouse: one of the community's first public schools (Jess 1941). The school was located a short distance from the Rogers' home.

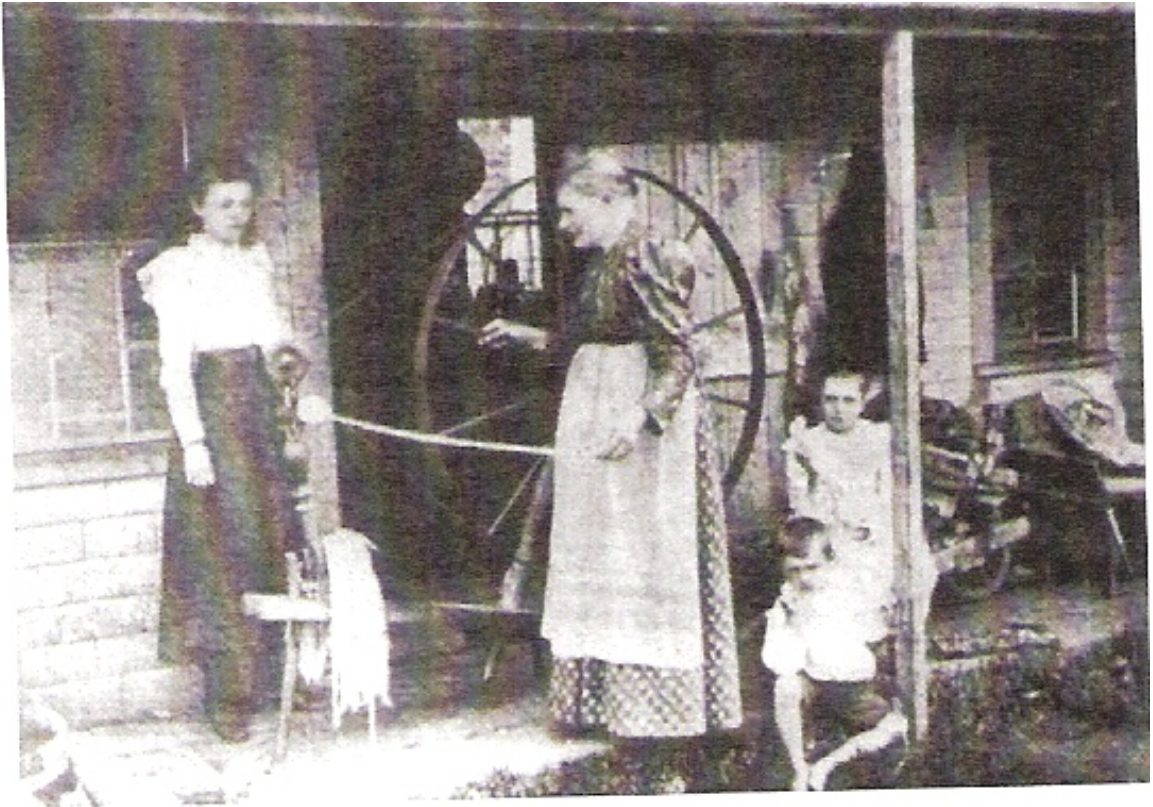


Figure 8: Julia (Steele) Rogers and children.
(Photo courtesy of Tracy Tomaselli).

Julia (Figure 8) was also a cherished member of her community. Perhaps most notably she was a midwife who, in addition, cared for many of the community's sick and injured (Martin 2004). When speaking of her grandmother's medical skill, Maude stated the following: "My grandmother was a woman who always went out among the sick caring for them. They never sent a doctor unless you were awful sick, always sent for her. She was also a midwife and delivered babies without a doctor being present" (Martin 2004: 51).

Julia Rogers died in 1912, and James died eight years later in 1920 (Scots Bay Union Cemetery, visited August 2012). According to oral history James was splitting

firewood in the back yard the day before he died, at the ripe old age of 91 (Roger Huntley, personal communication, 2012). When he passed away his obituary stated that his funeral “...was largely attended showing the esteem in which he was held (Kings County Archives Scrapbook number 16, page 101). Following James’ death Fales continued to live in the home until his death in 1923 (Scots Bay Union Cemetery, Jerry Huntley, personal communication, 2013). His passing marked the end of the Rogers’ occupation of the site (Tomaselli 2010b).

4.2 The Landscape and Structures of a Household Economy

Increasingly ... emphasis on the archaeology of the homelot and the household has fostered an interest in the arrangement of features within the homelot and the ways in which the landscape and buildings on it were used to define social relations (Beaudry 1986: 38).

The farm that was once home to the Rogers’ household sits atop a hill on the north end of Scots Bay at an elevation of approximately 50 meters above sea level. On a clear day one can easily see across the small village, and look to the bay, which cuts into the coastline of the Minas Basin in the Bay of Fundy. It is an area with rich natural beauty, but it is also a place with a lengthy history of human activity. The signs of this past can be seen deeply inscribed within the landscape. They are in the area’s many old homes, in their fields and millponds, and in the community’s place names. The Rogers site, for example, is located at what today is the crossroads of the Rogers Road and the Huntley Road; street names that speak to the family’s lengthy ties to this piece of property.

Just as the community is a cultural landscape, so too is the Rogers' property. While living at the site, the Rogers transformed their immediate surroundings into a working homestead composed of their house, outbuildings, gardens, orchards, berry bushes, and a 100-acre woodlot, along with fields and orchards. Out of this property emerged two primary occupations: farming and forestry. The Rogers, however, had a multi-faceted economic strategy that also included other components such as oxen shoeing and homespun wool production pastures (Roger Huntley, personal communication, 2012). In order to truly understand the role of sawmilling as a function of the Rogers household, it is fundamental to first contemplate the other factors that made up their livelihood, and examine the cultural landscape associated with them. It is only then, that lumbering can be properly situated within the overall household economy. When describing her visit to a water-powered sawmill still operating in 1974, Robertson stated the following:

Canaan, Lunenburg County, provided a compact view of how hundreds of mill sites must have looked a century ago. A wooden house and barn at right angles to one another sat on a rise of land that sloped down toward the millpond, where the mill was seated behind its dam. The house and barn at right angles on the rise, and the mill in the hollow parallel to the barn, made a convenient U-shaped configuration of buildings encompassing home and livelihood." (Robertson 1986: 22)

Notably, a similar U-shaped configuration defined the Rogers' economic landscape.

Through oral narratives and historical documents it has been possible to garner a well-balanced understanding of the various components that made up the Rogers' livelihood. Additional information can be gleaned by examining the Rogers' use of their

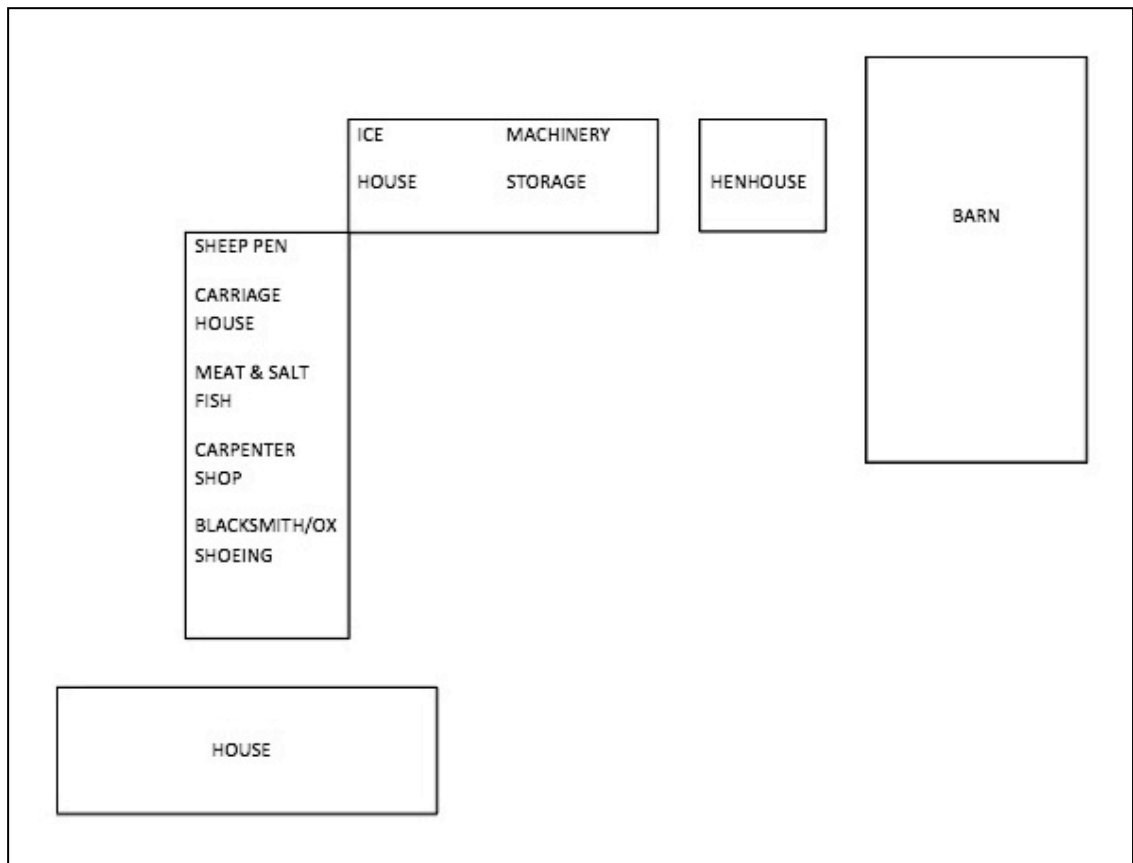
property and the buildings that it contained. With this in mind, the following section will explore the physical landscape of the Rogers' household economy.

4.2.1 Structural Overview

A central focus of this discussion will be the many structures that were once situated within the farmyard. The countless outbuildings littered across rural landscapes were fundamental components of many farmyards. Structures can shed light on those who constructed them, because buildings – like artifacts – are a reflection of their owners (de Boer 2010). According to Glassie (1987) every architect, whether vernacular or not, brings their own personal experience to their design and then attempts to recreate their ideas through material objects. At the Rogers site, for example, the home is built in a New England architectural style, and the farmyard greatly resembles the connected barns and outbuildings of New England (Hubka 1984). This is not surprising because New England Planters settled the area, and James Rogers himself was a second generation descendent of New Englanders.

Today, the home is the only original building that survives. Fortunately, however, Roger and Jerry Huntley have created and provided a memory map (Figure 9) of what the property would have looked like in the early 1940s. According to Mr. Huntley, at that time the farmyard was much as it had been during the Rogers period (Roger and Jerry Huntley, personal communication, 2013). His memory map, combined with historic aerial photos (Figure 10), allows for an understanding of the property's evolution. The multiple buildings found on the property were designed to meet specialized requirements or needs.

For the sake of this study they have been broken down into four distinct functional groups: domestic, equipment storage, agricultural, and industrial.



**Figure 9: Memory map showing the approximate locations and functions of Rogers period structures.
(Map drawn by Roger and Jerry Huntley 2013)**



Figure 10: 1954 aerial photo of farmyard showing locations of mill site and key structures (Photo courtesy of the Department of Natural Resources).



Figure 11: Historic photograph of the Rogers' machinery storage and henhouse with unidentified men working in the farmyard. (Photo courtesy of Jerry Huntley)

Domestic

The Home



**Figure 12: Early twentieth-century photograph depicting the Rogers family home (with unidentified children) as viewed from their orchard.
(Photo courtesy of Jerry Huntley)**

The formal characteristics that constitute a household can vary extensively, as can the definition of a home. Nevertheless, dwelling places are a central component of any household (King 2006). For the Rogers, that place was a one and a half story framed wooden house (Figure 12). The home was constructed in the Cape Cod vernacular style with a small kitchen built off of the east wall (Hubka 1984). Extensive documentation of the Rogers's home was not within the scope of this research, but an overview of the

materials and building methods used in the construction of Scots Bay's vernacular architecture is provided by Jess:

If we reckon the history of Scotch [Scotts] Bay as beginning in 1764, probably all the framed buildings, both houses, and outbuildings of all kinds for over one hundred years from that time were built of lumber sawed in one or another of [Scotts Bay's] mills, and the roofs and in many instances the sides also of these buildings were covered with "rived" shingles made by hand by splitting blocks of clear spruce to the required thickness and shaving them with a draw knife by those skilled in the art, and for some of the older buildings the nails were made one by one by a blacksmith or were simply wooden pegs (1941: 17).

It is likely that the Rogers' built their home in the manner described. Roger Huntley believes that the house may have been built out of lumber that was milled at the site, suggesting that the mill pre-dates the house (Roger Huntley, personal communication, 2012). Unfortunately, research for this project has been unable to substantiate Mr. Huntley's statement. In 2012, in an effort to further investigate this question, the building's original timbers were examined and they *do* indicate that the structure was constructed out of lumber that was milled in a water-powered sawmill. However, at this point in time it is impossible to prove that the mill was the Rogers'.

Domestic Storage

Ice House

Before the advent of electric refrigeration, icehouses were common structures used to store perishable items, such as dairy products. Refrigeration was achieved by using blocks of ice and sawdust insulation. Due to high humidity icehouses were prone to rot, and as result few examples now exist (Hubka 1984). In urban areas ice could be

purchased from professional retailers – a major ice harvesting industry was established in Dartmouth, Nova Scotia (Chapman 2008) – but in most rural areas farmers cut their own ice. It is likely that the Rogers harvested their ice from the millpond.

Meat and Salt Fish

An additional structure was used to store the household's food provisions. More specifically it is known to have contained meat and dried fish. Scots Bay had an active fishing industry (Jess 1941), therefore, the majority of food housed in the building may have been caught, harvested, or butchered within the community.

Equipment Storage

Carriage House

Carriage houses, used to shelter horse drawn vehicles, and often house horses themselves, were uncommon on most rural sites. Instead, such vehicles and animals were typically kept in multi-functional buildings such as large barns. Formal carriage houses were a typically urban structure. When combustion engines replaced horse drawn transportation many carriage houses were converted into modern garages (Noble and Cleek 1995).

Machinery Storage

In addition to having a carriage shop, the Rogers also had a space specifically for machinery storage (Figure 11). This building was likely used to store agricultural apparatuses and possibly lumbering equipment, such as the tools required for felling and transporting raw timber.

Agricultural

Barn

A barn was usually the first outbuilding constructed at a new farm site. Traditionally, barns were used primarily for the storage of grain. By the nineteenth-century, however, the term had also been applied to buildings that housed livestock as well as their feed (Hubka 1984).

The barn illustrate in Roger Huntley's memory map (Figure 13), which is still standing today, was built in 1897 during the Rogers period, though it is not the family's first. The location of the original barn has been lost, but family members believe that it was situated directly east of the current barn. According to Roger Huntley, a large depression is located in the spot where the barn is thought to have stood, however the area is now heavily overgrown and it was not accessible in 2012 (personal communication, 2012). According to Kinsman (1979) the average barn in nineteenth-century Nova Scotia measured approximately 60 feet by 30 feet, with central doors and a gabled roof. It is

possible that Rogers' original barn was defined by these characteristics but it is impossible to say with any certainty unless further archaeological research is undertaken.



Figure 13: Rogers family's second barn. Built circa 1897.

Henhouse

When writing about hen houses in the middle of the nineteenth century, Allen (1856) states: “[a]s poultry is an indispensable appendage to the farm, in all cases, the poultry-house, is equally indispensable, for their accommodation, and for the most profitable management of the fowls themselves, and most convenient for the production of their eggs and young” (Allen 1856: 267). The basic requirements necessary for a hen house were light, warmth, dryness, and appropriate space (Allen 1856). The Rogers' hen

house (Figure 11) was a two-story structure that stood separate from all of the other buildings.

Sheep Pen

Among the many cottage industries of nineteenth-century Nova Scotia, was the production of homespun wool. The Rogers kept a flock of sheep for this purpose. Maude's writing illuminates insight into their cloth production:

They used to have spinning parties them days. My grandfather used to go around with a big wagon and gather up the wheels and their reels. They spun all the afternoon, they all enjoyed it. Every room downstairs had a spinning wheel in it and if it was fine and no wind some spun outdoors, they all enjoyed every bit of it, they all stayed to supper (Martin 2004: 50).

In the connected farm buildings of New England some sheep pens were kept as separate structures, but it was also common to connect them to other livestock housing in order to ease winter-feeding (Hubka 1984). The Rogers' sheep pen was, instead, connected to the carriage house.

Industrial Shops

The various workshops associated with home industries were an important part of almost every farmyard. In Hubka's (1984) study of New England farms he found during the course of his research that over two thirds of those surveyed had at least one type of industrial shop. The Rogers had a blacksmith/oxen shoeing shop and a carpentry shop along with their sawmill.

Blacksmith/ Oxen Shoeing Shop

Blacksmith shops were typically used for general farm maintenance, as well as for shoeing animals (Hubka 1984). This was likely the case with the Roger's blacksmith shop. Oral history indicates that James Rogers was an oxen farrier, and Roger Huntley reports digging up countless oxen shoes in the area (Roger Huntley, personal communication, 2012). Blacksmith shops were also a common component of many forestry operations, and it was in these shops that axes, chains, and other forestry equipment would be repaired (Rohe 1986). It is likely that the Rogers' blacksmith shop served various functions within their household economy.

Carpentry Shop

As Martin (1972) points out, wood had an essential role within early Nova Scotia. Alongside being used for construction, farmers would use the material for a multitude of purposes ranging from furniture to tool handles. There is no information to indicate what was being manufactured in the Rogers' carpentry shop, but the list of objects was most likely varied.

4.3 The James M. Rogers Sawmill

I remember one time a man was helping our men in the woods (Harm Irving), his mittens were not too good, my grandma was knitting a pair so she asked him to try one on and never said anything more. When he came out of the woods and put on his coat he found a pair of new mittens in his pocket (Martin 2004: 51)

Of all of the structures on the property, the James M. Rogers Sawmill is the primary concern of this study. It is also the only building, besides the original barn, that was no longer standing when Roger Huntley was a child, and there are no known photographs of the operation. As such, before archaeological research was carried out, the only known information concerning the mill was in the form of unpublished community histories, historical documents, and oral narratives. Unfortunately, none of these resources were extensive.

What was known about the mill is that it was a family business. In the early years this enterprise was a partnership between Rogers and his brother-in-law George Steele with Rogers likely owning the majority of the shares (Roger Huntley, personal communication, 2012). Lovell's Province of Nova Scotia Directory for 1871 lists James Rogers as "Saw Miller" and George Steele as "Farmer, Sawmill Owner". This is intriguing because Steele is the only mill owner listed with this title beside his name. Thus, it is likely an indication that he was mainly involved financially and not at an operational level.

Shipyards ledgers, now owned by a descendant of the Steele's, Garry Steele, show that James Rogers sold a large quantity of lumber to the Steele Shipyard for the purpose of ship construction (G. Steele, personal communication, 2012). The yard was located approximately 2km down the road from the mill site, and it was owned by Rogers' brother-in-law and George Steele's brother, Jonathan Steele (Jess 1941). Unfortunately Mr. Steele's ledgers were not available for study at the time when this research was undertaken.

The timber sawed in the mill, and sold to the Steele Shipyard, was cut from the household's personal woodlot located on the north side of Rogers Road, just north of the sawmill site and Rogers' home. Oral history suggests that, unlike many lumbering operations, the Rogers did not operate a logging camp. It is possible that the woodlot's close proximity to the community meant that employees did not have to stay at the logging site (Roger and Jerry Huntley, personal communication, 2012). Since some of the vessels built in Steele Shipyard were very large – such as the *Bay of Fundy* which weighed 1221 tons, and the 1200 ton *Cornwallis* – a considerable amount of timber would have been required (McKean n.d.).

In her narrative, Maude presents a scene of the family's forestry activities: "In the spring there was always wood sawing, a lot of men came and brought their axes and saws, some sawed, some split wood. Then there was a big supper for them" (Martin 2004: 51). Her comment regarding a big supper at the end of the day is in tune with much of the literature regarding the period's lumbering, most of which places a great emphasis on food (Conlin 1979, Franzen 1993).

It is not known when exactly the James M. Rogers Sawmill ceased to exist or why. What is known is that the family's current barn, built in the late 1890s, was constructed out of wood from another of the community's mills, the Huntley Sawmill. This suggests that the Rogers' mill was out of commission by that time (Ann Doyle, personal communication, 2012).

While there are few resources concerning the sawmill's function or chronology, none exist in regards to its architectural form. Nevertheless, evidence was found in the

form of archaeological features. According to Bunker and others most water powered mills were composed of the following 6 components:

- the natural water source;
- a dam to impound the water and create head;
- a conduit to convey water to the mill, such as a race, penstock or canal;
- a wheel pit and water wheel or turbine to convert the water force to rotational torque for operating machines;
- a tail race to return water to the natural stream;
- and the mill building itself along with accompanying machinery, work space and associated yards. (2011: 6)

Below is a presentation of those features which are present on the landscape of the James M. Rogers sawmill, as well as others which were uncovered during excavations (Figure 14).

4.4 Archaeological Evidence: Features

4.4.1 Surface Features

Shortly after purchasing the property James M. Rogers dammed the river behind the family's home, and constructed a sawmill with all of its associated hydraulic features. This was an economic choice based on a business partnership between family members, but it was also an action that would change the landscape in a way that can still be seen today. Because this study is, first and foremost, focused on lumbering and the industry's affects, archaeological research carried out at the homestead was focused on the location in which the sawmill once stood. This spot, referred to as Area A, is located approximately 50 meters south and 40 meters east of the southeast corner of the family's home on a small watercourse known as the Jess Brook.

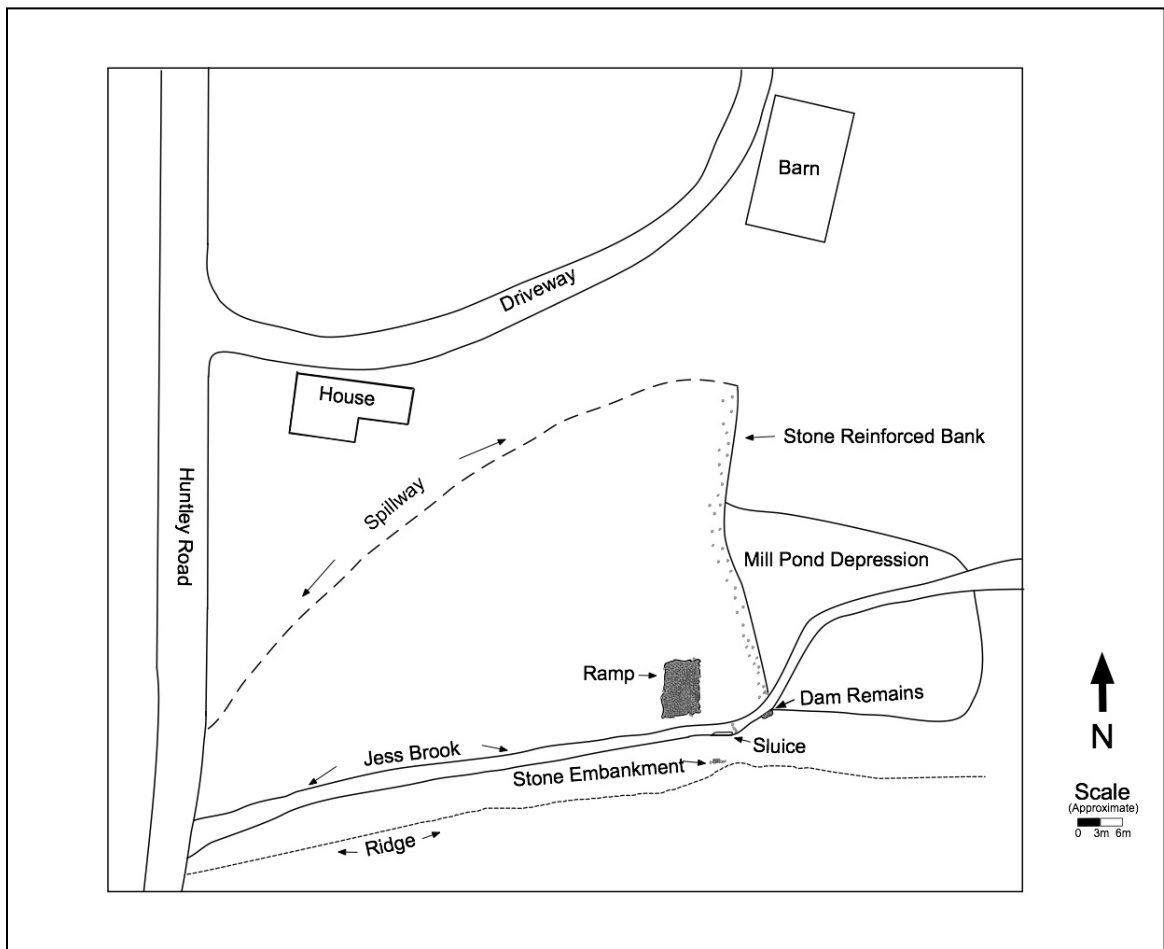


Figure 14: Site map displaying the locations of key features.

During Deal's survey (2010), the general location of the mill was determined through the use of historic maps and oral histories, but archaeological features visible on the site's surface allowed the specific spot to be pinpointed. These features include a large millpond depression, a spillway connecting the millpond to the brook, a long millpond retaining wall, and two piles of culturally deposited stone, which were interpreted as dam remains, and a stone ramp. These components are the most definitive evidence of the mill's location and layout. They are described in greater detail below, along with a brief overview of their functions.

Feature 1: Millpond Depression

Water-powered mills relied on a constant and readily available supply of water. As such, one of the most important processes involved in the construction of a mill was the damming of the body of water on which it was situated. This in return created a millpond in which to store water and assure its availability. Alongside the storage of energy, a millpond raised the height - or head - of water, thus intensifying the force by which it fell onto the waterwheel and increasing its power (Bunker et al. 2011).

With sawmill operations, ponds were also frequently used to store raw timber as logs could be easily sorted, and pond water "...aided in preserving logs from cracking or staining and helped deter bark beetles and other boring insects. The water also washed dirt and soil from the logs, which served to reduce wear on saw blades" (Bunker et al. 2011).

The depression left by the Rogers' millpond is now the largest and most evident feature associated with the industry (Figure 15). It measures approximately 25 meters by 20 meters. Despite no longer being a pond, the Jess Brook still runs through the depression and much of the area is boggy.



Figure 15: Millpond depression and stone-reinforced retaining wall.



Figure 16: Remains of the Rogers Sawmill's dam.

Feature 2: Dam

Remnants of the dam used by Rogers to create the millpond were found on the south side of the Jess Brook, measuring approximately 1.5m long and 1m high (figure 16). Milldams were typically constructed out of locally available materials (Bunker et al. 2011). The north profile of the sawmill's dam remains is clearly visible, as the dam itself has been cut away by the Jess Brook. These remnants are now little more than a pile of disarticulated cobblestones with a thick layer of soil and sediment covering the eastern edge, which was once the millpond.

Feature 3: Retaining Wall

Across the brook from the dam are the remains of a stone and dirt wall built along a naturally occurring point of heightened elevation (figure 15). This wall, or bank, runs approximately 35ms long and 3ms wide. It defines the western edge of the millpond, and when the mill was in operation it would have acted as a retaining wall or an extension of the dam. A similar retaining wall – found at the Supply Mill on Content Brook in Massachusetts – is described below:

Running 130 ft. out from the main structures was a long wall constructed of large, crudely shaped granite block- boulders. This wall consisted of one, occasionally two, lines of stones composed of two to four courses depending on the size of the individual blocks (FIG. 6A). As its height was about 4 ft. it delimited a significant contour change and it was hypothesized that it originally functioned as the retaining wall for the mill pond (Schuyler and Mills 1976: 64).

While the retaining wall found at the James M. Rogers Sawmill would have served the same function as the one located at the Supply Mill, it does not contain neatly laid courses of stone. Instead stones were simply piled against the natural bank.

Feature 4: Spillway

While it was necessary to build a millpond in order to provide water for the mill, if too much water was collected in the pond it could overwhelm the machinery or even break the dam. For this reason spillways were dug as a means of diverting water from the pond around the mill and back into the river or stream. This would allow access water to escape without endangering the operation.

The remains of a spillway were found connected to the millpond just north of the retaining wall. The spillway is now difficult to identify and it is only recognizable by a strip of marsh plants running alongside the site. In one section fieldstones have been used to fill in a portion of the spillway as if to create a bridge.

Feature 5: Stone Ramp

The remains of a large culturally deposited pile of stones were found on the north side of the Jess Brook (Figure 17). This feature is interpreted as the remains of a stone ramp and would have been used to haul raw timber into the mill or to move sawed lumber out. It is presumed that when in operation the ramp had a sod paving but years of weathering would have resulted in all of the soil eroding through the cracks of the stones.

During operation, an oxen or horses could have backed a wagon directly into the building. Ramps were a common component of water powered sawmills, though such features were often rudimentary and composed of little more than wooden boards used to roll lumber in and out of the mill.



Figure 17: Stone ramp composed of a culturally deposited stone pile, on the north site of Jess Brook.

4.4.2 Subsurface Features

On the south side of the Jess Brook, directly across from the stone ramp, portions of a stone embankment could be seen running along the brook. In order to delineate this feature and determine its function, excavation was undertaken. These excavations revealed a natural but utilized stone feature, as well as additional wooden timbers. Through the presence of these features, the location of the actual mill building can be identified. They have been described below.



Figure 18: Natural stone embankment that was incorporated in the mill structure.

Feature 6: Stone Embankment

Through excavations, the stone embankment, originally thought to be culturally constructed, was determined to be natural (Figure 18). Despite its natural occurrence, it exhibited signs of human modification: one of the rocks has a chiseled face, creating a smoother surface. It is believed that one side of the mill sat directly on top of this wall. Excavations uncovered only a small section, but the site's landscape suggests that it continues along the side of the bank.

Features 7, 8, and 9: Wooden Timbers

The wooden timbers unearthed during excavations (Figure 19) can be divided into three distinct features. The first - feature 7 - is a pile of short round logs approximately 1 meter long, stacked horizontal to the brook. These logs are situated directly against the sluice. It is possible that they may be the base course of a stacked log platform originally used to elevate the sluice.

Feature 8 is made up of two squared beams connected at one end to form a right angle running north/south. Flat stones were found beneath one of the beams and they appear to have been used to level the wood. This feature is likely foundation sills used to keep the machinery – or possibly the building itself – off of the ground (Craik 1870).

Feature 9 is a series of round logs framed by feature 8. They run approximately 3m long and 1m wide. Their exact function was not determined, but they may have served as

either a barrier to protect the machinery, or as a floor on which to work below the building.

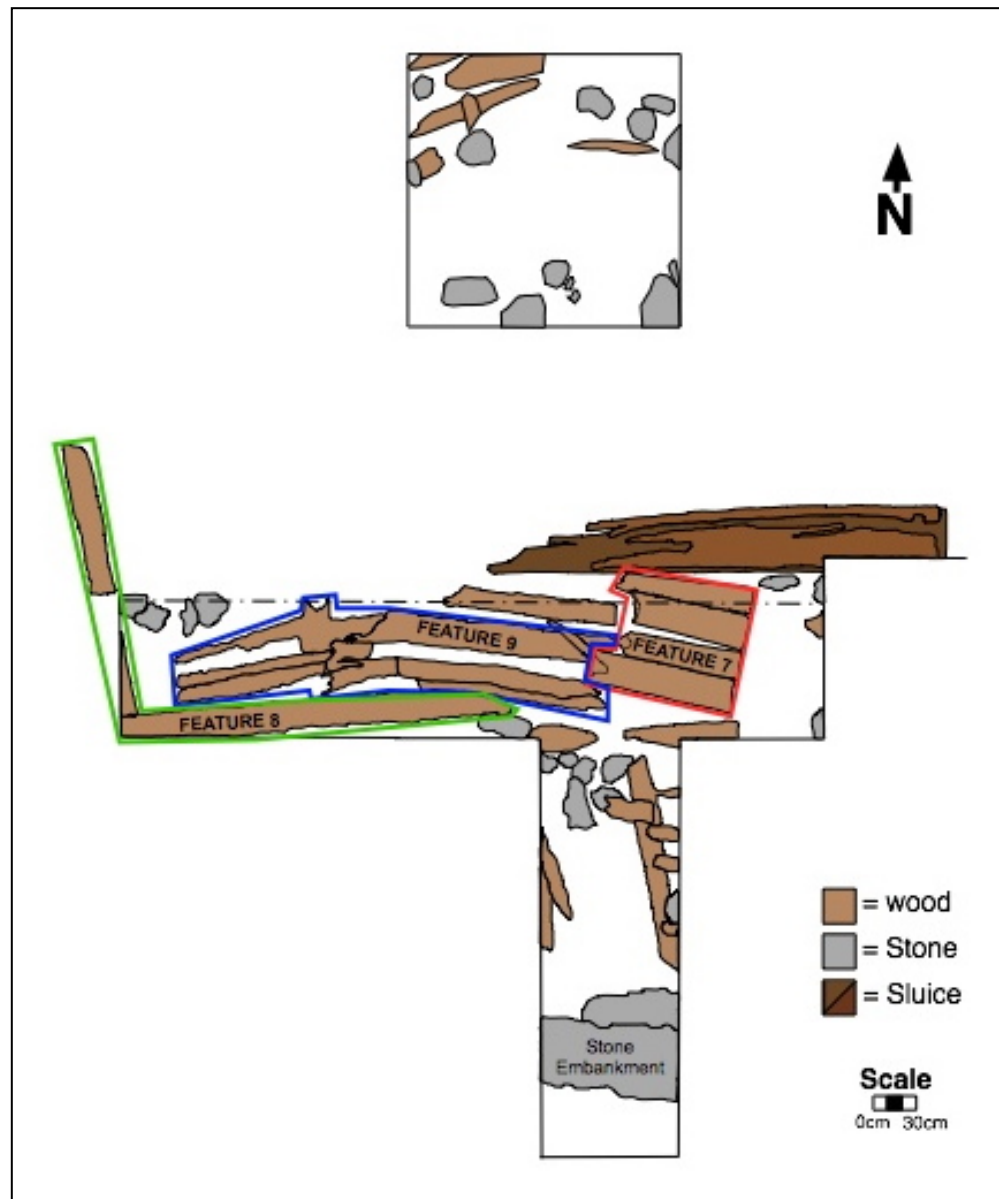


Figure 19: Plan drawing of features 7-9 along with additional wooden timbers and debris uncovered during excavations.

Additional timbers, along with cobblestones, were found in abundance within the excavation units placed on both sides of the Jess Brook. Most of these timbers and cobblestones are believed to be disarticulated remains of the sawmill operation, however, since these remains were littered across the site and not in their original contexts, they were not assigned feature numbers.

4.4.3 Summary

Remnants of the James M. Rogers sawmill can still be identified as archaeological features. These include both surface features and those revealed through archaeological excavations. Of these, the most evident surface features are those related to the mills hydraulic system. Remains of the actual structure were found primarily through archaeological excavation. Unfortunately no evidence of the water wheel, the wheel pit, or the tailrace was located. Additional information on the buildings architecture, as well as the industry's social implications was found in form of material culture. This data is presented below.

4.5 Archaeological Evidence: Material Culture

By interpreting our assemblages as “artifacts with active voices” (Beaudry et al., 1991) we can add to a wider understanding of modern era class relations, of power negotiations within the workplace, of domestic relations of production and reproduction, of basic transformations in kinship and family ties, and, of diasporas of ethnic working communities. We can thereby make significant contributions to a social archaeology of the recent past (Casella 2005: 10).

The rural nineteenth-century and early twentieth-century farmyard was a functional landscape with defined spaces, shaped by its owner's needs. Among the multitude of activities that affected this environment was the disposal of household waste. Up until the 1950s many rural families discarded their garbage in sheet middens, privies, and other garbage piles or pits situated within the boundaries of their own properties (Grover 2003). Often times these disposal units were located in close proximity to the family's home. Objects discarded in such contexts, along with those that were simply abandoned or lost, form the basis of most archaeological assemblages.

At the James M. Rogers Sawmill Site, Rogers period artifacts were found in two primary contexts (Figure 20). The first – Area A – is the sawmill site itself. The second – Area B – is a midden deposit that was identified along the north bank of the Jess Brook, approximately 30 meters west of where the sawmill was located. In addition, Roger Huntley donated a small collection of objects that were uncovered several years ago while he was running an underground utility cable at the area in which the Rogers' workshops were once located; this will henceforth be referred to as Area C.

Households act as small units of analysis and by looking at their discard methods and discarded materials it is possible to interpret consumption patterns (LeeDecker 1994). However, as LeeDecker (1994) suggests, artifacts from unsealed contexts have far less interpretive value than those that are fixed. Unfortunately, despite earlier hopes, much of the research area at the James M. Rogers Sawmill site has been heavily disturbed as a result of flooding events, erosion, and general day-to-day agricultural activities. Moreover, the landowners reported seeing cattle in the area “up to their knees in mud”

during wet seasons. This would undoubtedly cause considerable damage to the upper portions of the site. This disturbance has limited the interpretive value of many of the artifacts found. In addition, it has meant that a certain level of speculation was needed when assigning artifacts to specific periods, particularly in Area A. Nevertheless, insight into the types of objects that the Rogers' owned can still provide valuable information for the site analysis.

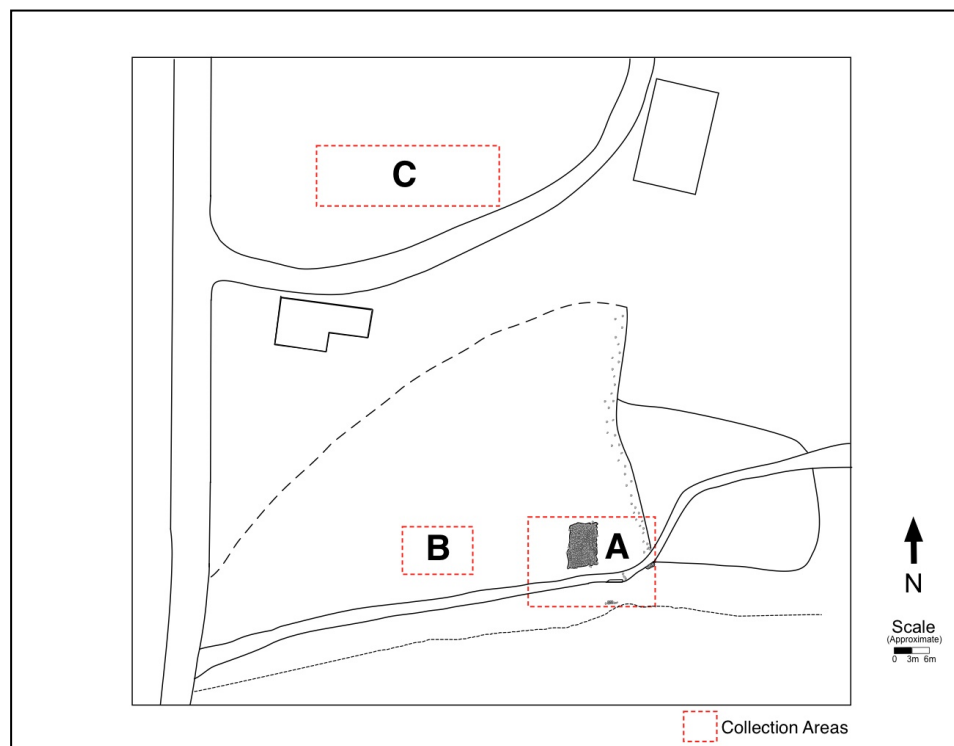


Figure 20: Map of site indicating artifact collection areas A-C.

When examining these artifacts the materials were divided according to their presumed functions. Functional groups include both ceramic and glass food and beverage related artifacts, architectural objects, firearms, clothing, hand tools, and transportation

objects. In addition, several artifacts were found that either had little interpretive value for this project, could not be definitively identified, or could not be confidently linked to a specific period. These have been excluded from the discussion.

4.5.1 Ceramic Food and Beverage Related Artifacts

Ceramic artifacts are among the most abundant types of material culture found on most nineteenth-century and early twentieth-century archaeological sites. Throughout these periods they underwent frequent stylistic and morphological changes that were directly correlated to technological innovation and ever-evolving fashion and taste. These transitions have been well documented and researched – particularly within the nineteenth century – and as a result, ceramics are among the most useful diagnostic artifacts (Kenyon 1980a). They are a valuable dating tool that can be used to speak to their owner's socio-economic status, taste, and social practices.

Ceramics make up the largest category of artifacts associated with the Rogers period. When analyzing these ceramics they were first divided up into ware-types, then decorative styles, and finally by rim, body and base sherds. Unexpectedly, with the exception of plain white wares, there was very little overlap in the decorations found. As a result minimum vessel counts could be easily determined by looking at decorative styles. In total, the assemblage is composed of 78 sherds, which represent a minimum of 19 ceramic vessels. Of these, 8 vessels (made up of 49 fragmentary pieces) were found at the site of the sawmill building. The remaining pieces were collected from Area B. Unfortunately only small quantities of most ware-types were discovered, and those that

were found are very fragmentary. As a result the exact form of most vessels could not be identified.

General functions, however, could be determined. Combined, the ceramic vessels were used as both fine dinnerware and domestic kitchenware. The dinnerware assemblage is made up of refined white earthenware, produced in various decorative styles, and rockingham ware. Utilitarian ceramics include coarse earthenware and yellowware. An inventory of these ware-types and their decorative styles is presented below.

Refined Earthenware

In the middle of the eighteenth century English potters developed a new ware-type known as creamware. Due to highly successful marketing campaigns, creamware quickly gained popularity. The introduction of this new type of ceramic, along with the contemporaneous industrial revolution, would forever change the pottery industry in England and her colonies (Miller 1980). This laid the groundwork for ceramics in the nineteenth and early twentieth centuries.

Creamware was the first of a new type of ceramic known as refined earthenware. Between the mid-eighteenth and the middle of the nineteenth century three major types of refined earthenware emerged: creamware (common from 1760-1830), pearlware (common from 1780 until 1850) and whiteware or ironstone (common after 1830) (Kenyon 1980a). Alongside the development of these ware-types came the introduction of new decorative styles and techniques. In general, decorative techniques were directly

linked to value (Miller 1980, Manson and Snyder 1996). Ceramics that required more skill and time to decorate were sold at a higher price (Miller 1980).

White-Bodied Refined Earthenware

White-bodied refined earthenware from the Rogers period included 2 pieces of pearlware with the remaining 76 being refined white earthenware and ironstone. This is concurrent with the fact that refined white earthenware and ironstone were dominant ware types of the late nineteenth and early twentieth century. Unfortunately, due to the highly fragmentary nature of the collection and the striking similarities between refined white earthenware and ironstone, it was impossible to separate these ware-types with any degree of certainty. As such, they have been grouped together and collectively referred to as whiteware.

In total, a minimum of 13 individual white bodied refined white earthenware vessels are represented within the collection. Of these, 11 are decorated. The decorative patterns found include polychrome and transfer print. In addition, 3 had decorations that were too scarce to be diagnostic.

Polychrome

Polychrome refers to a type of hand painted vessel in which two or more colours are used. Frequent images include floral patterns and rim lines. The most common polychrome vessel-types manufactured were bowls and tea dishes (Kenyon 1980a). This

is reflected in the findings from the Roger's Site. The single polychrome sherd that was found exhibits traces of a floral pattern and the formal characteristics of a teacup. Kenyon suggests that: "Polychrome painted ceramics occur throughout the 19th century although by c.1870 plain white granite teawares virtually supplanted the more decorative but less durable painted ceramics" (Kenyon 1980a: 4). Surprisingly, there was no evidence of plain teawares found within the Rogers period contexts.

Transfer Print

Transfer printing was a process, which, as its name suggests, involved transferring a printed image directly onto a ceramic vessel (Copeland 2010). This process allowed for the same image to be continually reproduced; as a result, entirely matching sets of dishes could be manufactured (Jones 2009). Transfer printed vessels were the most valuable type of readily available ceramics, particularly in the early nineteenth century (Jones 2009, Miller 1980, Manson and Snyder 1996). The earliest decorations were produced exclusively in blue, but by the mid nineteenth century transfer printed vessels were being manufactured in a wide assortment of colours including brown, black, purple, red, green, and light brown (Samford 1997). By that time, a new type of transfer print known as flow, a process where ink is intentionally blurred, also emerged (Collard 1984). Ceramics printed in the flow fashion were even more valuable than regular transfer printed wares (Collard 1984, Jones 2009).



Figure 21: Examples of transfer printed ceramics found in Rogers period contexts.

Combined, there were 10 transfer printed sherds found in association with the Rogers site, representing a minimum of six vessels (Figure 21). Transfer printed dishware was often sold in sets, and surprisingly no two artifacts exhibit the same decoration. This suggests that the Rogers likely had several distinct sets of transfer printed dishes. However, it is possible that they had one or two mismatching sets. Moreover, while the sherds were recovered from relatively undisturbed areas, transfer printed vessels are still produced and it is conceivable that some of the examples found may be later, intrusive materials.

Yellow and Buff Bodied Refined Earthenware

Along with the development of new types of whiteware, the nineteenth century also witnessed the introduction of yellow and buff bodied refined earthenware. Two types, yellowware and rockingham, were discovered at the James M. Rogers Sawmill.

Yellowware

Yellowware was a cheap utilitarian ceramic type fired with a clear glaze that highlighted the colour of the body (Richardson 2013). Common vessel types included storage containers, bowls, pitchers, and cups (Richardson 2013). While most yellowware vessels were used for food purposes, chamber pots were also manufactured. Combined, these items could be found in a variety of decorative styles such as mocha, slip banding, molded relief, underglaze painted, finger trailing, and luster (Richardson 2013). Yellowware ceramics were most commonly produced in the Derbyshire Region in England. Nevertheless, from the middle of the nineteenth century until approximately the 1930s, Canadian potters, particularly in Quebec and Ontario, also manufactured yellowware vessels (Webster 1971, Collard 1984). Chronologically, yellowware has been produced since the 1840s and it continues to be made today. Its peak period of use dates from approximately 1870 until 1900 (Richardson 2013).

A total of three yellowware sherds were found in Rogers period contexts, representing a minimum of two vessels. One sherd exhibits blue decorative relief banding.

Rockingham

Rockingham, like yellowware, had a buff to yellow body. Instead of a clear glaze, however, it was coated with a brown slip (Franzen 1992). Unlike yellowware it was often used for dishware such as coffee pots and mugs (Collard 1984). Nevertheless, it too was a cheap ware-type meant for everyday use (Franzen 1992). Only one example of rockingham was found in association with the Rogers occupation.

Coarse Earthenware

As refined earthenware gained popularity it displaced the once dominant coarse earthenware and stoneware. Coarse earthenware - which had commonly been used for a variety of functions, including fine dishware - came to be manufactured almost exclusively for utilitarian purposes such as kitchenware, storage vessels, flowerpots, and occasionally as jugs and vases (Kenyon 1980a). Coarse earthenware was commonly produced in Canada (Webster 1969 and 1971, Collard 1984).

Only four sherds of coarse earthenware were found in association with the Rogers household, and no two pieces belong to the same type. Three are red-bodied wares (Figure 22) and include maritime ware, along with a black lead glazed coarse earthenware and a greenish brown lead glazed coarse earthenware. The fourth is likely a fragment from a buff bodied coarse to medium earthenware bottle fragment.



Figure 22: Red-bodied refined white earthenwares from Rogers Period contexts; (top) Maritime ware, (bottom left) black lead glazed, (bottom right) greenish brown lead glazed.

Maritime Ware

One sherd is a ceramic type known as Maritime ware. Maritime ware is coarse red earthenware that was made in Canada's Maritimes provinces. Maritime ware was often made using "white tin glazes or white slips under glazes" (Webster 1971: 88). Common vessel types include large milk bowls, crocks, jars, jugs, and pitchers (Webster 1971, Richardson 2013). The insides of vessels were always glazed, however, the exteriors were usually left unglazed. The exception to this rule was pitchers, jars, and jugs, which sometimes had lead glazed exteriors. Commercially, Maritime-made ceramics did not become common until the second half of the nineteenth century and the kilns seem to

have closed before the first quarter of the twentieth century (Maclaren 1972). Saint Mary's University in Halifax, Nova Scotia has a ceramics database that places Maritime ceramics manufacturing within a date range of 1860 and 1900 (Richardson 2013). The artifact found belonged to a hollowware vessel with a thick, white, tin glazed interior and a clear lead glazed exterior indicating that it was a pitcher, jar, or jug.

Bristol- Style Glazed Bottle

Bristol-style glazed bottles were coarse earthenware bottles produced between 1835 and 1900 (Richardson 2013). These vessels were typically used to hold beverages or preserves. While initially manufactured in Bristol, such bottles came to be made in other areas including Nova Scotia (Richardson 2013). Only one sherd recovered from the James M. Rogers Sawmill is thought to have belonged to a Bristol-style glazed bottle.

Additional Coarse Earthenware

A second sherd is coarse red earthenware with a greenish-brown glaze. This artifact may have been manufactured in Canada, and possibly even the Maritimes but this is difficult to say definitively. It may have also been made in Ontario or Quebec. The piece likely dates to the late nineteenth century.

The third piece of coarse earthenware is from a red bodied hollowware vessel. It has a thick black lead glazed exterior. The interior portion of the vessel is missing, but it too would have been glazed in order to make the object watertight.

4.5.2 Glass Food and Beverage Related Artifacts

Glassworks of the nineteenth and early twentieth century shared many characteristics with the contemporaneous ceramics industry. The glass trade, for example, was propelled by the introduction of new and improved means of transportation that allowed for easier imports and exports. Moreover, glassworks too had seen a revolution in the late eighteenth century that witnessed a transformation in both the production and decorative methods used in glass manufacturing. Similarly, these new industrialized trends were continually improved upon, resulting in notable chronological sequences. As such, understanding these transitions can allow archaeologists to glean important information from glass artifacts making them a valuable diagnostic artifact type (Lorrain 1968). Unlike ceramics, glass was manufactured at an industrial capacity in Canada, notably in Nova Scotia (Maclaren 1974). Among the most notable Nova Scotian glass works were those located in Trenton, which operated around the turn of the nineteenth to twentieth century (Trask 2011).

In total, 24 glass sherds were recovered from Rogers period contexts. When examining these artifacts, diagnostic sherds were first sorted according to their general functions, which consisted of either glass tableware or glass bottles/storage containers. They were then sorted by colour and vessel section. This methodology allowed for the determination of minimum vessel counts. Unfortunately, large vessel portions are often required in order to properly identify exact vessel types, particularly with bottles and jars, and due to the fragmentary nature of the assemblage, functional interpretations were limited.

Bottle Glass



**Figure 23: Bottle Glass Sherds from Rogers period contexts;
(left – right) aqua, black, and dark green.**

The glass assemblage (Figure 23) is made up of a minimum of five individual bottles. This includes one black bottle, one dark green bottle, one aqua coloured bottle, and two colourless bottles. All are cylindrical in form, except for the dark green one that has a square shape. No bottles contain any immediate indication of their function but speculations can be made. Particularly, black bottle glass was primarily used for alcoholic beverages, and aqua was a common colour for soda and mineral water bottles (Lindsay 2013).

Glassware

Among the most significant inventions to hit the glass making industry in the nineteenth century was the pressing machine, which allowed “...attractive inexpensive tableware... (Lorrain 1968: 38)” to be produced quickly and in large quantities. According to Lorrain (1968), pressed glass tableware became a common household commodity by 1845.

Only one piece of glassware was found in association with the Rogers household. This single artifact is a pressed glass rim fragment from the lid of a covered dish. The object contains decorative patterning composed of stippling and diamond shapes. It is highly conceivable that this piece was manufactured in the Trenton glassworks.

4.5.3 Architectural Artifacts

Architectural artifacts, such as nails and window glass, are among the most common types of material culture found on historic archaeology sites. Surprisingly, however, there were few such artifacts found at the James M. Rogers Sawmill in either Rogers period or post-Rogers period contexts. Rogers period contexts contained small quantities of hand made spikes, machine cut nails and spikes, wire nails, and brick fragments. No definitive window glass was recovered. The most important architectural artifact found was a sluice, which functioned as part of the sawmill’s hydraulic system.

Sluice

A sluice was a long wooden box used to direct water onto a water wheel (Robertson 1986). The sluice identified is approximately 320 cm long and 45 cm wide (Figure 24). The wet conditions in which the object was found left it in a remarkable state of preservation. Due to its structural integrity grooves could be seen on one end. When in operation, these were used to hold a wooden gate in place. This gate would have been opened to allow water to flow or closed in order to shut it off. In essence the sluice acted as the mill's on and off switch.

Nails and Spikes

Machine cut nails and spikes were first developed in the 1790s as a replacement for hand wrought nails, which required considerable time to produce. Despite this inaugural date, machine cut nails required time to be perfected and they were uncommon before the 1830s. By the early 1850s they too were replaced, this time by wire nails. Like machine cut nails, wire nails required time to catch on and they are uncommon on sites dating before the late nineteenth to early twentieth century (Noel Hume 1969).

A total of three machine cut nails and four wire nails were recovered from Rogers period contexts along and 19 spikes (Figure 25). The spikes included machine cut, hand



Figure 24: Rogers Mill sluice. Note grooves in the wood at left that held a gate to control water flow.



Figure 25: Examples of hand-made iron spikes found in sawmill location.

made, and un-diagnostic examples. One hand made spike and one machine cut spike were removed directly from the wood of the sluice.

4.5.4 Clothing Related Artifacts

Two pieces of clothing related items were found. They include one white glass button and several portions of a single leather shoe or boot.

Button

The glass button was made using a pressed glass mold process (Ferris 1986). Pressed glass buttons were first invented in 1840, and they were used primarily for shirts (Ferris 1986). Judging by its typology and the context in which it was found, this button likely dates to the nineteenth century.

Shoe/ Boot

A total of 13 shoe or boot remnants were found, all of which are believed to have originated from a single object (Figure 26). Included were stacked leather heelpieces, a presumed instep portion (Quirk and Beaudoin 2011), and iron eyelets and nails. Unfortunately, due to the fragmentary condition of the object, the original shape cannot be discerned. Judging by the size of the heel, however, the item likely belonged to either a woman or a child. Remnants were found amongst both Rogers and post Rogers period

contexts indicating disturbance, but the vast majority were found in association with the earlier occupation suggesting that it likely dates to that period.



Figure 26: Example of leather shoe or boot fragments.

4.5.5 Firearms

A fired bullet casing is the only artifact from the firearms class. The casing has a diameter of 8.8mm, however, its length could not be measured do to poor preservation. Unfortunately, the bullet type was not determined.

4.5.6 Hand Tools

Up until the early twentieth century hand tools and other related equipment were an important part of everyday life in North America. They had a wide variety of functions ranging from (what was then) large-scale production, to common household use. Hand tools collected from Rogers period contexts include three single bitted axe heads, a double bitted axe head, and a cold chisel.

Two of the single bitted axes, the double bitted axe, and the cold chisel had been previously found by Roger Huntley in the area that once contained the Roger's workshop (Figure 27). They were donated during the 2012 field season. The remaining single bitted axe was found in the Jess Brook just west of the dam remains.

Iron axes were amongst the most important and commonly encountered tools in any rural setting. They were used for a multitude of tasks including felling, chopping, and splitting trees, squaring logs, and shaping raw timbers into functional objects. The axes found are all felling axes used to cut down trees. They date from the late nineteenth or early twentieth century (Kauffman 1972).

Cold chisels were used on hard objects, such as stone or metal, in order to shape, break, or carve the raw material. The cold chisel found came from the area that would have contained the Rogers' blacksmith shop. As such, it is possible that the tool was used with the family's forge. It is also this type of chisel that was used to smooth the surface of the stone embankment (Feature 7; see Smith and Horst 1983).



Figure 27: Iron axe heads from Area C. Artifacts donated by Roger Huntley.

4.5.7 Animal Husbandry

A buckle is the only artifact directly associated with animal husbandry. This find is not surprising as historical archaeologist Thomas Kenyon (1984) points out that iron buckles are the most common piece of horse hardware found on nineteenth-century sites. According to Kenyon's guide to nineteenth-century horse buckles, the example found at the Rogers site is a double bar halter harness buckle (Kenyon 1984).

4.5.8 Transportation

Mr. Huntley also found and donated a portion of a carriage shock from Area C. As mentioned, the Rogers family had a carriage shop situated at the location at which this object was uncovered.

4.5.9 Artifact Summary

The Rogers period artifact assemblage is primarily comprised of items related to the consumption of food and beverages. The remaining material culture speaks to the sawmill's architecture, as well as labour, and everyday farmyard activities. These materials will be used to help inform discussions about the James M. Rogers Sawmill as well as the site's social history.

CHAPTER 5: ROGERS PERIOD DISCUSSION

While initial information was obtained through historical and archival resources and the collection of oral narratives, archaeological research has allowed for a broader understanding of the Rogers' household and their lumbering operations. As mentioned, this study has attempted to address three main objectives relating to the Rogers period: to determine the layout and scale of the James M Rogers Sawmill, situate it within the Rogers' household economy, and determine its relationship to Scots Bay's wider industrial economy. The fulfillment of these objectives will be discussed in the sections below.

5.1 Architectural Interpretation

One of the primary goals of this project was to determine the layout and construction of the James M. Rogers Sawmill and its associated hydraulic features. When the study began, it was hoped that enough architectural remains would be found to enable sufficient delineation. However, the scant remnants found during excavation meant that this goal could not be achieved. Nevertheless, the remains did allow for some level of interpretation.

Traditionally, when determining the layout of a water-powered sawmill consideration was paid to the manufacturing of a dam, and subsequently a millpond. The landscape chosen for the James M. Rogers Sawmill was intrinsically suited to such a operation. The location has a natural depression formed by a bank on the south side of the

brook and a hill on the north side with the brook running through the centre. As such, the area could be easily converted into a pond by connecting the hill to the bank using a dam.

The distance from the bank to the hill is approximately 2 meters, and consequentially only a short dam was needed. The remains found indicate that this feature was built out of cobblestones and earth, presumably found on the property. Where the dam ended, similar stones were used to face the hill, thus re-enforcing it and creating a retaining wall. Water was directed from the pond to the mill through a sluiceway.

As mentioned, one side of the mill sat directly on top of the stone ridge that runs horizontal to the southern bank of the Jess Brook. Wooden pillars would have supported the north sides of the mill and they likely extended from sills, as is suggested by feature 8. Material culture and timbers were found directly on top of bedrock indicating that at least some sections were exposed during the time of the mill's operation. This is significant as the bedrock would have allowed for a solid footing.

The remains of a stone ramp on the north side of the brook indicate that the building sat directly over top of the narrow water source. By measuring the distance from the ramp to the stone wall, it is possible to determine an approximate width of the structure. The distance between these components is a span of approximately 6 meters (or 19.7 feet). From this it is possible to extrapolate that the sawmill itself would have been approximately 6 meters wide. The recovered data does not provide insight into the length of the building, however, Craik (1870) states that small simple mills tended to be 20 feet wide and 40 feet long. Combining this fact with the knowledge of the buildings width indicates similar measurements for the James M. Rogers Sawmill.

Further information regarding the construction of the mill building can be gleaned by examining affiliated architectural artifacts. For example, due to the high quantity of large iron spikes found, it can be discerned that the building was constructed out of large timbers fastened together by these spikes. Also of note is the scarcity of small nails and window glass. This may indicate a mill with occasional use or a short operating season and thus only moderate amounts of shelter. Such operations could be left relatively open with only a roof and possibly a back wall. This design would allow for easy movement of logs and sawed boards (Howe 2010). If the building was fully enclosed and contained windows there is high potential that architectural evidence would have been discovered.

The water wheel was located beneath the middle of the building with the saw above the wheel. Water was directed onto the wheel through the sluice. Judging by the distance from the mill dam to the site of the actual mill – approximately 6 meters – the sluice that was found was only one portion of a longer man-made waterway designed to transport water from the pond to the mill.

Despite no evidence of the mill's wheel or wheel pit being located, knowledge regarding these features can be gained by looking at the site's topography. Elevation measurements indicate that the head of water was very low, perhaps no higher than a meter or so above the mill wheel. Howe (2010) suggests that such a low head could only support the use of an undershot water wheel, or flutter wheel, suggesting that such a wheel was used at the James M. Rogers Sawmill. This is not surprising because flutter wheels were the most common type of water wheel used within small sawmills in Nova

Scotia. These wheels could generate enough power to adequately run a single up-and-down framed saw.

Summary

Sawmills were built in a variety of shapes and sizes that were determined in part by environmental conditions. Because water powered mills had an intimate connection to their immediate surroundings, landscape features were influential in their design and local materials were often used for their construction (Howe 2010). Often it is through reading a mill's landscape and the remains associated with it that it is possible to glean information about the operation. In an article regarding New Hampshire sawmill sites, Howe claims that by examining the features relating to a mill's hydraulic system "...we may gain insight into a sawmill building location, size and other characteristics without actually finding its remains" (Howe 2010: 75). This too was the case with the James M. Rogers Sawmill. Rogers' mill no longer exists, but its footprints do remain in the form of archaeological features embedded within the cultural landscape. By reading this landscape and examining associated features it has been possible to piece together a basic understanding of the sawmill's layout and construction (Figure 28). The archaeological remains – or lack thereof – point to a simple operation that used water to power an up-and-down saw. The building itself was small and most likely exposed to the elements indicating occasional rather than continual use (Figure 29). Most notable is the mill's reliance on affordable local building materials and the integration of natural features. Using these materials would have been both quick and affordable. Moreover, someone

could complete such work with only a moderate understanding of mill construction rather than the knowledge of a skilled millwright.

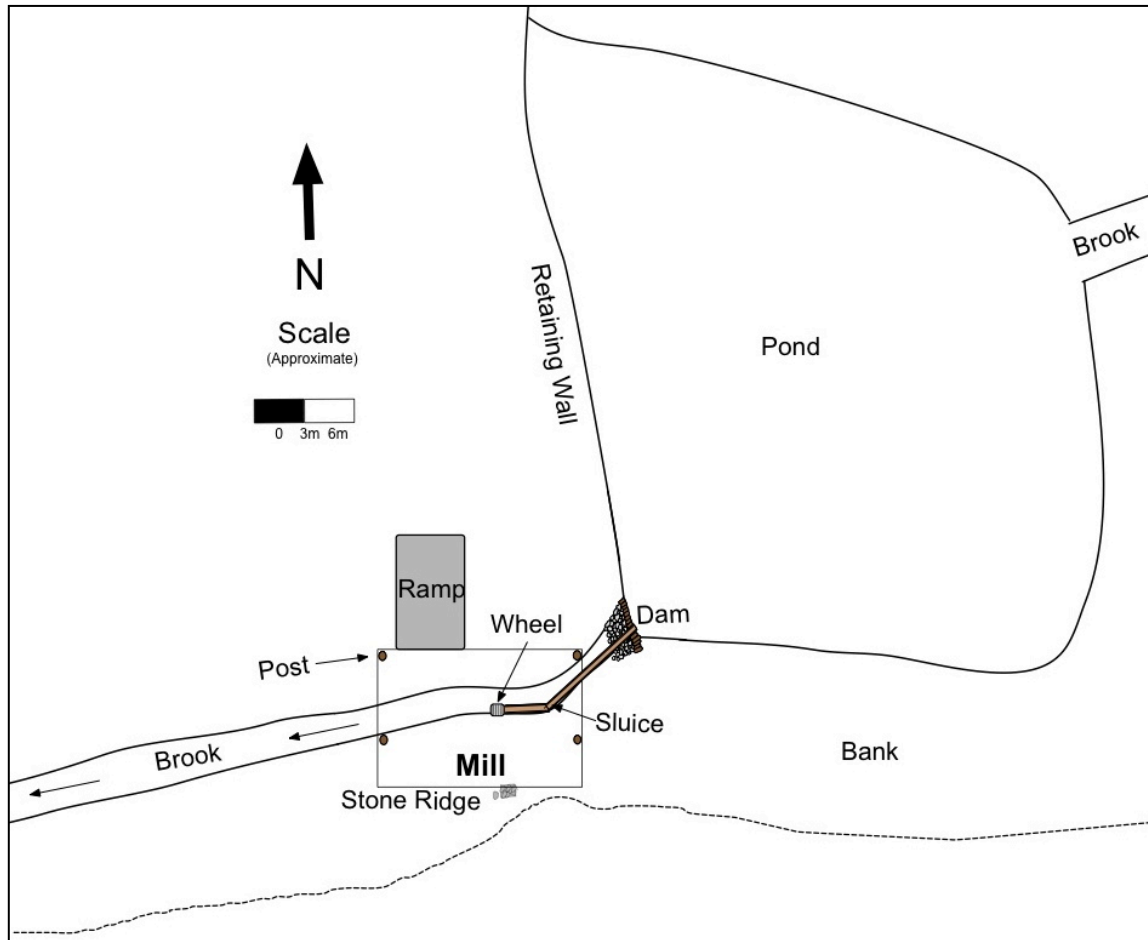


Figure 28: Presumed layout of the James M. Rogers Sawmill structure.

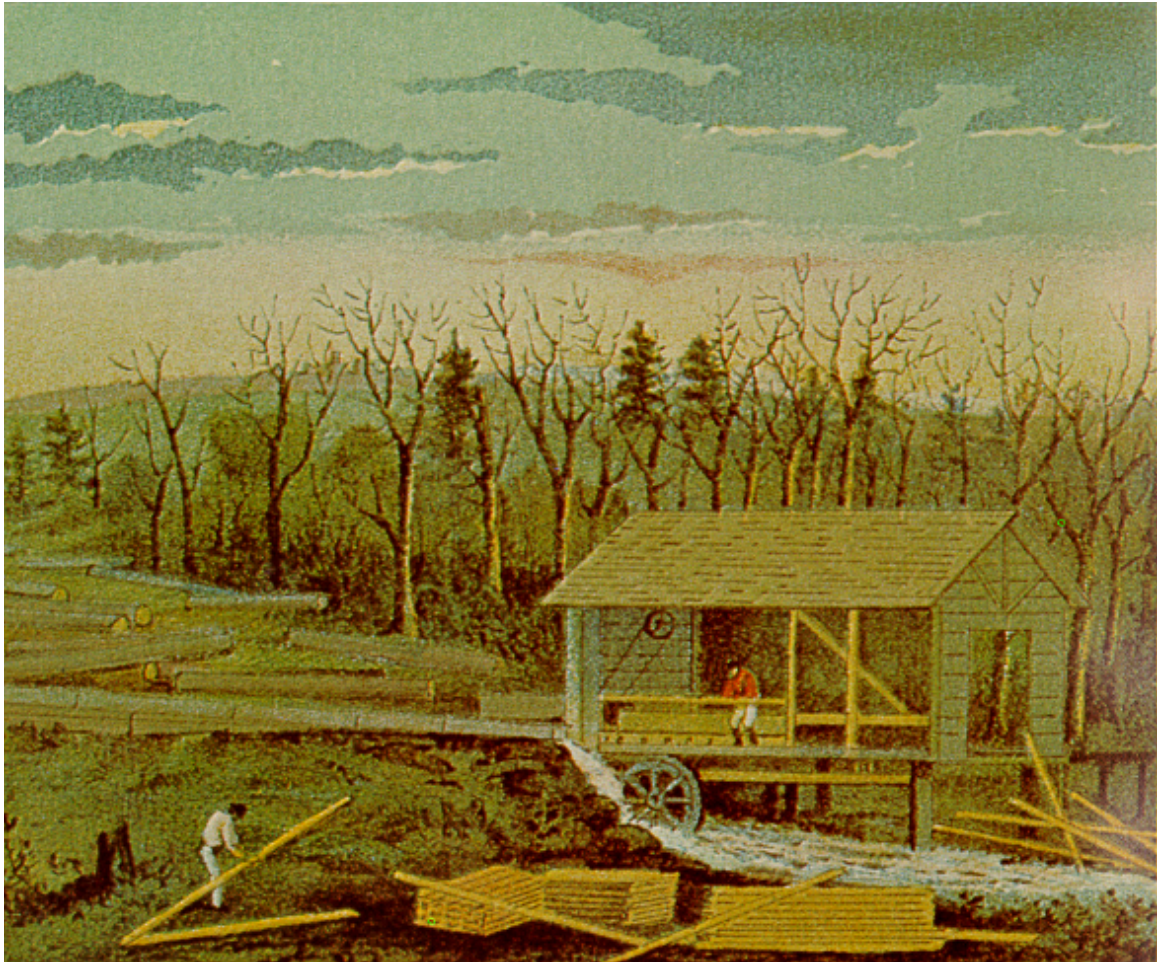


Figure 29: Illustration depicting a water powered sawmill in Upper Canada similar to the James M. Rogers Sawmill in scale and construction. (Source: Mika, Mika, and Turner 1987).

5.3 James M. Rogers Sawmill and its Function Within the Rogers' Household

Economy

When compared to other sawmills in Scots Bay, little information exists concerning the James M. Rogers Sawmill. Community histories contain scarce information about the mill, and family narratives provide few additional details. It is

likely that the reason for this is because the sawmill was a small, short-lived operation used opportunistically to subsidize an income generated principally through agricultural activities. Grover states that: “[t]he influence of capitalism at the household level in the domain of the rural economy is revealed through the farm family’s decision to produce agricultural surplus and participate in the market economy” (2003:71). For the Rogers, it is likely that lumbering would have served the same purpose as surplus crops or livestock. It would have allowed the household to acquire economic wealth, and in return participate in the consumer market. Evidence for the mill’s simplicity and small scale have been presented. Its placement within the family’s overall household economy becomes apparent when examining the landscape of the Rogers property. By looking at the material culture from Rogers period contexts it is possible to inquire into the household’s involvement within the greater market economy, and subsequently the mills role in their ability to do so. These lines of evidence are discussed below.

A Diverse Economic Strategy

Because the Rogers’ had a multi- faceted household industry it is necessary to consider not only their lumbering operations but also the various other elements that made up their economic activities. In addition, it is important to understand how they built an environment suited to their household needs. These industries included farming, woodworking, blacksmithing, oxen shoeing, and wool production. As previously stated, insight into the landscape of the Rogers period has been gained from conversations with Roger Huntley and from aerial photos taken approximately 20 years after the Rogers

period that correspond with the information obtained from Mr. Huntley. These are the best-known sources regarding the Rogers' household economy. Through these sources it becomes apparent that the sawmill was one of many structures that would have defined the household's cultural landscape. Over the 76-year period that the Rogers lived at 152 Rogers Road, they transformed their physical environment into a bustling homestead composed of their home, barns, workshops, storage buildings and animal shelters, along with orchards, fields, and a working woodlot. This economic landscape was a reflection of a well-established household economy in which sawmilling was simply a single component.

The sawmill was a business partnership between James Rogers and his brother-in-law George Steel. It is likely that this partnership was formed in response to an available market; the Steele Shipyard, located only a short distance away. It was owned by Jonathan Steele who was George Steele's brother and James M. Rogers' brother-in-law. If the mill's main function was to provide lumber for shipbuilding, the mill would have seen periods of intense use while vessels were being constructed, and periods of inactivity when there were no ships in the yard. Indications of this can be found when examining historical documents. For example, the Steele shipyard completed a vessel in 1871, but none were finished between 1871 and 1875. Similarly, Rogers is listed as "saw miller" in the Lowell's directory (1870), and "farmer" in the Church's directory (1872), which is likely a reflection of Rogers' increasing his lumber production during the construction of vessels, and limiting it when no ships were being built.

Moreover, Ambrose Church's map shows a road running almost directly from the Steele shipyard to Rogers' mill, and Jess (1941) writes that both James Rogers and Jonathan Steele were among those responsible for the road construction. As such, this was probably established as the main transportation route from the mill to the shipyard. Only a small section of this road now exists.

Social Implications

Through their multi-faceted household economy, the Rogers would have established a level of self-sufficiency. As pointed out by Grover (2003), self-sufficient farmers would commonly produce surplus goods in order to generate financial capital and, in return, participate in the global economy through the consumption of consumer goods. The Roger's sawmill would have allowed for a specialized product that could be sold in order to achieve this objective. Insight into the types of material goods consumed, and their function as an extension of the household, can be seen when examining the material culture found within Rogers period archaeological contexts.

Because the artifact assemblage is small and fragmentary, interpretations must be approached with caution. Nevertheless, certain trends are still suggested by the material remains recovered during excavation. Most notable is the predominance of fine ceramic dinnerware. While a minimum of only 19 ceramic vessels were collected from Rogers period contexts, 13 are dishware. Moreover, 10 are decorated refined earthenware, of which 6 are transfer printed. As previously mentioned, the presence of decorations significantly increased the value of dinnerware items and transfer-printed wares were

among the most valuable. According to Kenyon: "... a high portion of printed sherds on a 19th century site may be an indicator of the occupants wealth, or at least, their middle class aspirations (Kenyon 1980: 7). Therefore, if the small collection recovered is representative of the Rogers' wider consumption patterns, these findings may suggest a solidly middle-class socio-economic standing. This is compelling as it allows for insight into the type of wealth that could be acquired through the engagement of an economic strategy similar to that practiced by the Rogers household. Moreover, in her account of life at the property Maude Rogers stated:

My grandmother used to have a loom, she used to weave blankets. They were nice but we couldn't sleep in them now. She used to knit socks and mittens. She used to knit all winter and used to give a lot to the poor, whose children didn't have any to keep them warm (Martin 2004: 50).

This statement illustrates the Rogers' ability to provide assistance to the poor, which further suggests personal financial security.

The Rogers were active members of their community, particularly through the Methodist church and the temperance movement. This social interaction is represented within the fine dishware that was found within the archaeological record. Fancy ceramics such as transfer-printed earthenware were frequently used for entertaining guests. As such, the presence of these goods within the Rogers' artifact collection might reflect a setting in which entertaining guests was common, and illustrates the desire to present oneself to these guests in a fashionable and respectable manner.

Those living in rural Nova Scotia in the nineteenth and early twentieth century did not have the same easy access to goods and commodities that are enjoyed today.

Nevertheless, historical resources do make mention of stores and store keepers operating in the community, indicating that even in the early days basic subsistence goods could have been purchased within the village. In Lovell's Province of Nova Scotia Directory for 1871, for example, a man by the name of George N. Davidson is listed as "store keeper" (Lovell 1871: 36). Most luxury items, however, would have had to be bought outside of the community in places such as Halifax (Martin 1972).

Alongside providing insight into the Rogers' socio-economic standing and social practices, their refined earthenware also illustrates their indirect participation in international trade. While axes, nails, spikes, and other iron objects were likely produced locally – some of it possibly even in their own blacksmith shop – and at least some of their glass and coarse earthenware was produced locally, all of the refined white earthenware would have been imported into the community (Collard 1984).

In addition to allowing the Rogers to generate economic wealth, the sawmill helped provide ready access to lumber. Carriage houses, for example, were rarely found in rural settings (Noble and Cleek 1995), and the capacity to saw their own lumber could have afforded them the opportunity to have such a luxury. Also, with James overseeing the building of the North Schoolhouse it is possible that the Rogers' provided the lumber for the school's construction thus furthering their social contributions.

As one component of the Rogers' diverse economic strategy the James M. Rogers Sawmill made a valuable contribution to their household economy. Similarly, it was one facet of the Scots Bay timber trade. Its significance within this economy is discussed below.

5.4 The James M. Rogers Sawmill and the Scots Bay Industrial Economy

Scots Bay has a rich history of lumbering and other related forestry based industries. Within this timber economy the James M. Rogers Sawmill was only one of at least 17 sawmills to operate in the community over a 200 year time span. Within the broader community, early sawyers had picked three main spots in which to establish their mills: along Ells Brook, George Jess Brook, and Huntley Brook. These locations were chosen because they met the principle requirements necessary for a successful sawmill operation. They had reliable water sources and an elevation that allowed for a high head of water that was capable of generating substantial power. These places would remain central lumbering hubs for the duration of the Scots Bay timber industry.

In total, 3 mills would come be located on Ells Brook, 4 on the George Jess Brook, and 2 on Huntley Brook. When water powered technology fell out of use, steam and combustion powered mills were constructed on the same locations, or in close proximity to, the earlier operations. Since steam powered mills only required enough water to fill a boiler (not a pond) and combustion engines do not require any water source, their continued presence at these places indicate the continuation of valuable and previously established industrial zones.

While a mill's power source was important, one must also consider transportation routes (Palmer and Neaverson 1998). The mills that were situated on the Ells Brook, the George Jess Brook, and the Huntley Brook were all located along the community's main road allowing for easy access for both logs coming into the mills and sawed lumber being hauled out. Similarly, the new steam powered mills that exported lumber out of the

community chose spots along the coast making for easy loading onto awaiting vessels, which hauled the lumber to market.

The location of the James M. Rogers Sawmill, on the other hand, was acceptable but not ideal. The Rogers' had a woodlot that was in close proximity allowing for easy access to raw materials and the Jess Brook provided a constant supply of water; however, the topography has a very gradual slope resulting in a limited head of water. While it was clearly capable of running a mill, the operation would not have been able to provide the same level of power as a similar enterprise located in an area with higher elevation. Moreover, the Rogers' property is located off of the main road, and outside the village center, limiting transportation options.

The James M. Rogers Sawmill might not have been suitable for a large-scale lumbering operation, however, its importance within the community's industrial economy likely stemmed from its involvement with the Steele Shipyard. Jess notes that "[t]he building of ships at Scots Bay was carried on intervals over a long period, giving employment to a large number of men and making the Village for the time being a prosperous community" (1941: 28). This quote clearly emphasizes the importance of the shipbuilding industry within Scots Bay and its role in the community's prosperity. Rogers' sawmill, like Lamuel Ells' blacksmith shop, would have been one spoke within the wheel of this important industry, providing employment and necessary building materials.

CHAPTER 6: THE POST-ROGERS PERIOD

Despite the Rogers period ending in 1923, their home has been continually occupied by their decedents. Immediately following the Rogers, the Steele's lived in the home for nine years. The Huntley household then replaced them in 1932, and a Huntley household continues to live at 152 Rogers Road today. This chapter will explore the post-Rogers period with particular emphasis on the effects of household succession, the changing economic landscape, and the continuation and evolution of forestry practices.

6.1 Households

Like many farms in the early twentieth century the Rogers' home and property was passed down through their family lineage. Faulkner (2008) argues that household succession is among the most important aspects of farm life:

One of the most important life events on a family farm was household succession, in which a son or daughter assumed control of the property when the parents retired or died. Such a transition can have a significant impact on the domestic landscape as new owners assert their ideas on improvement of the property (Faulkner 2008).

In the case of the Rogers' farm the recipient was Mary Belle Rogers, the only living child of Fales Rogers. Mary Belle was only 10 years old when her father died; as such, despite being granted ownership she did not assume immediate possession. Instead, Joseph Whitman Steele and his wife Ruth Leone Coffill occupied the home until Mary Belle was old enough to take ownership of the residence. Coffill and Steele lived at 152 Rogers Road from 1923 until 1932 with their two children Carol Grace and Cyril Blake

(Jerry Huntley, personal communication, 2012). Unfortunately, very little is known about this period in the site's history.

On June 25th, 1932 at the age of 19, Mary Belle Rogers was married to Charles Parkman Huntley (Province of Nova Scotia Marriage Register, 1932). That same year the couple took possession of Mary Belle's inheritance. This marked the beginning of their phase of occupation and Mary Belle's return to her childhood home. While living at the property the couple had eight children (six boys and two girls) including Roger Huntley (Jerry Huntley, personal communication, 2012). Continuing the custom of farmyard succession, the home is now owned by Roger Huntley and his wife Winifred MacDonald.

6.2 An Evolving Farmyard

When Mary Belle and Charles first lived in the house and began raising their children, the property was much as it had been during the Rogers period. According to Roger Huntley the various outbuildings were all standing when he was a child, but over time the Rogers' structures and orchards slowly fell into disrepair. Eventually the building that once held the blacksmith/ox shoeing shop, the carpentry shop, the meat and salt fish storage room, the carriage shop, and the sheep pen fell to the ground. The two-story henhouse was then torn down, and in the 1970s the building containing the icehouse and machinery shop came down as well. The location of this last standing building is still easily identifiable in an aerial photo taken in 1954 (Jerry Huntley, personal communication, 2012). Jerry Huntley remembers James Rogers' old hand cranked forge

and some piles of coal kicking around his grandparents place when he was a child (personal communication, 2012). Similarly, Roger Huntley claims that he remembers seeing a large sawmill blade in the yard when he was young; presumably, this was the blade from the Rogers' mill (personal communication, 2012). In addition, the location of the family's orchard is still identifiable in a 1954 aerial photo. In August 2012 one small apple tree was the last remnant of the once fruitful orchard. Today, the outbuildings of the Rogers period have been replaced with new structures including a woodshed and a workshop. While these new buildings meet the requirements of the site's current occupants, they are situated in the same general location as the Rogers' original structures, that is, the space continues to function using traditional boundaries.

Landscape changes have also come as a result of transforming household economies. Throughout these transformations, however, forestry has remained an important part of the economic strategies of those who lived, and continue to live, at the site. Their forestry practices are discussed below.

6. 3 Forestry Practices in the Post-Rogers Period

In the first half of the twentieth century Joe Steele owned a portable lumber operation with Cyrus Steele (Martin 2004). In addition, in the 1970s Joe owned a diesel powered sawmill (Deal 2010). Charles Huntley, however, never owned a mill. Instead, like many rural Nova Scotians, he was a farmer who supplemented his income through employment in the forest industry. Huntley worked both in the woods and in sawmills. He

spent six years working in the William Tupper and Sons Sawmill and one winter working in an operation known as the Dakin Sawmill (Jerry Huntley, personal communication, 2012).

When he was not working in mills Charles Huntley spent his winters employed in the woods where he and his horses "...were hired to haul the trees out to the brow" (Jerry Huntley, personal communication, 2013). With the exception of one winter working in a lumber camp in Hants County, all of his work was done around the community of Scots Bay, thus allowing him to return home every night after work (Jerry Huntley, personal communication, 2012).

6.4 Archaeological Evidence: Material Culture

Because this study has focused primarily on the Rogers period, and more specifically the James M. Roger Sawmill, no archaeological research was directed at the later periods of occupation or the landscape features associated with them. During the course of excavations, however, post Rogers period contexts were discovered. When the Steele's, and later the Huntley's, took over the Rogers' home they too disposed household waste in middens located around their property. Evidence of such deposits was identified in two primary locations. The first was a two meter squared excavation unit located on the north side of the Jess Brook in area A. Within this unit firmly datable post Rogers period artifacts were found situated above earlier materials. A denser quantity of post Rogers artifacts were then found in a one meter squared excavation unit located nine meters to

the west and one meter south of the 2x2. The following section will explore the artifacts that were found within these two contexts. Because the Steele's occupation lasted for only nine years it was not possible to confidently differentiate between the Steele period and the Huntley period. As such, all materials will be collectively referred to as coming from the post Rogers period.

6.4.1 Ceramic Food and Beverage Related Artifacts

Ceramics make up the largest category of artifacts found in association with the post Rogers occupation. In total, 109 ceramic sherds were found, representing a minimum of 13 vessels. Included are white refined earthenware, yellowware, porcelain, and stoneware.

Refined Earthenware

White Refined Earthenware

The post Rogers period ceramic assemblage, like that of the Rogers period, is largely dominated by whiteware serving dishes. This ware-type makes up nine out of a total of 13 vessels from the period. Decorative styles include one blue and one green transfer printed vessel, one tiny hand painted example, one that is too fragmentary to positively identify, and three plain vessels two of which have molded rims. There are also two additional decorative styles not found within the Rogers artifact assemblage: a

probable Victorian majolica ware (Figure 30) and a two toned yellow and white glazed refined earthenware.

Victorian Majolica



Figure 30: Possible Victorian Majolica platter.

Victorian majolica is a molded refined earthenware that was produced by layering colorful semi-translucent slips. Such ceramics were manufactured from the middle of the nineteenth century through to the middle of the twentieth century (Burke 1991, Jones 2009). A total of nine majolica sherds were found, all of which belong to the same

scalloped edged platter. While there is no sign of molding beyond the edges, it is likely that more intricate molding was applied to the base.

Yellow and White Ware

Fragments from a two-tone yellow and white vessel – likely a bowl – were found in a post-Rogers period context. The exact vessel type is unknown. However, in the 1920s and 1930s a fad emerged in which bright colours became highly fashionable. This trend quickly extended to the production of ceramics, which included objects similar to the vessel recovered. As such, it is possible that the vessel found was a product of that fad (Venable and Jenkins 2000).

Yellowware

Only two sherds of yellowware were found in association with the post Rogers period. These two fragmentary pieces likely came from the same vessel. One sherd is the portion of a vessel where a handle attached to the body indicating that the object was likely either a pitcher or a chamber pot.

Porcelain

Porcelain is a highly vitrified ceramic with a translucent or near translucent body and a clear glaze (Jones 2009). The ware type was often used to produce fine dishware, most notably teacups and other vessels associated with tea services. A total of seven

porcelain sherds were collected from post Rogers period contexts, all of which are believed to have come from the same teacup. The cup exhibits traces of a black decal design in a floral pattern.

Stoneware

Stoneware is a ceramic type with a grey to light yellowish brown body that is much harder and more impervious than earthenware (Kenyon 1980, Jones 2009). Stoneware, like coarse earthenware, decreased in popularity with the increased production of refined earthenware (Miller 1980). Two stoneware sherds (Figure 31) were collected from post Rogers period contexts. One is likely an example of Canadian Grey stoneware, and the other is Derbyshire stoneware.

Canadian Grey Stoneware

Canadian Grey stoneware is “...identified by its grey exterior glaze, buff fabric and light blue and white lines which run parallel to the base or shoulder. The interior glaze is often dark-brown or black, but can also be grey as well” (Jones 2009: 102). They were produced between 1899 and 1914 (Jones 2009). The single sherd that was found exhibits a grey exterior and a black interior. The piece is too small to be able to definitively assign a vessel type, but it was most likely used as a storage container.



Figure 31: Stoneware sherds recovered from post Rogers contexts; (left) probable Canadian grey, (right) Derbyshire.

Derbyshire Stoneware

As its name suggests, Derbyshire stoneware was made in the Derbyshire region of England. This salt-glazed ware-type had a highly vitrified grey body, a brown exterior, and a brown to buff coloured interior. Derbyshire stoneware was used predominately for storage vessels. It was manufactured throughout the nineteenth century (Richardson 2012).

6.4.2 Glass Food and Beverage Related Artifacts

The post Rogers period artifact assemblage contains a total of 99 individual glass sherds. Included are glassware, bottle glass, and mason jar fragments.

Glassware

Molded Glassware

The most frequently encountered molded glassware was a type known as Depression glass. The term Depression glass refers to a category of dishware that was produced between the later 1920s and early 1940s. It was generally cheap and sometimes even free. Nevertheless, Depression glass was produced in many different colours and patterns making it affordable yet fashionable (Mark 2000).

Four distinct examples of Depression glass were collected, each of which can be definitively linked to specific makers. They include a colourless, ribbed, bowl fragment (Figure 32), a Jadeite saucer (Figure 33) (Petrillo 2003) and an unknown milk glass base both made by Fire King, and an Aurora Blue hollowware vessel made by Hazel Atlas Glass Company (Schroy 2008).

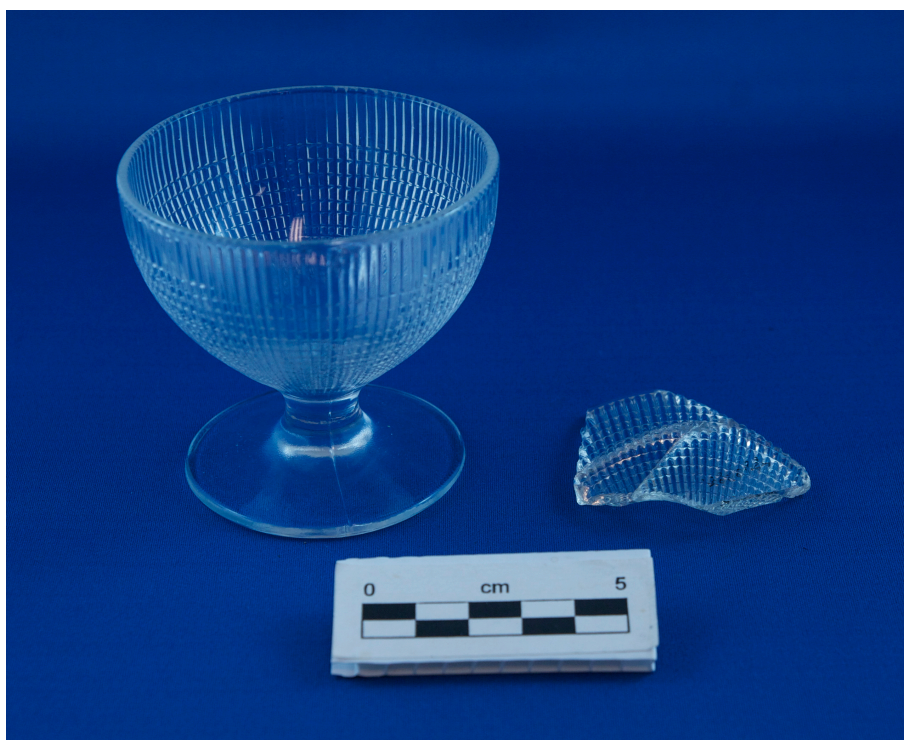


Figure 32: Colourless, ribbed, depression glass. Example on right was recovered from a post Rogers period context. The example on the left is from a private collection and is shown for comparison only.



Figure 33: Jadeite Fire King saucer fragment.

Two additional types of molded glassware were recovered from post Rogers period contexts. One is a flat piece of colourless glass in a shape that suggests it may have belonged to a decanter. The second is a small milk glass vessel with a pattern molded onto the side. It is likely a salt or pepper shaker from the first part of the twentieth century.

Acid Etched Glassware

A single piece of acid etched glassware was discovered. Due its small size, however, its function and decoration could not be determined.

Glass Bottles and Storage Jars

In the early twentieth century a wide assortment of glass storage vessels such as bottles and jars were manufactured. The post Rogers period assemblage contains a minimum of 12 such objects. Included are one green, one blue, one brown, one aqua, one colourless-aqua, and seven colourless vessels. Within the glass assemblage five machine-made bases and three machine-made bottle finishes were identified, indicating – as expected – that the vessels were manufactured in the late nineteenth century or later. In addition, two ground lip finishes were found which date from the second half of the nineteenth until the first quarter of the twentieth century (Lindsay 2013). Unfortunately, as was the case with the earlier bottles, most are too fragmentary to be of interpretive

value. Nevertheless, the definitive functions of some examples can be derived. Included are one soda bottle, two mason jars, one sterilizer, and one medicine bottle.

Soda Bottle



Figure 34: Evangelina Soda Bottles. Fragment on right was recovered from Post Rogers period contexts. Example on left from private collection and used for display purposes only.

Among the most complete glass artifacts found were the remains of an Evangelina Soda bottle (Figure 34). Beginning in the second half of the nineteenth century carbonated soda and mineral water became popular beverages; this was a trend that

continued throughout the twentieth century. Evangeline Soda was a Nova Scotia based company. A photograph in the Nova Scotia Archives collection, taken by E.A. Bollinger, displays bottles which are identical to that found at the James M. Rogers Sawmill. The photograph was taken in 1941 suggesting a similar production date for the example recovered (Bollinger 1941).

Glass Jars

The post Rogers period glass assemblage includes rim pieces from two ground lip mason jars. The ground lip process involved a vessel being snapped out of a mold and then having its lip ground down. This process eliminates the sharpness of the rim and allowed for a better seal (Jones and Sullivan 1989).

Baby Bottle

Two sherds were found that are believed to have belonged to a baby bottle. Both have measurements embossed on the side that resemble those on bottles that were made by the Dominion Glass Company in the late nineteenth or early twentieth century (Stevens 1967).

Medicine Bottle

Three body sherds from a large colourless medicine bottle were found. The object contains measurements and traces of embossed lettering, however, the words cannot be

discerned. A flared lip machine-made bottle finish found in the same context, is believed to belong to the same vessel, though, a mend could not be made.

6.4.3 Metal Food and Beverage Related Artifacts

In the nineteenth century an overwhelming majority of food and beverage related items were made of either ceramics or glass. By the early twentieth century, however, metal kitchen and dishware was also being produced. Most notable were enamelware and aluminum ware.

Enamelware is a term that refers to enamel coated metal objects. First invented in the United States in 1799, enamelware began to gain popularity throughout the nineteenth century and it was common by the early twentieth century. Enamelware was used for a wide variety of domestic objects ranging from toiletries to cookware and tableware. The benefits of enamelware were many: it was cheap, durable, lightweight, easy to clean, and in many cases decorative (Snodgrass 2004). Advertisers boasted about the inability to differentiate enamelware from ceramics upon first glance. In the early days, however, these benefits came at a cost. Up until the first quarter of the twentieth-century much of the enamelware that was produced contained toxic chemicals that were hazardous to users health (Conlin 1979). In total, three pieces of enamelware were recovered from the James M. Rogers Sawmill site. These include a blue marbled coffee or tea pot spout (Figure 35) and two pieces which are plain white.

By the turn of the nineteenth to twentieth century enamelware manufacturers came to face considerable competition from aluminum kitchenware producers (Snodgrass 2004). Like enamelware, aluminum was lightweight and highly durable. In addition, aluminum was rust resistant giving it an edge over enamelware objects.



Figure 35: Blue Marbled tea or coffee pot spout.

Only one piece of aluminum ware was found. This item bears the “WearEver” makers marks. WearEver began manufacturing aluminum ware in 1903 and continues to do so today (WearEver 2013). The exact function of the object found is unknown, but it appears to be either a type of cup or a lid.

6.4.4 Household Furnishings

The term household furnishings is used to categorize artifacts that were required for household comfort, such as heating and light (Canada Parks Services 1992). The only recovered artifact that can be classified under household furnishings is a stovepipe damper fragment (Figure 36).



Figure 36: Fragment of a stove damper discarded during the post Rogers period.

6.4.5 Transportation

A large portion of a wooden carriage wheel was found that contained the remnants of spokes and a metal outer rim. It is made of several wooden sections that have been joined using metal fixtures. The form of the metal rim indicates that it held a rubber tire in place. The rubber tire allowed for a smoother and quieter ride, but this extra comfort came at a cost. In a 1905 Sears catalog, for example, a standard grade set of tires cost \$5.98 while a set of tires with rubber rims cost \$19.00: over three times the price (Sears 1905). Despite this artifact being found in a post Rogers period context, it may have originally belonged to the Rogers household and been discarded at a later date.

6.4.6 Hand Tools

In addition to the early axe heads that were found, Roger Huntley also uncovered and donated a small hatchet head that dates to the middle of the twentieth century. Mr. Huntley believes that he or one of his brothers owned the hatchet when they were children.

6.4.7 Electricity/ Technology

By the early twentieth century electricity had become a common utility in most cities and some towns. In many rural areas, however, it was introduced at a much later date. The community of Scots Bay was not hooked up to the grid until 1945 (Martin 2004). Despite this late introduction, one object recovered from the Rogers site – a slate

based knife switch – suggests that electricity was being produced at the site prior to the introduction of commercial electrical services (Figure 37). Basic knife switches were used to turn an electrical current on or off. It is highly unlikely that large-scale electrical generation was undertaken at the site, but this item does suggest that some degree of electricity may have been produced. This could have been achieved using a make or break engine, and may possibly have been used to power farm equipment. In addition, one of the family’s descendants found a brass pressure valve in close proximity (Joel Huntley, personal communication, 2012), which could have belonged to a similar type of engine.



Figure 37: A knife switch, which suggests early electrical use.

6.4.8 Additional Artifacts

As with the Rogers period artifact assemblage, the functions of certain items from the post Rogers period could not be definitively determined. These included items such as machinery fragments, metal pipes, and a rough wooden hub, not from a wagon wheel, with the remnants of the four spokes still attached.

6.4.9 Artifact Summary

Like that of the early period, the post Rogers period artifact assemblage is made up predominately of objects relating to the consumption of food and beverages. In addition, small quantities of architectural materials were found as well as tools and other types of equipment. These objects will be used to inform discussions on the post-Rogers period in the next section.

6.5 Post-Rogers Period Discussion

The James M. Rogers Sawmill was the primary focus of this study. However, through the course of researching the mill significant information and artifacts were found which relate to later occupations. In response to these findings, this section will examine the farm's succession and the economic strategies of the post Rogers period.

Household succession was one of the most significant events in the lifecycle of many historic farms. Predecessors would often plan ahead to insure their descendants' prosperity through the management of fields, woodlots, and other factors that made up

their household economy (Grover 2003). In this respect, landscapes were shaped in order to prepare for the transferring of ownership. Despite this planning, succession was frequently one of the primary events responsible for the alteration of farmyards and their associated structures. Grover emphasizes this:

Interestingly, each household that lives in a dwelling, often within a short period of moving in, will begin to modify or alter a residence or house lot, such as renovating or expanding the dwelling, moving and razing outbuildings, or changing the locations of fence lines and other landscape features (Grover 2003: 127).

Between the 1920s and the 1940s (the onset of the post Rogers period) the effects of succession on the landscape were dramatic. During this time Nova Scotia was in the middle of a significant transition that saw the decline of rural industries, the abandonment of many of the provinces farmyards, and the centralization of employment opportunities. With the development of improved refrigeration and transportation systems, farmers from outside of the province could feasibly import products into Nova Scotia, and according to MacKinnon (1991):

With improvements to the provincial road system and the diffusion of motor vehicles across Nova Scotia in the 1920's and 30's, many family members discovered that steady work in a nearby town or village was preferable to the physical, repetitive labour associated with working the land. Salaries, rather than the uncertain returns which could be gleaned from the land began to support rural households, and a large number of farmsteads were gradually transformed into rural residences for urban workers. Overgrown pasture land, unused barns (i.e. No manure pile at the back), and tiny kitchen gardens were landscape features of these farms (Mackinnon 1991: 236).

In addition, by the late nineteenth century there was already a steady decrease in the number of farmers who practiced artisanal trades like blacksmithing and wool farming

(MacKinnon 1991). This too would have had an influence on the landscape, as the infrastructure required to carry out such activities were no longer needed.

Alongside the decline in agriculture came a decrease in timber prices. In addition, merchantable timber in many rural areas had been previously cut. As a result, by the 1940s the ability for farmers to supplement their incomes through employment in the forestry sector had been drastically reduced (Mackinnon 1991). According to Mackinnon (1991) the work that was available was typically short term and did not pay well.

Despite this trend of farmyard abandonment and the move from rural industries to urban employment, those who lived at 152 Rogers Road continued to engage in a lifestyle similar to their ancestors. The farm remained active and men still found enough work in the woods to supplement their household's incomes.

A glimpse into the social history of the site can be achieved by examining its associated material culture. For example, while the multiple examples of Depression glass were relatively cheap commodities, they were also fashionable. Venable and Jenkins (2000) suggest for example, that Hazel Atlas Glass Company's Modern-tone glassware "...brought pizzazz to middle-class tables..." (Venable and Jenkins 2000: 363). The porcelain teacup and yellow and white bowl are also examples of popular fashionable items. As such, it can be said that despite living in rural Nova Scotia during the Great Depression, the Huntley household managed to acquire goods that were representative of broader national and international trends. However, earlier storage vessels such as the ground lip mason jars and stoneware vessels continued to be used despite their earlier manufacturing date. This is not surprising, as many rural households would re-use such

objects. In addition multiple examples of cheap metal kitchenware were found. Perhaps, then, cheap wares and hand-me-downs were reserved for domestic household use and finer store bought wares were reserved for more formal events.

While the site exhibits considerable continuity, over time there were also changes to the household economy. For example, specialized trades such as blacksmithing and wool production were eliminated and those in the Huntley household went from being sawmill owners to sawmill employees. Moreover, artifacts indicative of early engines suggest a desire to modernize agricultural activities. Examining the household's economic landscape can reveal aspects of this transition. Grover suggests that: "[a]rchaeologically, these changes often appear as a confusing and seemingly random array of features, deposits, and landscape event" (Grover 2003: 127). Fortunately, insight into farmyard changes was obtained through the examination of aerial photos and discussions with Roger Huntley. Through these means it became known that succession at 152 Rogers Road meant significant changes to the landscape in general, and the buildings situated within it in particular. Nevertheless, these changes were gradual as the Rogers' buildings were neglected and fell into disrepair. This was likely the result of the gradual change in structural needs rather than a desire to do away with the features of the Rogers household to start afresh. Moreover, the hatchet head found at the site of the Roger's workshops was found in the same general location as earlier axe heads, indicating that the space was at least temporarily used for similar functions.

Today, the Roger's original home remains occupied by their decedents. The barn they constructed continues to provide shelter for the family's livestock, and Rogers'

great-great-great-grandson still plows the fields with horses just as it has been done for over 150 years. For those who have lived there and continue to do so, the farm is not only a home, but also a place of occupation. While the site exhibits great continuity, much has also transformed since the Rogers occupation. Farming practices have changed, specialized trades have fallen out practice, and new outbuildings - conducive to contemporary needs - have replaced original structures. Within these changes, the Rogers' sawmill has disappeared leaving few traces behind except the residue of features embedded within the landscape.

CHAPTER 7: CONCLUSION

“We study the variety of ways people worked and lived during a revolutionary period of socio-economic transformation. And as a result, we are developing a recognition of the significant social dimensions of the industrial past” (Casella 2005: 9). Lumbering was among Nova Scotia’s first industries and it has an essential place within the provinces’ past. Throughout the course of over four hundred years it has affected almost every community in Nova Scotia. While large-scale sawmills were important to the greater economy, mills varied in size and function: there were hundreds of family-run operations milling for local use. Regardless of size most were influential in determining settlement patterns, serving as a means of employment, and providing necessary building materials.

While considerable information exists surrounding the industry’s technological advancements, economic exports, and entrepreneurial front-runners, smaller sawmills have seldom been the subjects of academic studies. This thesis has addressed that research gap through an archaeological exploration of the James M. Rogers Sawmill: a mid to late nineteenth-century family run operation located in Scots Bay, Nova Scotia. In doing so it has considered four primary objectives: to determine the layout and scale of the James M. Rogers Sawmill, examine the sawmill’s role within the functioning of its owners’ household, situate it within the industrial landscape of the broader community, and look at the site’s continued use following the Rogers occupation.

Informed by the theoretical approaches of Household Archaeology and Landscape Archaeology, a survey and excavations were undertaken in July 2012. The survey

involved intensive recording of features relating to Rogers' lumbering operations. Excavations, however, unearthed scarce remains of the mill and few artifacts that can definitively be linked to the site's industrial activities. Excavations did, nevertheless, uncover a modest collection of material culture pertaining to the site's social past. These objects date from the second half of the nineteenth century through to the middle of the twentieth century. They include, for example, items relating to the consumption of food and beverages, primarily ceramics and glass, as well as those characteristic of transportation and labour. While neither the archaeological features nor the artifacts found were extensive, when combined they allowed for insight into each of the primary research objectives. More specifically, archaeological features were used to create a reconstruction of the sawmill, and the artifacts informed interpretations regarding the site's social history.

Through these means it was learned that the James M. Rogers Sawmill was a small, simple industry that used water to run a single up and down saw blade. It was most likely partially open to the elements, and was presumably powered by a flutter wheel. The mill was constructed out of local building materials found at the site. In addition, attention was paid to natural environment features, which were incorporated into its design. Consideration for the site's natural topography and the utilization of the natural materials meant that the mill was both affordable and relatively easy to assemble. Nevertheless, it would likely have been unable to generate the power required for a major lumbering operation. It is unknown when exactly the sawmill was built or fell out of use, but

documentary evidence suggests that it operated from the late 1850s or early 1860s until around the 1890s.

The James M. Rogers sawmill was merely one facet of the Rogers' overall household economy. It was likely built to cater to an available market, the Steele Shipyard, and used periodically and opportunistically to supplement an income generated principally through agricultural activities. It would have allowed the Rogers household to produce a specialized product from which to generate additional economic wealth and establish themselves as a solidly middle class family. While the sawmill was a significant component of the household's livelihood, it would have also played an essential role within the Steele Shipyard, and in return Scots Bay's overall economic climate.

The Rogers' time at 152 Rogers Road came to an end in 1923. Nevertheless the home continued – and still continues – to be owned and occupied by their descendents. Throughout the early to mid-twentieth century Nova Scotia's rural economy declined. Those who lived at the site, however, continued to practice a lifestyle similar to their ancestors.

In creating a microhistory of one piece of property and the household who generated their livelihoods from it, this study is aligned with broader trends practiced by contemporary industrial archaeologists. While early industrial archaeologists have focused on a heritage-based methodology of recording and documenting sites, many have turned their attention towards building a social framework (Palmer and Neaverson 1998). The approach gained popularity in the 1990s and is still widely used (Casella 2005; Symonds 2005).

While the lumber industry has been fundamental to Nova Scotia's development, it is only one component of Nova Scotia's rich industrial past (Candow 2001). In the 1920s industry began to decline, being replaced instead by a tourism agenda that focused on major adventures of the province's early past (Jack 2010). While important and beneficial to a tourism-based economy, this approach did little to illuminate the culture and identity of the many communities that thrived as a result of industry.

In his examination of Newfoundland cod fishing, Pope (1988), argues that the fishery cannot be truly understood without a knowledge of the life and culture of its employees. The same argument can be made for Nova Scotia's industrial workers. Moreover, by understanding not only major industries but also small-scale family run enterprises, a more comprehensive view of industry as a whole, and a better understanding of the culture, heritage, and identity of much of the province can be achieved.

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