

NINETEENTH-CENTURY BARNs IN ST. MARY'S, NOVA SCOTIA

© Meghann E. Jack

A thesis submitted to the School of Graduate Studies in partial fulfillment of the  
requirements for the degree of

**Doctor of Philosophy**

**Department of Folklore**  
Memorial University of Newfoundland

**May 2018**

St. John's, Newfoundland and Labrador

*For my father,  
Robert Gordon Jack  
(1941-2012)*

The first settlers were handicapped in that they weren't accustomed to the woods, or the use of an axe; but ... men learned on their father's farms, and the second generation were much better and more skilled workers in clearing the new lands. These men ... were builders and constructors, and they had faith and hope in the country. They truly had great courage, and the wonderful thing about it is how soon they pass away and leave their work unfinished, and they are no more.

– “A Journey by Foot at East River St. Mary's,” *Free Lance*, ca. 1929

## Abstract

---

This thesis examines adaptation and change in nineteenth-century timber frame barn building in St. Mary's, a fertile river valley that extends through Pictou and Guysborough counties of Northeastern Nova Scotia. The study assesses how barn design evolved on the St. Mary's landscape through the identification of a basic chronology of local building types: Phase I, The Early English Barn (1800 to mid-century) and Phase II, The Reform-Era Barn (mid-century to early 1900s). The study contextualizes St. Mary's barns in their local geographic and economic settings, and within wider nineteenth-century culture. Barns ultimately reveal changing notions concerning agriculture and the farm in St. Mary's. They address the interdependence of farm productivity and built form, and express the shift towards more intensified, market-oriented, and capitalistic farming strategies in the mid-to-late decades of the nineteenth century. Barns became larger through a process of extension as the century progressed, and incorporated new features such as manure cellars that enhanced agricultural productivity. The barns also speak to the ways ideological discourses, like reform and improvement, influenced architectural choice and how competing cultural attitudes toward traditional continuity and progressive change ultimately moderated the acceptance of new ideas towards farm buildings.

## Acknowledgements

---

It is with a grateful heart for the people of St. Mary's that I finish this thesis. They generously let me into their homes and barns, their living and working spaces, to measure, record, and photograph. I am especially grateful to Frankie Cumming. His was the very first farm I visited and the enthusiasm he showed for my project pushed me to continue. Thank you: Marcia & Went Anderson; Archibald's Dairy Farm [Dale, Ian & Cathy, Robert & the late Isabel Archibald]; Dale Archibald; Eldon & Olive Archibald; Nola & Robin Archibald; Peter Archibald and Helen Archibald; Ray Archibald; Karen (Cruickshank) & Paul Bambrick; Edythe "George" Cameron; Jamie & Sally Cunningham; Jack & Florence Duffy; Dr. Hardy & Barbara Eshbaugh; Betty & Dave Foggo; Aunt Peg & the late Uncle Bobby Fraser; Danny Fraser; Robert Fraser; the late Edith Greene and Elizabeth Greene; the late Harold Greene; Robert & Grace Gunn; Cecil & Marjorie Hattie; Gloria & Allan McKeen; Ian & Linda McKeen; Jessie MacDonald; Luna MacDonald; David & Linda Nadler; Art Pelley & Family; Anne & Kurt Scheid; Lester Sutherland; Katie Smith; Reynold & Ann Stone; Eddie Weir; Meg Wilcox; Janet (Fisher) Wilumsen.

Karen Waugh kindly toured me around the farms of Old Barns and Onslow in Colchester County, and Beau Blois showed me his Octagon Barn. Murdoch & Linda Sutherland introduced me to West Branch, Pictou County farms. Mark Haynes of Havendale, Guysborough County generously spent one afternoon measuring the old Bowie barn with me. Mary Schofield has been a great friend, making connections and finding the Elwyn Archibald barn from Glenelg in its new context as a pool house in the

Annapolis Valley. Troy Wood was kind enough to take an afternoon off from making heritage windows and doors to show me the barn.

Staff at the Provincial Archives of Nova Scotia provided much needed guidance for my first foray into archival work. Marcia Anderson and Helen Gallant at the Sherbrooke Library offered useful resources and assistance. Dave Gillis at St. Mary's Municipal Office also provided archival assistance. Martin Hubley and Craig MacDonald at the Nova Scotia Museum helped me with historical photos and architectural plans in the museum's collections. The people at Sherbrooke Village Restoration have been a great friend to me over the years. I first became interested in the architecture of St. Mary's when I spent my summers employed there as an undergraduate student. Current and former museum staff members including Mark Sajatovich, Keith Gallant, Robert Jordan-Robichaud, and Jamie Anderson helped me make community connections and provided archival information, old photographs, and a quiet workspace.

I would like to acknowledge the generous funding I received from several sources which has helped me to develop and share the ideas in this thesis: the Social Sciences and Humanities Research Council of Canada's doctoral award; Memorial University of Newfoundland's School of Graduate Studies fellowship; two Helen Creighton Folklore Society Grants-in-Aid; three David Buchan Graduate Awards for Folklore Research; the American Folklore Society student travel stipend; the Vernacular Architecture Forum Ambassador's Award and Pamela H. Simpson Presenter's Award, and the Warren Roberts Graduate Student Paper Award from the International Society for the Study of Landscape, Place, and Material Culture.

Adrian Morrison was the most capable field assistant I could have ever hoped for. He scampered across tie beams, he crawled in dank cellars, and he encountered every species of feces imaginable. I owe a great debt to him for the completion of this thesis. Thanks also to my Mum, Maggie Sutherland, and Jerry Pocius who helped with additional fieldwork.

Chris Mouland at the Digital Archives Initiative, Memorial University kindly digitized my field drawings. Emma LeClerc made the maps and Brittany Roberts drew the architectural details.

Many colleagues and friends sustained me intellectually and emotionally along the way, especially Kristin Catherwood (the original Barn-Hunter™ of the Prairie persuasion), Claire McDougall, Emma LeClerc, and Vineetha Warriar. Dr. John Grant offered advice, support, and encouragement, as well as useful references and connections as this thesis progressed. Tom Carter and Richard MacKinnon kindly encouraged my work as a folklorist interested in the study of vernacular architecture.

Dr. Diane Tye supervised this thesis during its final stages. I am grateful for her professionalism, patience, encouragement, and optimism to see me through to the end of all this. I also appreciate the constructive criticisms of my committee members, Dr. Tom Carter and Dr. Sarah Gordon.

Dr. Gerald Pocius has been a guiding force behind this thesis. He challenged me to move outside of my academic comfort zone, to take my interest in buildings beyond aesthetic appreciation. Though I have greatly struggled with vernacular architecture research, he always kept faith in my field capabilities and motivated me to continue in my

work. He has been a constant source of intellectual inspiration and emotional support throughout my graduate studies, and I cannot express enough gratitude for all he has done to mentor me. His dedication to folklife studies and his integrity as a scholar are truly inspiring. I've been lucky to have such a teacher, champion, and true friend all the way along.

My mother always puts things in perspective. She reminds me to look up for guidance. I am so very grateful for the blessing of her presence in my life. My wider family, too, has showed me faith, love, and encouragement throughout this journey. My father died suddenly during the course of my PhD degree. I miss him dearly. He always reminded me that an education was “no burden to carry,” and encouraged me throughout my graduate studies. He did not have much formal schooling himself, but his knowledge was enormous. Through him I came to know and value the past, to recognize the power of place. This study is dedicated with respect and love to his memory.

Together, my father and mother kept up our family's small farmstead. To describe in words what that dear old house and barn mean to me is next to impossible. It is to this place that I will always return, where rest when weary is found on Grampie Wally's kitchen lounge beside the warm woodstove. It is here that I have come to know both home and love, and all that I am, and all that I do, and all that I will ever be, comes from this center of strength.

## Contents

---

Dedication .....	ii
Epigraph .....	iii
Abstract .....	iv
Acknowledgements .....	v
List of Tables .....	xi
List of Figures .....	xii
Abbreviations & Symbols .....	xix
Glossary of Architectural Terms.....	xx
Prologue .....	1
Introduction .....	7
Chapter 1. Conceptual Framework & Methods .....	19
Chapter 2. Phase I: Early Barns .....	73
Chapter 3. Phase II: Reform-era Barns .....	140
Chapter 4. Why Reform Barns? .....	190

Conclusion .....	272
Epilogue .....	281
Bibliography .....	283

## List of Tables

---

Table 1. Number of barns and stables in St. Mary's agricultural districts in 1871 compared to the number of 19th – early 20th c. barns recorded in my 2013-2014 field survey.....	46
Table 2. Production of Hay in St. Mary's, 1851-91.....	122
Table 3. Pre-1850 English type barns and their spatial dimensions documented in St. Mary's.....	125
Table 4. Building occupations from census returns, St. Mary's region, 1838-1901 .....	186
Table 5. Timber Exports, St. Mary's, 1860-61 .....	204
Table 6. Changes in Livestock in St. Mary's, 1861 to 1891.....	206
Table 7. Changes in Livestock in St. Mary's, Pictou County, 1851 and 1891 .....	207
Table 8. Farm Equipment in St. Mary's, 1871. ....	211
Table 9. Account of Monies Received and Expended by the Agricultural Society of St. Mary's, 1855 .....	240
Table 10. Population by district, 1851-1901.....	258
Table 11. Number of occupiers of houses by district, 1851-1891 .....	258

## List of Figures

---

Figure 1. Elwyn Archibald’s barn, Glenelg, just before disassembly .....	2
Figure 2. Archibald-Whidden barn, Newtown .....	3
Figure 3. The St. Mary’s River valley in northeastern Nova Scotia.....	8
Figure 4. Rear view of the Cumminger farmstead, Aspen .....	8
Figure 5. Inset of 1876 A.F. Church Guysborough County map showing Melrose and vicinity .....	11
Figure 6. Left: Samuel Cumminger. Right: Margaret (Glencross) Cumminger.....	12
Figure 7. Rear view of the Samuel Cumminger barn .....	13
Figure 8. Major communities within the study region.....	21
Figure 9. George Fisher barn, Fisher’s Mills.....	23
Figure 10. Pre-1950s extant barns in St. Mary’s at time of survey .....	25
Figure 11. Above: The MacBain farmhouse and barn, Newtown, circa 1955. Below: A “subsequent performance,” the MacBain farmstead today .....	38
Figure 12. Headstone of Samuel and Margaret Cumminger, Evergreen Cemetery, Aspen .....	42
Figure 13. The c.1896 Yuill family Octagonal barn, Old Barns, Colchester County .....	48
Figure 14. Plate from the Illustrated Historical Atlas of Pictou County, published in 1879 .....	52
Figure 15. A pastoral scene of the early Nova Scotia countryside by John Elliott Woolford in Sketches of Nova Scotia, 1817.....	74
Figure 16. Above top: Early 13th century (with 16th and 17th century modifications) Barley Barn at Cressing Temple, Braintree, Essex. Above center: Circa 1600 timber-framed gable roof barn at Matching Hall Farm, Matching, Essex.....	76
Figure 17. Three bay 17th century barn (with linhays), at Little Spray’s Farm, Brightling, East Sussex, England. ....	77

Figure 18. The three bay English barn concept, with center floor and large double doors. .....	78
Figure 19. “On the West Branch of St. Mary’s River, W. Keens” by John Elliott Woolford in Sketches of Nova Scotia, 1817.....	84
Figure 20. Cruickshank English Barn, Lower Caledonia .....	86
Figure 21. Cumminger English Barn, Aspen.....	87
Figure 22. Scaffolding above the stabling bay provided additional loose hay storage and insulation for the animals below .....	88
Figure 23. Plan of Cruickshank barn, Lower Caledonia.....	89
Figure 24. A rudimentary hand flail found in the Bowie barn, Havendale, Guysborough County (left). Fanning mill in Cruickshank barn, Lower Caledonia (right).....	94
Figure 25. Threshing by hand-flail in the winter. Engraving from the December page of the 1839 Nova Scotia Almanak .....	95
Figure 26. Mechanical threshing at the Cameron farm in East River St. Mary's .....	95
Figure 27. Threshing floor bay of the Cumminger English barn.....	96
Figure 28. Isometric framing assembly of the Cumminger barn .....	97
Figure 29. The basic principle of mortise and tenon joinery (left). Roman numeral “I” framing marks inscribed on Cumminger barn members indicate that these two squared timbers belong to each other (right).....	98
Figure 30. Tenon of a post wiggling out of the mortise of the corresponding tie beam in the James Fisher barn, Fisher’s Mills .....	99
Figure 31. Mortise and peg for a lap joint to connect the now removed collar beam to a gable end rafter, Cumminger barn .....	100
Figure 32. Scarf joint on the wall plate of the Phase II John Henry Jordan barn, Newtown .....	101
Figure 33. The English barn is framed by first raising the side wall .....	102
Figure 34. Left: “Flared post” Phase I English barn bent assembly. Right: Phase I “flared post” bent assembly in the Cumminger barn .....	103

Figure 35. Evenly spaced common rafters in the Cruickshank barn. ....	104
Figure 36. Rafter join in Cruickshank barn. Note there is no ridge pole or board .....	104
Figure 37. Progression of the four bents in the Cruickshank English barn, running NE-SW.....	106
Figure 38. Bent variation in St. Mary's barns of all periods.....	107
Figure 39. Interior of Cumminger English barn, showing end bent. ....	108
Figure 40. NE gable end wall of the Cruickshank English barn. Original vertical sheathing is visible on the gable end.....	109
Figure 41. Beveled board edges of the Cruickshank English barn sheathing. NE gable end (left). SW gable end (right). ....	110
Figure 42. Aerial view of the Cruickshank farm, Caledonia .....	112
Figure 43. View from under the Cumminger barn, showing a large, in-the-round floor joist.....	113
Figure 44. Tapered end of the floor joist of Cruickshank barn, sitting on sill.....	114
Figure 45. Post supports under the Cruickshank barn .....	115
Figure 46. Rear view of Cruickshank barn, Caledonia .....	117
Figure 47. Left: Fieldstone pier supporting the S corner of the Cruickshank barn. Right: Retainer wall of fieldstone against bank, supporting the NW sill .....	118
Figure 48. Cellar of Cruickshank barn. Note the bracing coming from the posts .....	119
Figure 49. Bracing extending from post into cellar of Cruickshank barn .....	119
Figure 50. NE gable end of Cumminger barn, Aspen.....	120
Figure 51. View of Cumminger barn in full double English form, showing the grade of the land.....	121
Figure 52. Haymaking on the Ross farmstead, Waternish, sometime in the teens.....	122
Figure 53. Plan of Cumminger English barn with 4 bay variation (Left). The four bay English barn concept (Right) .....	124

Figure 54. Plate II from William Pain's The Carpenter's Pocket Directory (1781).....	126
Figure 55. "Lake on the W. Branch of St. Mary's River" by John Elliott Woolford in Sketches of Nova Scotia, 1817 .....	135
Figure 56. Jarathmael Bowers 1815 gable entry barn, Lowell, Middlesex County, Massachusetts. Looking southwest, interior (left). Looking southwest, exterior (right) .....	142
Figure 57. English-type basement barn with silo, Finger Lakes region, New York State .....	143
Figure 58. Basement barn in St. Marys, Ontario .....	143
Figure 59. Bank barn with forebay extension and masonry cellar stabling below, near Neff's Mill covered bridge on the Pequea Creek, Penn Grant Rd., Lancaster County, Pennsylvania .....	145
Figure 60. View of yard and English style basement barn with forebay extension, St. Marys, Ontario .....	145
Figure 61. Site plan of Samuel Cumminger's farmstead, Aspen.....	147
Figure 62. Plan of Samuel Cumminger's eight bay double English barn in Aspen .....	149
Figure 63. Samuel Cumminger's eight bay extended barn.....	149
Figure 64. Interior of manure cellar, Cumminger barn.....	150
Figure 65. Entrance to manure cellar on the SE lateral wall of the Cumminger barn .....	150
Figure 66. Plan of John Henry Jordan's 6-bay double English barn, Newtown.....	151
Figure 67. Rear view of the double English Jordan barn, Newtown .....	151
Figure 68. Rear view of George Fisher barn, Fisher's Mills .....	152
Figure 69. Plan of George Fisher's 6-bay double English barn, Fisher's Mills .....	152
Figure 70. The extensive and intensive manipulation of the "mental template" of the 3- bay English barn .....	154
Figure 71. Hattie barn, Hattie Rd., Glenelg.....	157
Figure 72. Plan of the Hattie barn, Hattie Rd., Glenelg.....	158

Figure 73. Plan of the upper Tom & George Ross barn, Waternish .....	158
Figure 74. Plan of the lower Tom & George Ross barn, Waternish .....	159
Figure 75. Both the upper and lower Ross barns are sited linearly so that when viewed together, side by side, they appear to flow as a ten bay, bilaterally symmetrical form ...	160
Figure 76. The three bay English barn concept (Left). The six bay double English barn concept (Right).....	161
Figure 77. Plan of Samuel Archibald barn, Glenelg .....	161
Figure 78. Stabling bays are positioned next to each other in the Samuel Archibald double English barn, Glenelg.....	162
Figure 79. Accompanying illustration for the letter “Plan for a Farm Barn,” from <i>The New England Farmer</i> .....	164
Figure 80. James Fisher barn, Fisher’s Mills .....	166
Figure 81. Spatial expansion of the seven bay James Fisher barn, Fisher’s Mills, progressing from the NNW to SSE.....	167
Figure 82. Plan of James Fisher barn, Fisher’s Mills, showing progression of extensions .....	168
Figure 83. How extension was facilitated in the Cumminger English barn. Left: Looking SE, the end bent of the original English barn is to the left, while to the right is the partial bent of the first part of the extension. Right: Looking NW, the end bent of the original English barn is to the right, while the partial bent of the extension is to the left.....	170
Figure 84. Like the much earlier Cumminger barn, extension was facilitated in the third and final phase of building in the James Fisher barn, Fisher’s Mills, by erecting a partial bent next to a complete bent .....	171
Figure 85. Cruickshank barn, Lower Caledonia .....	172
Figure 86. Stone pier (or potentially part of a full wall) supporting both the original English barn sill and the extension sill of the Cruickshank barn.....	173
Figure 87. Failure of the central post in the SW gable end bent of the Cruickshank barn .....	174
Figure 88. William G. Cruickshank barn, East River St. Mary’s .....	175

Figure 89. Samuel Archibald barn, Glenelg. The final extension to this barn is facilitated by fashioning the end of the new wall plate as a knee. The knee is bolted to the post of the last bent of the old form. The rafter is seated on the plate as usual (left). The brace on the opposing side of the bay, by the double doors (right).....	175
Figure 90. Knee bracing in the cellar level of the Hattie barn, Glenelg .....	177
Figure 91. Knee bracing in the cellar level of the John Henry Jordan barn, Newtown...	178
Figure 92. Left: The “straight post with dropped tie-beam” bent assembly. Right: “Straight post with dropped tie-beam” bent assembly in the George Fisher barn, Fisher’s Mills .....	180
Figure 93. Change in bent assembly in St. Mary’s barns, Phase I vs. Phase II .....	180
Figure 94. Phase II bent assembly in the Cruickshank barn, East River St. Mary’s .....	181
Figure 95. Later period Phase II framing method.....	182
Figure 96. Studded framing in the Cruickshank barn, East River St. Mary’s (Left). Studded framing in the Lower Ross barn, Waternish (Right) .....	183
Figure 97. John Duncan Cruickshank at a lumbercamp in the Caledonia area .....	194
Figure 98. Gold mining, lumbering, and shipbuilding in Sherbrooke and surrounds brought industrial development to the region .....	199
Figure 99. Cumminger wagon shed, Aspen.....	209
Figure 100. Osborne Cumminger, grandson of Samuel Cumminger, in front of the wagon shed circa early 20th century .....	209
Figure 101. Plan of George Fisher horse barn, Fisher’s Mills.....	210
Figure 102. George Fisher horse barn, Fisher’s Mills .....	210
Figure 103. Farmer Slack’s slovenly farmyard (left) versus Farmer Snug’s trim and orderly yard, with fat and content livestock (right) .....	218
Figure 104. Built-in cabinetry from the parlour of the McConnachie Gunn house, East River St. Mary’s.....	222
Figure 105. Typical stone retaining wall from the manure cellar of the demolished Erwin Cameron barn, East River St. Mary’s .....	244

Figure 106. Manure floor hatch, James Fisher barn, Fisher's Mills .....	248
Figure 107. Cellar door, Ross Upper barn, Waternish.....	249
Figure 108. "View On St. Mary's River (In A Freshett)" by John Elliott Woolford in Sketches of Nova Scotia, 1817 .....	251
Figure 109. Register of Marks of Creatures, St. Mary's Township Book .....	251
Figure 110. The Cruickshank barn, Caledonia. To the right is the original vertical board sheathing of the gable end of the barn. To the left, the vertical board sheathing, with studs, probably applied when the barn was extended .....	253
Figure 111. View of West Side, East River St. Mary's, with the Adam Gunn barn and farmhouse.....	255
Figure 112. Plan of W.G. Cruickshank barn, East River St. Mary's. Upper level (above). Basement level (below).....	261
Figure 113. W.G. Cruickshank barn, East River St. Mary's .....	263
Figure 114. McConnachie Gunn house, East River St. Mary's, built on the side-hall plan circa 1873.....	267
Figure 115. The framing timbers of the Elwyn Archibald barn, Glenelg, have been adaptively re-used as a pool house at a private property in the Annapolis Valley .....	282
Figure 116. Framing assembly of the re-located Elwyn Archibald barn.....	282

## Abbreviations and Symbols

---

All building dimensions were recorded using the Imperial system. Feet and inches are represented in the following format: 60<sup>5</sup>

Numeral (60) = feet

Numeral Superscript (<sup>5</sup>) = inches

CIHM = Canadian Institute for Historical Microreproductions

NSA = Nova Scotia Archives

## Glossary of Architectural Terms

---

**Bay** — The space between two framing bents, frequently ten feet. As an architectural unit of measurement, the number of bays describes the scale of a barn.

**Bent** — The main structural units of a barn. They are formed when two opposing vertical posts are joined through the tie beam. Bents define bays, and run perpendicular to the roof ridge. Henry Glassie defines the bent as “the view of the frame revealed by a transverse section through the building” (1974, 205).

**Brace** – A reinforcing or supportive piece of timber, usually diagonal or knee, and most frequently found in barns to connect the post to either the tie-beam, wall plate, or sill; helps make the timber structure rigid.

**Byre** – From the old British word for cowshed, the space in a barn where cattle are housed.

**Cellar** – The subterranean level of a barn, typically for sheltering manure.

**Collar beam** – A horizontal timber, well above the tie-beam but below the ridge, that connects two opposite rafters. Working together they form a triangular shape known as a roof truss, which stiffens the structure.

**English type barn** – A three bay structure, typically 30x40 feet, with a central threshing floor flanked by a bay on either side.

**Floor/Runway** – An open, floored space between two bents that runs the width of the barn. Frequently positioned in the center of a barn, it is used for varying purposes including hand-threshing and winnowing grain, pitching hay to and from mows, and storing implements. It is accessed through large double doors.

**Floor Joist** – A horizontal timber, often partially in the round, that is seated into or on the sill; supports the floor.

**Girt** – A horizontal structural timber that connects two posts. A girt, like a tie beam, is a horizontal member of the barn’s framing system but is positioned *below* the tie-beam. The poles or timbers of the mow scaffolding floor usually rest on it. The girt is different from the tie beam because it is never connected to the wall plate or rafters.

**Joinery/Joint** – A technique used to join two separate pieces of timber in order to produce a complex, integrated structural unit. Different joints are employed to meet different requirements (e.g. lap, scarf, mortise and tenon).

**Lap Joint** – A joint made with two pieces of timber by halving the thickness of each member at the end and fitting them together; a joint in which the members overlap.

**Mortise** – The chiseled rectangular hole in a timber into which a tenon is fitted.

**Pin** – A slender, frequently tapered, piece of wood, driven through an off-set hole that works to draw the tenon deeper into the mortise; also used to join rafters. Also called a peg.

**Post** – A vertical structural timber, sometimes flared at the top, on which other framing elements either sit or are fitted into.

**Rafter** – A structural timber, working in pairs, that supports the roof and is positioned on the wall plate; can be either principal or common.

**Rail** —A slender horizontal timber that spans posts on the side or gable end walls, and which sheathing is nailed to; narrower than a tie-beam or girt.

**Scarf joint** – A joint connecting two horizontal timbers in which the ends are notched so that they fit over each other and interlock.

**Sheathing** – The exterior cladding of a barn, typically vertical boards or wood shingles.

**Sill** – Horizontal structural timbers, placed at the lowest level of a building, and that form the envelope or footprint of the building; vertical members, as well as floor joists, are supported by the sill, which is usually placed on a foundation like stone to prevent rot.

**Stud** – A slender, vertical timber normally positioned between the sill and the rail; narrower than a post; in some barn construction, typically on the sidewall, the stud extends from the sill to the wall plate.

**Tenon** – An extending “tongue” on a timber, made to fit into an accompanying mortise hole.

**Tie-beam** – A horizontal structural timber that connects two opposing posts.

**Wall plate** – A horizontal structural timber that runs the length of a barn, sometimes facilitated by a scarf joint, and on which rafters are seated.

## Prologue

Barns catch the eye and hold its glance longer.  
– Robert St. George<sup>1</sup>

---

It was when a barn I particularly loved was torn down that I began to question the consequences of change and consider the possibility of an architectural study of agricultural outbuildings in Nova Scotia. The barn had stood for at least one hundred and fifty years at the crossroads in Glenelg, near twin intervals of deep, rich soil that stretch for about a mile and follow the St. Mary's River. For as long as I could remember the barn had been engulfed in thick brush, and to be truthful I took its presence for granted. I presumed it would continue to weather and decay until it collapsed. With the brush cleared away and the building made ready for disassembly, I stood before it in the humid heat of an August afternoon. Hands on hips, I viewed it in the fullness of its form. I was home for a month's vacation and contemplating what to study next. I put my camera to me eye and photographed the barn (Fig. 1).

The barn stretched for ten bays—about a hundred feet—and had wide vertical boards on the gable ends and grayed wood shingles on the lateral side, which ran parallel to the nearby main road. Aspects of the original form and aspects of repair and renovation were evident. The gable roof was covered in sheets of rusting steel. The low, dry stone foundation remained neat, square, and remarkably unmoved after many generations. Peering inside the wide open doors, I could see that the threshing floor boards were

---

<sup>1</sup> Robert St. George, "The Stanley-Lake Barn in Topsfield, Massachusetts: Some Comments on Agricultural Buildings in Early New England," *Perspectives in Vernacular Architecture*, (1982), 1:7.

scarred by the caulked shoes of impatient work horses, pawing the ground or shifting their weight from hip to hip as their hay cart unloaded. The barn was filled with junk: oil cans, a rusted bicycle, and the artifacts of farming past—cracked harness leather, hemp rope, and a horse drawn roller. Long, with two threshing floors, it looked more or less like all the other barns I knew situated in St. Mary’s. Though a familiar form, it was now a redundant one. The old barn had certainly never held animals or freshly cut hay in my lifetime.



Figure 1. Elwyn Archibald’s barn, Glenelg, just before disassembly. Photo by author.

I stood there and mourned the barn’s imminent loss, its eradication from the rural landscape to which it belonged. Here was a profound symbol of the everyday life of a particular time and place, and I knew nothing about it. Why did it look the way it looked? How was it used? How did it interact with the farmhouse and fields adjacent to it? What did it mean to the people who built and used it? What was its significance upon the wider cultural and historical landscape of this particular region?

Soon after I had begun my PhD studies, I listened to a CBC radio interview with noted Canadian author Jane Urquhart. She was promoting her recent novel, *Sanctuary Line*, centered around an old Ontario farm, and observed that “it is almost impossible now to locate the nineteenth century in the rural landscape in the way that we could perhaps ten or twenty years ago. ... We cannot dismiss the rural experience.”<sup>2</sup> It was a poignant realization for me. The landscape of my youth in rural Nova Scotia had seemed particularly abundant in timber-framed barns, Gothic Revival farmhouses, and lush and long hay fields. But like the barn in Glenelg, such things were mostly gone, razed or left to decay as families transitioned to intensified farming practices or post-agricultural life. While many old farmsteads are still occupied today, they remain only farming memories, the house maintained as the once-productive agricultural buildings crumble (Fig. 2).



Figure 2. Archibald-Whidden barn, Newtown. The barn is clearly in a state of serious disrepair. Photo by author.

---

<sup>2</sup> Interview by Sheila Rogers, *The Next Chapter*, CBC Radio, September 10, 2010.

The rural nineteenth-century landscape pervades Urquhart's writing, and she has remarked that, "when I saw it disappearing I suddenly knew that I wanted to capture it somehow, stop it from fragmenting."<sup>3</sup> Yet all landscapes are fragmentary ones; they are constantly evolving. We see historic landscapes only in part: architectural survivals, the remnants of past human manipulation on the land. Landscapes are written on again and again, and with each successive epoch they preserve faint imprints and outlines of former layers of spatial order and meaning. The influential British archaeologist O.G.S. Crawford reasoned that the landscape is like the medieval palimpsest:

[A] document that has been written on and erased over and over again ... The features concerned are of course the field boundaries, the woods, the farms and other habitations, and all the other products of human labour; these are the letters and words inscribed on the land. But it is not always easy to read them because, whereas the vellum document was seldom wiped clean more than once or twice, the land has been subject to continual change throughout the ages.<sup>4</sup>

When we see the landscape through the metaphor of the palimpsest, we can see that bits and pieces of the past move forward into the present. People must make choices; What is useful? What is important? What should stay? What should be added? What should go? What is obsolete—in utility or style or ideology—must be evaluated as time moves forward. Preservation is therefore a limited concept. The process of decay or change may be slowed down, but it is never stopped. Rather, a landscape is regenerative; the old gives way to the new. The suburban housing development sprawls across the farmer's field, the forest reclaims what was so labouriously cleared by men and women with axes and oxen and will power.

---

<sup>3</sup> Susan Zettell, "Jane Urquhart: On Becoming a Novelist," *Canadian Forum* 59 (1991): 21.

<sup>4</sup> O.G.S. Crawford, *Archaeology in the Field*, (London: Phoenix House, 1953), 1.

What was once modern, popular, and progressive on the built landscape in turn grows old and through the distancing of time or space, is perceived in new ways. As Henry Glassie observed of Northern New England, “elements of later nineteenth century popular culture have been stabilized, passed on, and elevated to folk status,”<sup>5</sup> but these objects were once considered new and progressive. And Howard Marshall adds “what we may herald today as a noble historic house is often the second or third one built on a single farm, and we know nothing of its precursors.”<sup>6</sup> Redundancy and the subsequent destruction of the useless is one way that landscapes evolve in meaning: out with the old, in with the new. For those like Urquhart, however, nostalgia is more palatable; the landscape becomes worthy of not only literary, artistic, and memorial consideration, but also preservation. Perhaps, however, it is only in fictional worlds, like Urquhart’s, that landscapes can be preserved in some pure, fixed form.

The barn in Glenelg, then, is a *word* inscribed on the land, one aspect of one layer written on vellum. Though earlier words grow faint and illegible as time passes, more words are applied, layer after layer. What I came to realize as the barn was torn down was that I could not preserve all such beloved buildings. But I could look to understand the ones that remained. I could attempt to piece together the words in order to form sentences, and in turn achieve a more articulate understanding of the everyday lives of the people that moved across the historic rural landscape. I decided then and there, standing

---

<sup>5</sup> Henry Glassie, *Pattern in the Material Folk Culture of the Eastern United States*, (Philadelphia: University of Pennsylvania Press, 1969), 198.

<sup>6</sup> Howard Wight Marshall, *Folk Architecture in Little Dixie: A Regional Culture in Missouri*, (Columbia: University of Missouri Press, 1981), xi.

before the old barn on a hot August day, that it was the process of change as revealed through buildings and landscapes that would motivate my next study.

## Introduction

---

From the flat, rich intervalles that touch the river, Samuel Cumminger's farm rises in a gentle upland slope to grassy pasture and thick woodlot. With the long barn snug against a bank, the yard scattered with outbuildings, and the Gothic Revival farmhouse an austere overseer of all, the stead faces the winding road that cuts through the scenic St. Mary's River valley, a rural region in northeastern mainland Nova Scotia (Fig. 3). Although most of the fields and back pasturelands are now overgrown with juniper and spruce, rusted post and barbed wire—those last bastions against reclamation—still maintain old farm boundaries.

Around 1835, when Samuel Cumminger was thirty-two years old (b. 1803 / d. 1881), he purchased the farm for £150.<sup>7</sup> It now belongs to his great-great grandson, Frankie. Today, the farmstead is vacant. Frankie lives a few miles up the road with his wife, Joy, in a modern bungalow. The old house sags, the wagon shed is ready to collapse and the barn roof's steel sheeting flaps in the wind, but because Frankie does not believe in tearing down old buildings, the complex is the most complete that I encountered in my research: house, adjacent woodshed, wagon shed, multi-purpose henhouse-pig shelter-privy, and barn all date from the nineteenth century (Fig. 4). The Cumminger farmstead was the first that I visited in my fieldwork, and I will now use it as a point of departure for this thesis, as the place is representative of many period farms along the St. Mary's River valley.

---

<sup>7</sup> Registry of Deeds for Guysborough County, 1839, Book "B", 314-315, PID # 37510286

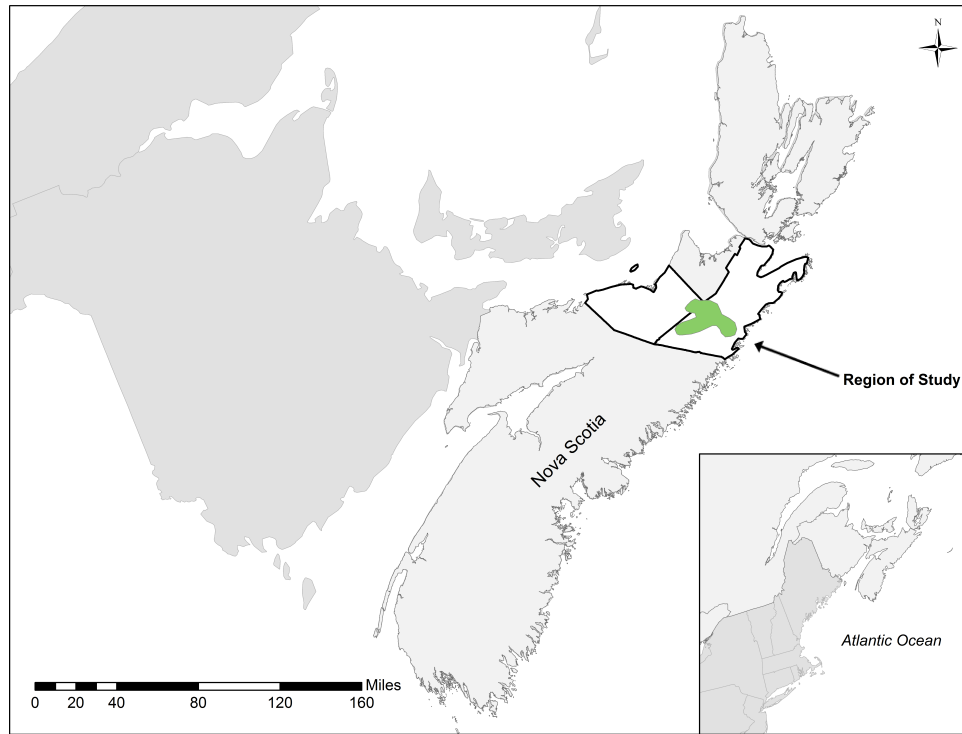


Figure 3. The St. Mary's River valley in northeastern Nova Scotia extends from Guysborough County into Pictou County. Map by Emma LeClerc.



Figure 4. Rear view of the Cumminger farmstead, Aspen. Photo by author.

Samuel Cumminger was not always a farmer, though it is likely he had been residing in St. Mary's for some time prior to obtaining his 200+ acre farm (Fig. 5). Local records show that by the time of purchase he was already married five years to a widow named Margaret McKeen (b.1803 / d.1879), and that two of their eight children had been born. Margaret was a daughter of Thomas Glencross, a Scots emigrant and early St. Mary's township official who farmed a stead in what is now the community of Smithfield, on the West Branch of the river. In the entangled genealogies of early settlement, Samuel purchased the farm from his wife's step-son, John Wentworth McKeen, who was likely involved in the speculative land trade as his name frequently appears in early St. Mary's property transactions. The plot was John Wentworth's "undivided moiety or part" of his father's large farm. The McKeen's, who came to Nova Scotia from New England as planters<sup>8</sup> in the eighteenth century, were among the first families who settled in the St. Mary's area around 1800. John Wentworth's father, Samuel McKeen, was Margaret's first husband and the father of three of her children.

Samuel Cumminger was also descended of planter stock. His grandfather, Henry, had moved from Kent County, Maryland to Nova Scotia in June of 1767, and the Cumminger family had lived near the town of Pictou.<sup>9</sup> But by 1807, at the age of four years, Samuel was orphaned.<sup>10</sup> Where or with whom he was raised is unknown, but Samuel likely came to St. Mary's as a young man with his eldest brother Henry, a

---

<sup>8</sup> The planters were a group of primarily New England agriculturalists and fishers who were recruited to emigrate to Nova Scotia between 1759-1768. They settled the farmlands recently vacated by the deported Acadians.

<sup>9</sup> Guy Wallis and Elma Fraser Perry, *Descendants of Cornelius Comegys in North America* (Private printing, 2012), 371-372. The family anglicized its name to "Cumminger" from the Dutch "Comegys" soon after arrival in Nova Scotia.

<sup>10</sup> Wallis and Perry, *Descendants of Cornelius Comegys*, 374.

sawmiller, sometime between 1823 and 1825.<sup>11</sup> Samuel does not appear to have farmed, or farmed exclusively, as his 1830 marriage bond lists his profession as a millwright.<sup>12</sup> The ambitious Cumminger brothers were no doubt lured to the region by tales of vast tracts of virgin timber and of vacant, fertile land. There would certainly have been work for millwrights in a new settlement eager to clear forests and harvest crops.

Indeed, by the 1820s St. Mary's was one of few remaining regions where deforestation had not progressed, and raw but fertile land was relatively accessible to newcomers. Lord Selkirk had observed in 1803 that both newcomers and second-generation settlers around the town of Pictou were already moving to other parts of Nova Scotia in search of good land.<sup>13</sup> Historian Daniel Samson notes that while partly cleared farms were available for 10s to 20s per acre, "few could afford the £50 to £200 required to purchase farms of 100 to 200 acres." Any habitable land that became available after 1827, he continues, "was either poor or expensive."<sup>14</sup> Thus most immigrants and settlers after 1800 were moving farther up settled rivers or to previously unsettled inland river valleys, such as the Margaree and Mira in Cape Breton, as well as the St. Mary's.

---

<sup>11</sup> St. Mary's Township Book, MG 4, no. 138, NSA. Birth entries in the book indicate that the last child of Henry Cumminger born in Pictou was in 1823, while the first child born in Sherbrooke was in 1825. Henry Cumminger's line of the family went on to found the successful mid-to-late nineteenth century Cumminger Bros. mercantile and shipbuilding firm in the village of Sherbrooke.

<sup>12</sup> Marriage Registrations for Halifax Co., 1830, Book 1800, pp. 5889, NSA. Accessed from Nova Scotia Historical Vital Statistics, Province of Nova Scotia, <https://www.novascotiagenalogy.com> (accessed April 11, 2016).

<sup>13</sup> Pictou Co. Deeds Books 4 and 5, 1810-11, RG 47, NSA.

<sup>14</sup> Daniel Samson, *The Spirit of Industry and Improvement: Liberal Government and Rural Industrial Society, Nova Scotia, 1790-1862*, (Kingston: McGill-Queen's University Press, 2008), 23.

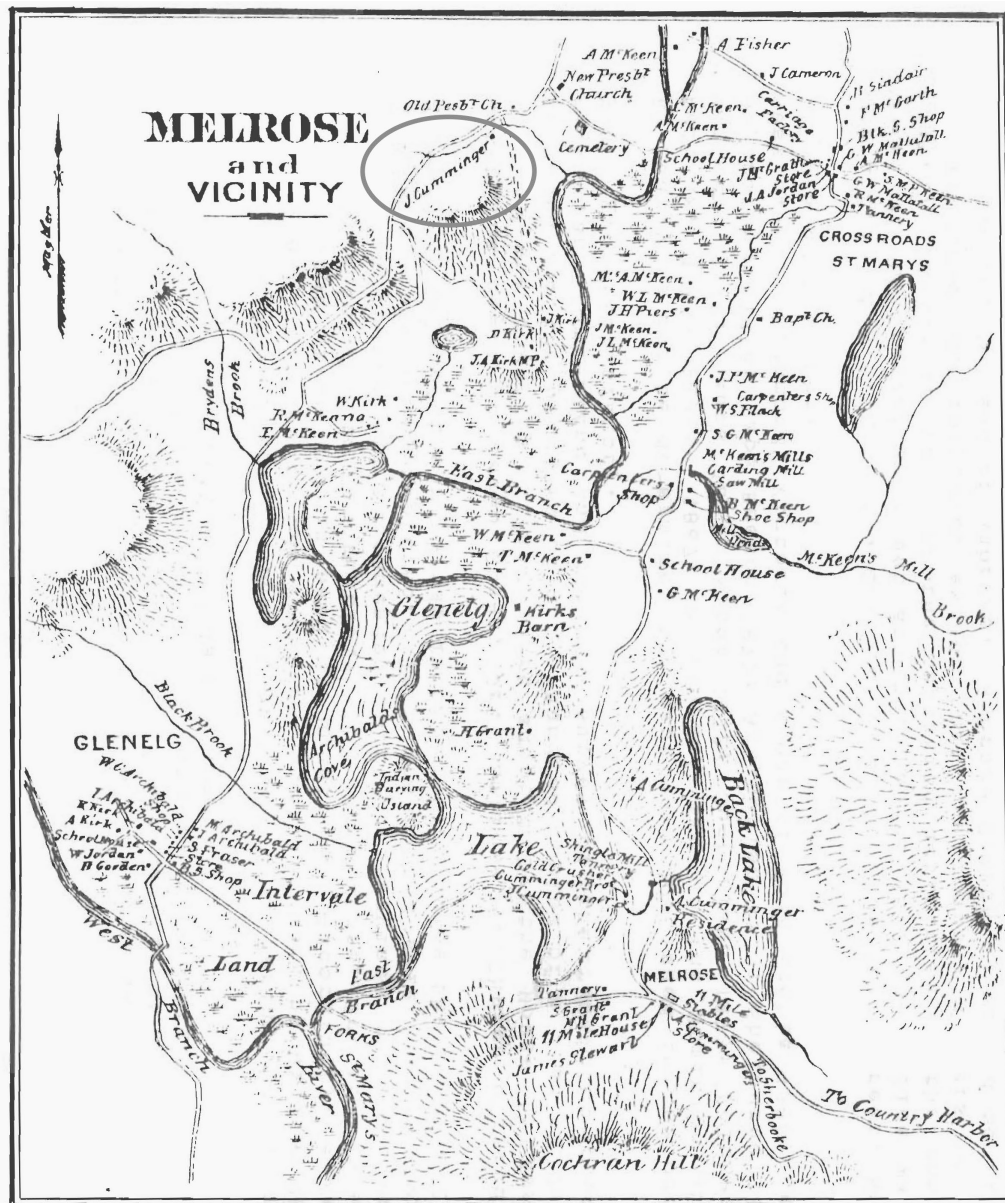


Figure 5. Inset of 1876 A.F. Church Guysborough County map showing Melrose and vicinity, including the communities of Crossroads St. Mary's (now known as Aspen) and Glenelg. The Cumminger farmstead is circled. ("J" is for Jesse, Samuel's son). Note the expansive, fertile "Intervale Land" between the west and east branches of the St. Mary's River (lower left of map), mentioned as near the location of the Elwyn Archibald barn in the previous section of this thesis. Map courtesy Sherbrooke Village Restoration, The Nova Scotia Museum.

Whatever his initial motivations for settlement in a place like St. Mary's, by 1835 Samuel Cumminger was determined to take on farming as his principle source of livelihood. Perhaps heeding the advice of contemporary agricultural reformers who

decried lumbering while extolling the virtues of full-time farming, and who argued for the viability of Nova Scotia as a productive, agricultural region, Samuel, Margaret, and their many children set out on a path that defined the daily experiences of most families living and working within rural nineteenth-century Nova Scotia. From 1835 until his death in 1881, Samuel Cumminger unceasingly worked his farm. The selection and purchase of land was just one of many crucial choices that he would make throughout the course of his life as a farmer. In addition to decisions around cropping, stock, and forest management, perhaps the most important choice that Samuel considered as a farmer was the type of barn to build. The barn, after all, would safeguard his economic livelihood.



Figure 6. Left: Samuel Cumminger. Right: Margaret (Glencross) Cumminger. Date unknown – possibly 1860s? Digital images retrieved from [ancestry.ca](http://ancestry.ca)

### *Samuel Cumminger's Barn*

Barns are honest buildings. Unlike houses, they keep no secrets. They are what they are. Their structure is visible. They do not hide behind layers of sheathing and

insulation, plaster and wallpaper, or fashionable veneers. I think about this as I climb the rickety ladder from the threshing floor to the scaffold above the cattle byre of Samuel Cumminger's barn (Fig. 7). I want to get a closer look at the framing. Frankie, Samuel's great-great grandson, is below and cursing the pigeons that have taken up residence in the rafters. "You be careful now," he warns. The platform is covered in a deep bed of musty hay from a harvest years before. The barn is dark and silent; the only light comes from the open door and a gap in the roof where the wind has blown off a section of steel sheeting. Pigeons flutter and coo above me. The pitching fork—rigged on a track that runs the length of the barn's ridge—hangs above like a spider in the shadows, double-pronged and menacing, ready to snap down with the force of a guillotine.



Figure 7. Rear view of the Samuel Cumminger barn, looking across the over-grown fields from Evergreen Cemetery hill. The farmhouse, to the right of the barn, is obscured by a grove of spruce trees. Photo by author.

I move, carefully, across the hay to the center of the barn. Framing numerals are visible at each joint on the posts and braces, scribed carefully when the frame still laid on

the ground, by an unknown carpenter planning the form of the barn from the design in his mind. Adze marks run in smooth, regular intervals along the wall plates. A few tenon pins have started to wiggle out of their mortise holes. I notice something unusual about the center bent: it is actually two bents, the posts abutted. I follow the framing upward, and observe that two hewn rafters are also placed close together. One rafter has notches for a missing collar. I realize I am looking at what was once the SW exterior end bent of an English type barn. At some point in the barn's existence, likely no more than a few decades after it was built, the end bent collar and exterior boards were removed and an addition was added.

Samuel Cumminger probably built his barn around 1835, the same year he purchased his farm, which makes the building one of the oldest standing barns in St. Mary's. Common in form, common in construction, common in use, the barn was part of a building tradition that was widely accepted across Nova Scotia throughout the first half of the nineteenth century. Roughly 30x40 feet, with a central threshing floor, and following a system of bays and bents, Samuel's timber-framed English type barn conformed to a prescribed mental template of how a barn should look and be arranged that was inherited from the region's New England forefathers. The barn, however, underwent a dramatic transformation at mid-century. Samuel removed the SW gable end collar, girts, and sheathing, and then excavated a roughly eleven-foot deep manure cellar from the side of the slope and walled it with fieldstone. He then proceeded to laterally expand the barn over the cellar through the addition of four more bays, including another cattle byre, floor, and haymow, to create an eight bay structure of nearly 89 feet that doubled the capacity of the original building. Why did Samuel Cumminger alter his barn?

This thesis sets out to answer this question by analyzing the Cumminger barn and the wider architecture of nineteenth-century barns along the St. Mary's River valley.

### *Research Scope and Objectives*

The thesis is concerned with the complex relationships between people, places, and material objects, and focuses on the process of reading and decoding the built landscape for cultural meaning. Architectural and spatial patterning reveals human action, thought, and intention. At the center of this study, therefore, are ordinary farmers and the decisions they made ordering their everyday, material lives: what barns to build, how to arrange them, how to work within them, and what to alter as time progressed.

A case study of one small region over time, the thesis examines the transformation of barns from initial settlement at the beginning of the nineteenth century through to the close of that century. In examining St. Mary's barns, their design and systems of work, and how this changed over time, the thesis is focused at the level of the farmstead. However, I look to place the barns within larger contexts. Although I attempt to recover a picture of the past—a narrative of how the inhabitants of St. Mary's assembled, patterned, and experienced their barns—I must also “ask why the landscape looked as it did and why it changed.”<sup>15</sup> What can barns reveal about the culture of rural nineteenth-century St. Mary's? At the heart of this study, then, are the values and social meanings encoded in the built agricultural landscape of this region. I seek to situate St. Mary's within wider

---

<sup>15</sup> J. Ritchie Garrison, *Landscape and Material Life in Franklin County, Massachusetts, 1770-1860*, (Knoxville: University of Tennessee Press, 1991), 6.

historical and cultural influences, and the socio-economic and ideological contexts of a barn's creation and alteration. Why do St. Mary's barns look the way they do?

In assessing the barns of St. Mary's, we can begin to understand the material impacts of agricultural change, the multi-vocality of architectural expression, and come to know some of the reasons why Samuel Cumming, his neighbours, and their descendants, made the architectural choices that they did. Through an historical and archaeological process of enquiry that is grounded in cultural questions, I show how one community of rural Nova Scotians made and remade their material world in the nineteenth century, and the motivations that initiated the material (re)ordering of their agricultural landscape—a landscape that continues to endure and evolve to find use and meaning for subsequent generations. More than anything, however, I hope this study offers a useful community history based in landscape and architecture.

### *Thesis Organization*

This thesis explores the development and transformation of a regional nineteenth-century timber-framed barn building tradition. I qualify traditional barns as timber-framed structures raised from the period of initial settlement until the beginning of the twentieth century, when post-and-beam, gable roofed barn building gave way to alternative, industrialized designs that favoured lighter framing systems and radically reoriented interior spaces. I examine St. Mary's barn building technology and design throughout the nineteenth century in relation to varying social and economic factors that influenced the spatial organization of the barn, arguably the most crucial built component of the

farmstead. However, my overall analysis is concerned with intention: the spatio-cultural logic of barn design and building. What community values do St. Mary's barns express?

This study assesses how barn design evolved on the St. Mary's landscape through the identification of a chronology of local building types represented in two distinct phases which shape the thesis chapters. I ask: What do St. Mary's barns look like? How were they built? How did they work? Following an initial chapter on the methods and conceptual framework of this study, I proceed to analyze the earliest phase of barn building in St. Mary's, the three-bay English barn (1800 to mid-century). The thesis then progresses to explore the reform phase of extended barn building (roughly mid-century to the early twentieth century). Throughout my analysis of both phases, I plot change and continuity in regional barn building over time through the analytical categories of form, construction, and use in order to determine variation in barn type and the relationship between type. My analysis considers plan, building technology, and principles of design, but moves outward from this materiality to consider space, process, and practice—the barn as a functional tool used by the farm family in systematic ways to facilitate storage and processing, cultivation, and animal husbandry.

In considering these two distinct phases of building, I contextualize St. Mary's barns in their local geographical and economic scenes, and within their wider contemporary culture. Barns ultimately reveal changing notions concerning agriculture and the farm in nineteenth-century Nova Scotia. Samuel Cumming was not alone in his expansion endeavours. Many St. Mary's farmers expended considerable capital and effort to alter or altogether rebuild their barns after the mid-nineteenth century. What forces were conspiring across the Nova Scotia countryside to convince Samuel and his

neighbours to question the usefulness of their English barn forms and devote time, energy, and resources to exchange them in favour of alternative design principles? I argue that St. Mary's barns address the interdependence of farm productivity and built form, and express the shift towards more intensified, market-oriented, capitalistic farming in the middle decades of the nineteenth century.

The barns also speak to the ways ideological discourse influences architectural choice and how competing cultural attitudes of tradition and progressiveness ultimately moderated the acceptance of new ideas of farming. Connecting the phenomena of agricultural reform with the material record of the rural landscape, the final chapter considers the ways the pervasive message of "improvement" spread across the St. Mary's countryside through government initiatives, agricultural societies, and prescriptive literature, and how this impacted ordinary farmer's understandings of what made a "good" barn. I argue that the ideology of improvement was a persuasive influence on St. Mary's barn design, especially in terms of the interrelationship between plan and patterns of agricultural work. Labour efficiency and convenience—two key tenets of the agricultural reform movement—are demonstrated in barn designs that prioritize and strategize the "proper" management of one of the market-oriented farm's most important commodities: manure. I also briefly acknowledge the impact of widespread outmigration and agricultural decline beginning in the late nineteenth century through the early twentieth century in relation to St. Mary's barn building processes. The conclusion brings us to the varied reasons why St. Mary's farmers created the buildings that they did, and the epilogue challenges us to document and preserve the built agricultural landscape.

## Chapter 1 Conceptual Framework & Methods

Home is where one starts from.  
– T.S. Eliot<sup>16</sup>

---

### *Geographical and Historical Overview of Study Area*

One of the longest rivers in Nova Scotia, the St. Mary's drains 1,350 sq. km of land and is comprised of three main parts: the East and West branches, which meet at the Forks to form the Main Branch that extends to the Atlantic Ocean. There are around sixteen settlements along the St. Mary's River, but the majority of the watershed consists of uninhabited backwoods.<sup>17</sup> My study of barns encompasses but a small portion of this extensive river network, following main roads and settlements (Fig. 8).

I approach this research from a local conception of region and the natural course of the St. Mary's River. For the purposes of this study, what I call "St. Mary's" begins at the eastern corner of Pictou County, in the interior of northeastern mainland Nova Scotia. From the top of Rossie's Hill, in the community of East River St. Mary's, my study follows the east branch of the St. Mary's River across the Guysborough County line to the Forks at Glenelg. Here, the river converges with the west branch that flows from Caledonia. From the Forks, the main branch runs to Sherbrooke, a village situated at the mouth of the river. Main roads follow these three river branches along which several small communities are situated. Most of St. Mary's is within Guysborough County,

---

<sup>16</sup> T.S. Eliot, "East Coker," in *The Four Quartets* (1943; repr., New York: Harcourt, Brace and World, 1971), 31.

<sup>17</sup> St. Mary's River Association, <http://www.stmarysriverassociation.com/st-marys-river.html> (accessed July 10, 2016).

considered one of the most marginal zones for farming in Nova Scotia.<sup>18</sup> While rocky shoreline, barrens, and extensive forest characterize the region, St. Mary's is the largest and most productive of a series of fertile river valleys—bright, green jewels scattered across a county otherwise inhospitable to farming.

According to the Guysborough County historian A.C. Jost, the county can be divided into two geographical regions: coastal and inland.<sup>19</sup> This thesis is concerned with the inland region. While the Municipality of the District of St. Mary's encompasses several fishing communities, I could not realistically examine the architecture of the inshore family fishery—which did have small barns—within the scope of this thesis. Besides St. Mary's, the Country Harbour, Salmon and Milford-Haven River valleys in inland Guysborough County contain fertile *intervale* lands well suited for agriculture, but I did not survey agricultural buildings in these areas.<sup>20</sup> I did, however, visit these communities for comparative purposes. Also, some lots in the town of Sherbrooke have extant nineteenth-century stables or small barns. While photographed, I did not closely document or include for analysis these buildings. Instead, I focused on large scale barns that represent more sustained and commercial farming endeavour.

---

<sup>18</sup> According to the 2011 Census of Agriculture, Guysborough County is home to only 2.5% of all farms in Nova Scotia. Nova Scotia Department of Agriculture, Research, and Analytics, "Guysborough County Profile," Government of Nova Scotia, <http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/> (accessed April 7, 2014).

<sup>19</sup> A.C. Jost, *Guysborough Sketches and Essays*, (Guysborough: Private printing, 1950), 1.

<sup>20</sup> An *intervale* is a tract of flat, low land along the bottom of a river or stream. The word is New England in origin, dating to at least the 1640s. <http://www.merriam-webster.com/dictionary/interval> (accessed April 11, 2016).

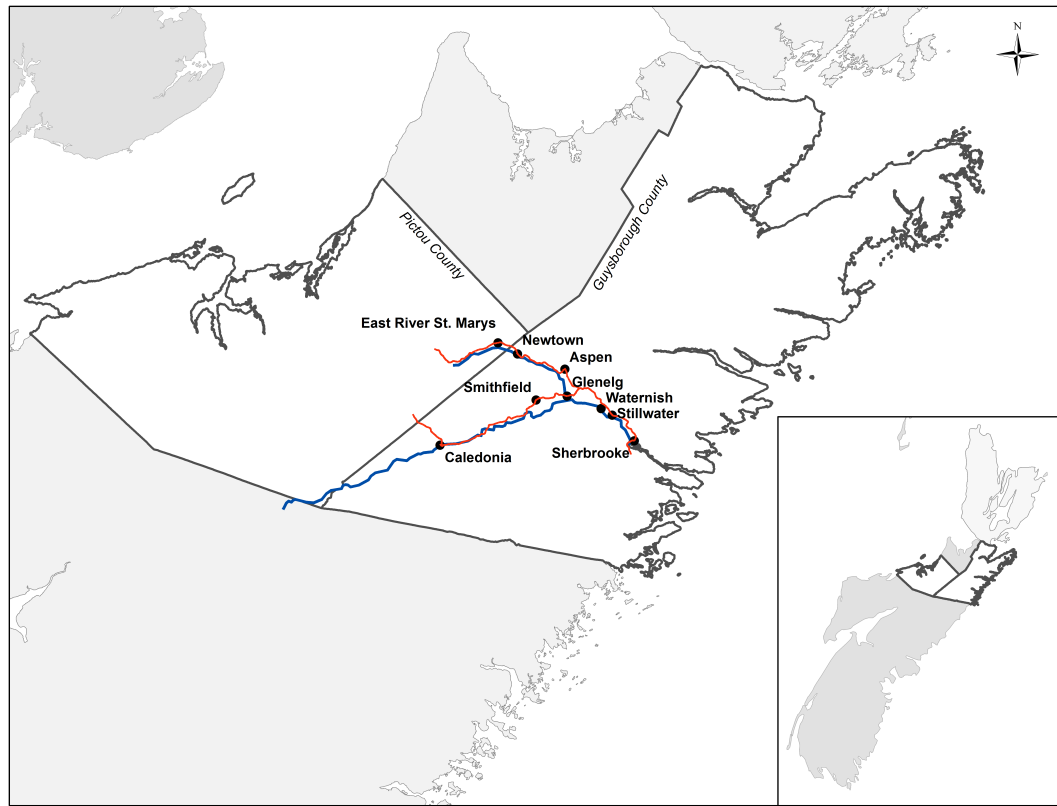


Figure 8. Major communities within the study region. The St. Mary's River is indicated in blue, while the main roads are indicated in red. Map by Emma LeClerc.

Settlement in St. Mary's did not begin until the early 1800s, when first and second-generation New England planters from Truro and Onslow townships in central Nova Scotia, as well as recent Scottish immigrants from near the town of Pictou along the Northumberland Strait, pushed inland to exploit untouched natural resources. The region's rich intervals and ample stands of pine, hemlock, spruce, and maple supported a mixed-farming system. Along with crop production, cattle raising, dairying, and various domestic industries, waged woods work, river driving, and cutting and milling farm woodlots offered a supplementary income for farmers, demonstrating a diversity of farm endeavours and an occupational pluralism that was common throughout Maritime Canada at this time. The farmstead, however, provided the base around which activity revolved

and the primary purpose of most of these farms, as Robert MacKinnon maintains, was to raise a family.<sup>21</sup> By mid-century, shipbuilding was a viable industry in the region and the discovery of gold in 1861 brought new prosperity and population increase to the village of Sherbrooke and its immediate surrounds, but the industry was short-lived. Following deindustrialization at the beginning of the twentieth century, outmigration increased at a staggering rate. Between 1881 and 1921, Guysborough County lost 36% of its total population.<sup>22</sup> Simultaneously, St. Mary's became a popular recreational destination for vacationers and sportsmen. Until the depletion of the wild Atlantic salmon species, the river was world-renowned for angling, drawing the likes of Babe Ruth.

Agricultural decay characterizes communities along the St. Mary's River today. There is minimal agricultural interest, though exploitation of the land, particularly forest and blueberry harvesting on a large commercial scale, is an important aspect of the local economy and landscape activity. One commercial dairy farm, run by the Archibald family, is currently in operation. There are also a few small-scale livestock operations, and another dairy farm is located within the wider Municipality of the District of St. Mary's, in the community of Goshen (not included within the bounds of my study).

Barns, houses, and field patterns dating from the mid-to-late nineteenth as well as the first two decades of the twentieth centuries, remain as material evidence upon the landscape of past spatial and occupational realities. Many area residents hold memories and traditional knowledge of farm and natural resource activity, landscape patterning, and

---

<sup>21</sup> Robert MacKinnon, "The Historical Geography of Agriculture in Nova Scotia, 1851-1951," PhD diss., (University of British Columbia, 1992), 2.

<sup>22</sup> Timothy Archibald, "A Question of Staying or Leaving: Rural Decline in Guysborough County, 1881-1931," Master's thesis, (St. Mary's University, 1987), 2.

social and spatial organization. However, while many old farms are still lived on, they have become largely passive, inactive agricultural spaces that are focused on the dwelling rather than the barn (Fig. 9).



Figure 9. George Fisher barn, Fisher's Mills. Today, barns like these are mainly used for junk storage. Photo by author.

### *Fieldwork*

Fieldwork for this thesis involved the documentation of farmsteads—spatially interrelated complexes of dwelling, barn, outbuildings, yard, and land—through measured drawings, photography, and oral history interviewing.<sup>23</sup> I carried out a focused study of a small number of typical farmsteads, based on their representational qualities, which were identified through a wider visual survey. Although I documented domestic architecture in

---

<sup>23</sup> For a more detailed explanation of methods of documenting vernacular architecture, see Thomas Carter and Elizabeth Collins Cromley, *Invitation to Vernacular Architecture: A Guide to the Study of Ordinary Buildings and Landscapes* (Knoxville: University of Tennessee Press, 2005); Bernard Herman and Gabrielle Lanier, *Everyday Architecture of the Mid-Atlantic: Looking at Buildings and Landscapes* (Baltimore: Johns Hopkins University Press, 1997); Catherine C. Lavoie, "Recording Vernacular Building Forms," in *Recording Historic Structures*, ed. John A. Burns (Hoboken, N.J.: John Wiley & Sons, 2004), 142-157.

my fieldwork, I ultimately decided to focus my analysis on barns exclusively. Not only did I find them to be more compelling built forms than houses, but they have been grossly underrepresented in research.

Considering the extensive fieldwork completed for his study of folk housing in Middle Virginia, Henry Glassie reflects that “it would not have been necessary to study all the area’s dwellings; only one could have been chosen so long as it was the right one.”<sup>24</sup> However, as Glassie well knew, it is impossible to determine the best buildings to measure at the onset of any study, and therefore you must begin with a broader reconnaissance survey. Once I determined my study boundaries, I drove the main roads and gravel roads of the area and photographed every barn I thought to be built before the 1950s, jotting down minimal details of form and location (Fig. 10). Only twenty-one qualifying barns were identified. Because of their rarity, I measured all save one of the extant nineteenth-century timber-framed barns within my case study area.<sup>25</sup> I also measured one early twentieth-century barn. As I travelled to other parts of the Maritimes and more farther abroad, I photographed barns for comparative context.

---

<sup>24</sup> Henry Glassie, *Folk Housing in Middle Virginia: A Structural Analysis of Historic Artifacts*, (Knoxville: University of Tennessee Press, 1975), 2.

<sup>25</sup> I extensively photographed the circa pre-1910 barn I excluded from measurement. I also documented the Bowie English barn in Havendale, Guysborough Co., a community not within my study zone, for comparative purposes.

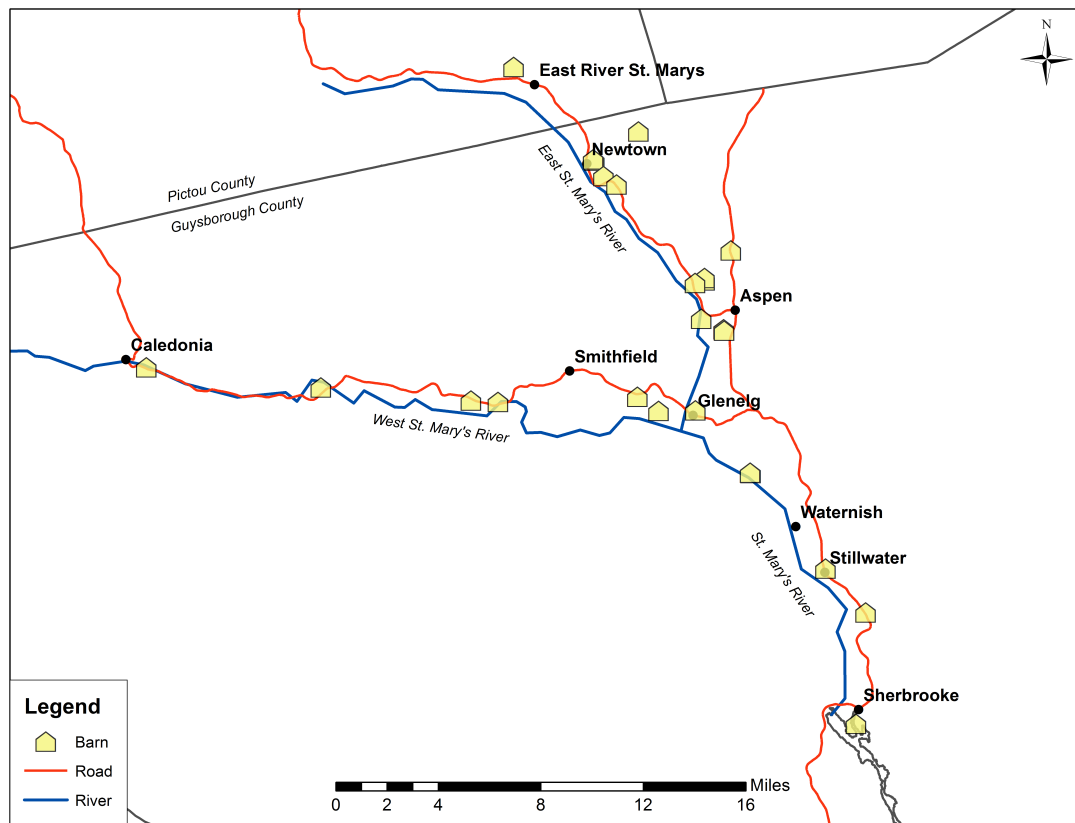


Figure 10. Pre-1950s extant barns in St. Mary's at time of survey (Summers of 2013-2014).

In a world of theft and home invasions of the elderly, a stranger has become less welcomed at the door of the rural dwelling. My status as a local certainly helped facilitate fieldwork. Let me tell you it is not easy to pull into a stranger's yard, knock on the door and ask if you may take a look at their barn. Further, once you pull out your tape measure and drawing board and spend the next eight hours drawing a floor plan, photographing every single angle and detail of the barn, and asking many tedious questions, you are likely to be labeled an eccentric. While vernacular architecture fieldwork often requires an approach to documentation that asks the researcher to make unannounced visits to the yards of potential informants (and it should be noted that I did this), having an established rapport in a community was important for my work. While I was by no means known to

every informant I encountered, my surname or where I was from was at least familiar, and I gained yards by having this established trust-by-proximity.<sup>26</sup> My gender was also to my advantage. As a woman doing vernacular architecture studies, Michael Ann Williams discovered that she was less likely to be perceived as a potential threat, and she was often readily invited inside the house.<sup>27</sup> I also used my local church networks and friend-of-a-friend connections to approach potential informants. I became a research associate at Sherbrooke Village Restoration—a place where I worked several summers as an undergraduate student—and museum staff made many useful connections for me. In short, I encountered minimal resistance from local residents in accessing barns.

In the initial stages of my research, I traveled over many back roads in several counties throughout northeastern Nova Scotia in search of nineteenth-century barns to document. I chose to focus my research on St. Mary's, in the end, because it was practical on a number of levels. I grew up there, knew my way around the landscape, and had a home I could be based from. But I also soon realized that St. Mary's had an exceptional nineteenth-century built agricultural landscape that was still very much intact.<sup>28</sup> Because of the area's geographical isolation from urban centers and the much-lamented reality that

---

<sup>26</sup> It should also be noted that as I move outward from my home community of East River St. Mary's, I become less familiar with communities along the West Branch and parts of the Main Branch of the St. Mary's River. Social networks in rural communities are based on a multiplicity of variables such as spatial proximity, kinship, social positioning, occupation, religious affiliation, duration of residential status and so on. A "neighbour" can be a nebulous concept, and many of the farm properties I visited did not belong to "neighbours."

<sup>27</sup> Michael Ann Williams, "Come on Inside": The Role of Gender in Folk Architecture Fieldwork," *Southern Folklore* 47 (1990): 45-50.

<sup>28</sup> Sherbrooke Village Restoration began in 1969 as an initiative to preserve local heritage buildings and to interpret the lumbering and mining history, as well as the traditional crafts of the region, from roughly the period between 1860 and WWI. The site was largely chosen as an open-air, living history museum because the nineteenth-century landscape had been so little changed.

a railway did not come through the region, farmers never had much access to lucrative markets. I encountered numerous examples of agricultural college influenced early twentieth-century gambrel roofed, concrete cellar-stable barns in the dairying-rich communities of Scotsburn in Pictou County, and the Truro area of Colchester County. However, such modern forms never invaded the St. Mary's landscape because there was no rail access to ship farm products. In St. Mary's, I was fortunate to find a place with a good number of period barns, all contained in a neat, manageable geography.

A countywide survey of barns, though possible on a superficial, windshield level, was also too expansive for the type of project I wanted to do. Much like the studies of folklorists such as Gerald Pocius on the vernacular landscape of Calvert on Newfoundland's Southern Shore, Richard MacKinnon on the domestic architecture of the Codroy Valley in South Western Newfoundland, and Charles Martin on folk building and social change in Hollybush, an Appalachian community, I wanted to encounter the landscape on an intensely local level.<sup>29</sup> The English poet William Blake wrote that we have the potential to see a world in a grain of sand. Focusing my study on one community, one geographical location, and one building type, not only made my fieldwork more manageable but it provided me with a richer understanding of the significance of region and place in the study of buildings.

---

<sup>29</sup> Pocius, *A Place to Belong: Community Order and Everyday Space in Calvert, Newfoundland*, (Athens: University of Georgia Press, 1991); MacKinnon, *Vernacular Architecture in the Codroy Valley*, Mercury Series No. 52, (Ottawa: Canadian Museum of Civilization, 2002); Martin, *Hollybush: Folk Building and Social Change in an Appalachian Community*, (Knoxville: University of Tennessee Press, 1984).

Gerald Pocius has reflected that such studies grounded in the expressive culture of one community are “part of a dying genre” in folkloristic research.<sup>30</sup> Further, that topics with a rural focus hold a particularly peripheral position. While the rural community case study integrating history with living culture was a popular methodological approach for folklorists throughout the 1970s and 1980s,<sup>31</sup> today “the rural, the small community, primary resource activities—all of these are avoided because they are perceived to be intellectually quaint.”<sup>32</sup> (Pocius 2000, xvi). Romantic preservationists have long lamented change in the rural landscape through glossy photo books of picturesque barns, equating traditional farm buildings with the lost innocence of agrarian life.<sup>33</sup> In a similar way, academic folklorists have biased certain material forms: timber-framed barns, farmhouses, and the hand-made objects of traditional rural culture have been the particular subject of folklife researchers.<sup>34</sup> Though such studies can be analytical, they resist multivocality in the interpretation of the landscape and have been reasonably criticized as conditions of romanticism and nostalgia and often the products of folk revival scholars looking to find an alternative to a (sub)urban, capitalistic, and

---

<sup>30</sup> Gerald Pocius, Preface to the new edition of *A Place to Belong: Community Order and Everyday Space in Calvert, Newfoundland*, new ed. (Montreal & Kingston: McGill-Queens, 2000), xv.

<sup>31</sup> Classic texts in this genre of research and writing include Henry Glassie, *Passing the Time in Ballymenone: Culture and History of an Ulster Community* (Philadelphia: University of Pennsylvania Press 1982); Mary Hufford, *One Space, Many Places: Folklife and Land Use in New Jersey Pinelands National Reserve* (Washington: American Folklife Center, 1986); Jeff Titon, *Powerhouse for God: Speech, Chant, and Song in an Appalachian Baptist Church* (Austin: University of Texas Press, 1988).

<sup>32</sup> Pocius, Preface to *A Place to Belong*, xv

<sup>33</sup> These publications are too numerous to cite. One of the better examples, produced in association with the Library of Congress, is John Michael Vlach’s *Barns* (New York: Norton, 2003).

<sup>34</sup> See, for example, Glassie, *Pattern in the Material Folk Culture of the Eastern United States*; Geraint Jenkins, ed. *Studies in Folklife: Essays in Honour of Iorwerth C. Peate* (London: Routledge & K. Paul, 1969); Warren Roberts, *Log Buildings of Southern Indiana* (Bloomington, Indiana: Trickster Press, 1996) and *Viewpoints on Folklife: Looking at the Overlooked* (Ann Arbor: UMI Research Press, 1988); Don Yoder, *American Folklife* (Austin: University of Texas Press, 1976).

mechanized western world through the rural folk and their expressive artifacts.<sup>35</sup> Recent trends in the literature, therefore, attest to Pocius's claim that folklorists have increasingly moved away from rural, landscape-based, stereotypically "romantic" topics towards investigations of more middle-class, (sub)urban, internet-mediated, expressive culture.<sup>36</sup> This distancing from folklore's more romantic and descriptive early rural studies, we can assume, is to align the discipline with more provocative topics researched through more critical or theoretical lenses.

Considering both the challenges and criticisms in the representation of the rural, one premise of this thesis is to demonstrate that agrarian culture is complex, significant, and worthy of critical folkloristic enquiry. We cannot deny the rural experience. The aim of my thesis is not to essentialize rural culture or particular types of rural buildings, such as barns. Rather, it is to show the progressiveness and adaptability of farm families to external influences and economic restructuring in and through patterns of architecture and daily life. This study is therefore influenced by critical writings on the built landscape that recognize the agency of rural people and their nuanced understandings of the world expressed through everyday objects and the everyday movements and actions on the

---

<sup>35</sup> For criticism of romanticism in folklore, and comments on the late-twentieth century shift in disciplinary research foci towards urban and popular cultures, see Richard Bauman, "Folklore and the Forces of Modernity," *Folklore Forum* 16, no. 2 (1983): 153-158 and Barbara Kirshenblatt-Gimblett, "The Future of Folklore Studies in America: The Urban Frontier," *Folklore Forum* 16 (1983): 175-234.

<sup>36</sup> Some recent publications following this trend include Michael Dylan Foster and Jeffrey A. Tolbert, eds., *The Folkloresque: Reframing Folklore in a Popular Culture World* (Logan: Utah State University Press, 2016); Trevor Blank, ed. *Folklore and the Internet: Vernacular Expression in a Digital World* (Logan: Utah State University Press, 2009) and *The Last Laugh: Folk Humor, Celebrity Culture, and Mass-Mediated Disasters in the Digital Age* (Madison: The University of Wisconsin Press, 2013) and anything published in the online, open access journal *New Directions in Folklore*.

farm.<sup>37</sup> This study of vernacular architecture, then, is not so much based on particular subject matter (old, rural, handmade “folk” buildings like barns), but on an *approach* that focuses on both art and artifact (style and aesthetics, technology and typology, spatiality) and wider social history (certain interpretative questions or tactics that probe contexts and mindsets).<sup>38</sup>

### *Some Conceptual Frameworks for the Study of Material Culture*

When I was a girl my father and I would walk through the woods in search of the past. We would pick through piles of foundation rock and old garbage heaps on homesteads long overgrown in spruce trees. It was both visual and tactile work, and we found satisfaction in our excursions because when we handled abandoned objects, we more fully grasped the day-to-day reality of those who lived before us. It was shortly after I began my PhD degree that I realized I did not want to approach the study of culture exclusively through narrative and its methodological correlative, the audio-recorded interview. My field excursions with my father confirmed for me that, as Bernard Herman

---

<sup>37</sup> Such studies include Bernard Herman, *Architecture and Rural Life in Central Delaware, 1700-1900* (Knoxville: University of Tennessee Press, 1987); Thomas C. Hubka, *Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England* (Hanover, N.H.: University Press of New England, 1984); Garrison, *Landscape and Material Life*; Glassie, *Folk Housing in Middle Virginia*; Sally McMurry, *Families and Farmhouses in Nineteenth-century America: Vernacular Design and Social Change* (New York: Oxford University Press, 1988); Nora Pat Small, *Beauty & Convenience: Architecture and Order in the New Republic* (Knoxville: University of Tennessee Press, 2003).

<sup>38</sup> Dell Upton, “The Power of Things: Recent Studies in American Vernacular Architecture,” *American Quarterly* 35, no. 3, (1983): 263; Camille Wells, “Old Claims and New Demands: Vernacular Architecture Studies Today,” in *Perspectives in Vernacular Architecture II*, edited by Camille Wells, 1-11, (Columbia: University of Missouri Press, 1986), 4.

observes, “not all meaningful communication is oral or written ... artifacts speak to us, and provide us with a unique communication of a culture.”<sup>39</sup> It was these early encounters with artifacts—these small things forgotten, this world largely beyond experience, memory, and oral testimony—that spoke to me from my childhood and brought me to a study of the past through ordinary objects.

Material culture is both subject and method.<sup>40</sup> As an approach, it is foremost grounded in the sensory realms of the visual and the tangible. Looking, observing, photographing, drawing, and, complementary to this, touch and affective knowing, characterize my investigations in this thesis. Using the framework of E. McClung Fleming for material culture research, my study incorporates both empirical and interpretative strategies for approaching ordinary buildings. Fleming recommends an integrative, holistic approach in material culture analysis, which recognizes both connoisseurial and contextual perspectives in order to interpret objects for cultural meaning. I engage with buildings on their materialistic level in an effort to make mute artifacts speak on the intention and meaning in their making and use: design (structure, form, type), aesthetics (style, cosmetics or ornament), construction (technique and material of manufacture and the way parts are organized to bring about the building’s function), and function (the uses or role of architecture in society, as well as how the

---

<sup>39</sup> Bernard Herman, “The Objects of Discourse: Evidence and Method in Material Culture Study and Agricultural History,” in *Living in a Material World: Canadian and American Approaches to Material Culture*, edited by Gerald L. Pocius, 31-54 (St. John’s, NL: ISER, 1991), 31.

<sup>40</sup> Two important recent texts that engage with the latest theories and conceptual approaches in material culture research are Dan Hicks and Mary C. Beaudry, eds., *The Oxford Handbook of Material Culture Studies* (Oxford: Oxford University Press, 2010) and Chris Tilley, Webb Keane, Susanne Küchler et al., eds., *Handbook of Material Culture* (London: SAGE, 2006).

spatial arrangement of a building works).<sup>41</sup> I therefore value buildings for their materiality, or their existence as “things.”<sup>42</sup> Buildings, as artifacts, are countable and can be classified, ordered, and compared in chronological and stylistic sequences based on form, pattern, and style.<sup>43</sup> An inherently archaeological approach, I therefore privilege the artifact-as-record. The building becomes an above-ground archaeological site that involves excavation: “peeling back its layers of occupation and use, assembling the traces of change into some sort of logical sequence, and interpreting or “reading” the evidence.”<sup>44</sup>

However, material culture is “culture made material.”<sup>45</sup> Following the assessment and evaluation of the building through identification and comparison with other examples of its kind, empirical categories must be interpreted for human intention, for cultural change, meaning, and significance.<sup>46</sup> As Dell Upton observes, the study of material culture must be an “anthropological enterprise.”<sup>47</sup> Objects must be interrogated in relationship to other expressive products, beliefs, or ideas. As a method, material culture studies therefore uses objects as a primary source of evidence in addressing questions of human thought and action. Objects embody underlying beliefs, assumptions, and attitudes

---

<sup>41</sup> McClung E. Fleming, “Artifact Study: A Proposed Model,” in *Material Culture Studies in America*, edited by Thomas J. Schlereth, 162-173 (Nashville: American Association for State and Local History, 1982), 166.

<sup>42</sup> For a discussion of “thing theory,” which focuses critical attention on the object rather than subject, see Bill Brown, *Things* (Chicago: University of Chicago Press, 2004).

<sup>43</sup> Glassie, *Pattern in the Material Folk Culture of the Eastern United States*

<sup>44</sup> Herman and Lanier, *Everyday Architecture of the Mid-Atlantic*, 2.

<sup>45</sup> Henry Glassie, *Material Culture* (Bloomington: Indiana University Press, 1999), 41.

<sup>46</sup> Fleming, “Artifact Study,” 166-167.

<sup>47</sup> Dell Upton, “Toward a Performance Theory of Vernacular Architecture: Early Tidewater Virginia as a Case-Study,” *Folklore Forum* 12, no. 2/3, (1979): 173-196.

towards culture—aspects that can be unarticulated in verbal and documentary sources yet remain embedded in the materiality of the artifact.<sup>48</sup> The semantics of things is therefore based, in part, on their inherent, tangible qualities. As Bernard Herman further explains, objects become a means to “better understand how and why people acted in particular ways and to assess the larger cultural significances of their actions ... objects are not relegated to the status of simple illustrations but move to the fore as key elements for deciphering and writing the past.”<sup>49</sup> Buildings therefore become an optic through which socio-cultural structures may be illuminated, helping us understand aspects of everyday life—like making, consuming, using, moving, working—and the ideologies that shape those actions.

Within the wider rubric of material culture research is the study of architecture. “Of all the categories of material culture,” Victor Buchli observes, “architecture stands out as an artefact of great complexity, but also as the context in which most other material culture is used, placed, and understood.”<sup>50</sup> Vernacular architecture can be defined as the “architecture of common usage and communication.”<sup>51</sup> Vernacular architecture studies, according to Carter and Cromley, is “the study of those human actions and behaviours that are manifest in commonplace architecture.” Individual buildings (including both their interiors and exteriors), assemblages of buildings, and entire architectural landscapes are

---

<sup>48</sup> John Vlach, Comments, in “Material Culture Studies: A Symposium,” ed. Simon Bronner, Special issue, *Material Culture* 17, no. 2/3 (Summer/Fall 1985): 83.

<sup>49</sup> Bernard Herman, *Townhouse: Architecture and Material Life in the Early American City, 1780-1830* (Chapel Hill: University of North Carolina Press, 2005), 1.

<sup>50</sup> Victor Buchli, “Architecture and the Domestic Sphere,” in *The Material Culture Reader*, edited by Victor Buchli, 207-213 (Oxford: Berg, 2002), 207.

<sup>51</sup> Herman, *Architecture and Rural Life*, 13.

the primary evidence of vernacular architecture research.<sup>52</sup> While the vernacular is a particular type of architecture, vernacular architecture is also an “approach to the whole of the built world,” that emphasizes “the intimate relationship between everyday objects and culture, between ordinary buildings and people.”<sup>53</sup> Its study is not to be confused with architectural history, which tends to focus on art historical periods and individual figures, although the discipline has undoubtedly influenced the way vernacular architecture scholars do their work (and increasingly vernacular architecture scholars have influenced the work of architectural historians).<sup>54</sup>

There are two avenues for the study of vernacular architecture that reflect the influence of Fleming’s approach to material culture, and my thesis attempts to transverse both. The first is to determine “what a building or group of buildings are in terms of their structural, stylistic, or spatial character.”<sup>55</sup> Secondly, at the deeper level, the ideal purpose of vernacular architecture studies is to analyze how those various elements are “brought together in individual buildings and manipulated as media for expressions of thought, everyday interaction, and the signification of social and cultural relationships

---

<sup>52</sup> Carter and Cromley, *Invitation to Vernacular Architecture*, xiv.

<sup>53</sup> Henry Glassie, *Vernacular Architecture* (Bloomington: Indiana University Press, 2000), 21; Carter and Cromley, *Invitation to Vernacular Architecture*, 7.

<sup>54</sup> This chapter cannot assess the full emergence of vernacular architecture studies as a field of enquiry. In short, the movement burgeoned in the 1970s as an alternative to architectural histories that favoured buildings and landscapes of the elite. Scholars involved with the Vernacular Architecture Forum (VAF), the organizing body for North American vernacular architecture studies since 1980, lead the field. For comments on both the emergence and significance of the field of vernacular architecture studies, see Dell Upton, “The Power of Things” and “The VAF at 25: What Now?” *Perspectives in Vernacular Architecture*, 13, no. 2, Special 25th Anniversary Issue (2006): 7-13; Jeffrey Klee “Viewpoint: Fieldwork, 2001.” *Buildings & Landscapes: Journal of the Vernacular Architecture Forum* 19, no. 1 (Spring, 2012): 1-17.

<sup>55</sup> Herman, *Architecture and Rural Life*, 13.

and meanings.”<sup>56</sup> Vernacular architecture is about studying process, and the multiplicity of actions and thoughts surrounding making and using.

Thomas Carter has observed that the impact of folklorists in the study of vernacular architecture has been profound.<sup>57</sup> Henry Glassie pioneered the intellectual groundings of the field through his example of rigorous documentary methods and socio-cultural interpretative theories, while seminal studies by folklorists like Bernard Herman and Thomas Carter also helped define and shape the field.<sup>58</sup> Yet some folklorists seem largely unaware of this intellectual lineage. As the new generation of folklorists disengages from topics of vernacular architecture, the loss, Carter speculates, is already being felt in the field.<sup>59</sup> Without a folkloristic perspective that focuses on documentary fieldwork as a primary research method, studies of vernacular architecture are becoming

---

<sup>56</sup> Ibid.

<sup>57</sup> Thomas Carter, “Where Did the Folklorists Go?: Folklore, History, and the Study of Vernacular Architecture,” *The Folklore Historian* 29 (2012): 34-55.

<sup>58</sup> Henry Glassie’s theoretically groundbreaking study of vernacular architecture is *Folk Housing in Middle Virginia* (1975). Camille Wells comments on Glassie’s impact on the field of vernacular architecture studies in “Old Claims and New Demands: Vernacular Architecture Studies Today,” 2-3. Two prize-winning studies by folklorists in recent years include Herman’s *Townhouse: Architecture and Material Life in the Early American City, 1780-1830* and Thomas Carter’s *Building Zion: The Material World of Mormon Settlement* (Minneapolis: University of Minnesota Press, 2015).

<sup>59</sup> The failure of vernacular architecture studies to expand within the discipline is in part due to the fact that specialists found employment within academia in departments outside of Folklore & Folklife. Thomas Carter, Charles Bergengren, Bernard Herman, Howard Marshall, and John Vlach – to name a few folklorists who focused their research on architecture – have worked within American Studies and Architecture or Architectural History programs. Robert Blair St. George moved to the History department at the University of Pennsylvania following the collapse of the Folklore department there. Michael Ann Williams and Gerald Pocius are two exceptions as their universities have the only Folklore programs that offer graduate level courses in folk architecture, but both faculty are now retired and the future of vernacular architecture studies in their programs remains uncertain. As 2015 President of the American Folklore Society, Michael Ann Williams has recently brought attention to built landscape and historic preservation issues among folklorists. See “After the Revolution: Folklore, History, and the Future of our Discipline,” *Journal of American Folklore* 130, no. 516 (Spring 2017): 129-141. Recent forums at the American Folklore Society Annual Meeting involving Carter, Pocius, and Williams in 2012 and 2014 have also called attention to the important role of ordinary architecture within the field.

increasingly dependent on archival sources exclusively.<sup>60</sup> This thesis, therefore, is centered on folklife's disciplinary assumptions which pay attention "at once to culture's contemporary unfolding and to its historical realities" and that "[bring] to the analysis of landscapes, archaeology, and vernacular objects an integrative methodology."<sup>61</sup> Folklife's research methods and critical analyses satisfy the desire to know one place, its material manifestations, across time.

Concerned with not only material things, but also geographical locations, a folklife approach is therefore well situated for analyses of vernacular architecture. Exemplified in studies like Henry Glassie's *Passing the Time in Ballymenone* (1982), historic architectural analysis is coupled with the wider cultural context of life, work, and ideologies. My research questions, then, are cultural ones that extend to historical actors<sup>62</sup> and I follow a folklife approach in an attempt to comprehend the "entangled relationships between people and things, past and present, and how they are mixed up and changed over time."<sup>63</sup>

---

<sup>60</sup> Carter, "Where did the Folklorists Go?" 44-45.

<sup>61</sup> Henry Glassie, Foreword to *Discovering American Folklife: Essays on Folk Culture & the Pennsylvania Dutch*, by Don Yoder (Ann Arbor: UMI Research Press, 1990), xii; Robert St. George, "Material Culture in Folklife Studies," in *The Oxford Handbook of Material Culture Studies*, edited by Dan Hicks and Mary C. Beaudry, 123-149 (Oxford: Oxford University Press, 2010), 124.

<sup>62</sup> Rhys Isaac's work on colonial Virginia pioneered the anthropological approach to writing history: "Ethnographic Method in History: An Action Approach," in *Material Life in America 1600-1860*, ed. Robert Blair St. George (Boston: Northeastern University Press, 1988), 39-61. See also these two studies by Robert Blair St. George, *Conversing by Signs: Poetics of Implication in Colonial New England Culture* (Chapel Hill: The University of North Carolina Press, 1998) and "A Retreat from the Wilderness: Pattern in the Domestic Environments of Southeastern New England, 1630-1730," PhD diss. (University of Pennsylvania, 1982).

<sup>63</sup> Sam Turner, "Landscape Archaeology," in *The Routledge Companion to Landscape Studies*, edited by Peter Howard, Ian Thompson, and Emma Waterton, 131-142 (New York: Routledge, 2013), 138.

Central to this thesis is the concept of time, and change becomes a thematic frame through which to look at material expression. As I create a chronology of barn types and plot linear change over time, I draw on Bernard Herman's understanding of vernacular buildings in relation to time and performance, which resists seriation. As Herman argues, an artifact has "passed through generations of changes reflective of the hands and minds of many individuals who have manipulated complex and varied ideas in an effort to bring the item into accordance with perceptions of utility or the values of the period."<sup>64</sup> Objects are not "singular statements created at a particular moment in time," but "plural phenomenon modified by a series of creative acts across broad spans of time."<sup>65</sup> Because buildings endure on the landscape so long, they are, invariably, physically modified in accordance with ensuing conceptual notions (Fig. 11). Buildings can therefore be analyzed as a series of performances over time. The initial performance is the first articulation of the building. It is the generative grammar or the "first complete or whole material statements of a given concept, and accordingly, its full set of relations to the context in which it was generated."<sup>66</sup> Subsequent performance is the process of addition, subtraction, improvement, elaboration, and repair wherein the "initial statement via subsequent interpretations may come to be dramatically different from its original expressive values."<sup>67</sup> Subsequent performances, too, can move beyond a physical transformation to changing conceptual notions of buildings. This way of seeing buildings

---

<sup>64</sup> Bernard Herman, "Time and Performance: Folk Houses in Delaware," in *American Material Culture and Folklife: A Prologue and Dialogue*, edited by Simon Bronner, 155-186 (Ann Arbor, MI: UMI Research Press, 1985), 156-157.

<sup>65</sup> Ibid., 164

<sup>66</sup> Ibid., 156

<sup>67</sup> Ibid.

as initial and subsequent performances recognizes the multivocality of the built landscape and of multiple uses and meanings over time. Objects and landscapes have different biographies—different social lives and assigned values—as they go through the series of transformations that any movement through space and/or time entails.<sup>68</sup>



Figure 11. Above: The MacBain farmhouse and barn, Newtown, circa 1955. Image courtesy the Archibald family. Below: A “subsequent performance,” the MacBain farmstead today. The house has

---

<sup>68</sup> Arjun Appadurai, *The Social Life of Things: Commodities in Cultural Perspective*, (Cambridge: Cambridge University Press, 1986); Janet Hoskins, “Agency, Biography and Objects,” in *Handbook of Material Culture*, edited by Chris Tilley, Webb Keane, Susanne Küchler et al., 74-84 (London: SAGE, 2006).

been extensively remodeled and stripped of outward markers of style, the fields are overgrown, and all that remains of the barn is the cellar's long fieldstone retaining wall. Photo by author.

Related to this idea of initial and subsequent performances is Robert St. George's interpretative concept of *implication*, or the art of implying connections between artifacts, or combinations of artifacts.<sup>69</sup> Objects like barns become encoded, symbolic, and metaphorical; they carry multiple meanings simultaneously. Because all historical work is fragmentary, and landscapes do not exist in ideal, contained settings, we can never be sure of one, definite meaning. Instead, St. George suggests, we must be speculative, and implicate disparate evidence to offer multiple meanings of intention, use, and agency.

Finally, my overall research is framed by the concept of the cultural landscape—that total, visible assemblage of human actions, patterns, and intentions upon the land.<sup>70</sup> Landscape is multi-faceted. Perceived from a historical perspective or as a cultural entity, landscape is an object, an idea, a representation, and an experience that is mental as well as physical, subjective as well as objective, and also a way of seeing.<sup>71</sup> This research, then, understands that a *cultural* rather than geographical landscape expresses ideology: human ideas, thoughts, beliefs and feelings.<sup>72</sup> Studies of the cultural landscape analyze

---

<sup>69</sup> Robert St. George, *Conversing by Signs: Poetics of Implication in Colonial New England Culture*, (Chapel Hill: The University of North Carolina Press, 1998), 2-13; 6-113.

<sup>70</sup> Pierce Lewis, "Common Landscapes as Historic Documents," in *History from Things: Essays on Material Culture*, edited by Steven Lubar and W. David Kingery, 115-139 (Washington: Smithsonian Press, 1993), 115. Two useful studies that further explore the concept of the cultural landscape in detail are Paul Groth and Todd W. Bressi, eds. *Understanding Ordinary Landscapes* (New Haven, Conn.: Yale University Press, 1997) and Peter Howard, Ian Thompson and Emma Waterton, eds. *The Routledge Companion to Landscape Studies* (New York: Routledge, 2013).

<sup>71</sup> Peter Howard, Ian Thompson, and Emma Waterton, eds. *The Routledge Companion to Landscape Studies* (New York: Routledge, 2013), 1-2.

<sup>72</sup> Marc Antrop, "A Brief History of Landscape Research," in *The Routledge Companion to Landscape Studies*, edited by Peter Howard, Ian Thompson, and Emma Waterton, 12-22 (New York: Routledge, 2013), 12; Allan Baker and Gideon Biger, eds. *Ideology and Landscape in Historical Perspective: Essays on the Meanings of some Places in the Past* (Cambridge: Cambridge University Press, 1992).

the interaction between people and space, as well as people and place.<sup>73</sup> In this thesis, I am concerned with how people of the past conceptualized the everyday space of their barns and how they worked and moved within them. Further, I am concerned with the ways material culture is tied to region and place: how material objects forge links between people and place, and how material objects can come to embody a “regional consciousness” in their materiality.<sup>74</sup>

### *Other Methods*

Although objects constitute the main body of evidence for this study, I also supplement this source with documentary records and oral history—how a building or landscape is written about, experienced, remembered, or perceived within wider frames—in order to situate the artifact more fully within its historical, cultural, spatial, and social contexts. Documents, according to Bernard Herman, are “instrumental to evaluating the development of a cultural landscape.”<sup>75</sup> Archival research at the Provincial Archives of Nova Scotia, supplemented by work at Sherbrooke Village, local libraries, the QEII Library at Memorial University, as well as title searches of relevant properties at the county Registry of Deeds Office, added one dimension to my research methods. Relevant local documentary evidence is scanty at best as Guysborough County is notoriously

---

<sup>73</sup> For an introduction to the concept of space and place, see Tim Cresswell, *Place: A Short Introduction* (Oxford: Blackwell, 2004) and Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977). For folkloristic enquiries into the relationship between people and their landscapes, see Hufford, *One Space, Many Places*, 1986; Pocius, *A Place to Belong*, 1991; Kent Ryden, *Mapping the Invisible Landscape: Folklore, Writing, and Sense of Place* (Iowa City: University of Iowa Press, 1993).

<sup>74</sup> Robert St. George, “Artifacts of Regional Consciousness in the Connecticut River Valley, 1700-1780,” in *The Great River: Art and Society of the Connecticut Valley, 1635-1820*, edited by William N. Hosley and Elizabeth Pratt Fox, 29-40 (Hartford, Conn.: Wadsworth Athenaeum, 1985).

<sup>75</sup> Herman, *Architecture and Rural Life*, 11.

underrepresented in archival collections. I therefore consulted a wide variety of period agricultural journals and prescriptive farming manuals, architectural pattern books, agricultural society minutes and records, historical atlases and maps, and other archival miscellanea in order to provide the wider context of regional farm architecture.

As Edward D. Ives maintains, folklorists frequently neglect written sources and focus on oral testimonies. “Granted, there is not much there,” says Ives of archival records for the ordinary man and woman, “but there is always something.”<sup>76</sup> Vital statistics, census records, probate records, legislative petitions, newspaper community columns, and local histories all provided me with a glimpse of the day-to-day lives and concerns of the people of the past who made St. Mary’s their home. Family photograph collections provided an especially rich resource for the study of ordinary buildings in terms of their form and appearance.

My research realizes that individuals create items of folklore; material objects grow out of the life and personality of their makers and users.<sup>77</sup> The role of biography is important as a way to contextualize and populate the buildings we study and to piece together some of the motivations for why farmers ordered their material world the way they did. Following Ives, I employed many of the methodological strategies that he suggests in my attempt to offer “common-man” biographies of farmers along the St. Mary’s River. Visiting local cemeteries and gravesites of particular farmers was one

---

<sup>76</sup> Edward D. Ives, “Common-Man Biography: Some Notes By the Way,” in *Folklore Today: A Festschrift for Richard M. Dorson*, edited by Linda Dégh, Henry Glassie, Felix J. Oinas, 260-263 (Bloomington: Indiana University, 1976), 252.

<sup>77</sup> Michael Owen Jones, *Craftsman of the Cumberlands: Tradition & Creativity* (Lexington: University Press of Kentucky, 1989).

important gesture. While gravestones provide vital statistics, patterns of kinship, and insight on the intersection of belief and aesthetic choice, as Ives ultimately acknowledges “you won’t feel you’ve quite settled with the guy” until you visit his gravesite (Fig. 12).<sup>78</sup>



Figure 12. “God is Love.” Headstone of Samuel and Margaret Cumming, Evergreen Cemetery, Aspen. The dates of death for Samuel and Margaret were mistakenly reversed by the stone carver. Photo by author.

I also employed documentation strategies such as observation and oral history interviewing to provide a more complete picture of the agricultural built landscape, its change and meaning in this small region of Nova Scotia. I conducted fifteen oral history and ethnographic interviews with area residents and barn owners. There is a small literature at the intersection of narrative and vernacular architecture studies that addresses

---

<sup>78</sup> Ives, “Common-man Biography,” 257.

the merits of intangible methods in the study of buildings.<sup>79</sup> However, I mainly encountered challenges with audio-recorded interviews as data sources about historical buildings.

My main interest in this thesis is in understanding a past landscape, and I soon recognized the pitfalls of conflating time periods by relying on interview sources. What an individual remembers about the farm in 1957 is not necessarily how the farm was worked and known in 1857. Nevertheless, most farms in St. Mary's have remained in a single family over multiple generations and farm technological change occurred at a somewhat slower rate than other regions of Canada. Traditional patterns of work, as well as traditional buildings, persisted as farming failed to expand commercially at the rate of other regions. As the farm evolved over time, the same family continued to witness these changes, and stories and memories were transferred to subsequent generations. Memories went back no farther than the 1930s in terms of firsthand experience, but earlier understandings of place, buildings, family farm life and landscape, were imparted to me. Spatial experience can be passed down through multiple generations, and I do consider this knowledge in my analyses of the buildings. Yet I could not obtain the insight I wanted about the past through interviewing alone; the burden of interpretation is therefore placed on the researcher, and I turn largely to the unspoken material evidence provided in the barns themselves, supplemented by documentary sources, to speculate on the past.

---

<sup>79</sup> Gabrielle Berlinger, *Framing Sukkot: Tradition and Transformation in Jewish Vernacular Architecture* (Bloomington: Indiana University Press, 2017); Rebecca Ginsburg, *At Home with Apartheid: The Hidden Landscapes of Domestic Service in Johannesburg*, (Charlottesville: University of Virginia Press, 2011); Henry Glassie, "The Wedderspoon Farm," *New York Folklore Quarterly* 22, no. 3 (September 1966): 165-187 and *Passing the Time*, 1982; Pocius, *A Place to Belong*, 1991; Michael Ann Williams, *Homeplace: The Social Use and Meaning of the Folk Dwelling in Southwestern North Carolina* (1991, repr., Charlottesville: University of Virginia Press, 2004).

### *A Note on Researcher Positioning*

“We live in the world, among our data,” Audrey Kobayashi and Suzanne MacKenzie observe.<sup>80</sup> We are active and dynamic participants moving and living within geographies, but as researchers we must also analyze our geographic world “in a disciplined and disciplinary manner.”<sup>81</sup> Where, then, do we fit in our research? I grew up in St. Mary’s, and call it my home. My research project comes from a deeply personal place. I have lived and moved within the region I study since my birth; my phenomenological understanding of this landscape is well developed. Yet this knowledge is based on a subjective experience of place and knowing. My perspective is a native one, yet my position as an academic and as a researcher of “home” has altered how I view a very familiar landscape. When we approach the well-known or the habitual as researchers, careful observation is crucial and we must look to readjust our perspective to make the familiar foreign. As I have insider spatial knowledge of St. Mary’s, I acknowledge the challenges that may arise in studying “home.” However, I explore this landscape through an approach that stretches backward through time, and here I would borrow David Lowenthal’s principle that “the past is a foreign country.”<sup>82</sup> As Matthew Johnson explains, “when we work in historical periods other than our own ... we are

---

<sup>80</sup> Audrey Kobayashi and Suzanne MacKenzie, “Introduction: Humanism and Historical Materialism in Contemporary Social Geography,” in *Remaking Human Geography*, edited by Audrey Kobayashi and Suzanne MacKenzie, 1-16 (Winchester, MA.: Unwin Hyman, 1989), 1.

<sup>81</sup> Ibid.

<sup>82</sup> David Lowenthal, *The Past is A Foreign Country* (Cambridge: Cambridge University Press, 1985).

looking at other cultures.”<sup>83</sup> I would argue, then, that the landscape I study is more exotic than familiar, and distancing occurs through the temporal lens.

My position in this study is also shaped by Yi-Fu Tuan’s concept of topophilia—the human love of place. Since topophilia is “diffuse as concept, vivid and concrete as personal experience,”<sup>84</sup> my motivations for pursuing research in my home province and community stem from my subjective perceptions and values of this landscape—my own sense of regional folklore. My impulse for this research comes from an aesthetic appreciation for the St. Mary’s landscape I live within, and, in turn, a desire to understand the rural place where I am from. The power of regional folklore, according to Kent Ryden, is intimate; it “reveals the meaning of a place to be in large part a deeply known and felt awareness of the things that happened there.”<sup>85</sup> Since we usually perceive the world with the self as the center, my experience of St. Mary’s has understandably translated to my academic pursuits. I do not think I am insular, but rather it was inevitable that I focus my thesis research on barns in this small portion of rural Nova Scotia because I hold such a deep-rooted regional consciousness of the landscape.

### *Why Study Barns?*

Like other farm families along the St. Mary’s River in the spring of 1871, the Cummingsers received an official visit from Angus Cameron, a local Justice of the Peace and the census enumerator. Cameron visited some 230 families in his rural district of the

---

<sup>83</sup> Matthew Johnson, “Vernacular Architecture: The Loss of Innocence,” *Vernacular Architecture*, 28 (1997): 14.

<sup>84</sup> Yi-Fu Tuan, *Topophilia: A Study of Environmental Perceptions, Attitudes, and Values* (Upper Saddle River: Prentice-Hall, 1974), 4.

<sup>85</sup> Ryden, *Mapping the Invisible Landscape*, 63.

Forks of St. Mary's to ask a series of survey questions that covered a broad range of categories, most relating to the productivity of the farmstead: butter churned, logs sawn, and the extent of mechanized agricultural equipment. Angus Cameron also counted buildings. The 1871 national census returns for St. Mary's River valley communities offer a quantifiable picture of the built landscape. Approximately 550 barns and stables were in the intervale farming communities along the river at this time.<sup>86</sup> The largest, most prosperous farms had upwards of three to four barns, though some of these would not have been the traditional multi-purpose barn type, but horse stables and/or wagon sheds. However, most farmsteads, like the Cumminger's, had one barn that served as the principle agricultural building around which much of the farm's storage, processing, and animal husbandry tasks were centered. Fast forward to 2013-2014, the years of my own landscape survey, and approximately eleven of the barns and stables that were enumerated in the 1871 census remain. Today there is very little evidence of the buildings that defined much of the labour and spatial movement of the nineteenth-century farm family (Table 1). Even within the course of writing this thesis, the early twentieth-century barn I documented has fallen down. Two other period barns teeter precipitously on their foundations, one is slated for demolition, and the rest require extensive maintenance.

Table 1. Number of barns and stables in St. Mary's agricultural districts in 1871 compared to the number of 19th – early 20th c. barns recorded in my 2013-2014 field survey.

---

<sup>86</sup> This is the combined number of barns and stables for the districts of St. Mary's, Forks of St. Mary's, and Caledonia, which make up the majority of communities along the intervale farming lands. I have not included census data for the village of Sherbrooke, which would have had a number of small barns and stables, because I did not document outbuildings in Sherbrooke.

<b>Year</b>	<b>District</b>	<b>Number of Barns &amp; Stables</b>
1871	St. Mary's incl. Garden of Eden to East River St. Mary's (District # 200 Pictou, polling district # 22)	210
	Forks St. Mary's (District # 202 Guysborough, polling district # 10)	281
	Caledonia (District # 202 Guysborough, polling district # 13)	59
	<b>TOTAL</b>	<b>550</b>
2014	St. Mary's River valley barn survey (19th – early 20th c. barns)	14 (includes one horse stable)

Source: Census Manuscripts, 1870-71. Guysborough County and Pictou County, selected districts, RG 31, NSA.

Various reasons have hastened the demise of timber-framed barns across the rural North American landscape, but a barn's vulnerability is most intensified by lack of use. At the 2011 Bruce Buckley Lecture for the Cooperstown Graduate Program, Henry Glassie implored his audience to "go measure a barn," because unlike houses, which retain their domestic usefulness, barns fall victim to obsolescence in the wake of agricultural industrialization, urban sprawl, and farm abandonment.<sup>87</sup> Barns are also disproportionately underrepresented in historic preservation strategies in the Canadian context. As Peter Ennals remarks about southern Ontario barns, "apart from a handful of "rural romantics" few voices are raised against the destruction of these buildings."<sup>88</sup>

Indeed, it is frequently domestic structures that receive heritage designation or undergo restoration, while outbuildings like barns are preserved only when they are exceptional in form or appearance. For example, of the handful of barns under heritage

<sup>87</sup> Available in seven parts at <https://www.youtube.com/user/CooperstownGraduate/videos>, accessed March 21, 2016.

<sup>88</sup> Peter Ennals, "Nineteenth-Century Barns in Southern Ontario," *Canadian Geographer*, 16, no. 3 (1972): 256.

designation in Nova Scotia, the overwhelming majority are non-common examples of barn building such as the c.1896 octagonal barn in the community of Old Barns, Colchester County (Fig. 13 ).<sup>89</sup> While important structures, such barns are often reflections of idiosyncratic motivation, and do not represent the conceptual choices of a rural community or region as a whole. The need was apparent, then, to inventory and assess the numerically and regionally commonplace barns of the province, which are fast disappearing from the material record. It is also important to note that, today, most old barns are bulldozed when slated for destruction, and their foundation stones removed and sold for creative landscaping projects. Thus, an increasingly limited archaeological record is left behind.



Figure 13. The c.1896 Yuill family Octagonal barn, Old Barns, Colchester County, with adjacent milk house. In the process of remodeling by Beau Blois when the photo was taken in 2012, the barn has now been repurposed as an office/performance space. The barn is one of few with heritage designation in Nova Scotia. Photo by author.

---

<sup>89</sup> See “The Yuill Barn,” <http://www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=7341&pid=0> (accessed December 15, 2017).

There are some notable barn conservation strategies, but these are all American. The National Barn Alliance, the Michigan Barn Preservation Network and the Michigan Barn and Farmstead Survey, for example, are grassroots historic preservation initiatives that encourage the public to not only appreciate barns, but also document representative examples on the rural landscape.<sup>90</sup> The federal historic preservation program, The Historic American Buildings Survey (HABS), has documented numerous American barns in detail through measured drawings, but there is no organization in Canada comparable to HABS in scope, methodological rigor, and intent.<sup>91</sup> In the British context, literature on barns and agricultural outbuildings burgeoned in the 1970s through the work of R.W. Brunskill and folklife scholars such as Alexander Fenton.<sup>92</sup> The UK's stringent legislative protection of buildings, including barns, has ensured that traditional British farm buildings have been extensively mapped and documented through heritage designation and planning schemes at the local as well as national levels.<sup>93</sup>

“The building on the farm which requires the most study and real good judgment, to plan and to construct,” advises an article in an 1857 issue of *The Maine Farmer*, “is the

---

<sup>90</sup> Visit <http://barnalliance.org/> <http://www.mibarn.net> and <http://michiganbarns.org/index.php> (accessed May 13, 2016).

<sup>91</sup> See <https://www.nps.gov/hdp/habs/index.htm>

<sup>92</sup> For an introduction to traditional British barns and other farm buildings, consult R.W. Brunskill, *Traditional Farm Buildings and their Conservation* (New Haven: Yale University Press, 2007); Alexander Fenton, *The Rural Architecture of Scotland* (Edinburgh: J. Donald, 1981); J.E.C. Peters, *Discovering Traditional Farm Buildings*, (Princes Risborough, Buckinghamshire: Shire Publications, 2003); John Woodforde, *Farm Buildings in England and Wales* (London: Routledge & Kegan Paul, 1983).

<sup>93</sup> See, for instance, Allan Carter and Susanna Wade Martins, eds., *A Year in the Field: The Norfolk Historic Farm Buildings Project* (Norwich: Centre of East Anglian Studies, University of East Anglia, 1987) as well as Historic England's numerous resources concerning traditional farm buildings, <https://historicengland.org.uk/advice/caring-for-heritage/rural-heritage/farm-buildings/> (accessed December 14, 2017).

one least thought of in this respect, and that is the barn.”<sup>94</sup> The same can certainly be said for the *study* of barns. Although barns were crucial aspects of the nineteenth-century farmstead, they have received disproportionate critical attention when compared with research on domestic architecture. As Robert St. George outlines in the context of New England, the house is frequently the subject of interpretative efforts because genealogical and antiquarian mindsets have long privileged the dwelling as some “self-sustained icon of familial stability.”<sup>95</sup> There is a tendency for researchers to forget that farm families “worked out of doors much of the time and that the tasks they performed in their daily and seasonal work routines depended on the establishment and maintenance of close functional linkages between their house, barn, assorted outbuildings, and fields.”<sup>96</sup>

As well, some scholars maintain a hierarchy of complexity for buildings as sources of cultural data. Barns, lacking fashion, finish, and interior density, may be viewed as less revealing or meaningful indicators of cultural processes than houses, let alone diaries and other non-material primary sources. As archaeologist Mary Beaudry has passionately argued, we must “consider farms as farms”—that is, architecturally complex as well as inherently integrated spatial systems that are sites of market-oriented labour and productivity as much as the familial and domestic. She challenges, “All those fields, pastures, and outbuildings are sort of out there but not really relevant—or are they?”<sup>97</sup> The intent of this thesis, certainly, is to argue that outbuildings like barns are crucial to understanding rural history and culture.

---

<sup>94</sup> “Farm Buildings,” *Maine Farmer*, 24 December 1857, 1.

<sup>95</sup> St. George, “The Stanley-Lake Barn,” 7.

<sup>96</sup> *Ibid.*

<sup>97</sup> Mary Beaudry, “Trying to Think Progressively about 19th-century Farms,” *Northeast Historical Archaeology*, 30/31 (2001): 129.

Most of all, barns are difficult to place in neat chronologies. Barn building technology is generally conservative and barns do not hold outward markers of art historical periods. It makes the description of change over time more challenging.<sup>98</sup> Add to this the reality that barns are working buildings that require (at least to some extent) specialized knowledge of agricultural labour and practice in order to understand the complexity of their uses and meanings, and we can see how students of architectural history may be deterred in doing such analyses. Yet barns, as this chapter will show, are intricate forms shaped by region, labour, economies, and by the ideological processes of wider discourses like improvement and reform. The barn's position as subject for architectural analysis perhaps needs no further encouragement than R.W. Brunskill's observation that the sheer volume of space and constructional output barns entail should remind us that "the expense and effort devoted to farm buildings has for the past three centuries been greater than that devoted to farm-houses."<sup>99</sup> Indeed, as the Nova Scotia reformer James Ross wrote in his 1855 prescriptive booklet, *Remarks and Suggestions on the Agriculture of Nova Scotia*, "he who acts judiciously, will prefer commodious barns and stables for his crop and cattle, to a fine house"<sup>100</sup> (Fig. 14).

---

<sup>98</sup> St. George, "The Stanley-Lake Barn," 7.

<sup>99</sup> R.W. Brunskill, *Vernacular Architecture: An Illustrated Handbook*, (London: Faber & Faber, 2000), 148.

<sup>100</sup> James Ross, *Remarks and Suggestions on the Agriculture of Nova Scotia* (Halifax: James Bowes and Sons, 1855), V/F v. 40, # 3, NSA.



FARM RESIDENCE OF WILLIAM IRVING, MOUNT THOM, PICTOU CO. N.S.

Figure 14. Plate from the Illustrated Historical Atlas of Pictou County, published in 1879 by J.H. Meacham & Co. The bank barn of farmer William Irving of Mount Thom, Pictou County, is pictured as quite fine and commodious, while the house is very austere in architectural embellishment. Multiple, large outbuildings are also visible throughout the yard. Atlas image scanned from an original copy owned by Murdoch Sutherland.

Much of the existing literature on barns is popular, consisting of photography books or field guides that tend to identify types through superficial methods like roofing style and exterior detail. While these guides prove useful references for students doing visual survey work, they frequently neglect the social and economic contexts of a barn's development.<sup>101</sup> This prevalence for the visual format is apparent in architectural studies of Atlantic Canada, where there are only two published reports, both illustrative guides, on barns in Nova Scotia.<sup>102</sup> Other North American barn studies, mainly by geographers, have relied on expansive surveys where data is obtained from the distance of the roadside.

<sup>101</sup> See, for example, Allen Noble and Richard Creek, *The Old Barn Book: A Field Guide to North American Barns & Other Farm Structures* (New Brunswick, NJ: Rutgers University Press, 2009); Robert Enslinger, *The Pennsylvania Barn: Its Origin, Evolution, and Distribution in North America*, 2<sup>nd</sup> ed. (Baltimore: Johns Hopkins University Press, 1992); Thomas Visser, *Field Guide to New England Barns and Farm Buildings* (Hanover: University Press of New England, 1997).

<sup>102</sup> See Gordon B. Kinsman, *Colchester County Century Farms: Their Histories as Well as Photographs of Farm Homes and Outbuildings Over a Century Old* (Truro: Nova Scotia Department of Agriculture and Marketing, 1979) and Robin Wylie, "The Barn in Nova Scotia," (Halifax: Heritage Unit, Nova Scotia Dept. Tourism and Culture, 1988).

Conclusions in these studies typically lack architectural specificity and detailed context, and instead categorize the distribution of barn types across wide swaths of the continent.<sup>103</sup> Thus there has been relatively little intellectual engagement in how the built environment of barns contributes to historical understanding.

Regional specialists, however, do offer richer interpretation through case studies that define the variety of form within a particular cultural region, origin and diffusion of buildings, and the functional and situational advantages of localized barn typologies.<sup>104</sup> Some of these studies integrate architectural evidence with archival and ethnohistorical methods, offering perceptive interpretations of architectural change over time. They move barns and farmsteads beyond visual icons of the rural landscape to center them as sites of immense cultural and historical knowledge.<sup>105</sup> Such studies differ from the predominate geographical-visual barn surveys in that not only do they identify typologies, but they explain spatial relationships and usage, and consider social, economic, and ideological

---

<sup>103</sup> See John Fraser Hart, *The Rural Landscape* (Baltimore: John Hopkins University Press, 1998); Allen G. Noble and Gayle A. Seymour, "Distribution of Barn Types in Northeastern United States," *Geographical Review*, 72, no. 2 (April 1982): 155-170.

<sup>104</sup> For examples of such studies, see Ennals, "Nineteenth-Century Barns in Southern Ontario," 1972; Cynthia Falk, *Barns of New York: Rural Architecture of the Empire State*, (Ithaca: Cornell University Press, 2012); Henry Glassie, "The Pennsylvania Barn in the South," *Pennsylvania Folklife*, 15, no. 2 (Winter 1965-66): 8-19 and no. 4 (Summer 1966): 12-25 (two parts) and "The Old Barns of Appalachia," *Mountain Life & Work* 40 (Summer 1965), 21-30; Joseph W. Glass, *The Pennsylvania Culture Region: A View from the Barn* (Ann Arbor, Michigan: UMI Research Press, 1986); Victor Konrad, "Against the Tide: French Canadian Barn Building Traditions of the St. John Valley of Maine," *The American Review of Canadian Studies*, XII, no. 2 (1982): 22-36; Marshall, *Folk Architecture in Little Dixie*, 72-88.

<sup>105</sup> For examples of such work, see Hubka, *Big House, Little House*, 1984; Garrison, "Farmsteads," in *Landscape and Material Life*, 115-149; Robert Blair St. George, "The Stanley-Lake Barn," 1982; Herman, *Architecture and Rural Life*, 1987; Sally McMurry and J. Ritchie Garrison, "Barns and Agricultural Outbuildings", in Sally McMurry and Nancy van Dolsen, eds., *Architecture and Landscape of the Pennsylvania Germans, 1720-1920*, (Philadelphia: University of Pennsylvania Press, 2011): 94-123; Sally McMurry, "The Pennsylvania Barn as a Collective Resource, 1830-1900," *Buildings & Landscapes* 16, no. 1 (2009): 9-28; Marian Moffett and Lawrence Wodehouse, *East Tennessee Cantilever Barns*, (Knoxville: University of Tennessee Press, 1993).

contexts. My own approach to the study of St. Mary's barn building therefore seeks to follow this more critical approach.

One particular study that has shaped this thesis is Henry Glassie's "The Variation of Concepts within Tradition: Barn Building in Otsego County, New York" (1974), which remains one of the most comprehensive articulations of the dynamics of the timber-frame barn building tradition in Northeastern North America.<sup>106</sup> Glassie's analysis was significant because he departed from the standard geographical survey that gathered data based on what could be viewed from the roadside, but instead intensively documented a number of barns through measured drawings and interviews with local tradition-bearers. Glassie's detailed description of the evolution of upstate New York barn forms argues that the chronology of local barn building "correlates primarily with economic developments and roughly with technological developments,"<sup>107</sup> supporting Ennals's understanding that barns can "reveal much about the farming operations they were built to accommodate."<sup>108</sup>

Yet Glassie's Otsego barn study, a prelude to his influential structural interpretation of vernacular architecture formalized a year later in *Folk Housing in Middle Virginia* (1975), looks to delve deeper than economic interpretations or the technics of construction, to understand the core cultural patterns of design—the "grammar"—that underlies barn building in much of Northeastern North America. Upstate New York traditional barn building, Glassie argues, is determined by a basic building rule, a sort of

---

<sup>106</sup> See also Henry Glassie, "The Wedderspoon Farm," 1966.

<sup>107</sup> Henry Glassie, "The Variation of Concepts within Tradition: Barn Building in Otsego County, New York," *Geoscience and Man*, vol. 5 (1974): 177.

<sup>108</sup> Ennals, "Nineteenth-Century Barns in Southern Ontario," 256.

mental template, which is based on a symmetrical three bay design. This core mental template could be drawn upon to either “simplify or complicate the extant forms upon which [the builder] was dependent for information.”<sup>109</sup> This allowed farmers and builders the flexibility to solve problems, like the need to shelter more livestock or hay, without departing from tradition. It should be noted here that I depend on Glassie’s barn design rules for interpreting much of the data presented in this thesis, applying them in relation to the material record of St. Mary’s.

Though barns are a neglected subject of both historic preservation initiatives and scholarly enquiry, they have much to offer the student of rural culture. Barns provide evidence of the “broad patterns of production, distribution, and consumption of agricultural goods.”<sup>110</sup> Through their form, construction, materials and style, “they exemplify building trends that affected both broad geographic areas and particular locales,”<sup>111</sup> and their sequence of form is “closely correlated with changes in the farming system.”<sup>112</sup> While vernacular buildings like barns help visually define regional landscapes, they are also prime sites of human experience that help explain the farm as a cultural artifact. My approach to analyzing barns recognizes that these working buildings are shaped by ideologies that indicate historical change and cultural experience, just as much as they are shaped by economy and geography. My own case study of St. Mary’s barns is therefore influenced by the methodological and theoretical insights of earlier research that has employed architectural survey with archival and ethno-historical

---

<sup>109</sup> Glassie, “Barn Building in Otsego County,” 207.

<sup>110</sup> Falk, *Barns of New York*, x

<sup>111</sup> Ibid.

<sup>112</sup> Ennals, “Nineteenth-Century Barns in Southern Ontario,” 268.

methods in order to inventory and assess the built landscape, and it builds on contextualized studies that situate barns within the phenomenological dimensions of everyday lived experience and within socio-cultural motivations.

Viewed through the lens of nostalgia, barns have become more aligned with aesthetics than the unsavory realities of agricultural activity—demanding tasks like shoveling manure, threshing grain, and slaughtering pigs. Yet when we take barns seriously, not romanticized for historic preservationists, sentimentalized for visual artists, nor decontextualized as domestic conversions or trendy source material for rustic interior design schemes, but as complex cultural artifacts to be critically analyzed we gain insight into the ways ordinary farmers shaped their everyday, material lives. Barns, like houses, reflect cultural values and beliefs, and their designs are informed by attitudes and ideologies as much as by geographical, technological, and economic concerns. The barn, then, becomes just as revealing as the domestic dwelling.

#### *Five Key Books that Influenced this Study*

Five key studies on agricultural buildings and landscapes influenced this thesis. The ideas and methods of the authors provided me with the conceptual and methodological frameworks necessary to complete my own study of barns, so I will mention them here. The first, Thomas Hubka's *Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England* (1984), offers the most model approach for my research. It was after reading Hubka's book that I wanted to study St. Mary's barns. Hubka takes a regional building tradition, Maine's connected farmsteads, and convincingly draws conclusions from contexts specific to New England. Hubka argues that connecting outbuildings to houses was not done in order to shelter the farmer

from harsh winter weather. Rather, it was a localized material response to a collapsing rural economy that demonstrated the New Englander's futile attempt to sustain that economy through a progressive agricultural system based on order and convenience. Hubka's detailed study expertly illustrates the origins and development of this nineteenth-century New England farm form, but it is also concerned with evaluating the phenomenological experience of farm life and the spatial complexity of such integrated farmsteads. It is not just the house, but the barn, that is given significance. As St. George contends, material analysis of the farm must extend beyond the house to the barn, as we must recognize that "the house and barn—the respective realms of rational man and his irrational beasts and raw crops—always stand in relation to one another."<sup>113</sup>

The second study is Nora Pat Small's *Beauty & Convenience: Architecture and Order in the New Republic* (2003), about the barns and farmhouses of Sutton, Massachusetts. In it she considers the influence of ideology on the built landscape. Much like Hubka, the author is concerned with understanding human motivation. Small looks at the influence of popular rhetoric, the ideal of "beauty and convenience," that permeated the new American republic in the decades of the Federal era, and how this in turn influenced the rural material landscape. She contends that the twin notions of beauty and convenience shaped conceptions of taste and modernity, initiating a re-ordering of houses, barns, and fields which was intended to "express the strength and success of the republican experiment" and to align republican virtues with the rural.<sup>114</sup> Her study is imitable because it engages not only with the material evidence of farm buildings, but

---

<sup>113</sup> St. George, "The Stanley-Lake Barn," 7.

<sup>114</sup> Small, *Beauty & Convenience*, xviii.

also with the *circulation of ideas* and the ways reformers and prescriptive literature influenced attitudes and actions in regards to the rural building tradition. My own archival research has also attempted to determine the influence of the rhetoric of improvement and reform on St. Mary's barns and farmsteads.

J. Ritchie Garrison's *Landscape and Material Life in Franklin County, Massachusetts, 1770- 1860* (1991) is a third key text. It is a model study for my own work because Garrison repeatedly demonstrates how the built landscape reflects cultural change. He reveals that rural landscapes are dynamic and multi-faceted, and that built forms are impacted and influenced not only by geographical curses or blessings, and by new ideologies and technologies, but also by choices made by individuals. Garrison's study demonstrates that change is "a consequence of individual actions on the part of many people."<sup>115</sup> "Individuals mattered," he argues, "they modified culture through their families and communities."<sup>116</sup> I have also tried to populate my own study with individuals making choices that in turn impacted their whole communities.

Another influential text is Bernard Herman's *Architecture and Rural Life in Central Delaware, 1700-1900* (1987). Like the studies mentioned above, Herman's combines both material and archival sources in order to understand the transformation of agricultural buildings in southern New Castle County, Delaware over a period of two hundred years. Herman's work is exemplary because of its detail, theoretical insight, and provocative analysis of nineteenth-century agricultural systems. Herman's writing about buildings is creative, engaging, and deeply human, as he recognizes that the rural

---

<sup>115</sup> Garrison, *Landscape and Material Life*, 41.

<sup>116</sup> Ibid.

landscape is a theatre for important social change. He argues that it is our task as researchers to “find pattern in cultural behavior across regional and temporal boundaries and, at the same time, to discover the degree to which individual changes are peculiar to time and place or are part of a larger continuum.”<sup>117</sup> *Architecture and Rural Life in Central Delaware* is concerned with making connections between the local and national level, about understanding a small region as part of a greater American landscape. I, too, try to situate St. Mary’s within such wider agricultural contexts. In no way can my thesis, however, ever capture the same kind of scope or express the same level of expertise as Herman’s exceptional case studies, but his smart, creative interpretations of farm buildings certainly stimulated my interest in rural landscapes.

A final text that influenced this thesis is Howard Marshall’s *Folk Architecture in Little Dixie: A Regional Culture in Missouri* (1981). I was drawn to Marshall’s study because of its fine integration of regional history, architectural analysis, and local understandings of home and community. Marshall plots type and change over time in houses and barns in the mid-western region of “Little Dixie,” in north central Missouri. Marshall’s work was affirming because he, too, focused his research on his native landscape, and his text emphasizes the merit of doing fieldwork close-to-home. *Little Dixie* assuaged any feelings of guilt I had for being too ethnocentric in my research choices, and I recognized after reading the book that my personal experiences were an important influence in my desire to study vernacular architecture. As Marshall writes, “I began learning about architecture the way every child born on a farm does—by meeting

---

<sup>117</sup> Herman, *Architecture and Rural Life*, 243.

the playful then frightening vastness of a big hayloft at sundown, by feeling the dimensions of a muddy hog pen in order to know how much distance I needed to race away from nervous sows with pigs, by learning that the front parlor was a special place for ‘company’. ”<sup>118</sup> I related to Marshall’s subjective, insider understanding of landscape, and his desire to define and make sense of the “regional personality” of the place where he was raised through its buildings.<sup>119</sup>

### *Scholarly Significance*

This thesis contributes to the discipline of folklore, material culture studies, as well as the body of literature on regional studies of Atlantic Canada, in four important ways:

1) *Recognizes the merit of writing about historical subjects within folkloristics*

Thomas Carter has called for a rekindling among folklorists of an interest in history, and in particular, historic material culture studies.<sup>120</sup> In terms of vernacular architecture, he argues that folklorists are ideally positioned to carry out such studies. We have the necessary skills, interests, and dispositions: an inclination for the ordinary and for egalitarianism, a focus on documentary fieldwork, and comfort with “interrogations within larger theoretical frames.”<sup>121</sup> One of the motivations of this thesis is to contribute to the refocus on history, and historical material culture studies, as disciplinary praxis within folkloristics. Buoyed by Carter’s call, and aware of Glassie’s proclamation that

---

<sup>118</sup> Marshall, *Folk Architecture in Little Dixie*, xii.

<sup>119</sup> Ibid., viii.

<sup>120</sup> Carter, “Where did the Folklorists Go?”, 35.

<sup>121</sup> Ibid., 39; 44.

folklore is akin to archaeology and that “the past is too important to leave to historians,” my research is centered on a perspective that explores time in relation to material culture.<sup>122</sup> In her 2015 American Folklore Society presidential address, Michael Ann Williams asserts that folklorists need to stop worrying that “historical work leads us back into the belief that folklore is something that is constantly disappearing.”<sup>123</sup> She continues, “historical material culture studies seem to particularly bear the shame of the label “antiquarian,” as if our work can be reduced to so many pointless studies of obsolete objects—spinning wheel studies.”<sup>124</sup> What Williams ultimately reminds folklorists is that “we are too small a discipline to disrespect each other’s work,” and a diversity of perspectives, including the historical and the material, are essential to evolving folkloristic enquiry.<sup>125</sup>

One particular way that a folkloristic approach enriches the study of ordinary architecture is the use of an ethnographic perspective. Few interpretative field studies of historic buildings and landscapes draw on ethnographic methods, whether in the field or in writing up research. Vernacular architecture scholars like Ryan K. Smith have questioned why his colleagues are unable to present their research through *stories* in which buildings are *experienced*. As Smith suggests, “Too often the analytical mode depopulates its subject. It presents a disembodied past, without human scale.”<sup>126</sup> In other

---

<sup>122</sup> Henry Glassie, “Archaeology and Folklore: Common Anxieties, Common Hopes,” in *Historical Archaeology and the Importance of Material Things*, edited by Leland Ferguson, 23-35, Langsing, Mich.: The Society for Historical Archaeology, 1977, 32.

<sup>123</sup> Williams, “After the Revolution,” 132.

<sup>124</sup> Ibid., 133.

<sup>125</sup> Ibid.

<sup>126</sup> Ryan K. Smith, “Viewpoint: Building Stories: Narrative Prospects for Vernacular Architecture Studies,” *Buildings & Landscapes* 18, no. 2 (Fall 2011): 11.

words, because ethnographic methodologies and strategies of description and interpretation are infrequently employed, the past and the people in it are overshadowed by a narrow focus on the technical and formalistic aspects of buildings over time. Indeed, many vernacular architecture scholars face the “literary problem of how to artfully blend synchronic analysis with diachronic narrative and description,” as the sequence of change “must be shown in detailed narrative, but the causes of change must also be analyzed.”<sup>127</sup> This exercise, however, does not appear to be a challenge for folklorists studying vernacular architecture, who center their works on good storytelling. Following the work of such narrative-minded folklorists as Tom Carter, Henry Glassie, Bernard Herman, Gerald Pocius, Robert St. George, and Michael Ann Williams, I ask cultural questions of the past that focus on the lived experience of ordinary people through their everyday objects.

## 2) *Offers a critical analysis of architecture in Atlantic Canada*

As Shane O’Dea notes in the context of Atlantic Canada, “most of what has been written on architecture ... has been written with the intent of preserving the buildings, not analyzing the architecture.”<sup>128</sup> The majority of scholarship on Nova Scotia architecture identifies styles and features or focuses on the histories of specific buildings.<sup>129</sup> While

---

<sup>127</sup> James Axtell, “Ethnohistory: An Historian’s Viewpoint.” *Ethnohistory* 26, no. 1 (Winter 1979): 6.

<sup>128</sup> Shane O’Dea, “Architecture and Building History in Atlantic Canada,” *Acadiensis* 10, no. 1 (Autumn 1980): 158.

<sup>129</sup> See, for example, Catherine Fancy, *The Historic Architecture of Pictou: A Walking Guide* (Pictou: McCulloch Heritage Centre & Archives, 2012); Heritage Trust of Nova Scotia, *Lakes, Salt Marshes, and the Narrow Green Strip: Some Historic Buildings in Dartmouth and Halifax County’s Eastern Shore* (Halifax: Heritage Trust of Nova Scotia, 1979); *Seasoned Timbers: A Sampling of Historic Buildings Unique to Western Nova Scotia, vol. 1* (Halifax: Petheric Press, 1972) and *Seasoned Timbers: Some Historic Buildings from Nova Scotia’s South Shore, vol. 2* (Halifax: Petheric Press, 1974); Nova Scotia Dept. of Culture, Recreation & Fitness, *A Nova Scotian’s Guide to Built Heritage*:

local historians and heritage groups have published on regional architecture, these are highly illustrated, and at times sentimental texts that offer only superficial studies of building traditions.<sup>130</sup> As Annemarie Adams recognizes publications on Atlantic Canadian architecture tend to,

emphasize the intimate connection between the architectural forms and the lives of inhabitants. ... the fact that houses in this region have stayed in families for generations has had a significant impact on both the preservation and the interpretation of domestic spaces. In most of these cases, architecture acts as a mere illustration to social and family history, rather than as a tool of historical analysis.<sup>131</sup>

While many local museums preserve vernacular buildings, as historic sites they frequently offer sanitized interpretations that fail to situate buildings as part of broader social and historical contexts. Sherbrooke Village, the living history museum within my own study area, is a good example of this kind of representation of the past. Further,

---

*Architectural Styles 1604-1930*, (Government of Nova Scotia, n.d.); Allen Penney, *Houses of Nova Scotia: An Illustrated Guide to Architectural Style Recognition* (Halifax: The Nova Scotia Museum, 1989); Pictou Heritage Society and L.B. Jenson, *Country Roads: Rural Pictou County, Nova Scotia* (Halifax: Petheric Press, 1974) and *Wood and Stone: Pictou, Nova Scotia* (Halifax: Petheric Press, 1972); Barbara R. Robertson, *Gingerbread & House Finish of Every Description* (Halifax: Nova Scotia Museum, 1990); Peter John Stokes, *Ross House, New Ross, Nova Scotia: Architectural Report* (Ottawa: Historic Sites and Monuments Board of Canada, 1970).

<sup>130</sup> For example, Stephen Archibald and Sheila Stevenson, *Heritage Houses of Nova Scotia*, (Halifax: Formac, 2003); Terry James and Bill Plaskett, *Buildings of Old Lunenburg* (Halifax: Nimbus, 2011); Kinsman, *Colchester County Century Farms*, 1979; Joann Latremouille, *Pride of Home: The Working Class Housing Tradition in Nova Scotia, 1749-1979* (Hantsport, NS: Lancelot Press, 1986); Pat Lotz, ed. *Affairs with Old Houses: Personal Stories About Preserving Heritage Houses in Nova Scotia* (Halifax: Heritage Trust of Nova Scotia and Nimbus, 1999); Mary K. MacLeod and James O. St. Clair, *No Place Like Home* (Sydney: University College of Cape Breton Press, 1992) and *Pride of Place: The Life and Times of Cape Breton Heritage Houses* (Sydney: University College of Cape Breton Press, 1994); Bill Plaskett, *Understanding Lunenburg Architecture* (Lunenburg County District Planning Division, 1979).

<sup>131</sup> Annemarie Adams, "The Monumental and the Mundane: Architectural History in Canada." *Acadiensis* 30, no. 2 (Spring 2001): 158. One prominent example of this type of study where architecture acts as an illustration to social and family history, is Mary Byers and Margaret McBurney, *Atlantic Hearth: Early Homes and Families of Nova Scotia*, (Toronto: University of Toronto Press, 1994). Although published by a reputable academic press, it is replete with tales of family feuds and cursed houses.

scholarly literature tends to focus on housing style and form, with little to no attention paid to outbuildings (let alone how outbuildings were used) or to contextualizing regional architectural types within broader economic and cultural frameworks.

Cultural geographers Ennals and Holdsworth have probably written the most recognized studies on Atlantic Canadian vernacular architecture, but they lack specificity in their field and archival primary source data.<sup>132</sup> Further, their classificatory system of polite, folk, and vernacular buildings is problematic, as it trivializes folk builders whom they perceive to “mimic” elite, polite styles (c.f. Hubka 1979). As Herman explains, architectural choice—the acceptance or rejection of form—depends on knowledge of a building’s suitability and accessibility in the community context. He argues that a viewpoint that sees rural architecture as diffusing downward in society from an elite level to a folk level is inherently faulty, because it “ignores the reality of day-to-day commerce in a rural world and the complexity of community organization.”<sup>133</sup> This thesis understands that Nova Scotia’s rural vernacular architecture is an architecture based on compromise, “between externally introduced ideas and local patterns of expression and behavior.”<sup>134</sup> As Thomas Hubka argues, folk builders are very much designers with purpose and method, and they create or reevaluate forms through a process of assemblage.<sup>135</sup> A *bricoleur*, the Nova Scotian folk designer draws on many inspirations to

---

<sup>132</sup> See Peter Ennals and Deryck Holdsworth, *Homeplace: The Making of the Canadian Dwelling over Three Centuries*. Toronto: University of Toronto Press, 1998 and “Vernacular Architecture and the Cultural Landscape of the Maritime Provinces: A Reconnaissance.” *Acadiensis* 10, no. 2 (Spring 1981): 86-106.

<sup>133</sup> Herman, *Architecture and Rural Life*, 130.

<sup>134</sup> *Ibid.*, 131.

<sup>135</sup> Thomas Hubka, “Just Folks Designing: Vernacular Designers and the Generation of Form,” *Journal of Architectural Education* 32, no. 3 (February 1979): 27-29.

generate form, both tradition (the repertoire of existing buildings accepted within a community) and externally introduced ideas.

What scholarly writing on architecture that exists in the context of Atlantic Canada tends to emphasize geographic diffusion and the borrowing and adaptation of New England and Old World architectural forms and ideas to the Atlantic Canadian landscape rather than fully situating buildings within their localized contexts and uses.<sup>136</sup> In short, the focus tends to be on externally introduced ideas by means of diffusion from region to region. Unfortunately, studies with the intent of comparison between New England and Nova Scotia serve little academic merit, as the building traditions are more or less part of the same cultural impetus.

It is important to comment here that Nova Scotia's vernacular architecture owes much of its character to the New England building tradition, which diffused across a wide North American geography during eighteenth and nineteenth century northward and westward migration. As colonial neighbours, Nova Scotia and New England had a long relationship of exchange in material goods and ideas beginning with Yankee fishing stations along Nova Scotia's coast in the early eighteenth century. Later, the emigrant planters and loyalists, who settled the rich soils formerly farmed by the Acadians, brought their New England building forms with them, so that by the late eighteenth century, Nova Scotia might well be viewed as a satellite of New England—a *new* New England. Graham

---

<sup>136</sup> Examples of such studies include Peter Ennals, "The Yankee Origins of Bluenose Vernacular Architecture," *The American Review of Canadian Studies* 12, no. 2 (Summer 1982): 5-21; Ennals and Holdsworth, *Homeplace*, 1998 and "Vernacular Architecture and the Cultural Landscape of the Maritime Provinces," 1981; Alan Gowans, "New England Architecture in Nova Scotia," *The Art Quarterly* 25, no. 1 (Spring 1962): 7-33; John Mannion, *Irish Settlements in Eastern Canada: A Study of Cultural Transfer and Adaptation* (Toronto: University of Toronto Press, 1974); Daniel Maudlin, *The Highland House Transformed: Architecture and Identity on the Edge of Britain, 1700-1850* (Dundee: Dundee University Press, 2009).

Wynn has commented that eighteenth century New Englanders viewed Nova Scotia as a place for their exclusive exploitation, whether soil, fish, or trade.<sup>137</sup> The Maritimes have therefore historically maintained a strong economic dependency on more prosperous New England (throughout the nineteenth century Nova Scotia continually received imports of foodstuffs from New England as local farms never reached the same level of production), while the ecology and culture of the two regions were comparable.

The influence of New England in shaping the vernacular built landscape of Atlantic Canada is indisputable. However, all this is not to say that Nova Scotia's architecture is the product of some passive mimicry of New England building style and technics, without independent innovation in design. As this thesis will show, nineteenth-century Nova Scotians were informed by a variety of design choices as they shaped their built landscape. Some design innovations proliferated practically simultaneously with New England, while other designs, like the popular "New England" gable entry barn plan, received limited acceptance in Maritime farming communities. Likewise, fully connected farm plans do not cross the Maine border into Canada.

Alan Gowans has claimed that the New England emigrants to Nova Scotia "perpetuate[d] the cultural patterns of their homeland well after they had become obsolete there."<sup>138</sup> Such a sweeping assumption, similar to that of Ennals (1982), implies that there was a kind of inherent conservatism in Nova Scotia architecture from the beginning. With little material evidence to support these claims, I remain skeptical of the suggested

---

<sup>137</sup> Graham Wynn, "A Province Too Much Dependent on New England." *The Canadian Geographer* 31, no. 2 (1987): 98-113.

<sup>138</sup> Alan Gowans, "New England Architecture in Nova Scotia," *The Art Quarterly* 25, no. 1 (Spring 1962): 10.

dichotomy of a “conservative” and “modern” way of thinking between the two regions. Further, I do not place a value judgment on conservatism, as I recognize that conservative ways of building are often practical or desirable in specific economic or geographical contexts.

What I want to foreground, rather, is the fact that Atlantic Canada and New England architecture are part of a mutual system of building. Though part of a homogeneous cultural and ecological region, there is also nuanced difference between the two areas. The North American material folk tradition is not specific to political boundaries or linear chronologies but, as Henry Glassie maintains, to the spatial patterns of *cultural* regions, such as what he identifies as “Northern New England,” extending from Rhode Island to Connecticut to Maine to Maritime Canada.<sup>139</sup> Nova Scotia and New England share the same vernacular building *culture*. The politics, ideologies, economies, and building technologies of the regions are at times parallel, at times dependent, and at other times disparate, but there is an inherently shared, encompassing cultural conception of what is visually and spatially appropriate regarding architectural design and pattern.

There are notable exceptions to popular regional studies, broad reconnaissance surveys, and stereotypical assumptions regarding Atlantic Canadian vernacular architecture. Folklorists like Gerald Pocius and Richard MacKinnon have offered rigorous and sensitive studies of local building traditions, spatiality, community aesthetics and mass fashion, change over time, social use, and socio-cultural meaning.<sup>140</sup> My own

---

<sup>139</sup> Glassie, *Patterns*, 124-153.

<sup>140</sup> For examples of their studies, see Gerald Pocius, "Architecture on Newfoundland's Southern Shore: Diversity and the Emergence of New World Forms," in *Perspectives in Vernacular Architecture*,

research approach to St. Mary's barns builds on the work of these two scholars, furthering a much-needed critical dialogue on vernacular architecture, of any form, in Atlantic Canada.

3) *Provides evidence of the usefulness of the built landscape in interpreting Atlantic Canada's rural history*

While scholars have explored the agricultural history of diverse regions of rural America through landscape and material life,<sup>141</sup> few academic studies have explored Canadian agricultural history through this lens. Almost exclusively, critical writing on the history of agriculture in Canada (and Atlantic Canada in particular) has approached the topic from demographic or documentary evidence alone; socio-economic perspectives have influenced the majority of these studies.<sup>142</sup> Daniel Samson's more recent study on

---

Camille Wells, ed. (Annapolis: Vernacular Architecture Forum, 1982), 217-232; "The House that Poor Jack Built: Architectural Stages of the Newfoundland Fishery," in *The Sea and Culture of Atlantic Canada: A Multidisciplinary Sampler*, Larry McCann with Carrie Macmillan, eds. (Sackville: Centre for Canadian Studies, Mount Allison University, 1992), 63-105; " 'Interior Motives': Rooms, Objects and Meaning in Atlantic Canada Homes," *Material History Bulletin* 15 (1982): 5-9; "Mass Housing and Its Impact on Traditional Forms in a Newfoundland Community," in Camille Wells, ed. *Perspectives in Vernacular Architecture II* (Columbia: University of Missouri Press, 1986), 222-23; *A Place to Belong*, 1991; "Privacy and Architecture: A Newfoundland Example," in *Perspectives in Vernacular Architecture III*, Thomas Carter and Bernard L. Herman, eds., (Columbia: University of Missouri Press, 1989), 246-47; "Rebuildings on Newfoundland's Southern Shore: Cut-Down Roofs, Raised Hopes," *Material Culture*, 19 (1987): 67-83; Some of Richard MacKinnon's contributions include: "Log Architecture on Cape Breton Island, Nova Scotia: Cultural Borrowing and Adaptation," *Material Culture*, 24 (Fall 1992): 1-17; "Making a House a Home: Company Housing in Cape Breton Island," *Material History Review*, 47 (Spring 1998): 46-56; "Tompkinsville, Cape Breton Island: Cooperativism and Vernacular Architecture," *Material History Review*, 44 (1996): 45-63, and *Vernacular Architecture in the Codroy Valley*, 2002.

<sup>141</sup> Notable studies in the American context include: Garrison, *Landscape and Material Life*, 1991; James Garvin, *A Building History of Northern New England* (Hanover: University Press of New England, 2001); Hubka, *Big House, Little House*, 1984; Fred Peterson, *Homes in the Heartland: Balloon Frame Farmhouses of the Upper Mid-West, 1850-1920* (Lawrence, Kansas: University Press of Kansas, 1992); Small, *Beauty & Convenience*, 2003; St. George, *Conversing by Signs*, 1998.

<sup>142</sup> The literature on Nova Scotia's agricultural history is rather substantive. Some notable works include Rusty Bitterman, "Farm Households and Wage Labour in the Northeastern Maritimes in the Early 19<sup>th</sup> Century," *Labour/Le Travail* 31 (Spring 1993): 13-45; Rusty Bitterman, Robert MacKinnon and Graeme Wynn, "Of Inequality and Interdependence in the Nova Scotian Countryside,

improvement and modernity in rural nineteenth-century Nova Scotia has brought a new dimension to the social and ideological history of the province's agriculture, but in excluding material and spatial evidence of the rural environment, he neglects what is perhaps the most revealing text: farm buildings.<sup>143</sup> Barns demonstrate in tangible, concrete ways how ordinary nineteenth-century farmers interpreted and conceptualized the swirl of ideas and choices available to them in their rapidly changing rural communities. This thesis, therefore, sets out to materialize ideals like agricultural improvement in nineteenth-century Nova Scotia. Ideas and social discourses, such as improvement and reform, can be sculpted into the physicality of the landscape itself.<sup>144</sup> Material forms are containers for ideas, and ideas are manifested in objects. As Garrison

---

1850-1870," *Canadian Historical Review* 74, no. 1 (1993): 1-43; Marilyn Gerriets, "Agricultural Resources, Agricultural Production and Settlement at Confederation," *Acadiensis* 31, no. 2 (Spring 2002): 129-156; Kris Inwood, ed. *Farm, Factory, and Fortune: New Studies in the Economic History of the Maritime Provinces* (Fredericton: Acadiensis Press, 1993); Robert MacKinnon, "Agriculture and Rural Change in Nova Scotia, 1851-1951," in *Canadian Papers in Rural History vol. 10*, Donald H. Akenson, ed. (Gananoque, Ontario: Langdale Press, 1996), 231-274; Robert MacKinnon and Graeme Wynn, "Nova Scotian Agriculture in the "Golden Age": A New Look," in *Geographical Perspectives on the Maritime Provinces*, Douglas Day, ed. (Halifax: St. Mary's University, 1988), 47-60; Alan R. MacNeil, "Cultural Stereotypes and Highland Farming in Eastern Nova Scotia, 1827-1861," *Histoire sociale-Social History* 19, no. 37 (May 1986): 39-56; James H. Morrison, "Maurice Almon Harlow's Nineteenth Year: Farming in Nova Scotia, 1877-1884," in *The Farm: The Dublin Seminar for New England Folklife Annual Proceedings 1986*, Peter Benes ed., (Boston: Boston University, 1988), 24-35; Michael J. Troughton, "From Nodes to Nodes: The Rise and Fall of Agricultural Activity in the Maritime Provinces," in *Geographical Perspectives on the Maritime Provinces*, Douglas Day, ed. (Halifax: St. Mary's University, 1988), 25-46; Anthony Winson, "The Uneven Development of Rural Economy in Canada: The Maritimes and Ontario," Working Paper No. 6-85, (Halifax: Gorsebrook Research Institute, St. Mary's University, 1985) and "The Roots of Agrarian Decline: Farming in the Maritimes: 1850-1930," Working Paper No. 7-85, (Halifax: Gorsebrook Research Institute, St. Mary's University, 1985); Graeme Wynn, "Exciting a Spirit of Emulation Among the 'Plodholes': Agricultural Reform in Pre-Confederation Nova Scotia," *Acadiensis* 20, no.1 (Autumn 1990): 5-51.

<sup>143</sup> Samson, *The Spirit of Industry and Improvement*, 2008.

<sup>144</sup> Garrison, *Landscape and Material Life*, xxviii.

argues, landscape and material life thus “forms an important text on how and why people changed their world.”<sup>145</sup>

#### 4) *Considers marginal places as worthy of critical study*

The literature on the architectural history of agriculture tends to be centered on large-scale, commercially viable farms, where agricultural returns are overwhelmingly the primary source of income for the farm family.<sup>146</sup> Agricultural history specific to the Maritimes has also primarily focused on the most productive, agriculturally viable regions, ignoring hinterlands that although marginal, supported active farmsteads.<sup>147</sup> Many farms like the ones along the St. Mary’s River valley—small, mixed, limited in production and access to markets—characterized much of nineteenth and twentieth-century agriculture across Nova Scotia, a province that has less than one percent of the total farm area in Canada today.<sup>148</sup> This study differs from others in that it explores the architecture of the barns of more marginal, subsistence farms, and considers a broader concept of “the farm” to mean a space where livestock, fields, but also forest resources, are all exploited as part of an integrated system. Such farm spaces, and the lives lived

---

<sup>145</sup> Ibid.

<sup>146</sup> For example, Sally McMurry’s writing on the built agricultural landscape, while authoritative, focuses only on the highly productive farms of Pennsylvania. See “The Pennsylvania Barn as Collective Resource, 1830-1900,” *Buildings & Landscapes* 16, no.2 (Spring 2009): 9-28 and *Farm Families*, 1988.

<sup>147</sup> Robert MacKinnon is a notable exception. In his thesis on the historical geography of agriculture in Nova Scotia, he pays attention to regions that, although more prominent in their fishing and lumbering economies, did actively participate in farming. See “The Historical Geography of Agriculture in Nova Scotia, 1851-1951,” PhD diss. (University of British Columbia, 1992).

<sup>148</sup> Census of Agriculture 2006. Government of Canada. <http://www.statcan.gc.ca/ca-ra2006/analysis-analyses/ns-ne-eng.htm#prog> (accessed April 7, 2014).

within them, need to be examined critically just as much as intensely productive farms in places like Upper Canada and the West.<sup>149</sup>

While Northeastern Nova Scotia has been a favoured focus of scholarly writing on the agriculture of the Maritimes, work has examined western areas of Pictou County or Antigonish County to the exclusion of districts like St. Mary's.<sup>150</sup> In fact, scholarship on any aspect of the history or culture of Guysborough County is limited; most work has been theses on themes like rural and economic decline.<sup>151</sup> As a region of Nova Scotia that is frequently marginalized not only in terms of scholarship but also in relation to services and economic opportunities, a final motivation of this thesis is to address a place long neglected within Atlantic Canada Studies.

### *Conclusion*

As the great landscape historian W.G. Hoskins wrote, "behind the evidence, whatever form it may take, one must strive to hear the men and women of the past talking and working, and creating what has come down to us."<sup>152</sup> Henry Glassie maintains that researchers with "literal minds and limited imagination" cannot hear these voices through

---

<sup>149</sup> For instance, Peter Russell's study on agriculture and the shaping of Canada in the nineteenth century considers farming in Upper Canada and the Prairies, but altogether excludes the Maritime Provinces. See *How Agriculture Made Canada: Farming in the Nineteenth Century* (Montreal & Kingston: McGill-Queens University Press, 2012).

<sup>150</sup> Such as, Bitterman, MacKinnon and Wynn, "Of Inequality and Interdependence," 1993; MacNeil, "Cultural Stereotypes and Highland Farming," 1986; Wynn, "Exciting a Spirit of Emulation," 1990 and "This Dark Vale of Sorrow," *The Nova Scotia Historical Review*, 6, no. 2 (1986): 55-62.

<sup>151</sup> See Timothy Archibald, "A Question of Staying or Leaving," 1987; Bruce MacDonald, *The Guysborough Railway: 1897-1939* (Antigonish, NS: Formac, 1973).

<sup>152</sup> W.G. Hoskins, *Fieldwork in Local History*. (London: Faber, 1967), 184.

objects or landscapes, but instead “live in the little world of words.”<sup>153</sup> As Glassie further observes, “when your wish is to understand people who are dead, artifacts are all you have. They last.”<sup>154</sup> It is within this reality that Michael Owen Jones insists that objects provide a methodological alternative as humans are expressive beings that look to “communicate messages in multiple and varied ways.”<sup>155</sup> Indeed, much theorizing in material culture studies has argued against evidential primacy, emphasizing the many merits of a material approach to understanding history and culture. Since the ordinary farmers of St. Mary’s did not leave much of a written legacy, their material objects—such as their barns—emerge as sources of evidence with the potential to offer different insights into agricultural history. They are rooted in the realities of material life and space, and in simple, every day, familiar farm actions. Good enquiry, Henry Glassie argues, should not demand hypotheses, but the “ability to converse intimately.”<sup>156</sup> This thesis therefore looks to listen to the farm families of early St. Mary’s, and observe closely their work and creation. Let us turn, then, and converse intimately with the past.

---

<sup>153</sup> Henry Glassie, “Studying Material Culture Today,” In *Living in a Material World: Canadian and American Approaches to Material Culture*, edited by Gerald L. Pocius, 253-266 (St. John’s, NL: ISER, 1991), 253.

<sup>154</sup> Glassie, “Archaeology and Folklore,” 28.

<sup>155</sup> Michael Owen Jones, Comments in “Material Culture Studies: A Symposium,” ed. Simon Bronner, special issue, *Material Culture* 17, no. 2/3 (Summer/Fall 1985): 99.

<sup>156</sup> Henry Glassie quoted in Bonnie Sunstein and Elizabeth Chiseri-Strater, *Fieldworking: Reading and Writing Research*, 4<sup>th</sup> edition (Boston: Bedford-St. Martin’s, 2011), 219.

## Chapter 2

### Phase I: Early Barns

---

John Robinson and Thomas Rispin offer one of the earliest descriptions of barns on the Nova Scotia landscape. Two Yorkshire farmers, they travelled the colony to assess its value for potential British immigrants and published their perspectives in an informal settler's guide entitled, *Journey through Nova Scotia, Containing a Particular Account of the Country and its Inhabitants*, in 1774.<sup>157</sup> Remarking on many aspects of the Nova Scotia countryside—from the styles of domestic architecture and to the use of oxen teams, to the process of cutting and clearing the forests—they noted that the early settler's barns were:

built of wood, some of them with clapboards and shingles in the manner of their houses. They contain different apartments for their horses, cows, and sheep; and have a floor above for their hay and corn, which is for the most part deposited in their barns, as they do not seem fond of stacking. The entrance of their barns is so large as to admit a loaded wagon.<sup>158</sup>

What Robinson and Rispin described was probably the English barn type, a conceptually tripartite, single level (no full masonry cellar) timber-framed structure of roughly 30x40 feet. It shelters both livestock and crops and is entered through a large, double door that is located in the center of the sidewall (Fig. 15). The form would have

---

<sup>157</sup> In the middle years of the 1770s, a large group of Yorkshire farmers, many with substantial means, emigrated to Chignecto, Nova Scotia where they purchased farmland.

<sup>158</sup> John Robinson and Thomas Rispin, *Journey Through Nova Scotia, Containing a Particular Account of the Country and its Inhabitants* (1774; repr., Maritime Literature Reprint Series, Sackville, NB: Ralph Pickard Bell Library, Mt. Allison University, 1981), 22.

been one of the most popular and practical barn designs available to Nova Scotians at the time of Robinson and Rispin's evaluations.



Figure 15. A pastoral scene of the early Nova Scotia countryside. The village of Debert, Township of Londonderry, Colchester County. An English barn, with its double doors open, is visible in the center-left of the image. Robinson and Rispin would have encountered an identical form. By John Elliott Woolford in *Sketches of Nova Scotia*, 1817. Nova Scotia Museum, 31073.TIF

This chapter examines the first barn form on the St. Mary's landscape: the three bay English type. Foundational to understanding the timber-frame barn building processes of all subsequent St. Mary's barns, the English type is first explored in relation to its Old World and New England origins. Using two extant English barns from the mid-1830s as case studies, I consider the specifics of their construction and use in St. Mary's, and the various reasons why the barn was "good" for the early settler farmer.

#### *Old World Antecedents and New World Adaptations*

As British farmers, Robinson and Rispin would have viewed barns in a much different way than the New World settlers that they observed. This is because the British

system of agriculture required a separate building for each of the farm's enterprises: stables for livestock, granaries for grain, and the largest, most important building—the barn—reserved exclusively for the storing and threshing of cereals (Fig. 16). The barn was also the most prestigious agricultural building on the farmstead, and was therefore limited in ownership. Some medieval era tithe barns (appropriated from the church for private use during the Reformation) were upwards of a couple hundred feet in length, indicating not only the success of British farming operations, but also the significance of the building type as a locus of power and authority on the landscape. Further, timber in Britain was a scarce commodity, especially after the seventeenth century, and barns of such sizes required much of it. Therefore, the privilege of owning a barn was for a select few and the structures entailed a high degree of social status. There were smaller, three bay barns built across Southeast Britain, but like the larger timber-framed barns, they did not house livestock (Fig. 17).

Nova Scotia farmsteads did have multiple and function-specific buildings or shelters for certain animals, equipment, and tasks, like icehouses, wagon sheds, horse stables, wood houses, workshops, chicken coops, and pig sties, but it is important to note that these buildings were ancillary to the barn and house. The barn almost always housed cattle, thus combining dairy livestock, grain and fodder – the most important farm products – under one roof. Although some reformers advocated the British system of a separate stable and barn, and colonial newspaper sale ads that make reference to a separate cowhouse or stabling can be found, this arrangement was infrequently adopted in Nova Scotia. Alfred C. Thomas, in his *Comparisons of English & American Farming* (1880) recommended separate buildings for the Nova Scotia farmstead. Thomas

condemns the “large, elevated barns generally built in this country” as “very unsightly,” and a “constant expense to keep in repair” (56). The British principle of multiple farm buildings dates to the medieval period but was further re-worked in the late Georgian and Victorian eras of reformed, ‘model’ farm complexes.<sup>159</sup>



Figure 16. Above top: Early 13th century (with 16th and 17th century modifications) Barley Barn at Cressing Temple, Braintree, Essex. Note the porch. Above center: Circa 1600 timber-framed gable roof barn at Matching Hall Farm, Matching, Essex. Photos by author.

---

<sup>159</sup> For an excellent analysis of British multi-building model farms and how they worked see Susanna Wade Martins, *The English Model Farm: Building the Agricultural Ideal, 1700-1914*, (Macclesfield, UK: Windgather, 2002).



Figure 17. Three bay 17th century barn (with linhays), at Little Spray's Farm, Brightling, East Sussex, England. Image taken circa 1975. Barn is now a domestic conversion. Image courtesy Gerald L. Pocius.

### *The English Barn*

The English barn form originated in early eighteenth century New England as an adaptation of the smaller three bay barns found throughout Southeastern England (Fig. 18). It was popular and durable. Many North American barn types are derived from this three bay English type and the English barn form remained in common usage until the twentieth century. That this three bay English type is sometimes known as a "Yankee" barn, further suggests New England cultural and geographical origins. Robinson and Rispin's encounter with Nova Scotia English barns was no doubt strange for the two Yorkshire farmers, but the structures would have had some recognizable attributes; they are known as "English" barns, after all. This is because the basic bay form, and the principles and methods of post-and-beam, mortise-and-tenon construction, are derived

from medieval and later barns built primarily in Southeastern England.<sup>160</sup> As Glassie observes, both traditional British and North American English barns are “manifestations of the same mental template of shape,”<sup>161</sup> but the forms are independent in regards to some aspects of construction and use. The North American English barn type follows the British tradition of a central threshing floor with a bay on either side. However, the degree of availability of certain construction materials and skilled knowledge, as well as changing spatial requirements, led to the creation of a closely related, yet ultimately new barn form in the North American environmental and social context.

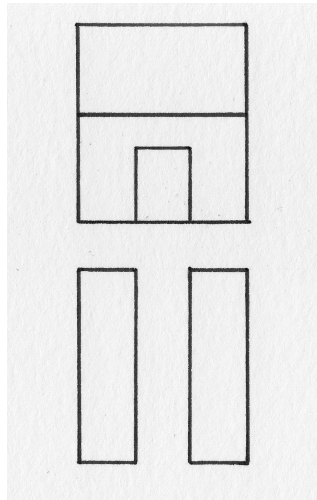


Figure 18. The three bay English barn concept, with center floor and large double doors. Drawing by Brittany Roberts.

The English barn type diffused from New England to Maritime Canada with emigrant groups like the planters and loyalists in the 1760s and 70s. The earliest settlers in St. Mary's, such as the Fisher, Archibald, and McKeen families, were second-generation planters who would have been familiar with New England architectural

---

<sup>160</sup> St. George discusses the transfer of traditional carpentry knowledge by immigrant craftsmen to New England in *A Retreat from the Wilderness*, 40-99.

<sup>161</sup> Glassie, “Barn Building in Otsego County,” 14.

expression and building techniques. As elaborated in the previous chapter, the character of Nova Scotia's built landscape is largely attributable to the New England building tradition. When other dominant immigrant farming groups like the Scots arrived in Nova Scotia, they immediately adopted the building styles and construction technology used by the established settlers in a desire to acculturate and integrate, but also assert their participation in modernity, an arena in which many were denied access in rural Scotland.<sup>162</sup> The majority of Nova Scotia house and barn forms, including those in St. Mary's, are therefore part of an exclusively Anglo-American building tradition.<sup>163</sup>

While the British pattern of a barn for grain and a stable for livestock was initially replicated in early colonial New England, Robert St. George has demonstrated that this concept was quickly replaced, even within the first generation of settlement, by the idea of the multi-purpose barn.<sup>164</sup> While the three-bay barn form, as well as the basic timber-framing technology of Old World British barns proved useful to settlers, they chose to forget many of the other aspects that characterized the barns of their homeland, such as the segregation of livestock and fodder or complex carpentry techniques. Glassie notes that many features common on British barns—front porches, hipped roofs, complex joinery, and principal rafter systems—were altogether abandoned in Northeastern North

---

<sup>162</sup> See Maudlin, *The Highland House Transformed*, 2009.

<sup>163</sup> I have not surveyed the architecture of the German or "Foreign Protestant" ethnic group, who settled predominately in the southern shore, but also eastern shore, of Nova Scotia. Scholarly publications on this architectural tradition are virtually non-existent. It is possible that German building techniques influenced barn construction in these particular regions of the province, as German settlers in Lunenburg, for example, did use horizontal post-and-plank framing in the construction of their late 18<sup>th</sup> century houses – a technique common in continental Europe. Post-and-plank building is when house walls are made of solid planks, one above the other, which slide into a groove in vertical corner posts – essentially a form of log construction. See James and Plaskett, *Buildings of Old Lunenburg*, 2.

<sup>164</sup> St. George, *A Retreat from the Wilderness*, 18.

American barn building in an effort to simplify the building process. Simplified principles and methods of construction were crucial to labour efficiency in the New World, as skilled tradesmen, like carpenter-joiners or masons, were scarce in newly settled places like New England (and Nova Scotia), and thus their specialized labour was expensive.<sup>165</sup> As Henry Glassie writes, “the main act of new Americans was scanning their memories for useful old ideas” that could work in new situations.<sup>166</sup>

Besides the barn’s multi-purpose usage, Robinson and Rispin would have found other components in the overall system of agriculture in Nova Scotia much different than the farms of their homeland. British farms were well-established estates that were market-oriented in production: grain growing, dairying, and sheep rearing operations were performed on a more intensive scale than late eighteenth century Nova Scotia. As well, those who worked the land in Britain were disenfranchised day-labourers. Other men held farm tenancies of varying sizes, from which their wealthy or aristocratic landlord could evict them. Yeoman freeholders made up only a small, sort of middling class of farmers. The majority of production on British farms, then, was not dependent on one family’s exertion, as it was in Nova Scotia, but on a large demographic of poor, wage labourers

---

<sup>165</sup> See Dell Upton, “Traditional Timber Framing,” in *Material Culture of the Wooden Age*, ed. Brooke Hindle, (Tarrytown, N.Y.: Sleepy Hollow Press, 1981).

<sup>166</sup> Henry Glassie, “The Barn across Southern England: A Note on Transatlantic Comparison and Architectural Meanings,” *Pioneer America* 7, no. 1 (January 1975): 16. Brian Donahue, in *The Great Meadow: Farmers and the Land in Colonial Concord* (New Haven: Yale University Press, 2004) details how early New England settlers adapted the English mixed-husbandry system to their new landscape and ecology. He observes that the new working landscape “molded novel American elements into a familiar European agroecological pattern” (54). He notes that “each group may have arrived pre-disposed to replicate the local features of rural life with which they were most familiar, but they also needed to be flexible in adapting those aspects of their English experience – crops, livestock, farming methods, landholding patterns, means of water regulation – that seemed best suited to their new environment. They drew upon the many variations on a few basic themes afforded by their home regions” (55). The same can be argued for early buildings.

who owned neither farmhouse nor barn or on tenant farmers who paid rents in return for little land security. Capital, access to markets, and an abundance of underpaid labourers sustained Britain's comparatively large-scale farming operations.

In contrast, the majority of Nova Scotia farmers owned their own land, whether claimed, purchased, or granted through petition or military service by colonial governments. In St. Mary's, almost all farmers could be classified as "yeoman" in that they held tenure to the land they worked, and depended on the labour of the family for farm maintenance and production. The term "yeoman" is certainly used in various public documents relating to St. Mary's, such as Samuel Cumming's aforementioned marriage bond, which lists "Robert Glencross, yeoman" as a witness. While St. Mary's farmers would have had necessary debt to establish their steads and purchase goods, they were certainly independent in the sense that they controlled the destinies of their own landholdings. The 1838 census for the central district of St. Mary's identifies only fourteen of 212 male heads of households as "labourer," and those identified as such are mainly young, single men. The majority of settlers are listed as "farmers"—implying an independent stead—though certainly labour would have been exchanged or traded from farm to farm or from poorer farm to wealthier farm as a means of repayment for debt or borrowed supplies and implements.<sup>167</sup>

By the seventeenth century woodlands were deforested in Britain and timber framing was for the rich alone, used mainly on the exterior of structures—especially in

---

<sup>167</sup> Bitterman, MacKinnon and Wynn in "Of Inequality and Interdependence," discuss debt, labour exchange and social stratification in the Nova Scotia countryside. See also the 1853 diary of successful Hardwood Hill, Pictou County farmer John Murray, wherein he records his practice of the old rural "barter system" of labour or service in exchange for the use of agricultural implements or the purchase of surplus produce, MG 100, vol. 194, no. 16, NSA.

finished ways—as a sign of conspicuous consumption. However, in the North American context, the tables turned. Dell Upton remarks that in North America, “Europeans indulged in uninhibited preference for [wood], for they had found a continent that in some instances was so thickly wooded as to be a hindrance to their agriculture.”<sup>168</sup> The English barn, overbuilt with timber of massive proportions, became a much more democratic structure in the New World context, as wood was accessible to all. Ultimately the North American English barn maintained an important symbolic dimension: the barn was an indication of upward social mobility. The multi-purposed functionality of the English barn form further conveys the power of this class reform in the North American context. As Glassie writes,

The American immigrant had probably not owned a barn back in England, but he had worked in them, sweating, threshing in the dust, on the holdings of his wealthiest neighbors. The American barn’s uses were probably reworked so that every farmer could have his own barn. Few American farmers grew enough grain to require a whole barn, but even a modest subsistence farmer could fill a big, barn-shaped building with cows and horses and hay and grain and then call that building a “barn.”<sup>169</sup>

The English barn is ultimately indicative of democratic intention, argues Glassie, of the ordinary yeoman finding independence through his own endeavor, in working his own land.

Finally, extensive forests and rocky or wet, undrained land characterized much of the geography of Northeastern North America at the time of settlement. The climate was

---

<sup>168</sup> Upton, “Traditional Timber Framing,” 35.

<sup>169</sup> Glassie, “The Barn across Southern England,” 18.

also colder than in Britain, with a substantially shorter growing and grazing season.<sup>170</sup>

Such a landscape, with a relatively democratic land tenure system and abundant woodland resources but a harsh ecology, therefore necessitated a much more fluid and forgiving conceptualization of both “the farm” and “the barn” than what was previously understood in the Old World.

All these combined reasons suggest why British models were inadequate for New World contexts. The three-bay English barn form, streamlined in framing technology and multi-functional in use, demonstrates ingenuity and adaptation in the face of new environmental and social contexts. By the late eighteenth century, the English barn was a ubiquitous form that had diffused to many regions of North America, including Nova Scotia, as New Englanders (mainly from Massachusetts, Connecticut, and Rhode Island) emigrated from already overcrowded farmlands in search of better agricultural and business opportunities.<sup>171</sup> The English type remained the prevalent barn form until the middle decades of the nineteenth century, and the multi-functional arrangement of both livestock and crops under one roof remains the normal conceptualization of a barn in North America today.

### *The English Barn in St. Mary's*

The English barn type was certainly common in the first settlements of St. Mary's as this 1817 watercolour by Lord Dalhousie's draughtsman, John Elliott Woolford,

---

<sup>170</sup> Donahue, *The Great Meadow*, 2004.

<sup>171</sup> See Margaret Conrad, ed. *They Planted Well: New England Planters in Maritime Canada* (Fredericton: Acadiensis Press, 1988) for a broad history of the arrival and impact of the Planters in Nova Scotia and surrounding regions.

reveals (Fig. 19). “W. Keens” barn on the West branch of the St. Mary’s River is shown as the typical three-bay form with large central doors as well as an adjacent linhay on the gable end. The barn appears to be sited roughly parallel to the small center-chimney farmhouse, and at a distance behind the dwelling. The flat intervale fields and meandering river are beyond. The idyllic scene likely depicts the homestead belonging to William McKeen, whose extended family was among the first settlers to arrive in St. Mary’s between 1800-1805 from Connecticut via some years in Truro, Nova Scotia. In an 1830 letter to his elder half-brother, S.G.W. Archibald, a prominent Halifax lawyer and assemblyman, McKeen describes his English barn as a “good” one.<sup>172</sup> What, exactly, might McKeen think was “good” about an English barn?



Figure 19. “On the West Branch of St. Mary’s River, W. Keens” by John Elliott Woolford in *Sketches of Nova Scotia*, 1817. Nova Scotia Museum, 78.45.80.

---

<sup>172</sup> William McKeen to S.G.W. Archibald, 10 May 1830, S.G.W. Archibald Family Papers, MG 1, vol. 89, no. 160, NSA.

William McKeen's barn is unfortunately no longer extant, but four English barns do remain from the first phase of barn building along the St. Mary's River.<sup>173</sup> While it is important to note that all of the English barns I documented were subsequently expanded, the original footprints of the structures are intact. They date from roughly 1835 to 1850, though I believe the barns are from the earlier end of this date range.<sup>174</sup> The Samuel Cumming and John Cruickshank Sr. barns will be used in this section as illustrative case studies in order to examine the English barn type in St. Mary's during the first half of the nineteenth century. I will outline the plan, use, construction, and design of local English barns to assess why the type was so desirable for the early St. Mary's farmer like William McKeen. However, some of the analysis that follows concerning Phase I English barn building in St. Mary's is also related to Phase II processes and examples. While ideally I try to consider the phases discreetly, some discussion regarding construction and spatiality of barns applies to both phases, and I present them in this chapter in order to avoid confusion in later sections of the thesis.

### *Plan and Use*

John Cruickshank Sr. (b.1803 / d.1882 or 1883), a Scots-born farmer and sawmiller, moved from Sunnybrae, Pictou County to the St. Mary's backland settlement

---

<sup>173</sup> I also documented the Bowie English barn for comparative purposes in Havendale, part of the Guysborough Intervale farming region in southeast Guysborough County. An additional English barn form from the community of Newtown exists in St. Mary's, but its framing indicates that it is from the twentieth century, or at least received extensive renovations at that time, attesting to the durability of the English type for subsistence scale farming.

<sup>174</sup> Because barn technology is conservative, some of the barns could date from the first few decades of initial settlement, 1800-1830, but there is no way for me to determine this. My dates are by no means definitive, and are derived from a combination of property title searches, census data, oral history, and material evidence, and are subject to reinterpretation as more data arises.

of Lower Caledonia, sometime before the 1838 census of Nova Scotia.<sup>175</sup> His English barn measures approx. 33x30 feet, is three bays in length, and was probably built before 1840 (Fig. 20)<sup>176</sup> Samuel Cumming's English barn was probably built around 1835 (the year his farm was purchased) and is approximately 41x32 feet (Fig. 21). The Cruickshank barn is bilaterally symmetrical: two identical bays flank a central threshing floor that runs at a right angle to the roof ridge. The Cumming barn actually consists of four bays, but the external appearance of symmetry is more or less achieved. The long axis of both barns are aligned roughly NE-SW.



Figure 20. Cruickshank English Barn, Lower Caledonia. Photo by author.

---

<sup>175</sup> See "Cruickshank Family of Pictou and Guysborough Counties, Nova Scotia," a genealogy compiled by John Christison, September 1990, available at Pictou-Antigonish Regional Library. See also the 1838 census of Nova Scotia, in which John Cruickshank is listed as living in the "Back Settlements" of the central division of the township of St. Mary's, RG1 vol. 449 #150, NSA.

<sup>176</sup> A bay is the space between two framing bents, frequently ten feet. As an architectural unit of measurement, the number of bays helps describe the scale of a barn. See Walter Horn, "On the Origins of the Mediaeval Bay System," *Journal of the Society of Architectural Historians*, 17, no. 2 (Summer 1958), 2-23.



Figure 21. Cumminger English Barn, Aspen. The extension is cropped for this photo. Photo by author.

In the Cruickshank barn, the haymow is allocated to roughly three-quarters of the NE end bay while the livestock would have been stabled in the opposite, SW end bay—often called the *byre*, from the old British word for cowshed—accessible through a small exterior door. Originally, the haymow probably would have been the full length of the bay, as in the Cumminger barn. Karen (née Cruickshank) Bambrick, who owns the farm today, recalled that in her youth the quarter of the bay that is floored and not used for hay once stored grain containers and various implements.<sup>177</sup> In St. Mary's English barns, the pattern of interior division is that the haymow is generally to the left of the barn's central doors, while the stabling is to the right. The Cruickshank barn also has a scaffold above the stabling bay, made of rough-squared logs (other St. Mary's barns have closely spaced

---

<sup>177</sup> Personal communication, 25 July 2013.

spruce poles, sometimes halved), which stored additional loose hay and provided insulation for the animals in the byre below (Fig. 22). A wooden ladder attached to the bent would have been used to reach the scaffold but this is no longer present.



Figure 22. Scaffolding above the stabling bay provided additional loose hay storage and insulation for the animals below. The entry to the passageway for feeding is to the left. Cruickshank barn, Lower Caledonia. Photo by author.

The Cruickshank barn's interior space is divided—running from NE to SW—in the following arrangement:

**Bay 1** — 11<sup>3</sup> wide hay mow that extends down below the level of the barn's floorboards; around a quarter of the bay's length was later floored and used for grain storage.

**Bay 2** — 10<sup>4</sup> wide central threshing floor.

**Bay 3** — 11<sup>0</sup> wide livestock stabling with hay scaffold above (Fig. 23).

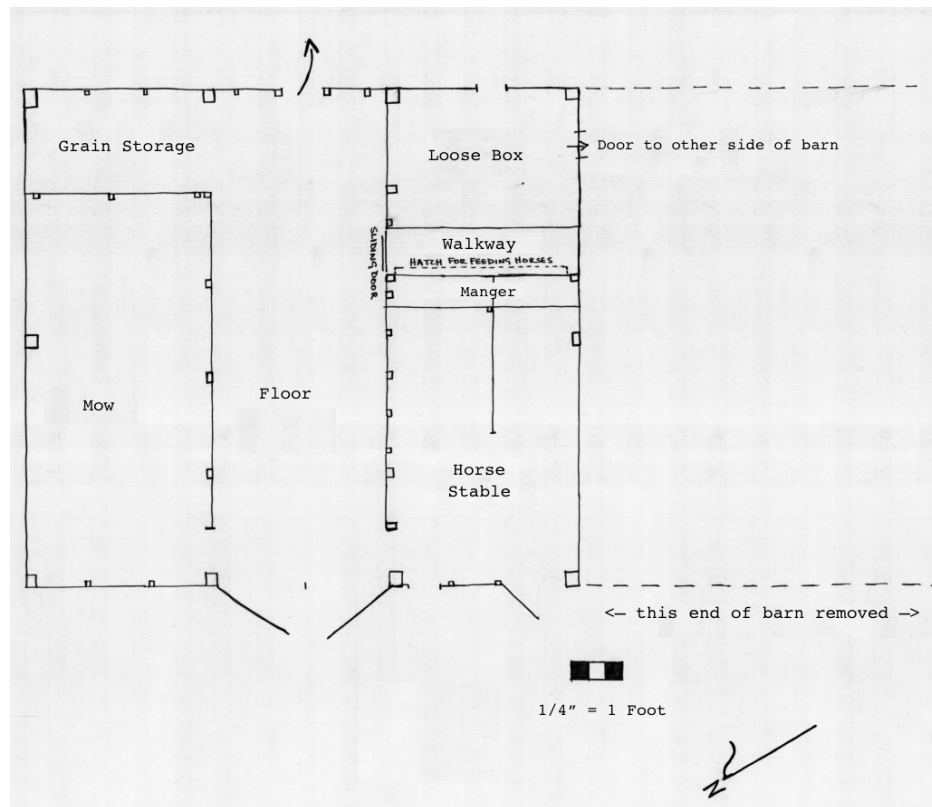


Figure 23. Cruickshank barn, Lower Caledonia. Plan by author and Adrian Morrison. Drawn by author.

In addition to the haymow bay, the stabling bay underwent a spatial reorientation at some point. Possibly this was when the barn was extended at mid-century, but these changes also could have occurred later. Half of the stabling bay's length is allocated for a team of horses, probably like the black Percherons Dick and Dock, who belonged to Karen's father, J. Edwin (b. 1904 / d. 1991) in the 1950s. However, the stabling bay with mangers facing toward the central threshing floor, originally would have predominately housed cattle and oxen as draught horses emerged in greater numbers on the landscape only with the widespread appearance of mechanical farm implements. Why the Cruickshank's decided horses should be stabled here, and their mangers re-oriented to face the SE lateral wall, I can't determine. The layout is certainly an awkward one in the

sense that there is not much room to back the horse out of his straight stall, turn him around, and get out the door. A passageway, however, runs between the loose livestock pen and the horse stalls, which facilitates easy feeding through a hinged door that swings down to offer access to the horse's manger. Robert St. George documented a similar feeding passage in the pre-1730 Cushing barn in Hingham, Massachusetts,<sup>178</sup> but this feature, as well as the reduced haymow length in the NE bay, is not consistent with the majority of North American English barn plans. This further suggests a reorientation of space at a later date. With the other half of the expanded double English barn demolished in a windstorm in the 2000s, I have an incomplete picture of the spatial arrangement of the barn's full interior, and how the original English barn layout may have been impacted at expansion.

It is difficult to determine an exact number of livestock held in St. Mary's English barns, as detailed agricultural statistics do not exist for Nova Scotia before 1861, a period when English barns were already expanding to a doubled size. While an 1851 census was administered for Nova Scotia, the only surviving records of agricultural returns are for Pictou County. Unfortunately, there are no extant barns from the first half of the nineteenth century in the St. Mary's Pictou County communities of East River St. Mary's or Garden of Eden to compare with the census data. The Cumminger English barn, however, still retains wood stanchions in the byre from at least the mid-twentieth century,

---

<sup>178</sup> St. George, *A Retreat from the Wilderness*, 25.

and I counted stanchions for eleven cows.<sup>179</sup> It's unlikely that the full length of the stabling bay of any English barn would have been allocated for cattle stanchions, as part of the bay would require a loose box for sheep or a young heifer, and possibly a stall for a horse. As well, not all cattle were wintered in the barn, but after a long summer of grazing outdoors in the pasture, were slaughtered or sold in the fall. According to census returns, in 1871 Samuel Cumming and his son Jesse (who at the time shared his parent's house with his young family) had a dozen head of cattle between them, and four were killed or sold for slaughter or export. They also had twenty sheep (two were killed or sold for slaughter or export) and three pigs (two were killed or sold for slaughter or export). Three horses completed their livestock. John Cruickshank Jr. had fifteen head of cattle, and two cows were killed or sold for slaughter or export.<sup>180</sup> He also had thirteen sheep (two were killed or sold for slaughter or export) and one pig, which he slaughtered. Cruickshank also had three horses. We can assume, then, that about eight to thirteen cows would have required winter stabling during the Phase II barn building period of the 1871 census survey, at which point both the Cumming and Cruickshank barns were likely doubled in size. Cattle numbers were undoubtedly lower in St. Mary's *before* mid-century barn expansion, therefore the number of cattle housed in early Phase I English barns was probably less than eight.

---

<sup>179</sup> Stanchions are parallel upright bars, constructed of wood or metal, which are used in straight stalls. The cow's head goes through the stanchion, which restricts the movement of the animal around the barn.

<sup>180</sup> John Cruickshank Sr. is not listed in the nominal return of the living for the 1871 census, although he did not die until 1882 or 1883. It is possible that he was living with family in another locality – perhaps Sunnybrae – at the time the census was taken, as genealogical records indicate he died at Sunnybrae, Pictou County.

English barns were usually windowless and dark. The big double doors provided most of the barn's natural lighting needs. However, two small, paned windows light the byre bay of the Cruickshank barn. These windows, and two others on the rear lateral wall and another in the NE gable end peak, are later additions from a period when reformers began to advocate the benefits of sunlight for cattle, and when windows were probably more affordable. There is only one window (also a later addition) in the Cumminger barn byre and none in the gable.

The large double doors on the NW lateral wall define the central bay of the Cruickshank and Cumminger barns, known as the threshing floor. Inset is a smaller door that permitted access to the floor without opening the larger doors.<sup>181</sup> The threshing floor was an important spatial zone because it offered interior access to the other bays of the barn. A predominately open space, it served several functions. In Samuel Cumminger's English barn, which retains an intact interior arrangement, the central threshing floor facilitated easy feeding access to the livestock in the adjacent bay via a long hatch that opened outward to the floor, exposing the cattle stanchions; feed could be easily scooped from the floor's grain bins directly into the manger, or forked from the mow to the floor to the manger. Frankie Cumminger remembers old grain bins lining the threshing floor, but his father removed them. The floor also served as a vehicle platform to unload hay wagons, and loose hay was hand-pitched into the mow and scaffold. Further, agricultural implements such as carts, hand tools, and other mechanized equipment were stored on the floor. On the opposite end of the threshing floor in most North American English barns

---

<sup>181</sup> In St. Mary's, *any* open bay that can be directly accessed by large double doors is generally referred to as a barn "floor."

was another large set of doors that allowed the hay cart to enter, unload, and then continue on through the other side of the barn without the inconvenience of backing up the team and cart. However, because the Cumminger and Cruickshank English barns are situated on small banks or “side-hills,” these opposite doors would not have been a useful through-passage due to the height of the rear drop-off. Framing evidence from the Cumminger barn convinces me that there was another set of doors on the opposite end of the threshing floor, but these were subsequently removed and the wall re-boarded. It is possible that the barn was moved from a level location to a side-hill one, but I doubt this effort would have been undertaken, and would argue instead that these now vanished doors were never intended to facilitate a continuous drive, but were simply in place to let in more light and breeze than what a single door could provide alone. A small hatch was later substituted which permitted air circulation, like the one in the Cruickshank barn (Fig. 46). Glassie documented a similar barn located between Cooperstown and East Springfield in Otsego County, New York with no rear door to the threshing floor. Though unusual, he notes this variation in plan was “not unique.”<sup>182</sup>

Finally, the threshing floor was a stage of intense manual labour, performing an important role in the hand-processing of grain. The thick floorboards withstood the multiple beatings of the hand-flail—a sort of swinging, two-part club—that separated the kernel from the husks and straw (Figs. 24 & 25). The floor’s double doors let in the daylight and breeze necessary to winnow the grain, the process of separating the wheat from the chaff, that was traditionally done by hand with a fan basket in the colder, less

---

<sup>182</sup> Glassie, “Barn Building in Otsego County,” 183.

busy winter months. By the 1830s, however, hand-cranked fanning mills offered more efficient grain processing by mechanically shaking sieves, which separated the threshed kernels from the waste bits. A fanning mill is still stored in the Cruickshank barn's threshing floor, and according to the 1871 census, the Cruickshanks would have been one of forty-seven farm families in the St. Mary's, Caledonia, and Forks St. Mary's districts (combined total of 406 occupiers of land in 1871) who had the convenience of a mill on their farm (See Fig. 24 and Table 8). Following the mechanization of grain harvesting and processing through the 1870s and 80s, the threshing floor was primarily utilized as a space for storage of agricultural equipment, but it is important to note that even mechanical threshing operations made use of the floor's shelter and expanse, as evidenced in Fig. 26.



Figure 24. A rudimentary hand flail found in the Bowie barn, Havendale, Guysborough County (left). Fanning mill in Cruickshank barn, Lower Caledonia (right). Photos by author.

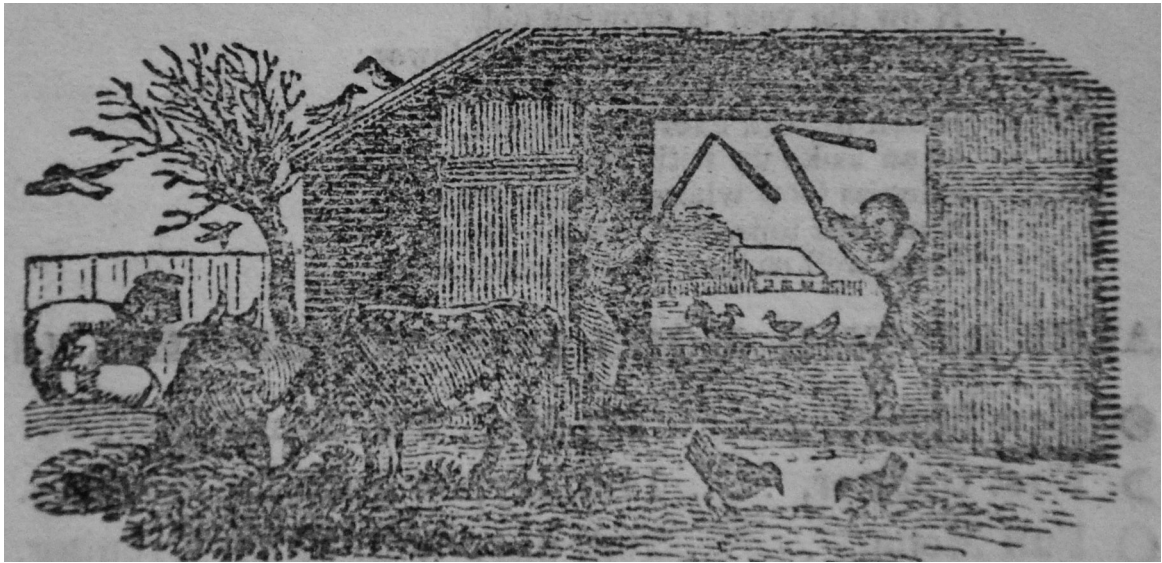


Figure 25. Threshing by hand-flail in the winter. Engraving from the December page of the 1839 Nova Scotia Almanak, printed and published by William Cunnebell, Halifax, AY N85a 1839, NSA.

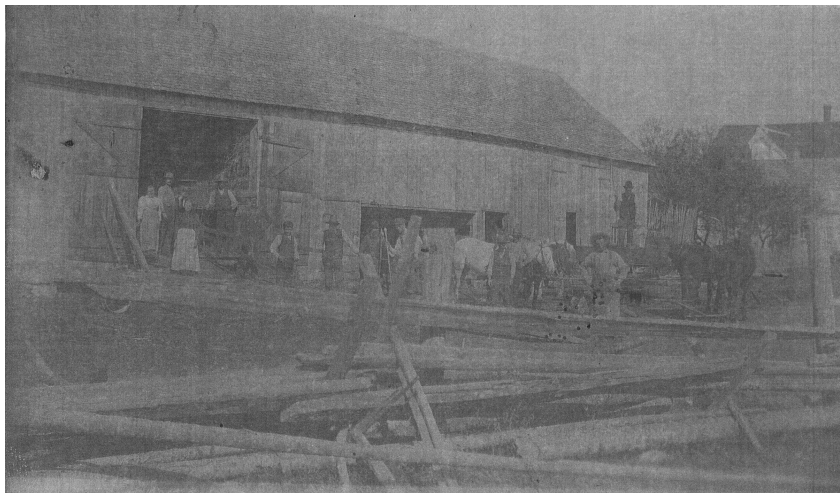


Figure 26. Mechanical threshing at the Cameron farm in East River St. Mary's. Date unknown, probably early 20<sup>th</sup> c. Note that the work party is assembled around the barn's threshing floor, where the machine is parked. The large opening in the center of the barn is probably the manure cellar. Sometimes the entrance was positioned on the front, rather than the rear façade, of the barn. Image courtesy of Mrs. Edith "George" Cameron.

Finally, the floor could be a site for processing cattle. The animal was slaughtered in the adjacent barnyard, and then strung up for dressing from a log roller that was positioned between the tie beams that flanked the threshing floor, and which could move back and forth along the beams, as seen in the Cumminger barn (Fig. 27). Frankie

Cumminger recalled this butchering process from his youth, and Robert Jack of East River St. Mary's remembered being sent out to the barn as a boy in the winter months of the late 1940s and early 50s, to cut a slab of meat from the frozen dressed deer carcass suspended above the threshing floor. Therefore, despite mechanization of threshing, the floor remained a principal spatial locus of the barn throughout the years.



Figure 27. Threshing floor bay of the Cumminger English barn. The log roll with chain for butchering is visible above the double doors, and spans the tie beams.

### *Framing*

The English barn's timber-frame consists of a post-and-beam system where vertical members are posts and horizontal members are beams.<sup>183</sup> All timber-framed barns are pre-planned on the ground by the builder before erection. The posts and beams are framed as a rectangular box—the envelope of the building—and are held together with mortise and tenon joinery. There are vertical posts at the four corners of the structure, and posts are at each bay division. The rafters are fitted on top of this box (Fig. 28).

---

<sup>183</sup> For an excellent summary of timber-frame building practices in North America, see Upton, "Traditional Timber Framing," 1981.

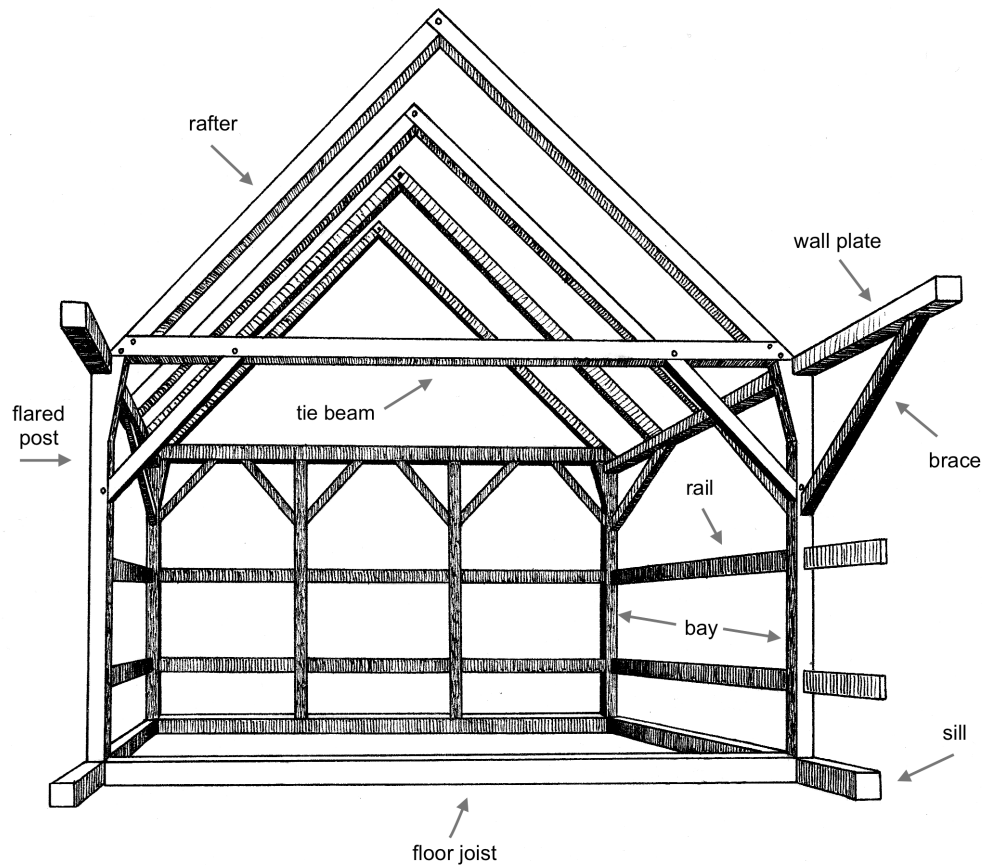


Figure 28. Isometric framing assembly of the Cumminger barn. Drawn by Brittany Roberts and labeled by the author. Adapted in part from an illustration by Glassie in “Barn Building in Otsego County,” 215.

These structural members were hewn and finished by a series of specialized hand tools that progressively distanced the felled tree from its raw form and appearance. The broadaxe squared the round log, transforming it to a post, tie beam, rafter, girt, rail, brace, joist, or sill, while the adze smoothed the rough surface edge.<sup>184</sup> A tongue (the tenon) was chiseled from the end of the beam, post, or brace, and fitted tightly into a hole cut for it (the mortise) in the corresponding beam or post (Fig. 29 & 30). Wood pins were then

<sup>184</sup> For a detailed description of the process of post and beam making (from felling the tree to drawing it from the woods to hewing and adzing), see Glassie, “Barn Building,” 193-195. For an illustrated overview of types of barn-building tools, as well as a ca. 1930s film on an Ontario barn raising, visit the The Dalziel Barn digital exhibit by Black Creek Pioneer Village: <http://www.dalzielbarn.com>

hammered into slightly off-center holes, which were bored by an auger before assembly into the mortise and tenon joints. These wooden pins, thus under tension, ensured the frame held together. Glassie notes that the number of pins used to secure a mortise and tenon joint depended on the size of the beams involved: the larger the beam, the more pins used.<sup>185</sup> A series of Roman numerals, sometimes called “marriage marks” are inscribed on beams near the tenons and their corresponding mortises, which ensured an efficient and correct pre-assembly (Fig. 29).

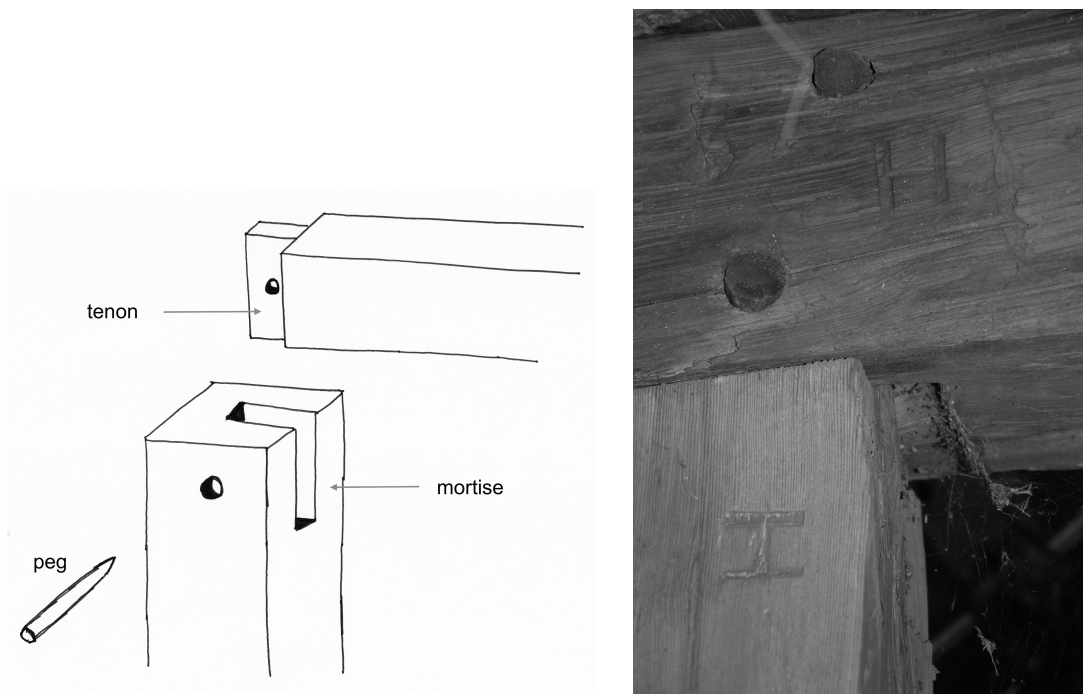


Figure 29. The basic principle of mortise and tenon joinery (left). Drawn by author. Roman numeral “I” framing marks inscribed on Cumminger barn members indicate that these two squared timbers belong to each other (right). In this join, the tenon or tongue extends upright from the butt of the post, while the mortise carved in the tie beam fits snugly down onto the tenon. The peg secures the join. Photo by author.

---

<sup>185</sup> Glassie, “Barn Building,” 199.



Figure 30. Tenon of a post wiggling out of the mortise of the corresponding tie beam in the James Fisher barn, Fisher's Mills. Photo by author.

It is important to note here that a number of semi-skilled manual labourers were required to erect a timber-framed barn, usually supplied in the form of neighbours and extended family.<sup>186</sup> Farmers had the skill to cut suitable logs from their woodlot for framing members; some may have been able to hew basic members. As many St. Mary's farmers were sawmillers, they would have also sawed their own barn boards and even some smaller members in later phases of barn building. However, a more specialized skill set of carpenters or joiners were required to hew members and produce joints, as well as direct the pre-assembly and raising of the members by the labourers. See Table 4 in Chapter Three for a list of skilled carpenters/joiners working in the St. Mary's area throughout the nineteenth century, compiled from census data. It is possible that any of these skilled tradesmen were responsible for the construction of some of the extant barns

---

<sup>186</sup> For an analysis of labour reciprocity, mutual aid, and cooperation among nineteenth-century farmers, see Thomas C. Hubka, "Farm Family Mutuality: The Mid-Nineteenth Century Maine Farm Neighbourhood," in Peter Benes, ed. *The Farm* (Boston: Boston University 1988), 13-24.

in St. Mary's, however highly-skilled itinerant carpenters and joiners were likely also employed.

Varying types of joints secured different members of the frame, providing strength and flexibility, but North American joinery is characteristically less complicated and diverse than what is found in old world barns. The only joints that I could determine holding together barn frames in St. Mary's of any period are variations of the aforementioned mortise and tenon joint, lap joints connecting rafters at the peak (there is no ridge pole on St. Mary's barns) as well as collar beams to rafters, and finally scarf and lap joints on some wall plates/sills, which splice together horizontal timbers. Scarf and lap joints were not found on the wall plates/sills of English barns probably because the timber was cut from old growth forests, and was therefore long enough to span the required thirty to forty feet barn length (Figs. 31 & 32).



Figure 31. Mortise and peg for a lap joint to connect the now removed collar beam to a gable end rafter, Cumminger barn. The removed collar beam and the two closely spaced rafters shown in this image indicate that the barn was extended at a later date. Photo by author.



Figure 32. Scarf joint on the wall plate of the Phase II John Henry Jordan barn, Newtown. The tenon of the post is also visible. Photo by author.

The framing system of the Cruickshank and Cumminger English barns are virtually identical but it is difficult to determine how exactly the frame of barns were raised. As Abbott Lowell Cummings remarks on early timber-frame building, “without pictures or written description we cannot tell how every single detail of assembly and rearing ... was managed ... and whether indeed there may have been a number of alternate methods, depending on technical circumstance.”<sup>187</sup> Hubka, however, suggests in the context of the Maine barn building tradition that English barns were built by first raising the sidewalls of the structure,<sup>188</sup> and this was likely the case in St. Mary’s barn building as well (Fig. 33). The sidewall consists of a series of slightly flared or shouldered posts. Rails link the posts laterally together, and the sidewall is further stabilized by braces. The wall plate is also seated into the top of the slightly flared posts.

<sup>187</sup> Abbott Lowell Cummings, *The Framed Houses of Massachusetts Bay, 1625-1725* (Cambridge: Harvard University Press, 1979), 60.

<sup>188</sup> Hubka, *Big House, Little House*, 58.

Once the varied components of the side-wall are pre-assembled on the ground, the wall is raised and tongues at the base of the posts are fitted into the sill. Any interior girts, posts or braces would be positioned after the opposing sidewall was raised. After both sidewalls were successfully raised and secured, the tie beams could be hoisted up and fitted on top of the wall plate, thus spanning opposing posts to form the bents.<sup>189</sup> Braces would be fitted from the post to the tie-beam, and finally, the corresponding rafters would be joined to the tie-beams.

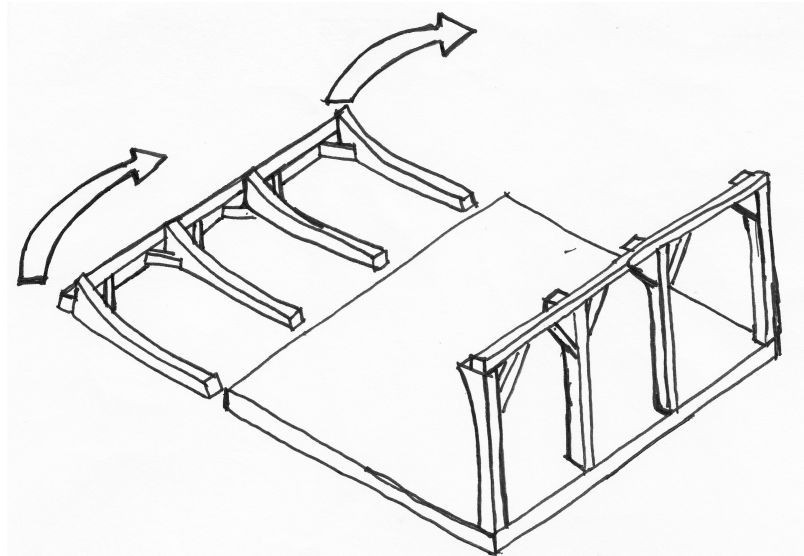


Figure 33. The English barn is framed by first raising the side wall. Drawn by the author after an illustration by Thomas Hubka in his *Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England*, 1984, 58.

The St. Mary's English barn's bent assembly is essentially one where the wall plate is fitted into the vertical slightly flared post and the tie-beam rides over the plate and the post, which supports them both. Diagonal braces extend from the flared post to both the tie beam and wall plate, stabilizing and solidifying the system through triangulation.

<sup>189</sup> Bents are the main structural units of a barn, and are formed when two opposing vertical posts are joined through the tie beam. Bents define bays, and run perpendicular to the roof ridge. Glassie defines the bent as "the view of the frame revealed by a transverse section through the building" (1974, 205). Three-bay barns, like the Cruickshank barn, required four bents – two for the ends of the barn and one on either side of the threshing floor.

The rafter meets the top of the wall plate and horizontal tie beam to complete the framing (see Fig. 34). A common rafter roofing system is employed in St. Mary's English barns, as well as barns from other phases, wherein rafters of the same dimensions continue in an even spacing and are mortised into the tie-beam (at bents) or notched into the wall-plate (between bents). This is the dominant form of roofing system in eastern North America,<sup>190</sup> but there are no supportive purlins (horizontal roofing members) or ridge poles in St. Mary's English barns or barns from other phases (Figs. 35 & 36). One Phase II barn, the Samuel Archibald barn in Glenelg, does employ the use of a ridge board, but this serves no real structural purpose.

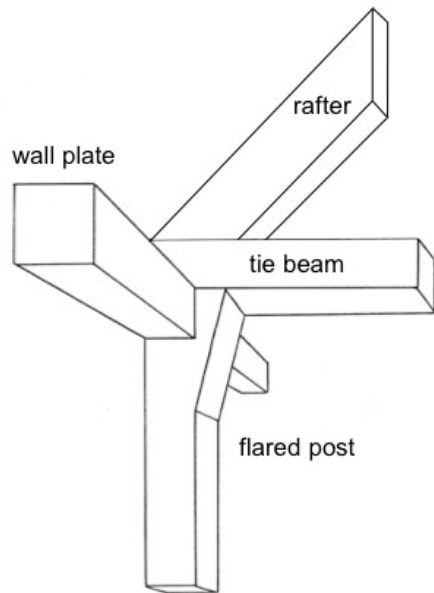


Figure 34. Left: "Flared post" Phase I English barn bent assembly. Note that the flare is exaggerated in the illustration for visual effect. In actuality, St. Mary's barn posts have a less predominate flare. Drawing by Brittany Roberts and labeled by the author. Right: Phase I "flared post" bent assembly in

<sup>190</sup> Glassie, "Barn Building," 214.

the Cumminger barn. The wall plate is seated in a notch in the post, while the tie beam sits above them both. The rafter is tenoned into the tie beam. Photo by author.



Figure 35. Evenly spaced common rafters in the Cruickshank barn. Note there are no supportive purlins. Photo by author.



Figure 36. Rafter join in Cruickshank barn. Note there is no ridge pole or board. Photo by author.

The bent assembly of the English barns (again, formed when the main structural features of post, wall plate, and tie beam all join or intersect) is repeated at each bay, and represents the earliest framing technology in St. Mary's. The Phase I "flared post" type of

assembly is indicative of colonial and early nineteenth-century New England building techniques,<sup>191</sup> which can be traced to at least thirteenth-century Britain.<sup>192</sup>

While the Phase I “flared post” bent assembly repeats at each bay of both the Cumminger and Cruickshank barns, the central components of the bents—that is, the posts, girts, and braces *between* the opposing sidewalls—differ depending on their location within the barn. As Robert St. George notes, bents have subtle functional variations that relate to particular spatial sections of the barn’s plan: threshing floor, stabling, and storage.<sup>193</sup> For example, the two internal bents that flank the threshing floor of John Cruickshank Sr.’s four bent English barn are different from the two exterior gable end bents. As we can see in Fig. 37 below, Cruickshank barn bent # 1 and 4 (type IIa) on the gable ends have three posts and two girts each, while bent # 2 (type III) flanking the NE side of the threshing floor is simpler, with two posts and only one girt.<sup>194</sup> The bents flanking the threshing floor (#2 and # 3) are the same and a few short studs (not shown in the illustration) support the board partition for stabling and hay mow, helping to hold loose hay in place.

---

<sup>191</sup> Garrison, *Material Life and Landscape*, 125-132; Hubka, *Big House, Little House*, 56.

<sup>192</sup> Glassie, “Barn Building,” 206-207.

<sup>193</sup> St. George, “The Stanley-Lake Barn,” 28.

<sup>194</sup> A girt, like a tie beam, is a horizontal member of the barn’s framing system but is positioned below the tie-beam. The poles or timbers of the mow scaffolding floor usually rest on it. A rail, in contrast, spans posts on the side or gable end walls, and sheathing is nailed to it. The girt is different from the tie beam because it is never connected to the wall plate or rafters.

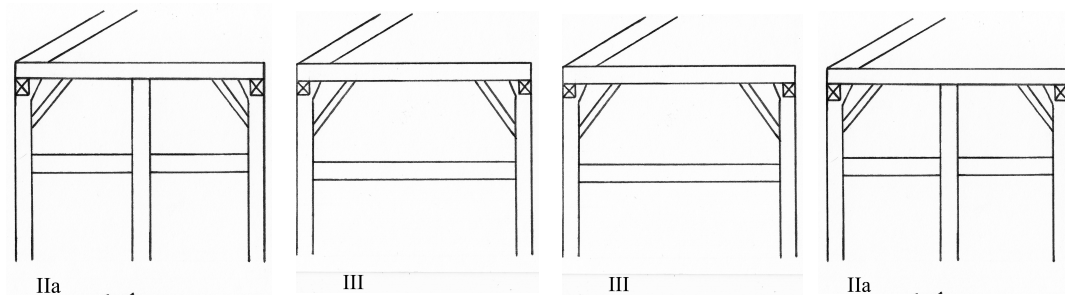


Figure 37. Progression of the four bents in the Cruickshank English barn, running NE-SW. The two center bents (III) flank the threshing floor.

Gable end bents typically have the most posts, girts, and bracing because they are, obviously, exterior bents, and must be fully enclosed with vertical boards which need to be nailed to multiple surfaces of the structure's frame. As well, additional support is important because the barn could experience racking without solid end walls. Thus the Cumminger barn gable end bent is Type Ib (see Figs. 38 & 39), with four posts and two girts. The interior bents of the Cruickshank barn have fewer posts and girts probably because it allows more direct, unencumbered access to the mow. In his barn research, St. George observed, however, that interior bents flanking mows had more posts, studs, and girts in order to support the additional weight of the loose hay. What is most important to remember when considering barn bents is that they are varied in their complexity and ultimately the construction of a bent relates to the preference or knowledge of the local builder. St. Mary's barns of any period reflect a wide range of bent arrangements, detailed below in Fig. 38. While variation may characterize the bent progressions of barns, the bent assembly system—that is, where the wallplate, post, tie-beam and rafter merge—of Phase I barns remains consistent in its essential construction technology.

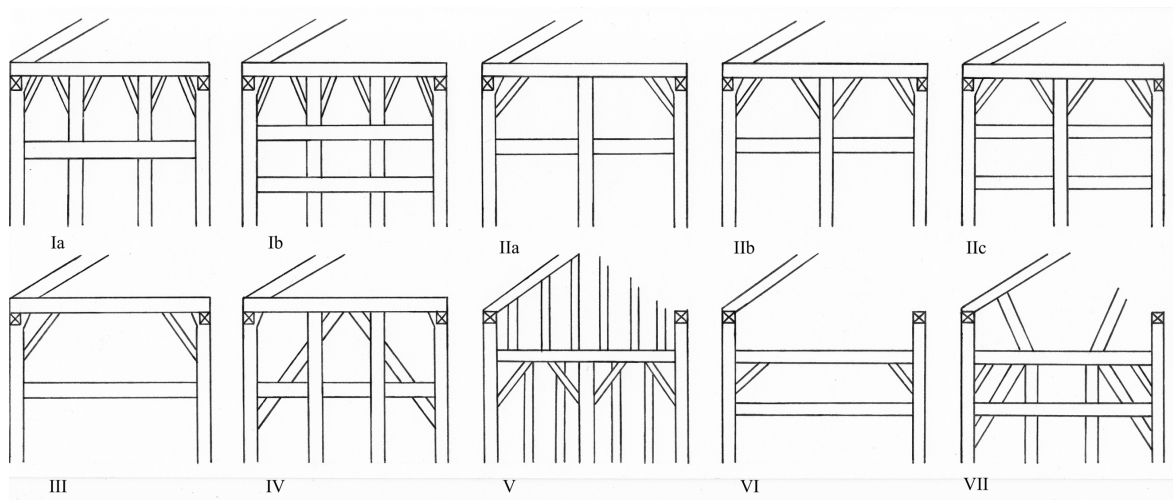


Figure 38. Bent variation in St. Mary's barns of all periods. Types Ia-IV reflect Phase I barn building; Types V-VII reflect Phase II barn building exclusively. Drawing by Brittany Roberts. **Ia** = End bent, Hattie Barn, Glenelg | Archibald barn, Glenelg; Center bent Cruickshank barn, Lower Caledonia (Phase II). **Ib** = End bent, Cumminger barn, Aspen. **IIa** = End bent Cruickshank barn, Lower Caledonia (Phase I); Center bent, Archibald barn, Glenelg | Bowie barn, Havendale | Elwyn Archibald barn, Glenelg (now demolished); Center bent, Elwyn Archibald barn, Glenelg (now demolished). **IIb** = End bent (Phase I) Hattie barn, Glenelg | Bowie barn, Havendale | Jordan Barn, Sherbrooke Village Restoration; Center bent, Elywn Archibald barn, Glenelg (now demolished). **IIc** = End bent Elwyn Archibald barn, Glenelg (now demolished). **III** = All bents (Phase I only), James Fisher barn, Fisher's Mills; Center bent, Cruickshank barn, Lower Caledonia (Phase I) | Jordan barn, Newtown | Hattie barn, Glenelg | Jordan barn, Sherbrooke Village Restoration. **IV** = End bent, Jordan barn, Newtown. **V** = End bent, Cruickshank-Jack barn, East River St. Mary's | Ross lower barn, Waternish. **VI** = Center bent, Cruickshank-Jack barn, East River St. Mary's | Ross lower barn, Waternish. **VII** = Center bent, George Fisher barn, Fisher's Mills. Note that the angled plank struts between tie-beam and rafter are part of later, supportive structural work.

Indeed, early hand-hewn assembly techniques were relatively standardized by the nineteenth century, and there are basic dimensions for posts, girts, and rafters in St. Mary's English barns. The hand-hewn posts are 9x9 give or take an inch in the narrower portion, and are around 14 inches where they flare at the plate. These flared or shouldered posts provided greater support for the framing system, as the posts must carry all the weight of both the rafters and wall plate. Additionally, the wall plate must fit into a notch or seat cut from the post, so a wider width at the top of the post increases stability and discourages splitting. Wall rails or girts are approximately 6x6, rafters are 6x9, and braces are 5x6.

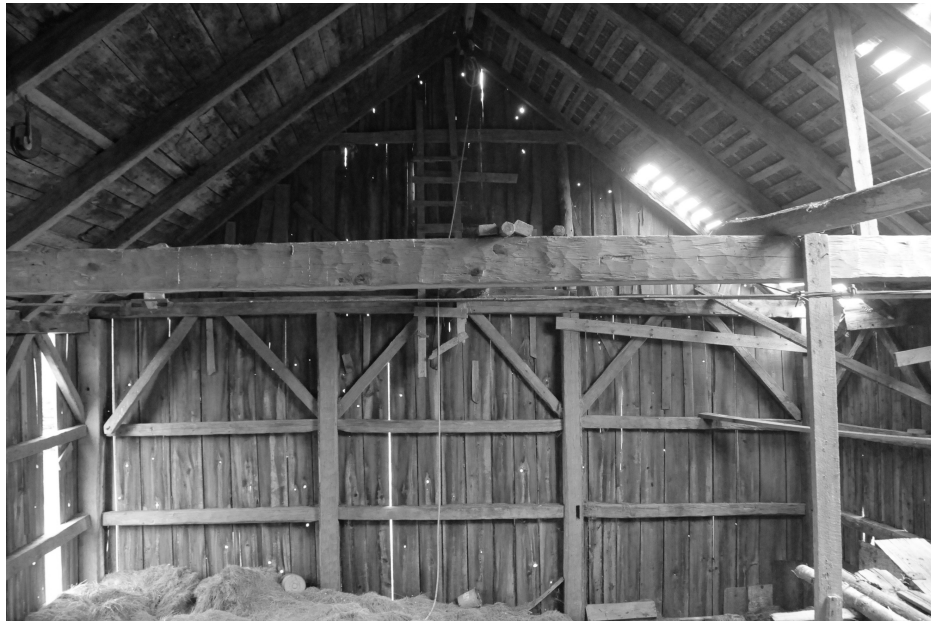


Figure 39. Interior of Cumminger English barn, showing end bent. The now broken gable ladder was for accessing/stacking hay at the top of the mow.

Horizontal rails or girts are mortised between posts to form the exterior sidewalls of the English barn and they permit sawn planks to be nailed on vertically as sheathing (Fig. 39). Hubka notes that vertical studs, employed in houses in order to place multiple windows and doors, are “inconsequential in barns.” Rather, a horizontal structural system is used in order to “maximize the size of the structure.”<sup>195</sup> Vertical sawn boards are the earliest type of sheathing. Nailed on while green, they dried with time so that small, approximately one-inch gaps, formed between the boards and permitted air to circulate throughout the barn. This was especially important for curing the loose hay stored in the mows, which could spontaneously combust. The movement of air through the loose hay removed heat and excess moisture and eventually completed the drying process, which started in the field.

---

<sup>195</sup> Hubka, *Big House, Little House*, 142.



Figure 40. NE gable end wall of the Cruickshank English barn. Original vertical sheathing is visible on the gable end. The battens, as well as the small window in the gable peak, are a later addition. No battens are present in the SW gable end wall (this is the original end of the barn, which the first bent of the extension was raised up against). Note how the barn is on a grade, and that the haymow is sunken below floor level, and protected with vertical boards. Photo by author.

Board length availability is connected to the pattern of sheathing on the gable end walls of the Cruickshank English barn. Looking at Figure 40 above, as you move inward towards the center of the NE gable end wall, the boards run uncut from sill to eaves. This is the shortest height of the wall, and the maximum board length here is approx. 15-16ft. As you follow the boards towards the center of the wall, the distance becomes greatest from the sill to the eaves or center peak (I estimate about 30 ft. but I did not have a surveyor's measuring pole to determine the exact elevation). Thus, two boards were used to cover the frame. One board reaches down to the center girt of the wall framing, and the next board runs down from the center girt to the sill. According to Jamie Anderson, who operates Sherbrooke Village Restoration's 1860s reproduction water powered reciprocal sawmill, the maximum length of board that such a mill's carriage can saw is eighteen

feet. This explains why two boards were required to sheathe frame at the highest elevation of the barn. Boards are nailed at the edge and are frequently beveled (Fig. 41). It is likely that the boards are beveled for wear resistance (water would run off instead of absorb into the board's wood).



Figure 41. Beveled board edges of the Cruickshank English barn sheathing. NE gable end (left). SW gable end (right). Photo by author.

Applying sheathing was one of the most unskilled aspects of a barn's construction, and it is probable that the carpenters who executed the barn's framing did not perform this labour. In an 1820 letter to John Young, the Secretary for the Central Board of Agriculture for the Nova Scotia government, Joseph Johnson, a farmer from North River Onslow in Colchester County, writes for recommendations on barn plans and siting. Young's reply is not in provincial archival holdings, but we learn in subsequent letters from Johnson that the barn was raised sometime between June 11 and July 11 of that summer. In his July 11 letter, Johnson asks of Young: "you must send me 80 lbs of bond nails and 30 lbs of double tins [pins?] for the barn as I want the barn covered in against hay time and that will be very shortly."<sup>196</sup> By a November letter, Johnson confirms that the barn has been fully covered in. Given the high rates of wages, which

---

<sup>196</sup> Joseph Johnson to John Young, 11 July 1820, MG 2, Vol 726, #142, mfm# 22,714, NSA.

Johnson bitterly complains about in the letter, farmers would have wanted to save as much money on the building process through such simple work they could perform on their own. It is probable, then, that a farmer like Johnson did much of the labour of sheathing himself, without the help of the hired carpenter and labourers who would have been crucial to raising his barn's frame. As Hubka further considers, any additional layer of sheathing, such as clapboarding, "would have been a severe economic disadvantage."<sup>197</sup>

The Cruickshank barn's lateral walls were studded and re-sheathed with horizontal boards, and then sided with wood shingles, possibly around the time the barn was extended after mid-century. In fact, all St. Mary's English barns have been resided, or partially resided. One reason is that shingles applied to horizontal sheathing made the livestock stabling less susceptible to draft. Warm, snug stabling, especially in winter, was widely recommended by Victorian agricultural reformers.<sup>198</sup> However, the NE gable end of the Cruickshank barn still retains vertical boards, possibly because this helped facilitate air circulation in the haymow (Fig. 40). The SW end of the current barn, which was expanded at mid-century and then subsequently blew down in the 2000s, shows evidence of the earlier vertical sheathing (Fig. 41). It is also worth noting that the lateral sides of the Cruickshank barn that were shingled were the more "public" sides of the building: the front side visible from the farmhouse and the rear side when passing by the farmyard from the road. Likewise, the photograph below reveals that the SW end of the complete Cruickshank double English barn was shingled—also visible from the driveway/road

---

<sup>197</sup> Hubka, *Big House, Little House*, 143.

<sup>198</sup> For example, *The New England Farmer*, vol. 8, no. 9, September 1856, pp. 402.

(Fig. 42). The Cumminger barn, alternatively, was re-sheathed with board and batten (also tighter than simple vertical boards) by Ernest Cumminger sometime in the 1970s. Unlike the Cruickshank barn, however, the vertical board sheathing on the SW gable end was removed during the barn's expansion to create a continuous mow, but remnants of the old vertical sheathing are visible from under the manure cellar.



Figure 42. Aerial view of the Cruickshank farm, Caledonia. Date unknown, but probably late 1980s. The barn is visible in its full double English form. The SW gable end of the barn is shown in this view, and it is clear that it is shingled rather than sheathed with vertical boards. Image courtesy Karen Cruickshank-Bambrick.

The English barn roof is also covered with sawn boards (these are placed horizontally), and originally would have been covered with wooden shingles. Both the Cumminger and Cruickshank barns, as well as nearly every other barn in St. Mary's, now have steel sheeting applied over the old roofing shingles (or sheathing), which became a popular and efficient maintenance solution throughout the region in the 1950s and 60s, as

the steel could be place directly over the shingles. The horizontal sheathing on the rear side of the Cumminger barn roof has been removed and replaced with lathes nailed on the rafters. The wood shingles under the steel are visible on the Cumminger barn roof in Figure 21.

Pine was often used in barn building, but hemlock—a large tree of strong wood—was a preferred framing material in St Mary’s, as it grew abundantly along the river. It is a soft wood to work with, but hardens over time, making it both a tolerant and durable choice. The species is scare today in Nova Scotia due to deforestation and disease, but Peter Archibald tells me a few stands still remain on his family’s farm woodlot in Glenelg. In Samuel Cumminger’s English barn, in the round hemlock floor joists measure about 14-18 inches in diameter, attesting to the enormity of the virgin forest felled to build St. Mary’s farms (Fig. 43).



Figure 43. View from under the Cumminger barn, showing a large, in-the-round floor joist. Photo by author.

Floor joists are less visible and are therefore less finished. They were kept in the round in English barns with one side of the log flattened in order to nail on the

floorboards, and were sometimes not even peeled of bark. Joists are spaced evenly under the barn. In the Cruickshank barn, the ends of the joists are neither joined nor notched to the sill. Rather, the end of the partially round joist is tapered and flattened to rest *on top* of the sill (Fig. 44). Glassie did not identify this technique of floor framing in his comprehensive barn study, rather he noted that the floor joists were either notched in between the front and rear sills or the joist was dovetailed into the sills. There is an advantage to not cutting a notch into the sill, since a continuous, uncut sill preserves more of that member's strength. As well, the practice is more efficient because it requires less measurement and cutting.



Figure 44. Tapered end of the floor joist of Cruickshank barn, sitting on sill. Photo by author.

In the Cumminger barn the floor joists strangely do not even meet the rear sill, but I doubt this was intentional. Some joists are rotted at the ends, and another appears to be sawed short. A portion of the rear sill of the barn was replaced, probably because of rot. A series of low, crude creosote posts support the new sill under the joists, which is of a

much smaller dimension than the one of the original build of the barn. The replacement sill is also not in the location of the original sill, and other logs placed at the center of the barn under the joists offer additional structural support. In the Cruickshank barn, a series of short posts on stone bases run horizontally across the center. A small beam is wedged between the post and floor joist, offering additional support to the joists (Fig. 45).



Figure 45. Post supports under the Cruickshank barn. Photo by author.

Clearly, efforts were undertaken to maintain St. Mary's barns throughout the years as these kinds of vernacular support strategies found in the Cumminger and Cruickshank barns were also observed on other St. Mary's barns. Because St. Mary's barns are positioned against banks, they have a tendency to slide down the hill due to the combined factors of age, erosion, and a lack of a gutter system to drain water away from the foundations. While the side-hill siting had many benefits, which are outlined below, it has ultimately threatened the structural integrity of St. Mary's timber-framed barns.

### *Siting*

Like most Nova Scotians of the early settlement period, Onslow, Colchester County farmer Joseph Johnson built an English barn. In a July 5, 1820 letter to agricultural reformer John Young, Johnson describes his newly raised barn: “people tell me that it is one of the best frames in Onslow the length is 34 by 32 that is four foot longer than our agreement was I intend the dowers [doors] to go strait throw the barn.”<sup>199</sup> As mentioned previously, Johnson had asked Young for advice on the plan, but also the siting, of his new barn. He writes to Young that when building the barn, “I kepted in [mind?] what you and me had allways talked of and what the letter expresed in placing it on a rising ground to be underhoused at some other period.”<sup>200</sup> It is evident, then, that Young had advocated siting on a slope, which left an option for a dug cellar at a later date—perhaps when more time or better finances permitted. As Thomas Hubka has observed in the context of New England, “barn cellars do not appear to have been widely employed in the early nineteenth-century English barn, although they were highly recommended.”<sup>201</sup> The Cruickshank English barn, however, has a cellar level (Fig. 46). Whether this cellar was dug out during initial construction of the barn or later, as the Johnson and Young letters advocated, I do not know. Nearly all extant St. Mary’s barns are sited on banks that vary in their degree of steepness, but excavated manure cellars came into widespread use in St. Mary’s only after the agricultural reforms of mid-century. If Cruickshank had intended that his English barn have a cellar below at the time of initial construction, he was certainly progressive in this manner in his building designs.

---

<sup>199</sup> Joseph Johnson to John Young, 5 July 1820, MG 2, vol. 726, #152, mfm# 22, 714, NSA.

<sup>200</sup> Ibid.

<sup>201</sup> Hubka, *Big House, Little House*, 55.



Figure 46. Rear view of Cruickshank barn, Caledonia. Note how the barn is built against the bank to create a cellar level. A large stone pier supports the S corner of the barn. The vertical boards of the original Phase I English barn are visible now that the Phase II mid-century extension is demolished. The exposed Type Ia bent assembly visible against the old vertical boards is all that remains standing of the Phase II extension. Note also the small door in the rear wall for circulation of air to the threshing floor.

A side-hill or bank siting involves one of the barn's lateral sides to be built into the hill (Fig. 46). This permits access directly into the upper level on the banked side of the barn, while the lower, cellar level, is only accessible from the rear side of the barn (that is not banked). A retaining wall of cut fieldstone is built against the bank of the Cruickshank barn, as well as numerous other side-hill barns in St. Mary's (Fig. 47). This also serves as the foundation for the NW lateral sill of the Cruickshank barn. The rear SE lateral wall of the barn (on the downward slope) is enclosed, and has two lateral sills. One sill is on ground level, and has posts tenoned into it that support a second sill at the upper floor level. Bracing extends laterally from the posts to the sill above for support. More bracing extends out from the posts into the cellar, and is notched with a half-dovetail lap

joint into the large floor joists (see Figs. 48 and 49). The two floor joists that support these braces are finished or squared, rather than rounded logs, because the timbers needed to have a flat edge in order to fashion the bracing join to the floor joist (Fig. 49). A large stone pier supports the S corner of the barn (Fig. 47). There is enough height in the cellar of the barn for a man to stand slightly hunched, suggesting that the cellar was a more minor site of physical labour compared to other spaces of the barn. Traditionally, sheep were sheltered under barns, which in turn provided more stabling space in the upper level for livestock like cattle and horses. As well, manure could be deposited here from the stabling bay above via a removable floorboard. The significance of side-hill siting and cellars in relation to manure accumulation will be more fully discussed in the following chapter of this thesis.



Figure 47. Left: Fieldstone pier supporting the S corner of the Cruickshank barn. Right: Retainer wall of fieldstone against bank, supporting the NW sill. Note also the in-the-round floor joists and the vertical board partition protecting the sunken hay mow from the dirt of the cellar. Photos by author.



Figure 48. Cellar of Cruickshank barn. Note the bracing coming from the posts. Left is the enclosed sunken hay mow. Photo by author.



Figure 49. Bracing extending from post into cellar of Cruickshank barn. Note the half-dovetail joint in a squared joist (versus in-the-round). The use of bracing shows that builders were concerned about minimizing barn slide in the side-hill design. Sliding has been an on-going problem for owners trying to preserve their barns. Photo by author.

Samuel Cumming's English barn is also positioned on a slope, but the space beneath the floor level could not be classified as a cellar, as it is too low. It was therefore not designed to house animals or manure. The barn is supported on the NE gable end by three fieldstone piers and the rear SE wall is supported by an additional two fieldstone

piers. The deliberate siting on a slight bank had a key advantage for an early St. Mary's farmer like Samuel. The haymow bay (NE gable end) of the barn (rather than the stabling or threshing floor bays) is allocated over the steepest part of the slope. This offers an added depth for the haymow, about four or so more feet below the plank floor (Fig. 50). Likewise, the Cruickshank English barn has a deep haymow which extends below the barn floor to the cellar level, and is tightly enclosed with vertical planking to protect it from any cellar dirt or damp (Fig. 48). All Phase II barns in St. Mary's also have haymows that extend below the floor level. The NE gable end (haymow bay) of the Cumminger English barn is also boarded to protect the hay from exposure to the elements (Fig. 51).



Figure 50. NE gable end of Cumminger barn, Aspen. Three fieldstone piers as well as the vertical board enclosure for the sunken hay mow are visible.



Figure 51. View of Cumminger barn in full double English form, showing the grade of the land. For a desirable siting, land around the barn was probably excavated to ensure a level yard in front of the double doors. Photo by author.

The increased haymow depth offered in both barns, combined with the previously mentioned lack of rear threshing floor double doors, may well be an architectural indication of the de-emphasis placed on wheat cultivation in early Nova Scotia agriculture, and, rather, the prioritization of haymaking. With such lush, natural intervalles, hay was always the chief crop in St. Mary's (Fig. 52). Census records from the mid-to-late-nineteenth century indicate that local farmers exceeded the provincial average for hay (see Table 2 below).



Figure 52. Haymaking on the Ross farmstead, Waternish, sometime in the teens. Photo courtesy Cumming family.

Table 2. Production of Hay in St. Mary's, 1851-91.

District	Year	Hay (tons/acre)	Hay (tons/occupiers)	Hay Total	
				Tons	Acres
<b>Forks</b>	1851*	no data	no data	no data	no data
	1861	no data	12.4	2251	no data
	1871	1.2	14.0	3039	2437
	1881	1.3	17.8	2748	2120
	1891	1.2	15.6	2584	2077
<b>Caledonia</b>	1851	—	—	—	—
	1861	—	—	—	—
	1871	1.5	19.0	817	563
	1881	1.4	17.9	1165	804
	1891	1.4	13.6	518	381
<b>St Mary's, Pictou Co.</b>	1851	no data	5.0	509	no data
	1861	no data	5.6	705	no data
	1871	1.0	5.8	850	827
	1881	1.2	9.2	1401	1175
	1891	1.1	17.2	2372	2693
<b>Nova Scotia</b>	1851	no data	not calculated	287 837	no data
	1861	no data	not calculated	334 287	no data
	1871	1.1	not calculated	443 732	412 961
	1881	1.1	not calculated	597 731	519 856
	1891	1.0	not calculated	476 069	470 834

<b>St. Mary's Average</b>	1851*	no data	not calculated	not calculated	no data
	1861	no data	8.7	1380	no data
	1871	1.2	12.9	1569	1276
	1881	1.3	15.0	1771	1366
	1891	1.2	15.5	1825	1717

Source: Census Summaries, 1871-91 and Report of the Secretary of the Board of Statistics of the Census of Nova Scotia, 1861; Census Returns, 1851. Includes district, county, and provincial figures for 1861 census and some comparative figures for 1851. Occupiers = those in active possession of land or dwellings. \*Records do not survive for 1851 census returns for Guysborough County.

The self-styled “best farm in St. Mary’s,” owned by S. Archibald (probably Samuel) and advertised for sale in 1872, boasted a whopping ninety tons of hay cut annually.<sup>202</sup> The importance of the hay crop to St. Mary’s farmers is further emphasized in the plan of Samuel Cumming’s barn. While John Cruickshank’s barn followed the standard three bay division of the English type, Samuel Cumming actually built a four bay concept (though within the typical 30 x 40 English barn dimensions) that allocated *two* structural units of space—about seventeen feet (roughly 8½ feet in width for each bay unit)—for the haymow (Fig. 53). This, in turn, made the central threshing floor with double doors slightly off-centered (the stabling bay is only 10<sup>4</sup> wide versus the combined 17<sup>0</sup> wide haymow bays). It appears, then, that Samuel Cumming forwent full bilateral symmetry in order to store his most productive farm crop.<sup>203</sup>

<sup>202</sup> A List and Description of Farms and Lands for Sale in the Province of Nova Scotia (Halifax: H.W. Blackadar, 1872), AK F105 L69, NSA.

<sup>203</sup> According to “A Farmer” from Colchester County, “we have as good grazing lands as any country, and as to hay raising we cannot be beat in the known world.” *Journal of Agriculture for Nova Scotia*, vol. 1, no. 25 (March 1867): 213.

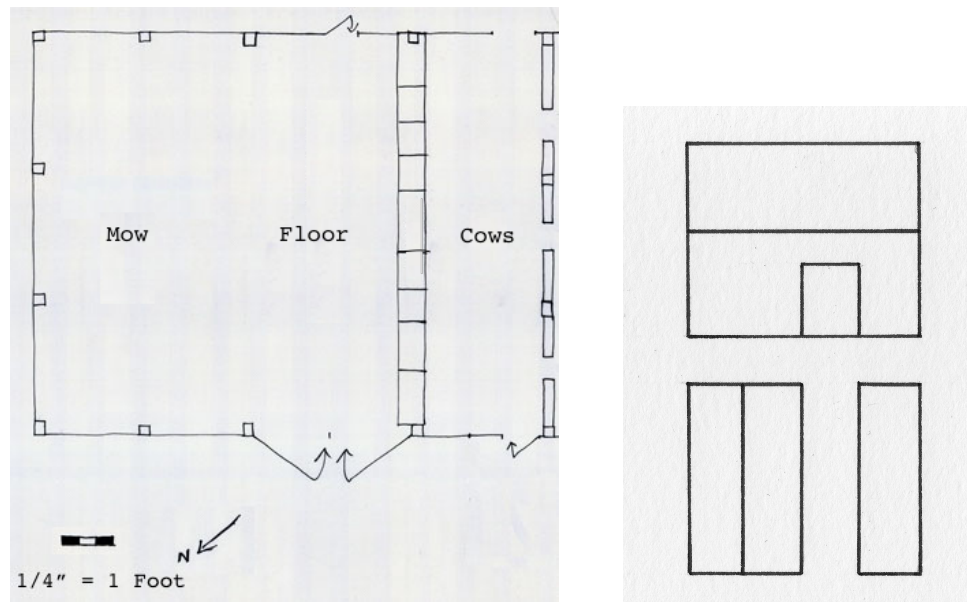


Figure 53. Cumminger English barn with 4 bay variation (Left). Plan by author and Gerald Pocius. Drawn by author. The four bay English barn concept (Right). Drawing by Brittany Roberts.

### *The Flexible English Barn*

As evidenced by Samuel Cumminger's four-bay barn, the English type is a flexible concept than can accommodate various farm needs. While Samuel Cumminger's English barn was four bays rather than three, the overall envelope of the building conformed to the standard 30x40 dimension of English barns.<sup>204</sup> While the English barn follows a standardized dimension, variation was not uncommon. Property sale ads from the pre-1850 period in Nova Scotia describe a plethora of framed barns of roughly 30x40 feet, but other ads indicate variation in spatial capacity, as barns were often larger or smaller by several feet depending on their context. For example, an 1829 ad for a house lot in the town of Sherbrooke describes "a good barn, 30 by 25 feet," while an 1837 ad for a farm in Musquodoboit, about 45 miles west of St. Mary's, describes "two barns of 40 by 34 feet, each." Another farm ad from Nine Mile River describes a "frame barn 46ft. x

<sup>204</sup> The James Fisher barn in Fisher's Mills is another example of the 4-bay English variation. See Fig. 82.

36ft,” and still another farm sale ad in the neighbouring town of Antigonish advertises a barn “33 x 27 feet, floored with 2 inch-plank.”<sup>205</sup> Table 3 below indicates the varied dimensions of St. Mary’s English barns.

Table 3. Pre-1850 English type barns and their spatial dimensions documented in St. Mary's. Also included is the Bowie barn in Havendale, Guysborough County (not St. Mary’s River valley). Dimensions indicate the footprint of the original barn structure before any later expansion. \* I am not completely positive that this barn began as a 3-bay English that was later extended.

English Barn	Community	Number of Bays	Dimensions in Feet
Cumminger	Aspen/Forks St. Mary’s	4	41 <sup>3</sup> x 32 <sup>4</sup>
James Fisher	Fisher’s Mills	4	40 <sup>6</sup> x 30 <sup>4</sup>
Hattie*	Hattie Rd., Glenelg	3	35 <sup>9</sup> x 30 <sup>2</sup>
Cruickshank	Lower Caledonia	3	32 <sup>8</sup> x 29 <sup>6</sup>
Jordan	Glenelg (Reassembled at Sherbrooke Village Restoration in the 1960s. May have been larger in situ.)	3	40 <sup>6</sup> x 31 <sup>11</sup>
Bowie	Havendale	4	40 <sup>5</sup> x 25 <sup>5</sup>

The English barn’s flexibility is reflected in William Pain’s *The Carpenter’s Pocket Directory*, published in London in 1781. An early example of carpenter’s attempts to standardize their trade, Pain instructs carpenters on the construction of a timber-framed barn 28 feet wide x 40 feet long, with the main posts 8 inches x 10 inches and flared at the plate to a width of 1 feet 3 inches (Fig. 54). Pain’s description is in agreement with the structural dimensions of the Cruickshank and Cumminger barns. However, Pain further advises in his carpentry manual that the “scantlings”<sup>206</sup> he outlines will do for a building

<sup>205</sup> *The Nova Scotian* April 30, 1829 vol 2 no. XVIII; *The Nova Scotian*, January 26, 1837, vol 10, no. IV pp 32; *The Nova Scotian* January 08, 1829, vol 2, no. 2; *Nova Scotian* November 13, 1828, vol 1. No. XLVI. The “2 inch plank” noted probably refers to the threshing floor.

<sup>206</sup> Scantling refers to the dimensions of a piece of timber in breadth or thickness, and more broadly, the set of standard dimensions of the timber framing for parts of a structure. See Carl Lounsbury, *An Illustrated Glossary of Early Southern Architecture and Landscape* (Charlottesville: The University

“twice or three times the length, but of the same width, or not exceeding 30 feet wide,”<sup>207</sup> indicating that the English barn form could be easily expanded in length as each farmer’s situation required (note in Table 3 above that the width of all St. Mary’s barns do not exceed much past thirty feet).

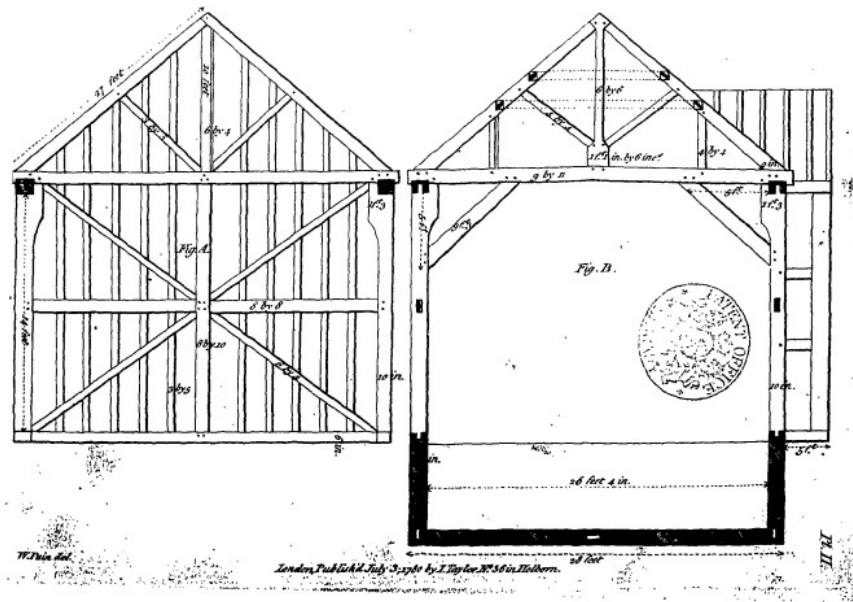


Figure 54. Plate II from William Pain’s *The Carpenter’s Pocket Directory* (1781). Plate shows an elevation and section of a British timber-built barn with porch. Note the flared posts of the Phase I bent assembly, with the wall plate is seated in the post. The King-post roof framing, purlins, studding, and porch were not part of the St. Mary’s barn building tradition. The series of studs on the left elevation are present because the British barn would have been covered with tarred clapboards, not vertical boards. A variation of the diagonal ‘X’ bracing shown in the elevation was present in the Jordan barn, Newtown, a Phase II barn documented. Available from: <https://archive.org/details/carpenterspocket00pain>.

It is this *flexibility* of the English barn form that made it advantageous for early farmers, as the plan could be shaped into many combinations of width and length without much structural difficulty. While variations from the standardized 30x40 dimension were usually minimal (just a few feet), whole bays could be added or subtracted. The tripartite,

Press of Virginia 1999), 319. Pain goes on to write, “If the building should exceed the foregoing height and width, the scantlings must be in proportion to their length and bearings, as in the table of timbers.”

<sup>207</sup> William Pain, *The Carpenter’s Pocket Directory*, (London: Printed for J. Taylor, 1781), n.p.

three bay form thus served as a basic “mental template,” from which enlargement or reduction could occur through the lateral addition or subtraction of bays. Additionally, linhays or sheds could also be applied on the rear or side of the barn to facilitate more storage or stabling space. The horizontal expansion of barns from this basic, three bay template was prevalent in St. Mary’s, as every nineteenth-century barn documented indicated elongation—most barns by multiple bays. This process will be shown more fully in Chapter Three.

#### *What was “good” about English Barns?*

When we return to the question of what, exactly, did a “good” barn mean to an early St. Mary’s farmer like William McKeen, we can observe several advantages in the construction and design of St. Mary’s English barns that address the challenges of natural geography and the need for labour efficiency and design flexibility in the early settler landscape. Some contexts that help define the meaning of the English barn in St. Mary’s are outlined below.

Returning to the letter between William McKeen and his half-brother, S.G.W. Archibald, McKeen describes his farm as the typical mixed one with “considerable stock of cattle, sheep and horses and a young orchard which yielded me fifty bushels of apples last fall.” He also writes of “a very good crop in the ground that is 20 bushels of oats, 5 bushels wheat two and a half acres potatoes and other seeds in proportion.” Yet want of capital was a real issue for McKeen, whose income was but five to seven pounds per year. “I am not in poverty for I have a good property and nearly clear of debt,” he writes, but “I

begin to feel myself rather frustrated in my designs for the want of it [money].”<sup>208</sup> Though McKeen describes his farm in a positive light, his letter is actually a request for a loan from his wealthier brother, because even after two decades of settlement, McKeen’s farm is still largely subsistence in scale and orientation. We learn in the letter that McKeen’s house is in a state of disrepair, and that he cannot afford to finish the new house he is building to replace what was probably his first—now derelict—dwelling. In addition to nails, glass and putty, lime paint, and other construction supplies, as well as the cost of the specialized labour of the carpenter-joiner and mason he has hired, he is in need of basic foodstuffs such as flour and cornmeal. The farm appears less and less prosperous as the letter progresses, with little money for purchasing commodities. Indeed, such a mixed, largely subsistence, form of agriculture—rather than intensive, market-oriented cereal or livestock production—characterized most backland Nova Scotia farms in the first half of the nineteenth century.

It is clear, however, that McKeen had aspirations for a more well-appointed stead. Given the challenging circumstances of early St. Mary’s settlement, could McKeen’s barn building choices help him create a better farm? The St. Mary’s English barn demonstrates a number of strategies that helped farmers adapt to the challenging realities of early settlement, specifically: the expense of skilled labour, lack of markets and the subsequent need for occupational pluralism, as well as the need for place-making in an unknown landscape. The barn form also gave farmers like McKeen, who had ambitious “designs” for their farms, the possibility of expansion, which will be more fully examined in Chapter Three.

---

<sup>208</sup> McKeen to Archibald, 10 May 1830, MG 1, vol. 89, #160, NSA

English barn framing practices were streamlined to effectively cut down dependence on expensive wage-based, skilled labour. This is evidenced in the lack of diversity in complex joinery. As well, the use of vertical boards to sheathe the barn was quicker and cheaper than applying clapboarding (which might also require placement of time-consuming studding) as the farmer himself could quickly nail them to the frame and rails. Not notching the sills for the joists saved time, too, and so did not using purlins for the roofing system.

The labour for McKeen's pioneer farm certainly would have come from McKeen himself, his wife Catharine, and their numerous children, or occasional help from an extended network of kin and neighbours. Most early farmers in St. Mary's simply did not have the capital to hire non-family labourers (they seldom appear on early census records). St. Mary's farmers, like most rural Maritimers, practiced occupational pluralism out of necessity: woodwork in the winter on their own woodlots or in lumbercamps, milling, fishing, trapping, or making a variety of products for sale from home-based industries like shoemaking, tanning, coopering, and weaving. For example, Samuel Cumming, according to the 1861 census, made 700 grindstones in addition to his farming outputs, while John Cruickshank Sr. cut nineteen tons of squared timber. Indeed, in the decades of this settler period we see the emergence of the stereotypical "Jack-of-all-trades" Nova Scotian, as the early farm family integrated a diversity of work forms and natural resource-based activity in order to succeed on their holdings.

Agricultural commentators during the first decades of the nineteenth century, when many areas of Nova Scotia were being newly settled, bemoaned homesteaders' lack of concentrated attention to the tilling and improvement of their farmlots because of their

work in quick cash-making activities like lumbering. The reformer James Ross in his *Remarks and Suggestions on the Agriculture of Nova Scotia* commented that because of necessity, farmers in a young country are obliged to direct their attention to a variety of labour that is unknown to inhabitants of older countries, where the “subdivision of labour is well understood and practiced.” However, he warns that while occupational pluralism may help surmount “the difficulties of present circumstances,” the practice is:

not unattended with disadvantages. By encouraging that versatility which is naturally inherent in man, it retards advancement in any particular pursuit, in which the attainment of superior skill exacts unwavering and preserving effort.<sup>209</sup>

The early Pictou Presbyterian minister and educator, Rev. Thomas McCulloch offered similar commentary. He writes of “Jack Scorem,” a woodsman-farmer, in his satirical Mephibosheth Stepsure Letters, first published in the *Acadian Recorder* in the early 1820s. Scorem neglects his crop and allows his farming to be interrupted by the lure of more lucrative woods work, and uses the cash from lumbering to buy consumer goods. McCulloch warns, “the lumbering life had let the farm without improvement.”<sup>210</sup> McCulloch’s criticisms could certainly have been directed at a place like St. Mary’s, where woodwork was an important component of the occupational landscape. Neil Gunn relates the following picture of the influence of lumbering on farming in the region in his 1847 report for the Agricultural Society for the District of St. Mary’s:

---

<sup>209</sup> Ross, *Remarks and Suggestions on the Agriculture of Nova Scotia*, 23.

<sup>210</sup> Thomas McCulloch, *The Mephibosheth Stepsure Letters*, Centre for Editing Early Canadian Texts Series no. 7, edited by Gwendolyn Davies (Montreal & Kingston: McGill-Queen’s University Press, 1990), 25.

“[St. Mary’s] has been a Lumbering district from its first settlement; nor will many of our best farmers (although sensible of its injurious tendency,) be induced to mind their farms and give up working in the woods: yet we are convinced that no one circumstance has so much retarded the improvement of agriculture and the general advancement of this District as the above mentioned.”<sup>211</sup>

Lack of access to markets, however, was probably more of a deterrent to agricultural success for early St. Mary’s farmers, whose steads were so deeply inland. Miserable roads compounded the situation. Neil Gunn wrote that, “Halifax [the capital city] has been of little benefit to us, on account of the badness of our roads; and our having so little information respecting the state of the markets that we could not successfully compete with other parts of the Province.”<sup>212</sup> Although the land was fertile in Nova Scotia’s inland agricultural settlements, the woods needed clearing, and the distance from coastal towns was great. Thus in backland Nova Scotia, “market-oriented farmers faced numerous obstacles,” and it was “many years before success could be achieved.”<sup>213</sup> Indeed, as revealed later in this thesis, it wasn’t until the 1860s that St. Mary’s farms experienced any kind of commercial prosperity. Woodwork, then, was a strategy for survival in a difficult place. So whether a hindrance to the productivity of the farm or a shrewd way to make ends meet, the *reality* was that for many St. Mary’s farmers in the first half of the nineteenth century (and even through to the twentieth century) a variety of non-farm labour was a significant aspect of the rural landscape and economy.<sup>214</sup>

---

<sup>211</sup> Report of the Agricultural Society of the District of St. Mary’s, 1847. RG 8, vol 15, #102, NSA.

<sup>212</sup> Ibid.

<sup>213</sup> Samson, *The Spirit of Industry and Improvement*, 23.

<sup>214</sup> Especially in years like 1847, when weather was unreliable and both the potato and wheat crops failed across the whole of Nova Scotia.

Buildings, accordingly, reflected the occupational and market realities of the early Nova Scotia farmer.

Given the lack of markets and the necessity or desire for alternative incomes via non-agricultural labour, early farmers therefore required manageable, multi-purpose barns like the English form. St. Mary's farms like William McKeen's simply did not have the capital or labour to maintain multiple farm buildings, nor could the farm, so recently hacked out of the thick woods, yet sustain the intensive market-oriented production that warranted large barns of at least a hundred feet. Thinking back to the Cruickshank and Cumming English barns described above, we can see how their multi-purpose plan of both grain storage and animal shelter was well suited to the nature of the settler farms that they ran. As probably the only non-domestic adult labourers on their farms—their wives preoccupied with processing food in the kitchen, doing housework, or weaving at the loom, daughters weeding the garden or picking berries,<sup>215</sup> boys splitting kindling—they needed an efficient, compact barn design that permitted them to grab a fork, climb the mow, pitch down the hay, open a hatch and toss the feed into the cow's manger from the same floor on which they threshed their grain. Farm labour became more convenient and efficient when performed under one roof ridge, freeing up time for other occupational requirements necessary to achieve subsistence or purchase goods.

The following excerpt from an 1820 letter from an "Experienced Farmer" in Cumberland County to John Young, the early Nova Scotia agricultural reformer, gives a

---

<sup>215</sup> For an account of typical female labour on an early Nova Scotia farmstead throughout the seasons, see the 1815 diary of Louisa Collins of Cole Harbour, Dale McClare, ed. *Louisa's Diary: The Journal of a Farmer's Daughter, Dartmouth, 1815*. (Halifax: Nova Scotia Museum/Nimbus Publishing, 1989).

good summary of the system of subsistence farming that early St. Mary's settlers probably practiced:

We keep good stocks of cattle and often fat some oxen through the winter on hay in spring we put them in good pasture make them fat enough for contract beef<sup>216</sup> by Sep'r or Octo'r but we labour under some disadvantage for many of us owe the merchant beef is but 3 ½ on [?Proof?] at that season of the year mony we must have we must take what we can get for them or do worse. But with our manure we plant 3 or 4 acres of potatoes which will fat 5 or 6 hogs then the next year we sow all that land with wheat which raises nearly bread enough for us what flour we want [illegible] more we can buy for butter the next fall we can make butter enough to pay for the flour but we have to buy sum sugar tea salt and other arti'les as we buy upon long credit the merchants charge is very high their bills are more than we can pay but they are very good they will not sue us if they can help it but will trust until next fall upon interest and after a few years they will take a mortgage and not distress us though but few of us has mortgages our farms yet but likely some of us must if to [?] I forgot to mention that our cows being fed on hay through the winter the hay sometimes damaged by bad weather the cows mostly calve between hay and grass they sometimes do not give more milk than the caves want for the first 3 months we are obliged to pinch the caves to get milk for the use of the family which hurts their growth they do [not] make so large cattle for it.<sup>217</sup>

Clearly, then, it was a struggle for some farmers to cope, as they pinched the calves' milk to feed the family. As it was challenging for farmers to achieve more than subsistence production, it makes sense that barns were designed to respond to such difficult market conditions.

---

<sup>216</sup> Here, "contract beef" refers to a farmer supplying finished cattle under a contract secured well in advance of slaughter. A contract helps avoid the risk of market fluctuations for both buyer and seller. I am unsure as to with whom early Nova Scotia farmers entered contracts, but possible options could be the British Navy, lumbering operators, the General Mining Association (after 1827), shipyards, as well as various local merchants and exporters.

<sup>217</sup> Letter from "An Experienced Farmer" in Cumberland to John Young, 16 November 1820, RG 8, vol. 2, # 233, NSA.

Conceptions of appropriateness in design during the Phase I English barn period were based not only on labour efficiency, but also on an idea of flexibility of form and siting. The English barn sited on a slope offered the potential for an excavated cellar level, while the basic three-bay plan offered the flexibility of design and construction to laterally expand if required or desired, as will be discussed in the following chapter. While St. Mary's farms were largely subsistence during the first phase of barn building, perhaps there was a sustained optimism that barns would one day be expanded or integrate more model and efficient design features, like manure cellars. While McKeen may have been frustrated by his lack of money, he nevertheless had "designs" for his farm's future.

The realities of the early natural landscape and the lateness of settlement also influenced the way barns were constructed in St. Mary's. The land was deeply forested and in a totally "unimproved" state at initial settlement around 1800 and until many decades after (Fig. 55). Emigrant families like the Cruickshanks from Sunnybrae, Pictou County or the Gunn families of Kildonan, Scotland who settled in East River St. Mary's, were establishing new farms in the St. Mary's River valley as late as the mid-1830s. As Wayne Rasmussen notes, wood was both a "tribulation and a support for frontier farmers."<sup>218</sup> Dense forests were "a forbidding challenge to settlers accustomed to the European countryside from which the natural forests had long been stripped," and

---

<sup>218</sup> Wayne Rasmussen, "Wood on the Farm," in *Material Culture of the Wooden Age*, edited by Brooke Hindle, 15-34 (Tarrytown, N.Y.: Sleepy Hollow Press, 1981), 15.

Rasmussen continues that “virtually every early writer remarked on the problem of clearing trees, even into the first half of the nineteenth century.”<sup>219</sup>



Figure 55. “Lake on the W. Branch of St. Mary’s River,” showing the Archibald’s rough log house. The scene reveals the dense forest and the remnant stumps from clearing the land. By John Elliott Woolford in *Sketches of Nova Scotia*, 1817. Image courtesy The Nova Scotia Museum, 78.45.100.

Thus Samuel Cumming’s eighteen-inch floor joists and fourteen-inch posts show his attention to using the abundance of timber on his land. The modern farm-building specialists W.A. Foster and Deane Carter indicate in their 1922 publication, *Farm Buildings*, that early timber-framed barns were grossly overbuilt. They write, “the advantages of the timber-frame are that it is strong and substantial ... the disadvantages are that about 20 per cent more lumber is used than is necessary for strength, and the labor of erecting is greater than for the plank frame.”<sup>220</sup> (1922, 74). As Robert St. George

---

<sup>219</sup> Ibid.

<sup>220</sup> W.A. Foster and Deane Carter, *Farm Buildings* (New York: John Wiley, 1922), 74.

asserts, the early farmers who built English barns certainly “did not scrimp on the building which housed their means of economic livelihood.”<sup>221</sup>

As the early landscape of St. Mary’s was one of dense woods, settlers—in not only a practical, but also an ideological sense—believed that the forest needed to be felled and cleared, and that “the wilderness [must] blossom as the rose.”<sup>222</sup> Joseph Alexander, an Anglican catechist who kept a diary of his mission in St. Mary’s between 1845 and 1846, writes of lodging at the “McBaine” farm one night. This was probably the same MacBain family who once lived in the present-day community of Newtown. McBain’s father (neither father nor son’s first name is given) was one of the first St. Mary’s settlers, and “no doubt with his sons had to labour very hard,” Alexander writes. The Anglican missionary further remarks that, “the farm consists of 250 acres of which afe [sic] intervale besides as much upland now arable and pasture; it was a dense forest when they first came there. The poor old man was lost in the woods about two years ago and his remains was never found until two years after he disappeared.”<sup>223</sup> The forest was the unknown, where the settler could become lost and perish, their body never to be discovered. Converting the wilderness into a land suitable for Eurocentric conceptions of agriculture and productivity was an important endeavour as settlers sought to impose regularity and order in their new surroundings. Overbuilt barns became a metaphor for

---

<sup>221</sup> St. George, *A Retreat from the Wilderness*, 26.

<sup>222</sup> First report of the Cumberland Agricultural Society, 1820, RG8 vol 6, #174, NSA. For an excellent discussion of early colonial understandings of the land and its uses, see William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England*, (New York: Hill and Wang, 1983).

<sup>223</sup> n.p. Diary is a unaccessioned item in the collection of Sherbrooke Village Restoration.

this action. The strength of the barn's framed presence on the landscape represented agricultural triumph through the conquering of the wilderness.

Barns were therefore symbolic of place-making. As Daniel Maudlin writes, place-making was the "process by which new landowners made their lot their home: turning forests into farms, the unfamiliar into the familiar ... a state of mind, whereby settlers began to think of their square of heavily forested land not as the unknown to be tamed—and feared—but as a home within a community of friends and neighbours doing familiar things and sharing familiar concerns."<sup>224</sup> Though St. Mary's English barns were a performance of early subsistence farming, the intention was that these buildings should *last*, and we must remember that these barns were the first, permanent structures on a pioneer landscape—in many instances finer than the dwelling house. A farmer may have a framed barn but live in a log house, like the Rev. Donald McConochy, who in 1842 resided on a stead in Lochaber (in the upper St. Mary's district) with a "neat Log House and an excellent frame Barn on the premises."<sup>225</sup> Though the house was finished, it was made of log, while the barn was framed and sheathed with sawn lumber, indicating the significance of the outbuilding to the farm family who sacrificed their own domestic comforts to construct an agricultural building made of finer, more processed materials than their dwelling house. English barns, ultimately, are a representation of the early St. Mary's farmer's hope and optimism for independence and success in a new region.

Though a material statement of the defeat of the forest, of the savage wilderness brought

---

<sup>224</sup> Daniel Maudlin, "Politics and Place-Making on the Edge of Empire: Loyalists, Highlanders, and the Early Farmhouses of British Canada," in *Building the British Atlantic World: Spaces, Places, and Material Culture, 1650-1850*, ed. Bernard Herman and Daniel Maudlin, (Chapel Hill: University of North Carolina Press, 2016), 290.

<sup>225</sup> *Mechanic and Farmer*, 4 May 1842, p. 203, col. 4.

under the order of the plough, the English barn represented more than simple dominance over nature. While crucial to the early mixed farming and husbandry system, the barn also symbolized the beginnings of community building. The barn, as the principle storage and processing building on the farm, was key to establishing a productive and abundant agricultural landscape that would sustain the groups of families that would make St. Mary's both a home and a place.

### *Conclusion*

William McKeen's English barn, like John Cruickshank's and Samuel Cumming's, was an adaptable, compact, multi-purpose unit that sheltered both grain and livestock, and was part of the transfer of ideas—a mental template of building—from one generation to the next, from one landscape to another. Early St. Mary's farmers built English type barns that originated in New England, and diffused to the Maritimes through groups like the planters and loyalists. They were based on a familiar New England form that was well suited to the Nova Scotia climate and landscape, as the settlement process required agricultural buildings that could accommodate certain demands. A “good” barn, therefore, had a multiplicity of meanings for a farmer like William McKeen.

A good barn meant a very sound structure. The dense, wild, abundant forest was transformed into a squared, orderly frame built solid and to last. A good barn was one that offered flexibility in plan and siting, and accommodated individual farm contexts. Dimensions could be varied; the ability to site the barn on a side-hill meant that a cellar could be excavated at a later point if desired, and that there was enough room to store the abundant crop of hay that grew on the intervalle land along the river. A good barn was

also one that accommodated the mixed, subsistence-scale, family-labour driven farming system that characterized first settlement farmsteads. With little capital, a need for off-farm employment, and newly-cleared fields that initially consisted of potatoes and a bit of wheat sown between decaying stumps, efficiency in both barn construction and plan was crucial to settler farmers as they sought to meet the rigorous demands of the early landscape. This was a landscape where skilled carpenters and hired farm labourers were both scarce and costly, and cold weather did not wait for the completion of lengthy building projects before threatening livestock and crops, and in turn the farm family with starvation. Barns needed to go up quickly, and cheaply, but still be sound and durable enough for long-term use and potential expansion. Labour efficiency (in both the daily work of the subsistence farmer and in contracting a costly hired craftsman), structural integrity, and design flexibility are the hallmarks of early St. Mary's barn architecture.

But the English barn became untenable for St. Mary's farmers as the middle decades of the nineteenth century progressed. A number of intersecting factors—the widening reach of the agricultural reform movement, expanding markets through industrialization, a subsequent shift to more intense livestock rearing and dairying, as well as the increased mechanization of farm labour—altered the ways St. Mary's farmers viewed their English barns, calling into question the size and suitability of such three or four bay structures for the increasing demands of rural capitalism. Modernity, and with it the hope of prosperity, made St. Mary's farmers question the advantages in keeping their English barns. “Good” barns would require more qualifiers, but the inherent flexibility of the English barn plan meant that the design would continue to prove very useful.

### Chapter 3

#### Phase II: Reform Era Barns

---

By the middle decades of the nineteenth century, concepts of barns moved beyond the universality of the English size and plan throughout all of Northeastern North America. Farmers replaced or remodeled their English barns as both agricultural markets and practices became more complex. In St. Mary's, new barns were built in response to new economic opportunities, but there was also a corresponding shift in ideas of what constituted a good barn. As the nineteenth century progressed, economic impetuses combined with an idea of agricultural improvement influenced the way that St. Mary's farmers perceived and managed their work, and how they conceptualized and ordered their farm buildings and landscape. Barns, accordingly, were both *reformed*—that is, they were made better or improved—and *re-formed*, meaning that an already extant model (the English barn) was shaped or manipulated into a more relevant form.

This chapter explores reform era barns on the St. Mary's landscape, built from the middle decades of the nineteenth century to the beginning of the twentieth century. What did reform era barns look like? How were they different from English barns? What purposes did they serve? I begin with a brief examination of reform era barns, first in wider Northeastern North America and then in St. Mary's, giving the reader an introductory picture of their overall form and use in contrast to the earlier English barn. I then focus attention on the material dynamics of the reformed barn, on matters of construction, use, pattern, and the reasoning behind their plan and design.

### *A Range of Reformed Choices*

Across Northeastern North America, there was a wide range of reformed barn choices that St. Mary's farmers could build by mid-century, all involving expansion, plan reorganization, and the addition of some kind of cellar. The gable end entry type was one new form that emerged in the first two decades of the nineteenth century, but became widespread predominately throughout New England post-1840s. The plan was arranged so that the floor ran lengthwise through the middle of the barn, parallel—rather than perpendicular—to the roof ridge (Fig. 56). Livestock and hay were housed in the opposing sides of the central aisle between regularly spaced bents. The barn had a gable rather than lateral side entry, and the building could be exited from large double doors positioned at both gable ends. A dug cellar for manure was usually incorporated below the barn. The plan was not only spatially innovative, but also spatially convenient because it gave, according to the *Massachusetts Yeoman*, “free access to every part of the barn, by opening a single door.”<sup>226</sup> While New England barns could be built to the standard English size of roughly 30x40 feet, they were frequently double the length. Another advantage to the plan was that it was easy to add extensions to the rear without impeding continuous floor access. Indeed, the real attraction to the barn type was not so much that it was larger, but that the plan was novel in that it facilitated an uninterrupted floor space, allowing farmers to “incorporate a proactive efficiency into their daily work patterns.”<sup>227</sup>

---

<sup>226</sup> *Massachusetts Yeoman* 3, November 26, 1825, pp.1. Quoted in Small, *Beauty & Convenience*, 79.

<sup>227</sup> Small, *Beauty & Convenience*, 89.



Figure 56. Jarathmael Bowers 1815 gable entry barn, Lowell, Middlesex County, Massachusetts. Looking southwest, interior (left). Looking southwest, exterior (right). Photos taken in 1941 by the Historic American Buildings Survey. MA-525 (b) & (c). Retrieved from the Library of Congress, <http://www.loc.gov/item/ma1035/>

In Upstate New York and parts of Central Ontario farmers did not fully re-design their barns at mid-century, but instead expanded them not only laterally but also vertically. In New York, Henry Glassie has observed that a prevalent pattern was to raise an English barn (either an old English barn or a new one built on the English concept) onto a full masonry basement and house the livestock in the lower level. Many old English barns were also moved to a bank, and masonry formed all sides of the basement level (Fig. 57).<sup>228</sup> In South Central Ontario, Peter Ennals has observed that long timber-framed barns (typically 60-100 feet) were built on a stone foundation wall about ten feet high. If the barn was not against a bank, access to the upper level threshing floor and

<sup>228</sup> This is unlike John Cruickshank's barn, which used both timber posts and a stone pier to support the sills of the upper level.

mows was via a wood or earthen ramp. The livestock were housed in the basement level (Fig. 58).



Figure 57. English-type basement barn with silo, Finger Lakes region, New York State. Photo by John Collier, 1941, for Farm Security Administration-Office of War Information. Retrieved from the Library of Congress, <http://www.loc.gov/item/fsa2000052495/PP/>



Figure 58. Basement barn in St. Marys, Ontario. Wood and earthen ramp to floor is visible. Circa 1902-06. CI 922. Photograph courtesy of St. Marys Museum and R. Lorne Eedy Archives, St. Marys, Ontario.

Similarly, in Southeastern Pennsylvania and some counties of Southern Ontario (especially Waterloo, Wellington, and Perth), farmers also built exceptionally large barns into the sides of banks and housed all of their animals in the masonry level below, but with the addition of a seven or eight foot forebay feature (an overhang projecting from the upper level all along the lateral side) (Fig. 59). The forebay design offered more grain storage, and facilitated convenient livestock feeding, as the farmer could drop feed from the overhang to the sheltered yard below (Fig. 60). All of these basement types doubled the barn's capacity—necessary for the growing mixed, commercial-scale, grain-and-livestock based economies of Pennsylvania and Southern Ontario, and dairy specialization in New York State—without excessively expanding the footprint.<sup>229</sup> The barns also facilitated order on the farmstead, as the various components of farming like livestock and grains could be spatially separate (and thus in theory better managed), yet still functionally linked under one roof.

---

<sup>229</sup> See Glassie, "Barn Building in Otsego County," 1974; Ennals, "Barns in Southern Ontario," 1972; Ensminger, *The Pennsylvania Barn*, 1992; Falk, *Barns of New York*, 36-39; Thomas McIlwraith, *Looking for Old Ontario: Two Centuries of Landscape Change*, (Toronto: University of Toronto Press, 1997), 179-180; McMurry, *From Sugar Camps to Star Barns*, 103-105.



Figure 59. Bank barn with forebay extension and masonry cellar stabling below, near Neff's Mill covered bridge on the Pequea Creek, Penn Grant Rd., Lancaster County, Pennsylvania. Photo by author.



Figure 60. View of yard and English style basement barn with forebay extension, St. Marys, Ontario. Circa 1902-06. CI 1066. Photograph courtesy of St. Marys Museum and R. Lorne Eedy Archives, St. Marys, Ontario.

Although the New England gable entry type barn is known as “one of the most ubiquitous architectural forms in North America,”<sup>230</sup> it is seldom encountered anywhere in Nova Scotia or wider Atlantic Canada. Bank barns with forebays are non-existent in this region. While raised, mortar and stone full basement barns are less rare throughout Nova Scotia, the majority of St. Mary’s farmers—among many others in Northeastern Nova Scotia—made an alternative choice for their barn reforms: laterally extending their three and four bay English barns by several bays, and incorporating a non-masonry or partial dry masonry cellar-level primarily for the storage of manure rather than livestock.

#### *Extended Barns in St. Mary’s: A Typological Overview*

Samuel Cumminger extended his English barn by four bays sometime after mid-century. In essence, he doubled his barn with the addition of another stable for cattle, another floor, another mow of which half was portioned to stable horses, and one special bay—positioned between the two bays of stabling—allocated as a manure cellar in the subterranean level and a hay mow in the loft level. His new barn functioned more or less in the same way as his original English barn had. Just like the old English barn, the new “double English” barn stabled the livestock and stored loose hay and grains. Like the English barn plan, the mows occupied the major volume of the barn, and floors were required for access to both the mows and the stabling bays in order to perform a variety of tasks: unloading the hay wagon; pitching the hay from the mow to the floor; forking the hay from the floor into the mangers via a down-ward folding hatch; threshing and storing

---

<sup>230</sup> Hubka, *Big House, Little House*, 55.

grain and housing various agricultural implements. Finally, the barn remained the spatial locus of labour on the farmstead, the point from which various forms of farm work, whether preparing, harvesting, or processing, originated (Fig. 61 & 62).

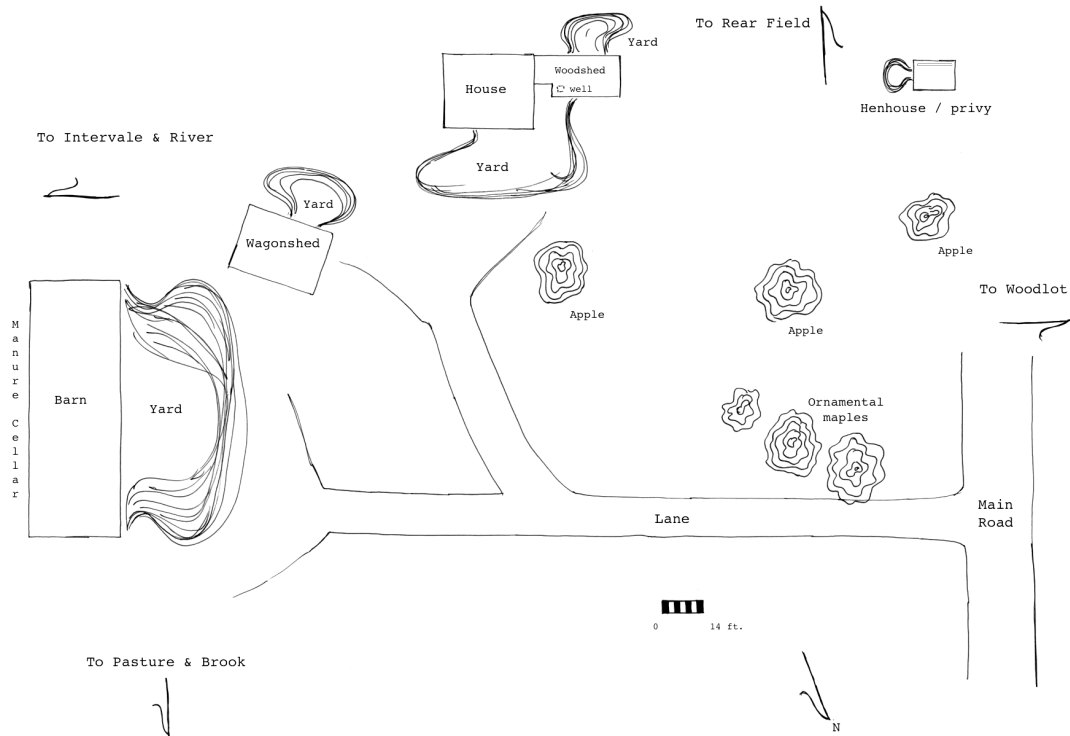


Figure 61. Site plan of Samuel Cumminger's farmstead, Aspen. Here, the barn is shown in relation to other buildings and locations on the farmstead. The concentrated lines indicate yards, zones of work, and where building doors are located. Plan by author and Adrian Morrison. Drawn by author.

Samuel Cumminger's spatial conceptualization of his barn was therefore likely little changed after he expanded it. Extended barns were essentially modelled on English barns, so the form was familiar, functional, and reliable. However, it probably took Samuel a good deal of time to adjust to the lengthy footprint of the sprawling structure that now consumed the better part of his farmyard, as the new extended barn was nearly 90 feet in length (Fig. 63).

Besides the doubling of size, one way that the new extended barn significantly differed from the old English barn was in the inclusion of a manure cellar. A manure cellar is essentially a subterranean storage area within a barn, recommended to be at least 6 to 8 feet deep,<sup>231</sup> for the concentrated accumulation and seasonal storage of manure. Access is through a low but wide opening in the rear lateral wall of the barn that is usually doored, although Samuel Cumming's likely was not. His manure cellar is quite substantial, roughly 10<sup>7</sup> wide x 32<sup>4</sup> long x 11 deep/high (Fig. 64 & 65). He excavated the cellar from the slope against the SW gable end of the original four-bay English barn—a Herculean task considering the work was all done by hand. He then neatly lined two sides of the cellar with fieldstone (no mortar was used) and left a large opening on the rear lateral wall that faced towards the intervale fields, the intended destination of the manure, which he shoveled down into the cellar from a series of hatches cut along the wall behind the gutter of the cattle's stanchions. In earlier English barns, manure had been thrown outside via a window or hatch onto a heap against the gable end of the barn, and removed seasonally for fertilization.

---

<sup>231</sup> See Ross, *Remarks and Suggestions on the Agriculture of Nova Scotia*, 14.

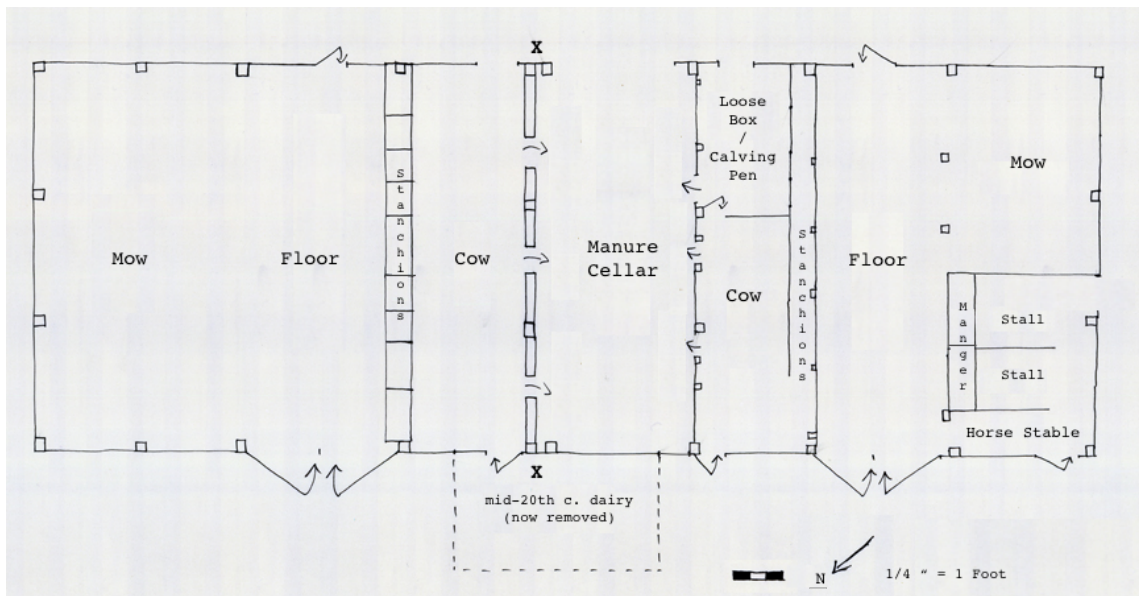


Figure 62. Samuel Cumminger's eight bay double English barn in Aspen, running NE-SW, 89x32 ft. The 'X' indicates where the four bay extension is joined to the English barn. Plan by author and Gerald Pocius. Drawn by author.



Figure 63. Samuel Cumminger's eight bay extended barn. The large space of wall at the dead center of the barn, between the two small stable doors, is where the manure cellar is positioned. The faint scars of a former mid-twentieth century milk house is also visible. Photo by author.



Figure 64. Interior of manure cellar, Cumminger barn. The spruce pole flooring of the loft level hay platform is visible, as are the hatches on both sides of the cellar used to shovel out the cow dung from the byre. Photo by author.



Figure 65. Entrance to manure cellar on the SE lateral wall of the Cumminger barn. The dry stone underpinnings of the barn are visible. Photo by author.

While farmers like Samuel Cumminger extended their old barns to create a new, greater form, other large, lateral barns on the St. Mary's landscape (usually those dating post-1880) were built from the beginning to have many more bays than the standard three or four found in English barns. The John Henry Jordan barn in Newtown, for example,

was originally intended to be six bays and 66 feet in length (Figs. 66 & 67), while the George Fisher barn in Fisher's Mills was intended to be six bays and 80 feet long (Figs. 68 & 69). The Jordan barn probably dates from the 1870s-1890, while the Fisher barn is likely from around the final decade of the nineteenth century.

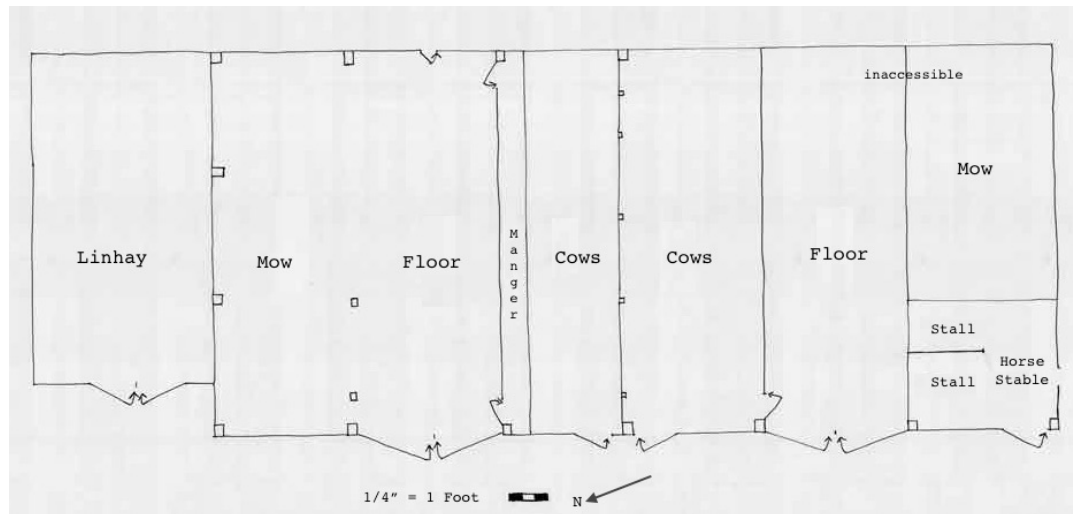


Figure 66. John Henry Jordan's 6-bay double English barn, Newtown, running NNE-SSW, 66x30ft. The linhay is a later addition used for the storage of machinery and wagons. With this addition, the barn is an overall length of approx. 78 feet. The barn is slated for demolition at the time of writing. Plan by author and Maggie Sutherland. Drawn by author.



Figure 67. Rear view of the double English Jordan barn, Newtown, showing entrance to manure cellar. Photo by author.



Figure 68. Rear view of George Fisher barn, Fisher's Mills. The large doors of the manure cellar are visible to the left. A vent is at the ridge of the barn to vent the cellar, hay mow, and byre. A small stabling area with door and window is also visible; the use of partial cellar stabling is found only in the later nineteenth-century reformed barns, which will be discussed below. Photo by author.

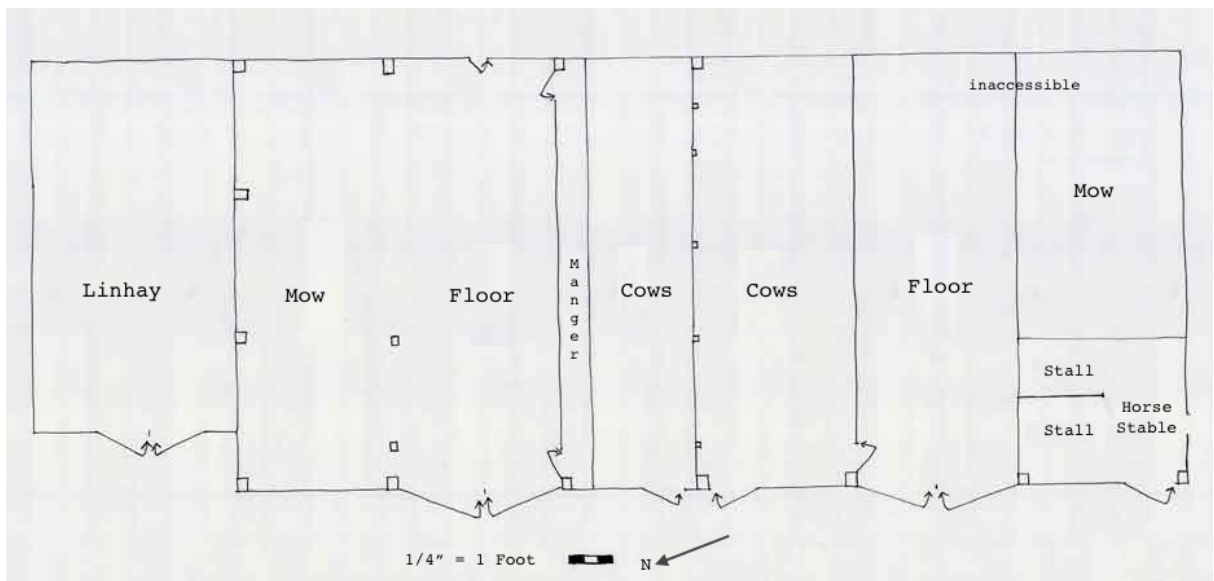


Figure 69. George Fisher's 6-bay double English barn, Fisher's Mills, running approx. NW-SE, 80x30 ft. The barn was probably built in the final decade of the nineteenth century, and appears to be partially assembled with recycled timbers from a previous barn structure. Supportive structural work was performed on the barn, likely at a later date, including angled plank struts between tie beam and rafters. Plan by author and Angelina Jack. Drawn by author.

### *Plan and Use*

Extended barns like those introduced above were widely built in St. Mary's throughout the 1860s to 1890s and continuing into the early twentieth century. The plan was an expedient way to expand a pre-existing English barn, but new barns were also raised on the multi-bay principle of the double English plan. Thus, expanded plans varying in length from three to nine bays characterize all of the extant nineteenth-century timber-framed barn forms surveyed in St. Mary's (the three bay barn documented initially began as an asymmetrical two bay form), as well as the overwhelming majority of now demolished period barn examples I encountered in family photograph albums. Evidently, a system of lateral expansion underlines traditional barn design processes in St. Mary's. Larger size requirements for barns could be met simply by adding bays to the basic English concept or "mental template," resulting in a "volumetric range" of barn plans.<sup>232</sup> As discussed in the previous chapter, English barns are inherently flexible in their design, and it's probable that many early St. Mary's settlers had always intended to expand their barns in the future if time and resources permitted. Indeed, material strategies for agricultural success required optimism, foresight, and good project planning in the design of farm buildings.

In considering the design principles of the St. Mary's barn building tradition, we might compare timber-framed barns to poetic verse in that they follow a regular, rhythmic scheme or pattern that can be directed into a variety of acceptable formal arrangements. The tripartite, English barn form serves as the basic "mental template" for all barn design

---

<sup>232</sup> Glassie, "Barn Building," 229.

in St. Mary's, and can be represented, according to Henry Glassie, as **(brb)** [**bay**-runway-**bay**]. Here, Glassie's usage of the term "runway" implies floor, and I have chosen to maintain his terminology when referencing this particular work. All other barn arrangements in St. Mary's are manipulations of this basic **(brb)** pattern, the "result of simple arithmetical play with a very few basic ideas within a homogeneous tradition"

(Fig. 70).<sup>233</sup>

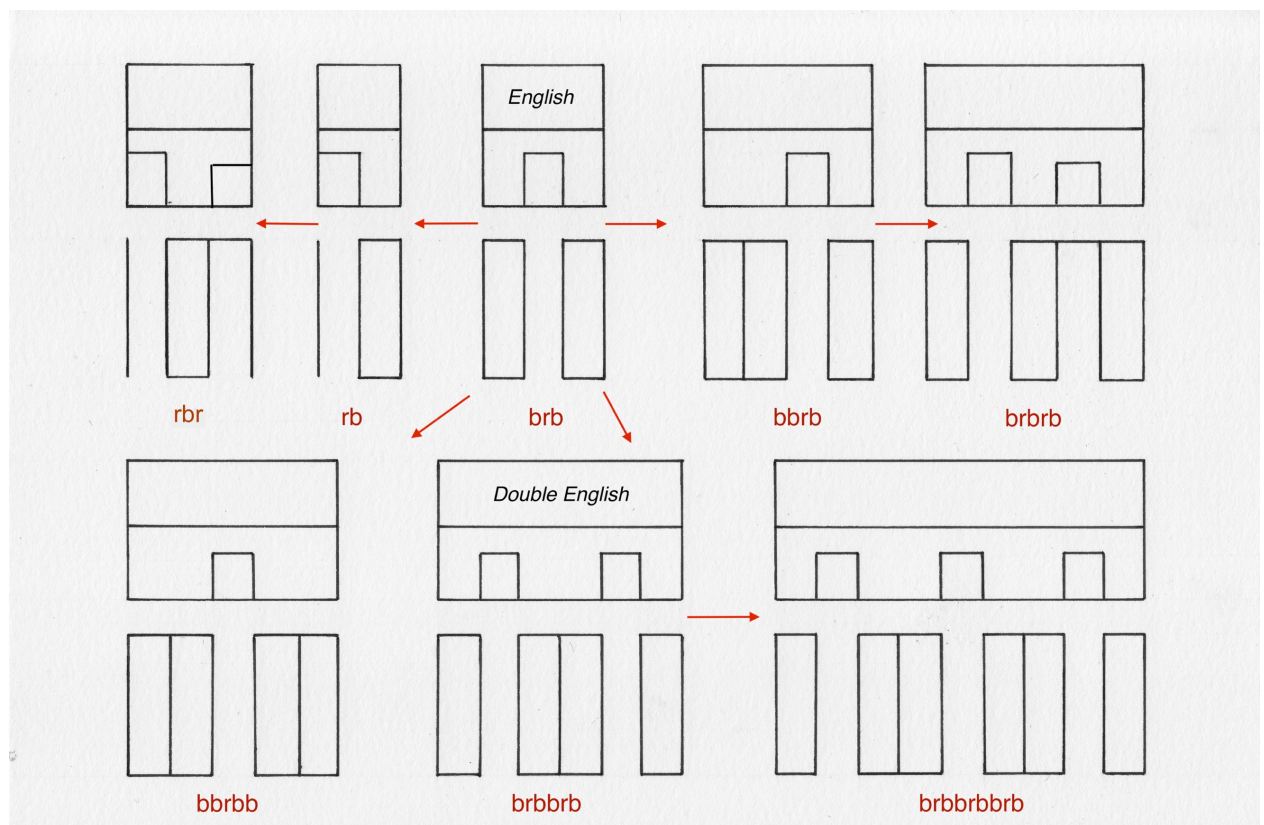


Figure 70. The extensive and intensive manipulation of the "mental template" of the 3-bay English barn. 1) **brb** = first period of John Cruickshank's English Barn in Lower Caledonia; Jordan barn, Sherbrooke; Archibald barn, Newtown; Hattie barn, Glenelg. 2) **bbrb** = first period of Samuel Cumming's English Barn in Aspen; first period of Bowie barn in Havendale. 3) **rb** first period of William Cruickshank's barn in East River St. Mary's. 4) **rbr** = second period of William Cruickshank's barn in East River St. Mary's. 5) **brbbrb** = Jordan barn in Newtown; George Fisher barn in Fisher's Mills; all three combined periods of James Fisher barn in Fisher's Mills; second period of John Cruickshank barn, Lower Caledonia; second period of Samuel Archibald barn, Glenelg. 6) **brbbrb** = a variation of this scheme is shown in the combined periods of one and two of the James

<sup>233</sup> Ibid., 182.

Fisher barn in Fisher's mills, expressed rather as **rbbbrb**. This **rbbbrb** scheme is also found in the lower Ross barn, Waternish. The upper Ross barn in Waternish and the second period of the Hattie barn, Glenelg are expressed as yet another variation, **brbbr**. 7) **bbrbbb** = first period of Samuel Archibald barn, Glenelg. 8) **brbbrbbrb** form is not extant in St. Mary's, but these massive, preeminent barns are found in the more agriculturally productive region of the Northumberland Shore of Pictou County, sometimes with the center opening of the barn's façade not as a runway, but as an entry to a manure cellar (see also Fig. 26 of a threshing party in East River St. Mary's, where a similar barn is shown. The façade also has a central manure door). Drawn by Brittany Roberts and labeled by the author after an illustration in Glassie, "Barnbuilding in Otsego County," 184.

In additive schemes, bays are multiplied outward from the basic (**brb**) form. This characterizes the second phase of barn building in St. Mary's, and most commonly involves the conceptual addition of another English barn, creating the "double English barn" type. Derivative schemes, where bays are subtracted, present an asymmetrical form. They are less common, but one Phase II barn in the St. Mary's region (**rb**) was built following this form. However, the (**rb**) barn was later expanded to (**rbr**) in an effort to achieve some semblance to the rule of three bays.

The English barn, then, becomes essential to deconstructing the design processes of St. Mary's barn builders throughout the mid-to-late nineteenth century, and the ways that both builders and farmers made architectural decisions that elaborated upon frameworks within an existing building repertoire through a process of composition and decomposition.<sup>234</sup> In other words, the generation of vernacular design is prescribed by a set of ideas and values based in tradition. A grammar of sorts, there is a vocabulary of pre-existing building forms, "a narrow, culturally defined field of possibility that is structured by tradition."<sup>235</sup> This strategy does not mean that vernacular builders in places like St. Mary's perpetually copied old forms, nor that they were slaves to tradition. Rather, their actions were dependent on context; the context of their local building

---

<sup>234</sup> Hubka, "Just Folks Designing," 28.

<sup>235</sup> Ibid.

tradition, but also potentially the context of the natural environment that could determine building materials as well as spatial siting on the land. Vernacular builders generate new designs by:

disassembling or decomposing existing forms and composing new forms out of the abstracted ideas of bits and pieces of existing forms. ... The folk designer accomplishes change by reordering the hierarchy of ideas (schemata) contained within the known grammar or tradition of existing structures. In the folk system, new forms are conservatively generated out of old forms and old ideas.<sup>236</sup>

St. Mary's builders and farmers worked to manage their needs, such as the requirement for more barn space, by extending the traditional English barn form by multiple bays. The advantage of working within tradition, as Hubka notes, is that problems become more manageable. He argues, "since the traditional buildings are summaries of problems already solved [in the case of North American English barns, the need for an efficient and compact working space with all the promise of new world financial and social success and the tangible opportunity for place-making], the folk designer is free to focus attention on areas that need repair or change."<sup>237</sup> In the case of mid-century barn reforms, these areas for focus in design improvement concern, primarily, the need for increased fertilization on the farm. This is revealed in barn design strategies concerning the convenient storage and accumulation of manure, as will be discussed in the following chapter.

I identified two expressions of extension in St. Mary's barn building. Extension, however, is by no means exclusive to St. Mary's, as the lateral expansion of English barns from a few bays to multiple bays was employed throughout New England and Upstate

---

<sup>236</sup> Ibid.

<sup>237</sup> Ibid., 29.

New York, although to a much lesser extent than gable end entry or basement barns.<sup>238</sup>

The first expression of extension is a five-bay, asymmetrical plan of roughly 30x60 feet.

One-half and two-thirds larger, respectively, than a three bay and four bay English barn,

the five-bay plan provides an additional floor and/or bay. In the examples illustrated

below, this additional bay is divided, with one half a mow and the other half horse

stabling. Like all St. Mary's barns surveyed, they are positioned on side-hills, thus

permitting the inclusion of a dug manure cellar below. Both the Hattie barn on Hattie

Road, Glenelg and the two Ross barns in Waternish are built on this size and design (Figs.

71, 72, 73, 74, & 75).



Figure 71. Hattie barn, Hattie Rd., Glenelg. The height of the ESE end bay door is lower than the other floor door, and has a window, indicating that it was primarily used for wagon/equipment storage. Cecil Hattie confirmed that this door, as well as the window above, were a later modification to the structure. Photo by author.

---

<sup>238</sup> Garrison, *Landscape and Material Life*, 132-133; Glassie, "Barn Building," 184-185. In Upstate New York, Glassie notes that the upper level of basement barns could also be expanded horizontally in the same way as one level barns.

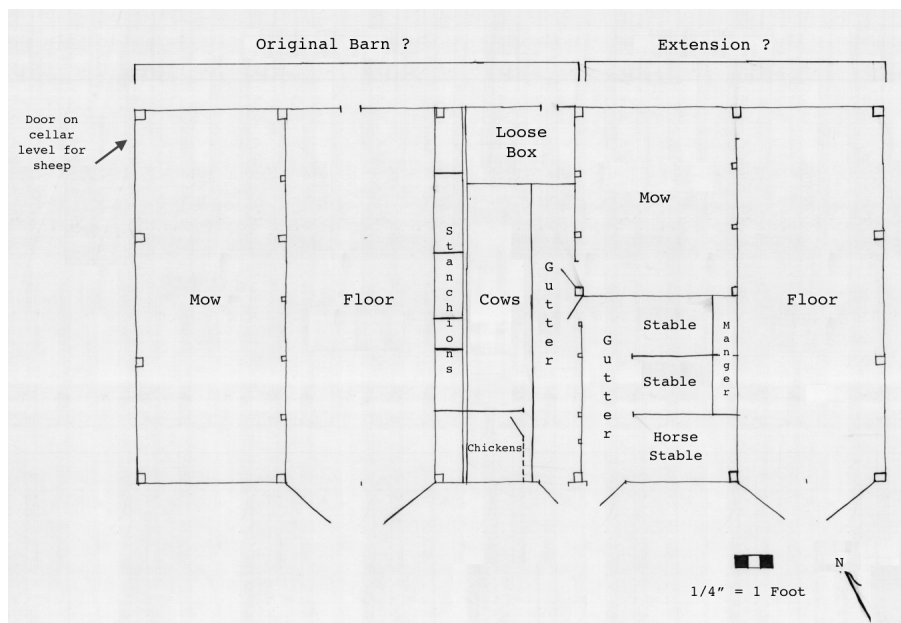


Figure 72. The Hattie barn, Hattie Rd., Glenelg, running WNW – ESE, 60x30 ft. The barn is a five-bay asymmetrical form. Framing evidence, such as notches for a missing collar beam, a sawed horizontal rail, and a large central post placed at what may have been the ESE gable end bent of a three bay barn suggests the barn was originally an English form. Further, two floor joists placed very close together below the barn correspond to the bent with the missing rails above. A half mow and half stable bay, and a floor bay, would have been added later to make the current five bay structure. However, the owner, Cecil Hattie, insists the barn was originally built “as is.” More concrete evidence revealed in other extended St. Mary’s barns—such as two rafters placed close together, two adjacent posts, or a knee brace bolted into the last post of the old frame—would make the spatial evolution of this barn less of a mystery. Plan by author and Adrian Morrison. Drawn by author.

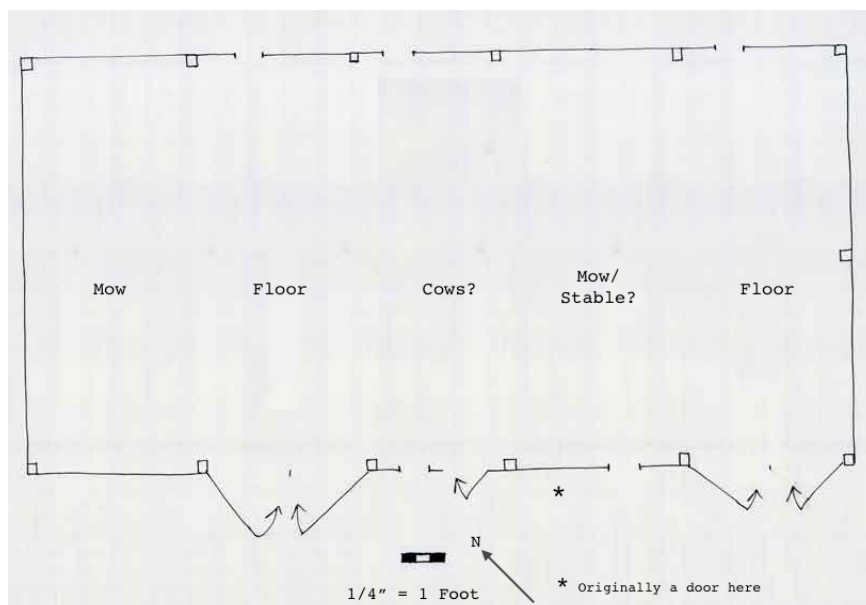


Figure 73. The upper Tom & George Ross barn, Waternish, running NW-SE, 60x30ft. Date of construction is unknown. The barn has been extensively renovated by the current owner, W. Hardy

Eshbaugh, and there are no interior divisions remaining within the barn. Because the barn is so structurally altered, I cannot conclusively determine if it initially began as a 3-bay English form. Plan by author and Gerald Pocius. Drawn by author.

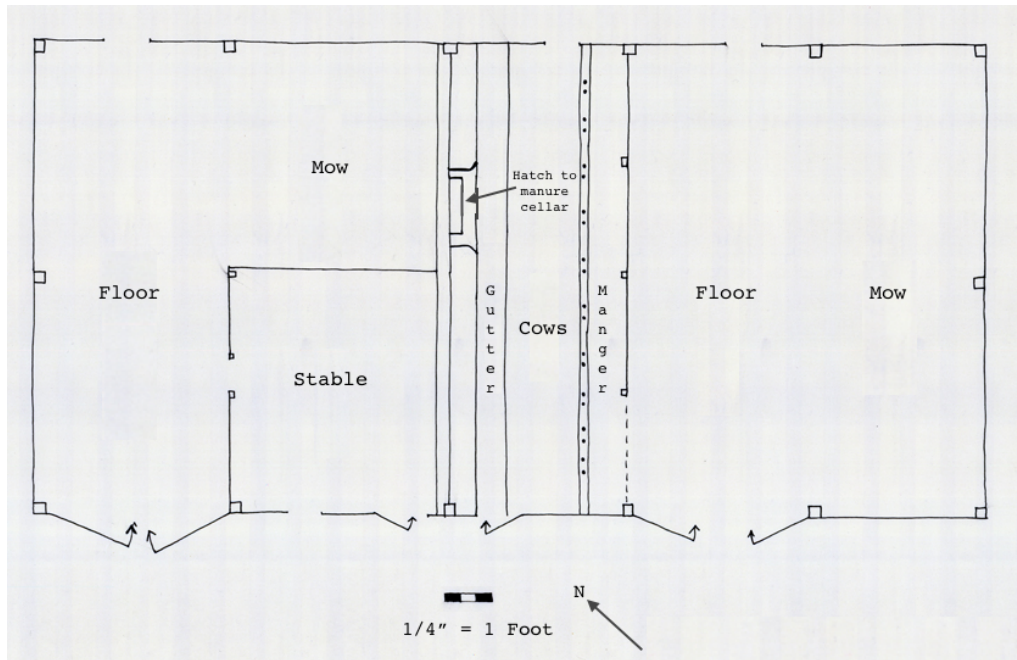


Figure 74. The lower Tom & George Ross barn, Waternish, running NW-SE, 60x30 ft. The barn was built as five bays probably around 1903, when the brothers jointly inherited their father's farm and also built a duplex farmhouse. The lower barn was intended as a sister structure of the upper barn. While the exterior look, dimensions, and interior plan is similar to the upper barn, the framing bent assembly differs. Plan by author and Gerald Pocius. Drawn by author.



Figure 75. Both the upper and lower Ross barns are sited linearly so that when viewed together, side by side, they appear to flow as a ten bay, bilaterally symmetrical form. Both barns have been extensively restored by the current owner, W. Hardy Eshbaugh. Photo by author.

The second expression of extension is the “double English” plan, the most common extended form in the St. Mary’s barn building tradition. Bi-laterally symmetrical, the double English barn type can be formed when bays are added proportionally to an existing three or four bay English structure. In other words, the plan is achieved by joining a new barn to an old one (Fig. 76). The plan works on the duplication of each discrete spatial unit of the English barn: two floors, two stabling bays and two haymows.<sup>239</sup> It is important to note that the pattern of bay arrangement in the St. Mary’s double English form is usually stabling bay next to stabling bay, and not mow bay next to mow bay or a stabling bay next to a mow bay (Fig. 77). By doing this, the stabling bays are always confined to the center of the barn, and the two stable bay doors frequently appear side by side (Fig. 78).<sup>240</sup> While this arrangement of bays ensures a symmetrical form, it also facilitates the cattle dung to be dropped below the stabling bay via floor hatch into the excavated manure cellar, which is always positioned in the center of the bowels of the barn.

---

<sup>239</sup> It is interesting to note that Samuel Cumminger’s great-great-great grandson, Frankie, refers to the barn plan as having both an “upper” division and a “lower” division. In other words, that there is both an upper barn and a lower barn, reaffirming the spatial conception of the plan indeed being doubled. Frankie, however, did not know that the current barn form was built over two separate periods.

<sup>240</sup> Samuel Cumminger’s barn is an exception, because the manure cellar is portioned a full bay in the barn, and is positioned between the two stable doors. The upper level of the cellar bay has a pole floor, and is used as a hay mow.

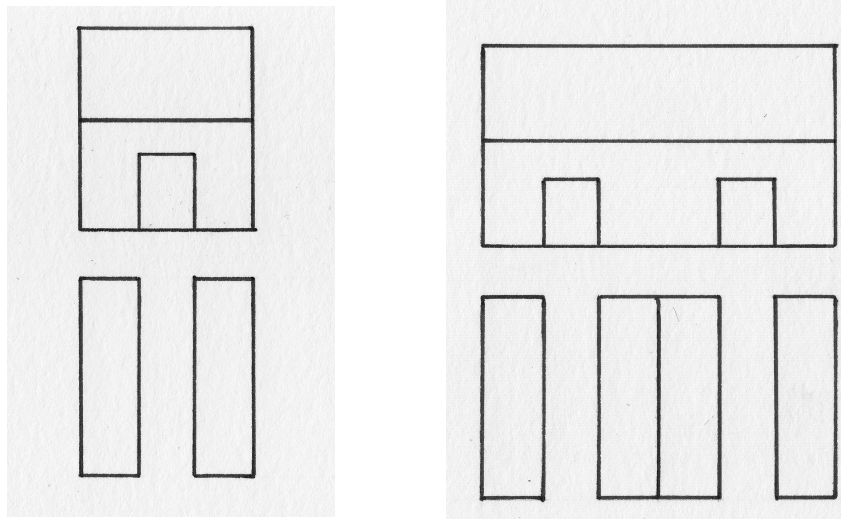


Figure 76. The three bay English barn concept (Left). The six bay double English barn concept (Right). Drawing by Brittany Roberts.

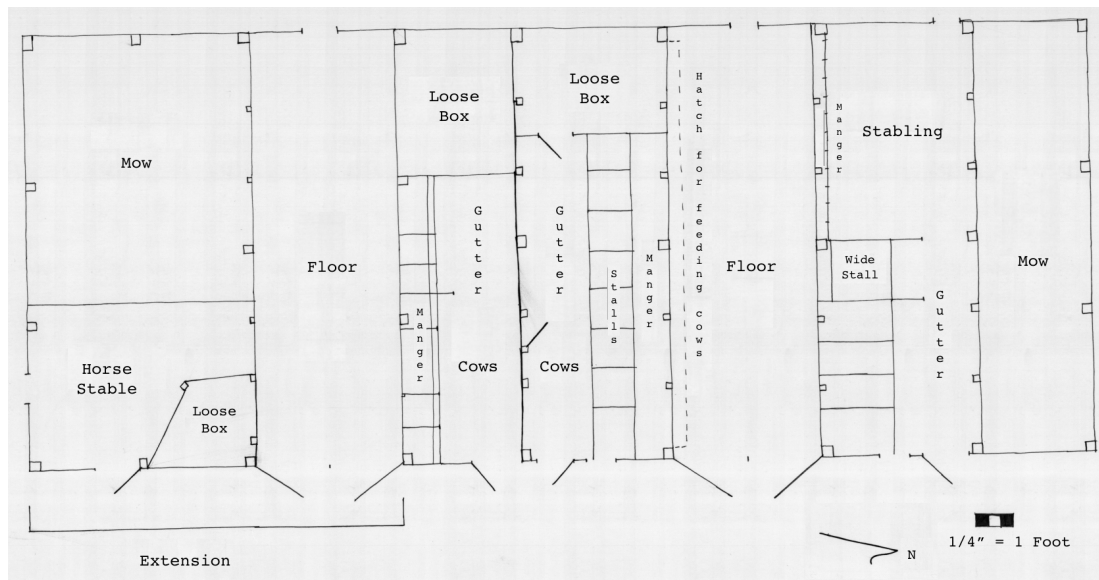


Figure 77. Samuel Archibald barn, Glenelg, running roughly SSE-NNW, 86x36 feet. The eight bay barn likely began as a five bay form (date of construction unknown), with the additional three bays added sometime in the later part of the 19<sup>th</sup> century. The barn's interior division was likely re-arranged when the extension was built as it would be unlikely for the NNW floor to not have direct access to a mow. Plan by author and Adrian Morrison. Drawn by author.

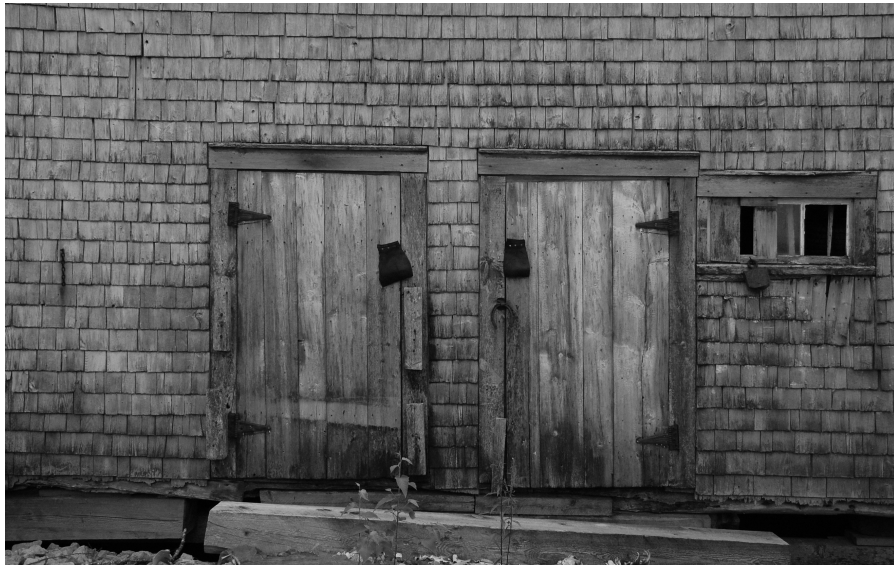


Figure 78. Stabling bays are positioned next to each other in the Samuel Archibald double English barn, Glenelg. Photo by author.

The following piece from the August 9, 1845 issue of the *New England Farmer* provides a good overview of both the spatial advantages and cash-saving benefits of the double English form. In the submitted letter “Plan for a Farm Barn” the writer, “J.G.,” notes the growing trend of accumulating manure in cellars, which required farmers to reconsider their barn plans. “In order to accomplish this, the old barn must often be new modeled, or a new one substituted at the time the cellar is built. If, therefore, any valuable suggestions can be made in regard to the construction of barns, it will now be peculiarly seasonable,” he writes to readers.

The author makes the argument for the double English plan as an alternative to the gable entry barn type, which was rapidly growing in popularity across New England at the time. He cautions that although the gable entry barn conveniently brings the runway or floor through the middle of the barn from end to end, thus contributing to the convenience of feeding stock, it is not without drawbacks. “The floor takes up the best part of [the barn],” J.G. argues; “both the hay and the scaffold are curtailed by the

declivity of the roof.” Further, he cautions that building a new barn on a new plan is an expensive undertaking and an action any judicious farmer should carefully weigh. Indeed, mid-century farmers considering new barns needed to decide whether the potential benefits of a new farm structure, whether that be economic, social, or labour-saving, would offset the substantial output in time, energy, and resources required for their construction.

J.G. instead argues for an alternative plan to the gable entry type, one that is “equally convenient and more economical.” He recommends that the farmer make a simple lateral expansion to his English barn, adjoining a new stable bay to the old stable bay, and further adding laterally another runway and haymow (Fig. 79). In this scheme, each cattle stable or byre would have access to a runway floor, allowing for easy feeding of stock. Obtaining a gable end entry barn required either an extensive, difficult renovation of the current English barn or the building of an altogether new structure. J.G. argues that any benefits of such a plan do not outweigh the costs of its construction, especially when a manure cellar is involved. In the double English plan, the manure from the livestock is thrown *down* into the cellar, rather than out any exterior window, so there is no loss in function by having the stable bays enclosed on either side by a floor or haymow. As he asserts, “there is no sort of necessity for having our stalls contiguous to the outside of the building. The manure is not to be thrown out at the window, but into the cellar.”

J.G. further recommends the double English barn, as it can be “varied indefinitely” through the addition or subtraction of bays: “one-half may be added, or one-half dropped; or if a less variation is desired, one bay may be so enlarged as to admit of a

few stalls on that side of the floor, and leave sufficient room for the fodder.” Granted, when bays were added to an English barn plan, the farmer had to move through a series of internal and external doors to access the various spaces of the barn. Nevertheless, the expense of building an altogether new barn obviously outweighed this inconvenience for J.G. and the many St. Mary’s farmers who overwhelmingly chose this design. Since the old English barn design was so inherently flexible, why spend more money building new, when you could spend less extending?

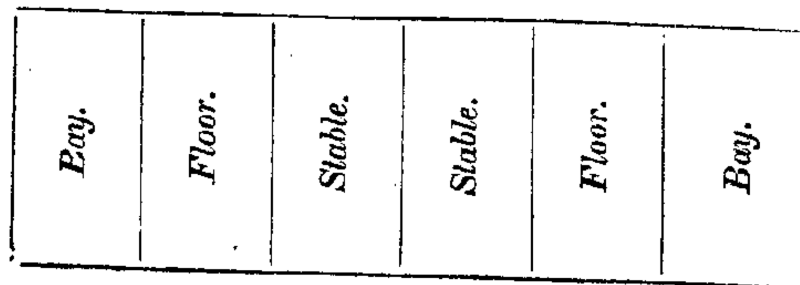


Figure 79. Accompanying illustration for the letter “Plan for a Farm Barn,” from the August 9, 1845 issue of *The New England Farmer*, 60.

#### *Extension over Time: The James Fisher Barn*

As J.G. suggests, the advantage of the double English plan is that bays could be added according to resources and need. The double English form did not necessarily have to be realized at once, then, but could be formed gradually. This flexibility was useful for farmers of limited means or resources, or whose farming operations were not as advanced to require the full-blown duplicate extension. The James Fisher barn in Fisher’s Mills is potentially one example of the way that a farmer extended his barn to the double English form over a multi-year period. The Fisher barn probably underwent two additions before arriving at its current plan of seven bays, measuring 79 feet in total length (the barn is 31 feet wide). The barn likely began first as a 4-bay English barn running NNW-SSE.

Unfortunately, I cannot determine the period of this initial construction, but the barn was framed using the Phase I “flared post” bent assembly, wherein the wall plate is seated in the post, as outlined in the previous chapter. It’s likely that two bays were originally allocated to the haymow, one to the threshing floor, and one to the byre. Fisher’s barn was then expanded to the SSE by another two bays, probably by the 1880s, as the frame assembly technology changes to the “straight post with dropped tie-beam” bent assembly (see the framing discussion below) for both extensions. In this second extension, one of the two new bays were allocated for cattle, and the other for a runway or floor, now making the barn similar in spatial arrangement to the Hattie and Ross barns mentioned above. It is probable that also at this time the earlier mow bays were divided laterally, and half used as a horse stable.

I should point out that, interestingly, there is no clear evidence of the structural work required to facilitate the first extension—such as a new post adjacent to an old post, like what was employed in the third extension of the barn (see below and the framing discussion). Nevertheless, the fact that the barn bents switch to a later period assembly strongly suggests a two-part building process over time. It is possible that the barn was extended by simply joining together a new wall plate to the old, but unfortunately the area of the barn that could reveal evidence of this is inaccessible. The only other avenue to explain the barn’s divergent assembly is that the Phase I assembly portion of the barn’s framing may have been recycled from an older barn, and reassembled in the old way because the timbers were already cut to that form. Because a barn was desired longer than what used timbers were available, the required timbers were newly cut and assembled in the newer fashion. Another mystery is that there is evidence of notching in a post to

facilitate the removal of a rail that secures or opens a set of double doors (Fig. 80). This evidence is located at the rear end of the floor in what I have described as the original four bay English barn. The barn makes use of studding and vertical sheathing in all sections of the barn, and the whole of the exterior is shingled. Thus, it makes sense that an earlier double door may have been removed if the four-bay barn was being modernized with new sheathing at the time of extension. Or, the timbers are simply recycled from an older structure. Whatever the progression of construction for the Fisher barn may be, like all St. Mary's barns, it does not offer a straightforward explanation of why it is built the way it is built.



Figure 80. James Fisher barn, Fisher's Mills. Notch pattern to facilitate the placement and removal of the horizontal rail that secures a floor's double doors. Was there once a rear set of double doors in the earliest part of the barn? Is this a recycled post from an earlier structure? When was the brace, visible above, that extends from the post added? Photo by author.

Finally, an extra wide bay was added after the second addition, and allocated as a haymow. The framing is mill sawn rather than hand-hewn, with dimensional studs employed. This last bay is extra wide—almost 17 feet—and thus makes the barn look symmetrical and proportionate *from the exterior*. Farmers clearly considered aesthetics in barns just as they did their houses. By the time this final bay was added, probably near the end of the nineteenth century given the use of dimensional lumber, a wide bay was acceptable as farmers and carpenters of this period rejected the overbuilding their father’s or grandfather’s had practiced. Large logs were best to sell for cash, rather than used as a statement of settler resistance against the frontier wilderness. Illustrated below (Figs. 81 & 81) is the gradual transformation of the James Fisher barn from a four-bay English plan to a double English plan, progressing from the NWW to SSE as follows: Period I): bbrb | Period II): bbrbbr | Period III): bbrbbrB. Note that B represents the extra wide bay.<sup>241</sup>

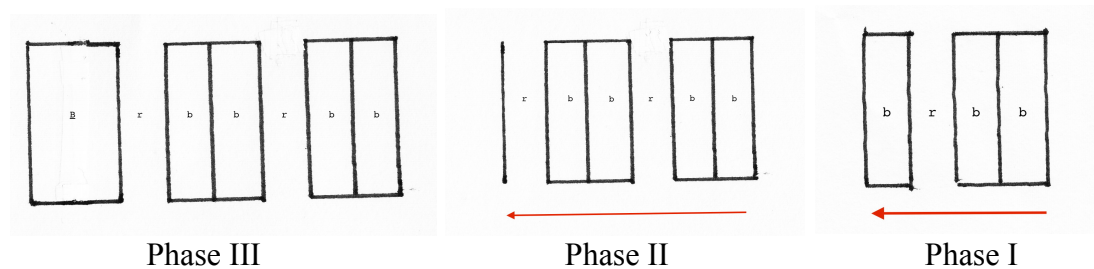


Figure 81. Spatial expansion of the seven bay James Fisher barn, Fisher’s Mills, progressing from the NNW to SSE. Original 4 bays + 2 bays = 6 Bays + one extra wide bay = 7 bays overall, but with the exterior appearance of a balanced 8 bays.

<sup>241</sup> In a brief handwritten, undated family history provided to me, the Fisher barn is described as follows: “The barn on the property was built with lumber from the property and sawed in the mill [the Fisher’s ran a sawmill] in 1898 one year before Isaac Fisher’s house [was built].” This statement conflicts with the material evidence present in the barn, such as hand hewn major timbers employed in seven bents, and different framing technologies utilized in different sections of the barn, which together indicate a much earlier form. I would argue that the final, large bay extension of the barn, constructed with mill-sawn dimensional lumber, could certainly have been what was constructed in 1898. I thus refer to the barn as the James Fisher barn, because James was Isaac Fisher’s father, and was probably responsible for the construction of the original English barn, and the first extension of that barn. Isaac likely oversaw the second extension.

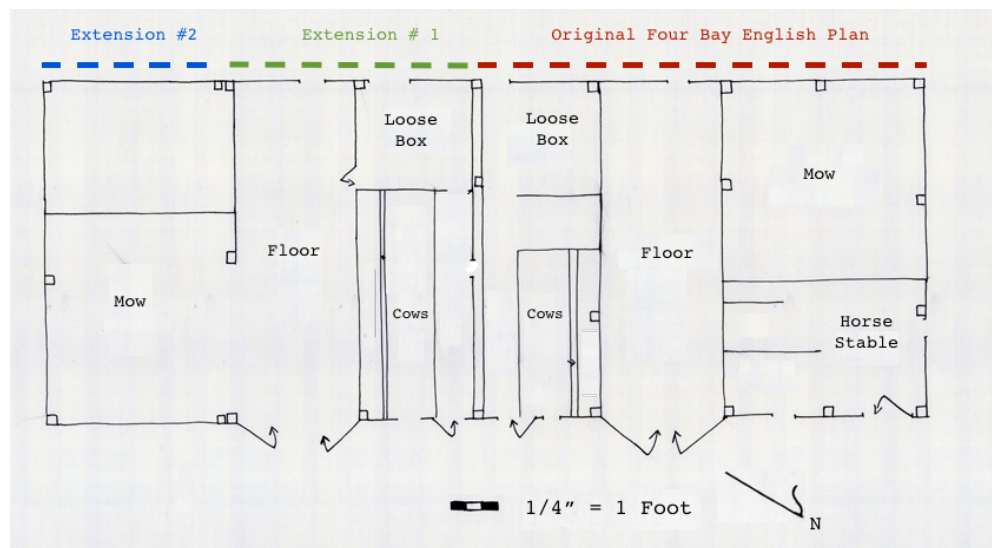


Figure 82. James Fisher barn, Fisher's Mills, showing progression of extensions. Interestingly, the stabling bay in the original English barn is to the left of the floor, rather than the right—uncommon in St. Mary's. Was it moved when the barn was extended, so that the two stable doors would be side-by-side, as was aesthetically acceptable? Plan by author and Gerald Pocius. Drawn by author.

### *Framing*

Extended St. Mary's barns built in the early Phase II period (roughly the mid-nineteenth century to the 1880s) employed the same "flared post" bent assembly of English barns outlined in Chapter Two. Samuel Cumming's Phase II barn extension, for example, used the same structural framing system of the earlier English phase, wherein the wall plate is seated in a slightly flared post and the tie-beam rests atop the two (see Fig. 34). Both sections of his double English barn are therefore structurally as well as conceptually identical. The same framing system was also employed in the now demolished extension of the John Cruickshank barn in Caledonia. One remaining bent from the Phase II extension confirms the continuity of construction method.

### *Framing the extension*

In the Cumminger barn, extension was achieved by raising a new post adjacent to the last bent in the gable end of the original English barn (Fig. 83). No joinery is involved to connect the new post to the old post. Rather, the new and old post stand freely side by side, and the exterior sheathing provides the only structural connection between the two barn sections. The new post is not part of a complete bent. Although a new wall plate is seated on top of the post, and a new rafter is lapped onto the new plate, an incomplete bent assembly is formed because there is no tie beam or bracing extending into the interior of the barn. The close proximity of the posts at the join mark, labeled “X”, is indicated in the scale plan of the Cumminger barn shown earlier (Fig. 62). Once the new post was erected next to the old post in the last bent of the old barn, the builders proceeded to erect bents in the usual way until the desired number of new bays was achieved. This extension method appears to be structurally deficient over time, as the new post gradually spreads farther and farther apart from the old post. Later generations of Cummingers made some efforts to stabilize the two posts, attaching plank and iron bracing in the area, and filling the gap between the posts with slabs of wood. The James Fisher barn employs the same extension tactic of a new single post positioned next to the last bent of the old barn in the final, Period III extension. These posts, however, have not spread apart from each other, perhaps because the barn is not as old and has been better maintained over the years (Fig. 84).

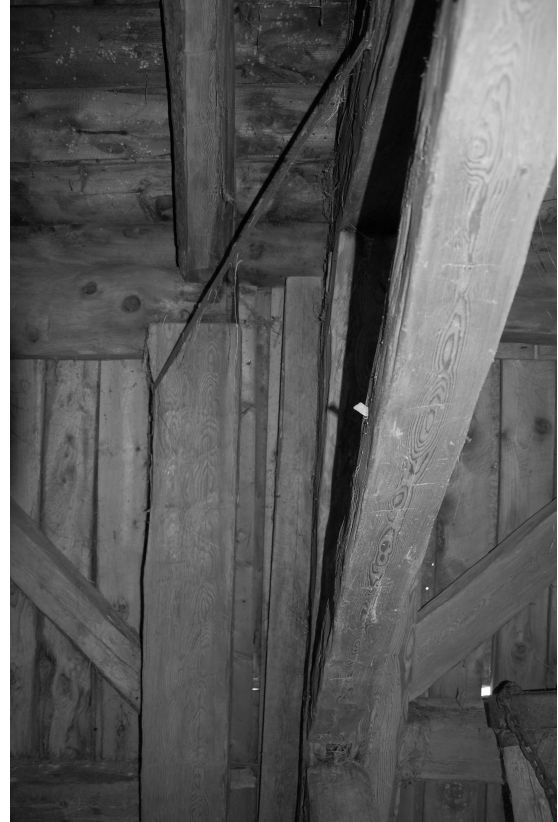


Figure 83. How extension was facilitated in the Cumminger English barn. Left: Looking SE, the end bent of the original English barn is to the left, while to the right is the partial bent of the first part of the extension. Later plank support bracing is visible. Right: Looking NW, the end bent of the original English barn is to the right, while the partial bent of the extension is to the left. The difference between the full and partial bent is clearly visible here—the bent to the left has no tie beam (the hewn rafter sits directly on the wall plate) and no brace extends into the center of the mow from the post. Photos by author.



Figure 84. Like the much earlier Cumminger barn, extension was facilitated in the third and final phase of building in the James Fisher barn, Fisher's Mills, by erecting a partial bent next to a complete bent. Clearly, builders of this barn's final extension were conservative in some strategies (facilitating extension) while progressive in others (dimensional studs). Observe that the extension framing is more structurally sound than in the Cumminger barn, as there is minimal separation between the old post and the new. Photo by author.

In the Cumminger barn, the gable end collar beam and exterior sheathing of the English barn were removed to create a free flowing mow space between the old barn and the new extension. The John Cruickshank barn, in contrast, retained most of its exterior gable end vertical board sheathing, and a *fully complete* new bent with four posts was erected flush against the boards (Fig. 85). Glassie observed the same practice in Otsego County building traditions, noting that “when later additions were made onto the gable ends of ... barns, new cross-girts were not usually tenoned into the old frame; instead a new bent was raised next to the last bent in the old barn; then a second new bent was

raised and tied into the first with cross-girts.”<sup>242</sup> While the SW gable end of the Cruickshank English barn retained the original vertical sheathing boards, the sheathing below the girt of the bent appears to have been removed, and replaced haphazardly with both vertical and horizontal sheathing. Two small doors are roughly framed here to permit access to the extension’s interior from the old barn (Fig. 85).



Figure 85. Cruickshank barn, Lower Caledonia. The exterior vertical sheathing of the English barn is shown, as well as the two doors used to access the extension from the barn’s interior. The bent of the extension is positioned directly against the sheathing. Photo by author.

The stone pillar or pier in the SW corner of the Cruickshank English barn was possibly part of a wall that extended the whole length of the SW gable end. The stonework was certainly built by the time the barn was extended because it supports both the old sill of the English barn *and* the adjacent new sill of the extension. That is, both sills sit upon the stones for support (Fig. 86). One pressing question is what did the old sill of the English barn sit on originally? Stone or a series of posts with bracing similar to the other structural walls of the basement? Or, was that side of the hill further excavated

---

<sup>242</sup> Glassie, “Barn Building,” 204.

to make the cellar deeper, and the original sill simply sat on a few low foundation stones?

The stone pillar or wall was clearly built to support the new sill of the barn's extension, but it's also possible that the SW gable end sill and the centre post of the SW gable end bent of the English barn failed, and thus a wall was required for extra structural support. Upon inspection, it is clear that the sill of the old English barn is split and rotted. Further, on the loft level of the barn, the SW gable end bent's center post peg and tenon has broken away from the mortise hole within the tie beam (Fig. 87). Strangely, at the floor level this same center post is quite narrow and has a reinforcement nailed to it. Is this a new post intended to support the original, compromised post above? If a structural failure potentially happened, this suggests a reason for why a full, 4-post bent was used to facilitate the extension rather than a partial bent as employed in the Cumminger and Fisher barns, or even a three post bent found in the earlier bays of the Cruickshank English barn.



Figure 86. Stone pier (or potentially part of a full wall) supporting both the original English barn sill and the extension sill of the Cruickshank barn. Photo by author.



Figure 87. Failure of the central post in the SW gable end bent of the Cruickshank English barn. View taken at loft level. Photo by author.

Other builders, mainly those in the latter end of the nineteenth century, facilitated the extension of the old barn form by bolting a grown knee brace, hewn to fit to the last post in the gable end bent of the original structure. Grown knee braces have a distinct shape because they are cut from the tree at the angle between trunk and branch or the lower trunk and root system. This means that the grain is “continuous around the angle, a feature which [gives] this small timber its tenacious strength.”<sup>243</sup> In the Samuel Archibald barn in Glenelg, the builders integrated the wall plate and knee brace. In other words, the end of the wall plate is actually the knee brace. However, in the William G. Cruickshank barn in East River St. Mary’s, the hewn brace was bolted into the post in the last bent of the old barn, and the wall plate simply positioned on top of the brace. A horizontal brace was then bolted to span across the post and the new wall plate, adding

---

<sup>243</sup> Essex County Planning Department, *The Essex Countryside Historic Barns: A Planning Appraisal* (Chelmsford: Essex Planning Dept., 1979), 20. Knee braces, or *coudes*, have been documented in St. John River Valley Acadian houses above the ceiling joists. See “Acadian Culture in Maine,” [http://acim.umfk.maine.edu/acadian\\_houses.html](http://acim.umfk.maine.edu/acadian_houses.html). Knee braces began to be used in British barns by the 18<sup>th</sup> century.

further structural support at the join (Figs. 88 & 89). In both methods, the rafter is seated on the wall plate as usual.



Figure 88. William G. Cruickshank barn, East River St. Mary's. A grown knee brace bolted to the post facilitates the joining of an additional bay to the original two-bay asymmetrical barn, built circa 1889 (see the following chapter for further analysis of this barn). Photo by author.



Figure 89. Samuel Archibald barn, Glenelg. The final extension to this barn is facilitated by fashioning the end of the new wall plate as a knee. The knee is bolted to the post of the last bent of the old form. The rafter is seated on the plate as usual (left). The brace on the opposing side of the bay, by the double doors (right). Photos by author.

#### *Other Uses for Knee Bracing*

Knee braces, specifically those dating from the latter end of Phase II, were used structurally in capacities other than facilitating extension in barns. In the John Henry Jordan barn in Newtown, the Hattie barn in Glenelg, and the William G. Cruickshank barn in East River St. Mary's, bolted knee braces are found in the cellar level of the barns. For example, the John Henry Jordan barn cellar level is built much the same way as the John Cruickshank cellar level described in Chapter Three. That is, a sill is laid along the ground of the rear lateral sidewall of the barn, and a series of evenly spaced posts are mortised into it to support a second sill at the upper floor level. A dry cut stone retaining wall also runs laterally along the bank, on which the WNW sill is placed. The knee braces are positioned against every post along the rear lateral wall in the cellar level, bolted to both the post and either the gable end sill (if at the corners of the barn) or the corresponding floor joist (if in the center of the barn) (Fig. 91). In the Hattie barn, however, the braces are only found on the posts that are positioned on either side of the wide door used to cart manure out from the cellar (Fig. 90).

Any brace in a barn is intended to help stabilize the building, to prevent racking and movement. The knee braces are used in the cellar level of the barns instead of longer, hewn straight diagonal braces that are mortised into the timbers, such as those employed in the John Cruickshank barn cellar (Fig. 48). The posts in the cellar level of both the John Henry Jordan and Hattie barns are shorter than those employed in the John Cruickshank barn. Because the posts are squat, there is not enough room or run for a long diagonal brace to be mortised into the post and the floor joist. The hewed knee braces thus offer support in a restricted environment. Further, I suspect a farmer would also be more likely to hit his head on a straight brace that is connected with 45 degree angles

from the posts to the floor joists, and intruding into the cellar! In the Hattie barn, it is also possible that the braces somehow facilitate the extension of the barn, but I do not understand the system enough to confidently assert this. Finally, knee braces are also employed in the cellar level of the William G. Cruickshank barn. Like the Hattie barn, they are positioned on either side of the manure cellar door.



Figure 90. Knee bracing in the cellar level of the Hattie barn, Glenelg. The braces are positioned on either side of the door to the cellar. Photo by author.



Figure 91. Knee bracing in the cellar level of the John Henry Jordan barn, Newtown. Photo by author.

### *A New Bent Assembly*

While the Samuel Cumming and John Cruickshank barns employed the same Phase I “flared post” bent assembly methods in their mid-century extensions, framing methods did change for other barns as the nineteenth century progressed. From the evidence of the extant barns I documented, it was probably not until the last quarter of the nineteenth century (that is, post-1880s) that St. Mary’s barns began to incorporate the innovative “straight post with dropped tie-beam” bent assembly. I documented only three barns that utilize this later, simplified bent assembly method: one of the two barns belonging to brothers Tom and George Ross of Waternish (built probably circa 1903), the first and second extensions of the James Fisher barn in Fisher’s Mills, the George Fisher barn in Fisher’s Mills (building date is unknown, but possibly between 1880s-1900) and the William G. Cruickshank barn in East River St. Mary’s (built circa 1889).

In the “straight post with dropped tie-beam” assembly, the tie beam is joined to the posts several inches *below* the level of the wall plate, and the wall plate sits directly on the top of the squared end of the post, rather than seated into it. The rafter is tied into the wall plate above the post, as usual (Fig. 92). Importantly, the post is no longer slightly flared, indicating that later century builders were beginning to re-evaluate the extent of their use of materials, recognizing that flaring posts was structurally unnecessary, not to mention time consuming (Fig. 93). While dimensional mill-sawn posts were probably available in St. Mary’s by the middle decades of the nineteenth century, local builders seem to have preferred to continue to hand-hew their main structural timbers. It is only in later barns built post-1880s, like the William G. Cruickshank barn in East River St. Mary’s, that dimensional mill sawn posts are employed (Fig. 94). Some of these later barns that do utilize hand-hewn members, such as the William G. Cruickshank and the George Fisher barns, likely were recycled from an older structure. Their use is more prevalent in the George Fisher barn, as in the William G. Cruickshank barn use is limited to a horizontal girt in a bent.

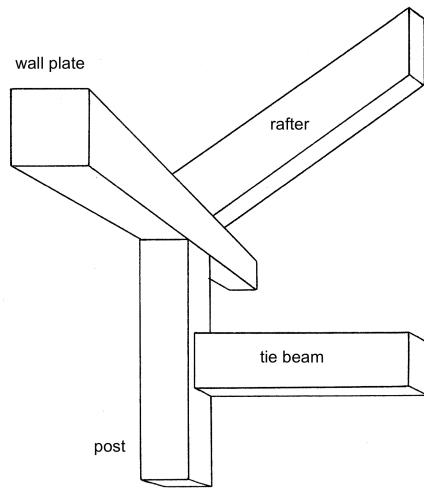


Figure 92. Left: The “straight post with dropped tie-beam” bent assembly. Drawing by Brittany Roberts. Right: “Straight post with dropped tie-beam” bent assembly in the George Fisher barn, Fisher’s Mills. Photo by author.

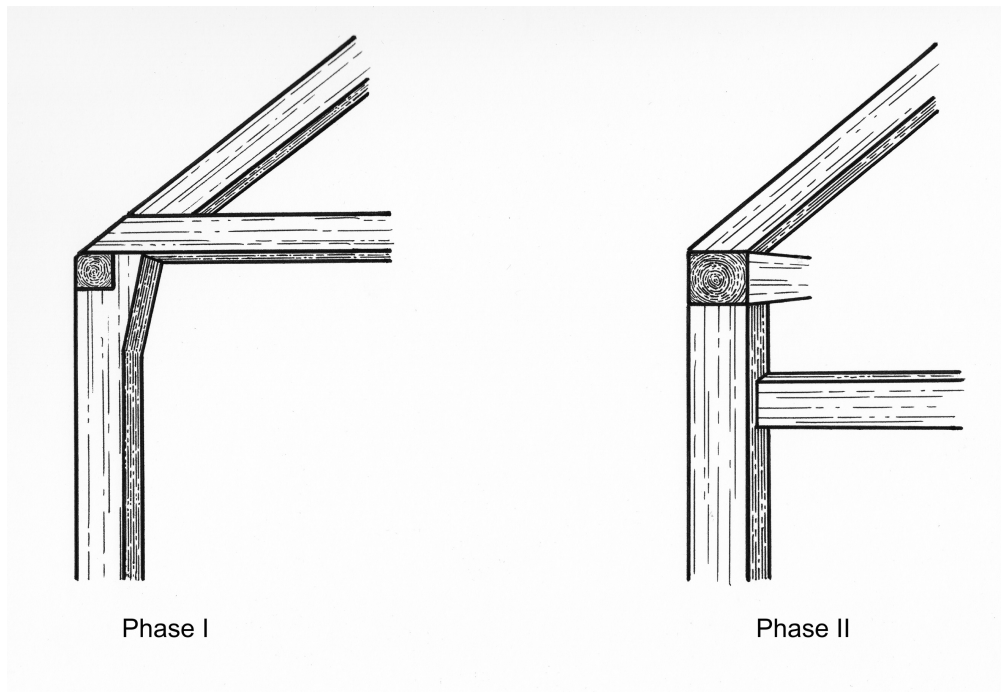


Figure 93. Change in bent assembly in St. Mary’s barns, Phase I vs. Phase II. Note that the flare is overemphasized in this drawing to indicate difference between the two methods. Drawing by Brittany Roberts.



Figure 94. Phase II bent assembly in the Cruickshank barn, East River St. Mary's. The marks of a vertical or reciprocal saw are visible on this post. All major posts in the barn are dimensional, measuring exactly 8 in. x 8 in. Photo by author.

The new bent assembly required an alternative way of raising the barn's frame. In the earlier, Phase I assembly, the sidewall was raised first. The tie beam was then hoisted up and positioned on top of the plate and post, and then the rafters fitted into the tie-beam. The new assembly, however, allowed the barn bents to be partially pre-assembled on the ground before being raised and fitted into the barn sill, effectively eliminating a construction step (i.e. hoisting and fitting the tie beam and any other girt in the bent). However, the wall plate had to be raised up and positioned after the bents were erected, and the rafter was then fitted into the wall plate (Fig. 95). Thus, the technical benefits of this later assembly are not particularly evident, as both methods require the labour-intensive hoisting of timbers as well as the rafters. What is important to note, however, is that because the barns that employ this "straight-post with dropped tie beam" bent assembly method were constructed in the later period of Phase II building, they make use

of studs to frame the walls; there are no horizontal rails along the sidewalls (Fig. 96).

Thus it is logical to raise the barn by bent rather than by sidewall. It is also important to note that the wall plates in the Ross barn and Jordan barn are achieved by use of a scarf joint, suggesting that the large spanning timbers employed in Phase I English barn building were not as readily available to builders in the latter part of the nineteenth century (see Figure 32 in Chapter Three).

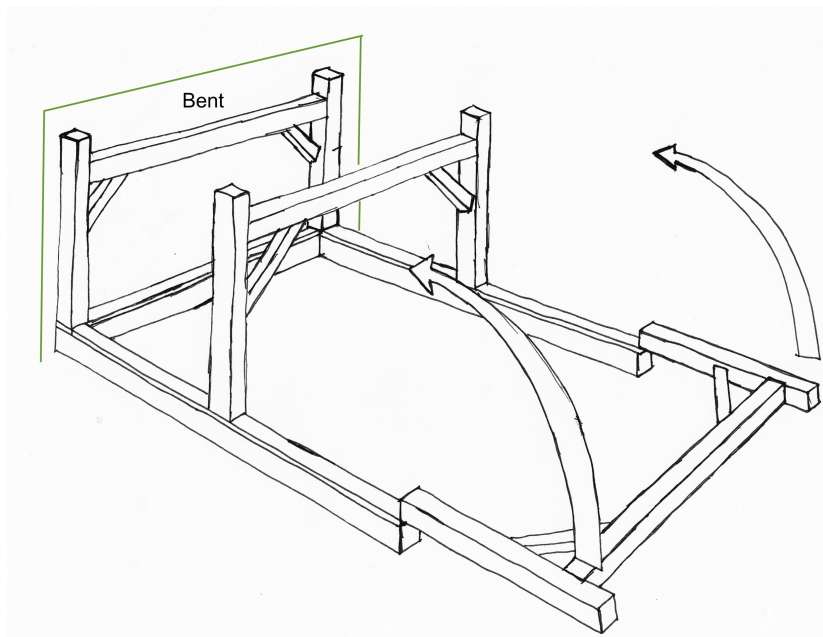


Figure 95. Later period Phase II framing method, wherein the barn is raised by pre-assembled bents. Adapted and re-drawn by the author after an illustration by Margaret Geib in Noble and Creek, *The Old Barn Book*, 28.



Figure 96. Studded framing in the Cruickshank barn, East River St. Mary's (Left). Studded framing in the Lower Ross barn, Waternish (Right). Photos by author.

The change in the framing assembly indicates a shift in St. Mary's towards more modern building techniques of the late nineteenth and early twentieth centuries that emphasized simplification through streamlining and standardization, as the use of dimensional, mill sawn framing members guaranteed a uniform barn. While some builders employing the newer assembly method chose to combine both hand hewn and dimensional members, this was likely as a means of saving money and labour by recycling old timbers from an earlier structure. Further, the use of scarf joints to achieve the desired wall plate lengths imply a scarcity of source materials that, when coupled with the use of dimensional framing and recycled timbers, suggests the growing need or desire to economize building materials.

Nevertheless, despite these later assembly examples, my analysis indicates a preference for technological conservatism in St. Mary's barn building methods. Here,

local builders continued to utilize the earlier flared post bent assembly well after farms in other regions of Northeastern North America had transitioned to other framing assemblies, particularly the “straight post with dropped tie-beam.” Thomas Hubka observes that while the Phase I “flared post” assembly did continue in Maine until the latter part of the nineteenth century, “many barns built after 1840 employed standardized 8 inch by 8 inch straight-sawn major structural members with a greatly simplified timber jointing and connection system.”<sup>244</sup> Ritchie Garrison observed a similar building chronology in Franklin County, Massachusetts, where it is only the oldest English barns (pre-1840s) that employ the flared post assembly.<sup>245</sup> Likewise, in his comprehensive survey of Otsego County, New York barns, Glassie documented only *one* barn with the flared post assembly, and was surprised not to have found more, given its technological endurance from the medieval period onward. Interestingly, it was for the same barn located between Cooperstown and East Springfield mentioned above, which had no rear double door access to the threshing floor—just like St. Mary’s English barns.

The Phase I flared post assembly in St. Mary’s, when compared with data collected by Glassie, Hubka, and Garrison, is therefore a conservative form of barn building technology for the middle period of the nineteenth century. As it was still a common form of assembly when barn expansion occurred after mid-century in St. Mary’s, this indicates a local preference for a conservative building tradition. It also indicates that barn extension in both the Cumminger and Cruickshank barns likely happened relatively quickly following the initial construction of the English barns and

---

<sup>244</sup> Hubka, *Big House, Little House*, 56.

<sup>245</sup> Garrison, *Landscape and Material Life*, 125-132.

the settlement of the farms in the late 1830s—that is, within a few decades—and there were no new ideas for barn assembly introduced into the community’s building repertoire when extension began.

There are any number of reasons that the “straight-post with dropped tie beam” framing system was not adopted in St. Mary’s as early as other parts of Northeastern North America. Perhaps local builders did not have access to training to learn the skills and knowledge required to assemble barns using the new method. Perhaps caution towards untested methods or personal preference for the old way (it was proven to be reliable, after all) limited the ways barns were constructed. Of course by the final decades of the nineteenth century, carpentry was much more standardized and a new generation of builders were by that time working within communities, so it would be a logical point to depart from older methods. In 1838, only four carpenters were enumerated in the census for the Central Division of the Township of St. Mary’s, but by the 1871 census, there were thirteen self-identified carpenters and joiners in both Caledonia and the Forks of St. Mary’s districts—not including the skilled tradesmen based in the town of Sherbrooke (see Table 4 below). However, it is interesting to note that by the 1880s there was a steady stream of migrants leaving St. Mary’s farms, often going to industrial New England towns like Providence, Rhode Island or mining locales in the American west like Bisbee, Arizona.<sup>246</sup> It is possible that new forms of building knowledge were adopted into the local building repertoire only when St. Mary’s tradesmen and community members began to migrate outward from their home environs to more distant

---

<sup>246</sup> Aspen and Denver are two communities within St. Mary’s that were re-named based on the experiences of locals who spent time working in Colorado.

places, and then returned. Only a wider study of nineteenth-century barns in other regions of the province will confirm whether St. Mary's stands in isolation, or if other Nova Scotia farming communities adopted dimensional sawn members and the "straight post with dropped tie-beam" bent assembly at an earlier time, as was the case in New England and Upstate New York.

Table 4. Building occupations from census returns, St. Mary's region, 1838-1901. Any of the carpenters and joiners listed below may have built the barns examined in this thesis.

Name	Census District	Building Occupation				Year
		<i>Joiner</i>	<i>Carpenter</i>	<i>Mason</i>	<i>Other</i>	
John McIntosh	Central Division, Township of St. Mary's		X			1838
Alex. Murdoch	" "		X			1838
John N. [?]rother	" "		X			1838
James Davison	" "		X			1838
Daniel Hattie	" "			X		1838
TOTAL			4	1		1838
<i>No data for 1851</i>						
Occupations not identified with names	Blue Mtn. & St. Mary's	—	1	1	—	1861
" "	Forks St. Mary's	—	19	2	—	1861
TOTAL			20	3		1861
Daniel Hattie	Caledonia			X		1871
William Hattie	" "			X		1871
James MacDonald	" "		X			1871
John Cameron	Forks St. Mary's	X				1871
Lewis Sinclair	" "	X				1871
George Nicholis	" "	X				1871
John Carp. McDonald	" "	X				1871
Duncan Cummings	" "			X		1871
William Horn	" "				Brickmaker	1871
Benjamin	" "	X				1871

Name	Census District	Building Occupation				Year
		Joiner	Carpenter	Mason	Other	
McKeen						
Walter L. Black	" "		X			1871
Robert Smyth	" "	X				1871
Abraham Fraser	" "				Plasterer	1871
Hugh Hattie	" "		X			1871
Emmery Taylor	" "		X			1871
William McKeen	" "	X				1871
John McKeen	" "	X				1871
Thomas McBain Jr.	" "	X				1871
TOTAL		9	4	3	2	1871
Occupations not identified with names; <i>summary by county only</i>	Guysborough County		135			1881
<i>No data for 1891</i>						
Josiah MacDonald	Caledonia		X			1901
William McKeen	Forks St. Mary's		X			1901
John Cameron	" "		X			1901
William MacDonald	" "		X			1901
John Crowe[?]	" "		X			1901
William Mason	" "		X			1901
Burpee[?] Nichols	" "		X			1901
John Cameron	Garden of Eden (includes East River St. Mary's)		X			1901
Alexander [?]ayor	" "		X			1901
Dougall Cameron	" "		X			1901
Dan Green [?]	" "		X			1901
John Sutherland	" "		X			1901
Andrew McIntosh	" "		X			1901

Name	Census District	Building Occupation				Year
		<i>Joiner</i>	<i>Carpenter</i>	<i>Mason</i>	<i>Other</i>	
Robert Chisholm	" "		X			1901
Laren[?] McLaren	" "				Plasterer	1901
John Ross	" "		X			1901
TOTAL			15		1	1901

### *Conclusion*

Following mid-century, St. Mary's farmers extended their old English barns or built new extended barns on the English concept. As an inherently flexible type, the three-bay English form served as a mental template for later barn building strategies in the region. Two iterations of extension occurred during the Phase II period of timber-framed barn building examined. The first, a five-bay, asymmetrical plan of roughly 30x60 feet and the second, a bi-laterally symmetrical "double English" structure of multiple bays stretching as much as 90 feet in length. All Phase II barns incorporated dug manure cellars positioned directly underneath the cattle stabling. Although barn framing technology remained largely conservative in St. Mary's, construction techniques modernized by the 1880s as builders employed the "straight-post with dropped tie beam" framing assembly as well as dimensional framing timbers. Knee-bracing was also commonly employed as a strategy to facilitate a non-masonry cellar level as well as to join the structure of the extension to the older barn form.

All these changes in form, features, and building technology—both subtle and explicit—indicate a gradual transition towards more modern ways of timber-frame barn building. Yet, they also reveal a rejection of reform-era barn plans that entail major

spatial or structural shifts that were not traditional to the building repertoire of the community, such as gable-entry access or full masonry basements. Any changes in an architectural tradition, however, imply some sort of corresponding shift in community ideas, values, and aesthetics, and in changing economic scenarios. The transition from the Phase I, three-bay English barn to the Phase II extended barn suggests that St. Mary's farmers were beginning to view their barns in a different way than they had several decades earlier during the period of initial settlement. The next chapter therefore considers both the social and economic contexts for barn reform in St. Mary's.

## Chapter 4

### Why Reform Barns?

Many ignorant snobs think that ... St. Mary's [is] synonymous with poverty and know nothingness; but let them go among the people, and a sharper, cleverer, class of men they cannot find. Careful and hard-working they are, but their houses, farms, and bank accounts show what they know and the use they make of their knowledge.

– *The Eastern Chronicle*, 14 August 1884, pp 2, col 6

---

St. Mary's extended barns must be considered within the agricultural changes taking place both in the region and across the wider rural landscape at this time. What were the specific contexts for the emergence and proliferation of extended barns in St. Mary's? There are two intersecting reasons why St. Mary's farmers extended their barns following the English model and added manure cellars after mid-century: economics and ideology. According to Peter Ennals, changes in barn scale "are an expected manifestation of any rapid settlement process and are a function of increases"<sup>247</sup> in the amount of land in production per farm or the number of livestock being raised. Change in scale can also come about from more intensive farming practices through, say, increased labour output, crop rotation and better fertilization of the land, or the use of new technologies that permit efficient harvesting and processing that result in greater returns. As Ennals asserts, barn size is therefore "closely correlated with changes in the farming system."<sup>248</sup> When such systematic changes occur, there is a shift from subsistence to market-oriented production, as well as a corresponding demand for an increased number of agricultural goods. A rural transition to capitalism occurs, and this emerges as one catalyst for change in St. Mary's barn building.

---

<sup>247</sup> Ennals, "Nineteenth-Century Barns," 268.

<sup>248</sup> Ibid.

In considering barn change, the relationship between buildings and ideas must also be explored. Without ideological influence, the plan of barns would not necessarily change but only the size. Attitudes shape which plans are chosen and how they are used, and “improvement” was a prevailing discourse in nineteenth-century agriculture. An agricultural movement or revolution, improvement presented a heightened sense of the need to reform, experiment, and be progressive in farming. Many St. Mary’s farmers invested in improvement’s arguments which were constituted through prescriptive literature, agricultural societies, the work of public advocates, as well as governmental policies. However, improvement was also opposed and unevenly distributed across the landscape. Farmers struggled with how to deal with long standing practices and ideas in an age of modernity and the new. Indeed, barn reform in St. Mary’s can be characterized as a story of the dichotomy between the usefulness of the past and the pressures of the present. The idea of improvement becomes both a contested and organizing principle for the design of St. Mary’s barns after mid-century.

This chapter considers the varied contexts for barn reform in order to understand the logics and processes of Phase II building in St. Mary’s. I look to answer the following broad questions: 1) In what ways did the farming system of St. Mary’s change after mid-century? Where did farmers find markets where there had been so few before? How did changing farm systems shape barn reforms? 2) How did the ideology of improvement manifest across St. Mary’s? In the building of their barns, how did St. Mary’s farmers accept or reject improvement?

*The Economic Reasons for Barn Reform: The Rural Transition to Capitalism*

Through the first half of the nineteenth century, St. Mary's farmers struggled to clear their land, achieve a level of subsistence, and sell what surplus they had to what markets they could. This subsistence-surplus strategy, or what Richard Bushman has called the "composite farming" system meant that the farm simultaneously produced for both the family and the market.<sup>249</sup> The system is characterized by a barter economy with neighbours and sometimes local storekeepers, and an exchange economy for sales outside of the community with merchants and other brokers that provided cash to farm families. However, as Bushman notes, "the first priority of these productive units was the family's welfare."<sup>250</sup>

Nineteenth-century St. Mary's farmers had limited access to the urban markets in the capital city of Halifax or other larger settlements in Nova Scotia on account of their region being so inland and in relative isolation. Scarcely populated, there were also few opportunities for a lucrative local market. While opportunities were present to sell agricultural goods such as hay, beef, and oats to lumbering operators, local merchants, and shipbuilders within the immediate region, St. Mary's farmers often relied on much more distant markets. St. John's, Newfoundland was one known destination for local cattle in 1847.<sup>251</sup> In 1852, £13 worth of butter and 80 doz. eggs valued at £2 were also

---

<sup>249</sup> Richard Bushman, "Markets and Composite Farms in Early America," *William and Mary Quarterly*, 3rd ser. 55 (1998): 364.

<sup>250</sup> *Ibid.*, 365

<sup>251</sup> Report of the Agricultural Society of the District of St. Mary's, 1847, RG 8, vol. 15, # 102, NSA.

recorded as exported from Sherbrooke, but their destination is unknown.<sup>252</sup> The secretary of the Milford Haven Agricultural Society in Guysborough County also reported that many horned cattle and sheep shipped from Antigonish in 1875 were in fact bred and reared in Guysborough County, so it is possible that St. Mary's farmers were part of the wider group of county farmers who sent livestock to market over the years from that particular town, some thirty or so miles away from the Forks—the center of St. Mary's.<sup>253</sup> Certainly, other settlements across Northeastern Nova Scotia before mid-century such as River John in Pictou County, noted in their agricultural society annual reports that exportations of cattle and butter were made to distant markets such as Newfoundland, St. Pierre, and Prince Edward Island, in addition to Halifax. Frequently this was because good cattle prices were not met in the local market, which was likely saturated as there was a limited local urban population to support the disproportionately high number of farmers.<sup>254</sup>

In the composite farming system, farm families also developed value-added products for market whenever they could. As mentioned in the previous chapter, the 1861 census shows that John Cruickshank Sr. cut squared timber from his woodlot and Samuel Cumming made grindstones. According to the 1871 census, John Cruickshank Jr. had recently built a water-powered sawmill in Caledonia, with a fixed capital investment of \$800, in addition to the work of running the farm he inherited from his

---

<sup>252</sup> Statement of Imports and Exports for Sherbrooke, 1852. Typewritten document compiled by the Nova Scotia Museum. Original source unknown, but probably from the Journals of the House of Assembly.

<sup>253</sup> Annual report of the Milford Haven Agricultural Society, in the 1876 Report of the Central Board of Agriculture/Annual Report of the Secretary for Agriculture, Nova Scotia, pp. 53. QEII Library, Memorial University, mfm# 3013.

<sup>254</sup> Annual reports of the River John Agricultural Society for 1842 and 1843. RG8, vol. 18, #111 and #112, NSA.

father. Many other farmers owned mills in addition to growing crops and rearing stock. Martin Gunn of East River St. Mary's split and sold firewood for cash.<sup>255</sup> Indeed, the vast majority of St. Mary's farmers cut and milled wood on their land, or worked winters in lumber camps as part of an agro-forestry system that emphasized by-employment or occupational pluralism (and in turn was frequently criticized by agricultural reformers as discouraging to farming endeavour) (Fig. 97). St. Mary's farmers therefore always engaged with "the market," including distant ones, in some form or another. This composite farming system continued in the region, albeit in modified form, well into the mid-twentieth century.

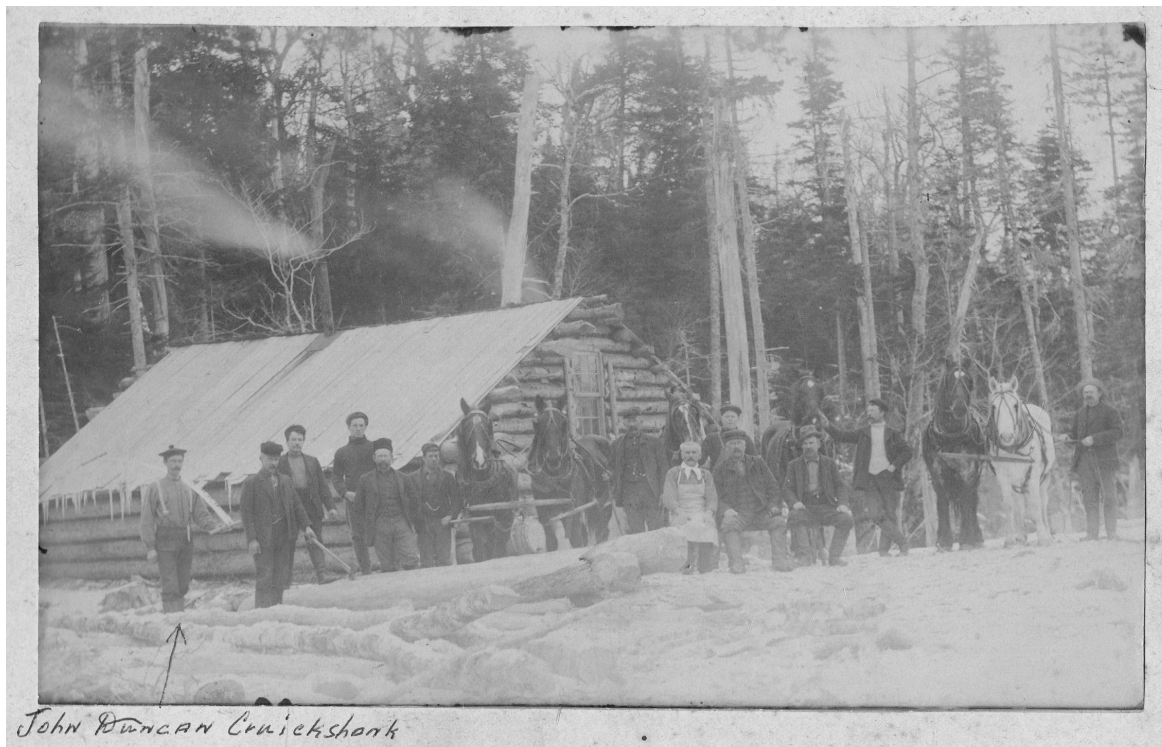


Figure 97. John Duncan Cruickshank (b. 1864 / d.1955. Grandson of John Cruickshank Sr. who built the barn described throughout this thesis) at a lumbercamp in the Caledonia area. Date unknown. Most St. Mary's farmers participated in an agro-forestry system that entailed lumbering in the winter. Image courtesy Cruickshank Family Collection.

<sup>255</sup> *Eastern Chronicle* 25 April 1889, pp. 2, col. 5.

While the composite farming system has been largely defined as the traditional agricultural landscape of Northeastern Nova Scotia,<sup>256</sup> by the 1860s, however, St. Mary's farmers and their production methods came to exist in an economic and social context that was *more* driven by cash and market engagement and *less* by subsistence strategies and home production. This period was the beginning of sustained rural capitalism in St. Mary's, which can be defined, in simple terms, as the rise of a market culture in agricultural communities. It involves a heightened need to engage more aggressively with the market as changes on the land and in the non-farm economy together push farmers into an economic scenario where greater quantities of agricultural goods must be produced for sale or export while greater quantities of consumer goods are imported for purchase using cash.

Between the 1830s and 1860s, Christopher Clark documented subtle but gradual changes over time in household production and exchange patterns in western Massachusetts that signaled that region's pressure towards the market and a transition to rural capitalism. As the economy became more commercialized, these shifts included a greater proportion of cash dealings for purposes that an earlier generation would not have required. Women's work also became increasingly devalued as traditional farm female labour, like textile production and dairying, moved away from the farm site to factory or male-dominated settings. Clark also notes that expanding industrialism produced a growing non-farm population and increasing wealth inequality, which led markets to

---

<sup>256</sup> See, for example, Pieter De Vries and Georgina MacNab, *They Farmed, Among Other Things: Three Cape Breton Case Studies* (University College of Cape Breton Press, 1983).

grow in quantity.<sup>257</sup> As Beatrice Craig observes for the same period in Madawaska, New Brunswick, farmers responded to such market opportunities by “intensifying production for which there was a demand.”<sup>258</sup> The market then instigated production and in turn “provided a profitable outlet for [agricultural] goods.”<sup>259</sup>

Christopher Clark further notes in the context of western Massachusetts that the production of hay, grains, and cattle all increased after 1850—a period he has defined as one of particular capitalistic “concentration.” A greater portion of the land was under cultivation and changes in technique such as better fertilization methods meant that farmers moved towards systems of intensification, and, increasingly, specialization, as advances in transportation allowed the production of perishable goods and dairy for distant urban markets. Farmers employed more hired labour, or worked harder themselves, and sought to off-set this necessary output through mechanization. They also relied more on distant markets to not only sell their own products, but to purchase necessary foodstuffs like cheap western flour, rather than raising their own wheat, which never grew all that well in Northeastern North America’s climate. As will be elaborated below, in the case of St. Mary’s, however, the emergent market farmers relied on was not distant but one that developed locally through increased industrialization.

Beatrice Craig argues that farmers of this period also desired to increase their production in part because they wanted the ability to obtain more cash to buy goods:

---

<sup>257</sup> Christopher Clark, *The Roots of Rural Capitalism: Western Massachusetts, 1780-1860* (Ithaca: Cornell University Press, 1990).

<sup>258</sup> Beatrice Craig, *Backwoods Consumers & Homespun Capitalists: The Rise of Market Culture in Eastern Canada* (Toronto: University of Toronto Press, 2009), 196.

<sup>259</sup> Ibid.

farm machinery and conveyances, factory-made cloth and furniture, fashions and foodstuffs, trinkets and trifles. Looking at available period store ledgers, Craig explored how new patterns of consumption emerged in the 1850s-1860s St. John's River valley, as agricultural and lumbering prosperity opened up the "world of goods" to more rural people. She writes, "people could and did earn money, and they spent it at the store."<sup>260</sup> They also spent their money on different kinds of goods than their parents and grandparents had, as consumption patterns focused less on durable, functional items, and more on cheap, throw-away, or superficial items. "What became desirable," Craig writes, "was no longer possessing a few treasured items, but acquiring novelties before everyone else, and acquiring a large number of goods."<sup>261</sup> Rural spaces, just as much as urban ones, were entering the world of consumerism by the mid-nineteenth century, as farmers participated in the transition to rural capitalism as both producers and consumers.

A similar pattern of social and agricultural change outlined by Clark and Craig emerges in St. Mary's, but the shift towards market culture appears to come closer to the 1860s for local farmers, probably given the lateness of the settlement and the fact that an industrial transformation of Sherbrooke did not take place until after mid-century. Indeed, the discovery of gold in the summer of 1861 was the economic catalyst for agricultural change in St. Mary's (Fig. 98).

Almost overnight, the lumbering village of Sherbrooke was transformed from the sparsely populated backwater Joseph Howe described as "a rough and unsightly cluster

---

<sup>260</sup> Craig, *Backwoods Consumers*, 217.

<sup>261</sup> Craig, *Backwoods Consumers*, 218.

of wooden houses,” into a bustling, prosperous community.<sup>262</sup> Enterprising Nova Scotians rushed to the village, and by 1862 there were four large crushing mills and 130 miners employed in the gold diggings, located across the river in a place aptly called “Goldenville.” The year 1867 saw returns of 9,463 ounces, and by 1869 as many as nineteen gold mining companies were in operation.<sup>263</sup> Lumbering and sawmilling—the mainstay of the local economy—expanded to accommodate the demands of the mining operations. The editor of the *Halifax Evening Express* observed in 1862 that the Messrs. McDonald & Co. sawmill located on the edge of the village “has been kept so busily engaged in manufacturing boards for the people at the mines, that it has hardly been able to supply the demands of the miners.”<sup>264</sup>

As the local mining industry flourished it generated manufacturing, trade, and service-based opportunities for Sherbrooke and surrounds. New civic and domestic construction projects were completed through the 1860s and 70s, and the village’s population grew to approximately 1,200.<sup>265</sup> As the *Evening Express* editor remarked, “the gold discoveries on the opposite side of the river have ... given an impetus to business in the village, and more buildings have gone up, and greater improvements have been made ... than have been witnessed for a half score years previously.”<sup>266</sup> The mines continued

---

<sup>262</sup> *Eastern Rambles no. 12, The NovaScotian*, 27 July 1831, vol. 4 no. 3.

<sup>263</sup> John Grant, *The Development of Sherbrooke Village to 1880* (Halifax: The Nova Scotia Museum, 1972), 9.

<sup>264</sup> *Halifax Evening Express* 14 July 1862, pp. 2. Quoted in Phyllis Blakely, *The History and Development of Sherbrooke in Guysborough County, Nova Scotia*, (Halifax: The Nova Scotia Museum, 1969), 53-54.

<sup>265</sup> Grant, *The Development of Sherbrooke Village*, 12.

<sup>266</sup> *Halifax Evening Express* 14 July 1862, pp. 2. Qtd. in Blakeley, *The History and Development of Sherbrooke*, 53-54.

to produce steadily throughout the 1870s and 1880s, but eventually waned by the twentieth century.<sup>267</sup>



Figure 98. Gold mining, lumbering, and shipbuilding in Sherbrooke and surrounds brought industrial development to the region. All images courtesy of The Nova Scotia Museum.

The gold rush was undoubtedly a welcomed opportunity for farmers in the agricultural districts of the St. Mary's River valley, who had long faced geographical limitations accessing commercial markets. An 1873 letter from a "Goldenville Miner" to

---

<sup>267</sup> Blakely, *The History and Development of Sherbrooke*, 58.

the editor of the *Eastern Chronicle* reveals the economic stimulus that gold mining brought to area farmers:

miners receive their wages in cash, at or near the end of every month, which in turn, they pay out a large portion of it to the farmers of this and the adjoining county of Antigonish. ... Upwards of \$4,000 are paid monthly at the mines for wages alone, most of which finds its way into the county.<sup>268</sup>

St. Mary's farmers certainly came to depend on the ready market for farm goods that the mines provided. As a community columnist for Cross Roads St. Mary's wrote in a December 1884 issue of the *Eastern Chronicle*, "should the mining district of Goldenville fail as a market for farm produce ... farmers here will have to change their system of farming."<sup>269</sup> The columnist suggests a preemptive strategy: St. Mary's farmers would mitigate risk if they were to "raise more hay, and fatten more cattle, and improve the breeds, then to go on in the old plan of raising cereals and roots" for the Goldenville market. "It will improve the land and pay better," the columnist advises. However, placing emphasis on cattle husbandry is exactly what many St. Mary's farmers were already doing by the mid-to-late decades of the nineteenth century, as evidenced in the allocation of more stabling in their barns and in census returns for farm outputs that emphasize the major role of hay in farming endeavours.

The success of the mining and lumbering operations also meant that farmers had to adapt to new demands for their labour and productivity, and they responded to the commercial opportunities of gold mining by stepping up production. The Glenelg Agricultural Society's 1865 annual report to the Central Board of Agriculture noted that

---

<sup>268</sup> *Eastern Chronicle*, 27 November 1873.

<sup>269</sup> *Eastern Chronicle*, 4 December 1884, pp. 3, col. 1.

because of the influx in population from gold mining and the ready market for produce, “farmers in this district have been encouraged to prosecute their calling with more energy and agricultural skill for the last two or three years than they had previously been accustomed to do.”<sup>270</sup> This economic stimulus from the mining industry, combined with wider innovations in mechanized farming at this time, better-positioned St. Mary’s farmers to engage in competitive, commercial markets throughout the 1860s-80s. The shift towards a system of rural capitalism was underway, and the built agricultural landscape of St. Mary’s expanded and adjusted accordingly.

By the late 1880s, after the establishment of the Intercolonial Railroad, dairying also became a primary focus of many farms in Nova Scotia. As early as 1872, *Belcher’s Farmer’s Almanac* declared in its January entry that:

“cheese factories are now in successful operation in several districts of Nova Scotia, and their extension is much to be desired, because they lighten very much the labour of the farmer’s family, enable a better article of cheese to be produced than can be made on the farm, and bring a larger return for the milk used in the manufacture. The present month is a good time for beginning a Cheese Company.”

Cheese factories and creameries were established in many rural communities across Nova Scotia, especially the Northeastern and Annapolis Valley portions of the province. In 1898, the Provincial Secretary of Agriculture for the province, B.W. Chipman, reported in his annual review of agricultural work that:

Our farmers are now beginning to realize the fact that the days of individual dairying are past, and butter and cheese to command the highest prices must be made on the co-operative plan by the creamery process ... As this industry

---

<sup>270</sup> *Nova Scotian Journal of Agriculture* vol. 1, no. 1, 1865, pp. 4, CIHM P04714

increases our farmers will rapidly learn to see the advantage of the best breeds in order to produce the best results.<sup>271</sup>

One St. Mary's columnist named "Bluejoint," writing to *The Eastern Chronicle* in 1888, spoke positively about the new cheese factory in the neighbouring town of Antigonish. He explained, "the patrons of the factories are paid at regular intervals in cash for the milk they supply to the factories, and is proving a great boon in these trying times when money is rather scarce." He goes on to express his hope that the cheese factories will encourage farmers to focus on improving their breeds of cattle, to feed them better, and to keep them in warmer byres in the winter. The factories, he noted, will incite competition, and there is "nothing like competition to bring about improvement. It would be in order, now, to establish a few creameries."<sup>272</sup>

Although the date of commencement is unknown, by 1898 a cheese factory had been established in East River St. Mary's, at the end of the Black Brook Rd. That same year, thirty-three patrons were recorded bringing in 270,000 lbs. of milk. Approximately 26,700 lbs. of cheese were made from the milk for both local market and export, with an average price for cheese sold between \$8½ to \$9. That equated a total value of roughly \$2336.25. Figures for butter were not recorded.<sup>273</sup> No creameries ever came to any other communities in St. Mary's, however, and the cheese factory was probably placed in East River St. Mary's because the community is within the border of Pictou County, where a

---

<sup>271</sup> *Journal of the House of Assembly of Nova Scotia*, 1898, appendix no. 8, Agriculture, pp. xliii. NSA, mfm# 3556.

<sup>272</sup> *The Eastern Chronicle*, 4 October 1888, pp.1, col. 8.

<sup>273</sup> "Creameries and Cheese Factories in Nova Scotia," *Journal of the House of Assembly of Nova Scotia*, 1898, appendix no. 8, Agriculture, pp. xlvii. NSA, mfm # 3556.

railway siding route went as far as the neighbouring community of Willowdale; there was no railway line ever successfully laid within Guysborough Co.<sup>274</sup>

The emphasis on dairying in the decades following mid-century is indicative of a shift towards a greater cash-based economy. Late nineteenth-century East River St. Mary's and area farmers clearly had access to a regular cash income. Farmers normally received cash returns a few times a year, but butter and cheese making in the factory provided monthly or weekly returns. Butter especially yielded high returns, and even if he did not sell to a creamery, a farmer could more easily haul butter to market with a wagon than other types of farm products. By 1898, the province was marketing dairying and butter making as a "business," and encouraged farmers to recognize the value of good livestock and selling to creameries, and that skill in butter making paid.<sup>275</sup>

Nora Pat Small notes in her study of nineteenth-century farmsteads in Sutton, Massachusetts, that "more livestock and more produce add up to the need for more barn space."<sup>276</sup> The same can certainly be said for mid-century St. Mary's, as changes in barn building came from the same impetus of more output equates a bigger barn. Thus there are a number of convincing reasons for farmers' transformation of their early English barns that are supported by the census returns shown below in Tables 5-7. They indicate that agriculture did indeed expand in St. Mary's in the decades following 1860. This

---

<sup>274</sup> By the mid-twentieth century the cheese factory was defunct in East River St. Mary's and local raw cream was regularly collected by truck in the upper parts of St. Mary's by James McKay, a local Willowdale merchant, who brought the cans to the large creamery in the Pictou County town of Stellarton. Farmers in the lower end of St. Mary's, within Guysborough County, had their cream taken to Antigonish. Area farmers colloquially called the profits they received for their dairy product "the cream cheque," further emphasizing the meaning of the endeavour as a cash-based enterprise.

<sup>275</sup> "Butter Making as a Business," *Journal of the House of Assembly of Nova Scotia*, 1898, appendix no. 8, Agriculture, pp. lxxv. NSA, mfm # 3556.

<sup>276</sup> Small, *Beauty & Convenience*, 87.

increase in productivity was a combination of a number of factors such as an expanding market in Sherbrooke with the emergence of gold mining in 1861 coupled with the continuing prosperity of the lumber trade.<sup>277</sup> Finally, the mechanization of farm labour also impacted barn design. Certainly, constructing larger barns would make sense during a time of increased market access, productivity, and mechanization.

Table 5. Timber Exports, St. Mary's, 1860-61, showing the continued prosperity of the lumber industry in the region.

<b>District</b>	<b>Feet Deals Supf.</b>	<b>Feet Pine Boards</b>	<b>Feet Spruce &amp; Hemlock Boards</b>	<b>Tons Square Timber</b>
<b>Sherbrooke</b>	700 000	200 000	600 000	467
<b>Forks</b>	100 000	176 300	285 200	982
<b>St. Mary's, Pictou Co.</b>	no entry	34 800	18 700	542

Source: Canada Census returns, 1860-61. Guysborough County, selected districts.

St. Mary's settlers always tended to engage in a mixed farming system for cultural, agricultural, and marketing reasons, growing both cereals and livestock. But by the 1860s across Nova Scotia, farmers had virtually abandoned any real wheat cultivation. After repeated bad years of harvests (especially in 1847-1848) on account of rust, weevil, and a cold climate with a short growing season, the risk of raising the crop

<sup>277</sup> Local newspaper reports repeatedly state the scale of lumbering happening in Sherbrooke in the mid-to-late nineteenth century. For example, in the month of July 1895 alone, the Schooner "Georgia" was loaded in Sherbrooke with 1,700,000 laths; 75, 435 ft. of spruce lumber was shipped on the "Jessie A. Loye"; 1,000,000 laths on the "Bessie E. Crane"; 1,500,000 ft. spruce deals on the "Senator." All cargo was bound for either Boston or New York (*Eastern Chronicle*, 18 July 1895, pp. 8, col. 1). I cannot overemphasize the industriousness of Sherbrooke as a lumbering center in Nova Scotia. A columnist writing on page one of the August 31, 1893 issue of the *Eastern Chronicle* offers this vivid description: "The copious rain accompanying the storm raised the waters of the St. Mary's River much to the advantage of Messrs. Miller & Co. whose drive of logs had been "hung up" as the phrase is, until the welcome rise brought it in, in fine style. Five million feet of logs rolling and tumbling in the seething flood gave our citizens a sight almost as interesting as an ice freshet with the unusual advantage of summer sun and comfort to onlookers. The mill, which had been closed down for want of logs, will open again on Tuesday next. The shriek of the whistle, the hum of the saws and roar of the machinery will soon again gladden all ears and affect every person with contagious energy."

was too great. Neil Gunn wrote in his 1847 report for the St. Mary's Agricultural Society that "wheat promised well during the earlier part of the season; but was latterly so much injured by the weevil that it will not average returns of more than five bushels for each one sown ... no doubt St. Mary's comes considerably short of supplying itself with bread."<sup>278</sup> The next summer, according to the Agricultural Society report, the weevil was back and a major freshet destroyed any crop uninjured by the pest.<sup>279</sup> Farmers in St. Mary's undoubtedly began to buy more imported flour and census records show that they diverted their attentions to haymaking and growing oats and buckwheat in greater quantities, as these were all a more reliable crop. A concentration on cattle rearing and dairying also emerged when local industrial development created market opportunities for beef and dairy, which helped invigorate farming. Concentrating on livestock raising made sense because it required less manpower, the natural landscape was more conducive to pasturing, grazing, and haymaking, and the competition with Central and Western Canadian grain was just too stiff. As Marilyn Gerriets maintains, this strategy, adopted by many Maritime farmers, was an "intelligent response to limited resources."<sup>280</sup> It is no surprise, then, that agricultural society expenditures were foremost allocated for the purchase and importation of improved breeds of cattle and other livestock, and that local societies reported their active encouragement of dairying husbandry.

The material organization of extended barns indicates these economic-driven shifts in the character of St. Mary's farming through the middle to late decades of the

---

<sup>278</sup> RG8, vol 15, #102, NSA.

<sup>279</sup> RG 8, vol 15, #163, NSA.

<sup>280</sup> Gerriets, "Agricultural Resources, Agricultural Production and Settlement at Confederation," 151.

nineteenth century. The first and most obvious way that extended barns differ in plan and use from earlier, subsistence strategy English barns is their incorporation of more bays for livestock, the hay to feed them, as well as the storage of agricultural implements. For example, double English barns allocate two bays for the stabling of livestock. The overall number of milch cows and neat or other cattle<sup>281</sup> grew in St. Mary's after mid-century, which is again reflected in the extension of barn space. According to Table 6 below, census returns for 1861 to 1891 indicate that in the Forks, the number of milch and neat cows both grew by 27%, and in the Pictou County region of St. Mary's, the number of milch cows increased by a substantial 67%, while neat cows remained fairly steady in number over the decades represented. Farmers also reared many more sheep, nearly 3000 in the Forks in 1871. However, the returns for the Pictou County area of St. Mary's provide data as far back as the early 1850s, which further indicate the significant change in the number of milch cows after mid-century. Between 1851 and 1891, Milch cows increased by 125%, suggesting the emphasis placed on dairying at this time, especially since neat or other cows decreased by 25%.

Table 6. Changes in Livestock in St. Mary's, 1861 to 1891. Note that working oxen were not counted in the 1861 census. \*Caledonia region is part of the Forks of St. Mary's in the 1861 census. \*\* This district is called Blue Mtn. & St. Mary's in 1861 and Garden of Eden in 1891. Tabulations are not as accurate for Pictou County data as the census districts expanded or shrunk in geography depending on the year.

<b>District</b>	<b>Working Animals</b>		<b>Farm Stock</b>			
<b>Year</b>	<b>All Horses</b>	<b>Working Oxen</b>	<b>Milch Cows</b>	<b>Neat or Other Cattle</b>	<b>Sheep</b>	<b>Pigs</b>
<b>% Change</b>						

<sup>281</sup> "Milch" is a historical variation of "milk," used in reference to cows bred or suitable for producing milk. In contrast, "Neat" cattle are cows or bulls that do not yield milk.

<b>District</b>	<b>Working Animals</b>		<b>Farm Stock</b>			
Year	All	Working	Milch	Neat or	Sheep	Pigs
% Change	Horses	Oxen	Cows	Other Cattle		
<b>Forks</b>						
1861	295	—	722	1117	1722	408
1871	320	91	805	1171	2959	454
1891	361	23	915	1421	2786	468
% Change	+22%	-75%	+27%	+27%	+62%	+15%
<b>Caledonia</b>						
1861*	—	—	—	—	—	—
1871	77	30	163	145	392	31
1891	65	10	151	177	379	14
% Change	-16%	-67%	-7%	+22%	-3%	-55%
<b>St. Mary's, Pictou Co.**</b>						
1861	185	—	435	493	1094	220
1871	226	2	591	497	1535	202
1891	261	2	727	469	1707	70
% Change	+41%	—	+67%	-5%	+56%	-68%

Source: Canada Census for 1861; Census Summaries for 1871 and 1891. Adapted in part from Timothy Archibald, A Question of Staying or Leaving: Rural Decline in Guysborough County, 1881-1931, MA Thesis. Halifax: St. Mary's University (1987)

Table 7. Changes in Livestock in St. Mary's, Pictou County, 1851 and 1891. This district is called St. Mary's & Garden of Eden in 1851, Blue Mtn. & St. Mary's in 1861, St. Mary's in 1871, and Garden of Eden in 1891. Tabulations are not as accurate for Pictou County data as this census district expanded or shrunk in geography depending on the year.

<b>District</b>	<b>Working Animals</b>		<b>Farm Stock</b>			
Year	All	Working	Milch	Neat or	Sheep	Pigs
% Change	Horses	Oxen	Cows	Other Cattle		
<b>St. Mary's, Pictou Co.**</b>						
1851	117	—	274	622	811	136
1861	185	—	435	493	1094	220
1871	226	2	591	497	1535	202
1891	261	2	727	469	1707	70
% Change	+123%	—	+165%	-25%	+110%	-49%

Source: Canada Census for 1851 and 1861; Census Summaries for 1871 and 1891.

One novel component of extended barns was that they also allocated specialized stabling for horses, typically a half-bay. This was not really present in the settler era of English barns because draught animals on the early farm were exclusively oxen, and thus would have been stabled (and eventually slaughtered) with the other cows. Further, most farm work besides ploughing, such as hay making, was typically performed by direct farm family labour using hand tools like the scythe and rake. Designated stabling areas for horses therefore reflect the growing mechanization of the St. Mary's farm after mid-century. Because oxen are generally considered too cumbersome and slow to power a fast-cutting mowing machine or a hay rake, work horses emerged on the landscape as labour-saving machinery became more widely available to farmers. As indicated in Table 7 above, across St. Mary's between 1871 and 1891, oxen decreased in the districts of the Forks by 75% and in Caledonia by 67%. Further, there were only two oxen enumerated in the Pictou County region of St. Mary's in 1871 and 1891. Horses, however, increased by 22% in the Forks, and by 41% in the Pictou County region of St. Mary's.<sup>282</sup> Considering census figures offered for Pictou County St. Mary's districts that extend back farther in time, between 1851 and 1891, horses increased in that region by 123%.

While barns were extended in part to accommodate horse stabling, some farms also built specialized structures to house horses and their paraphernalia after mid-century. The Cumminger farm has a wagon shed that stored harness, sleighs, wagons and other

---

<sup>282</sup> Various farm commodities decline in Caledonia, and such figures may reflect the fluctuating population due to outmigration rather than a deliberate lack of interest in dairying or mechanization. However, the preeminence of lumbering in this particular district should not be underestimated. A community columnist from Caledonia reported on page 4 of the January 5, 1903 edition of the *Eastern Chronicle* that "lumbering has for years been the leading pursuit along the West River and farming has been greatly neglected."

horse-powered farm equipment (Figs. 99 & 100), while the George Fisher farm in Fisher's Mills has a four bay horse barn to the rear of the house (Figs. 101 & 102) with ample space for stabling, hay, and feed in addition to storing the other items listed above in the Cumminger structure.



Figure 99. Cumminger wagon shed, Aspen. Photo by author.

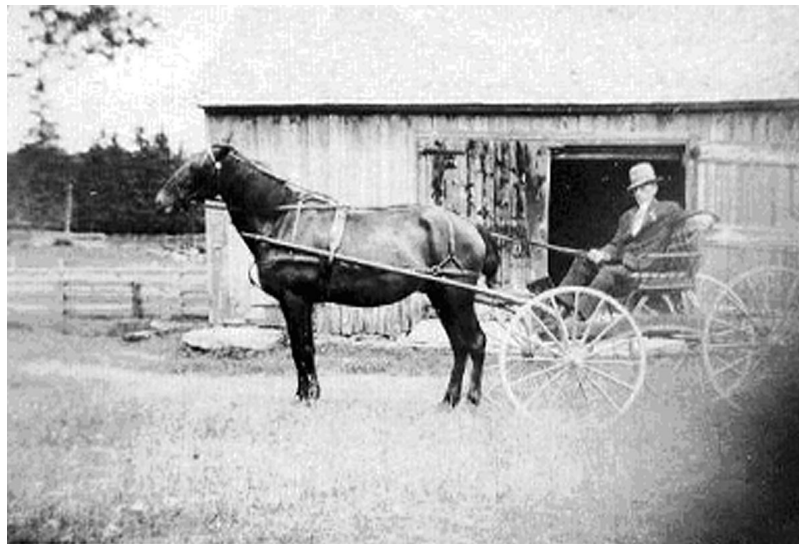


Figure 100. Osborne Cumminger (b.1884, d. 1965), grandson of Samuel Cumminger, in front of the wagon shed circa early 20th century. Image courtesy Cumminger family.

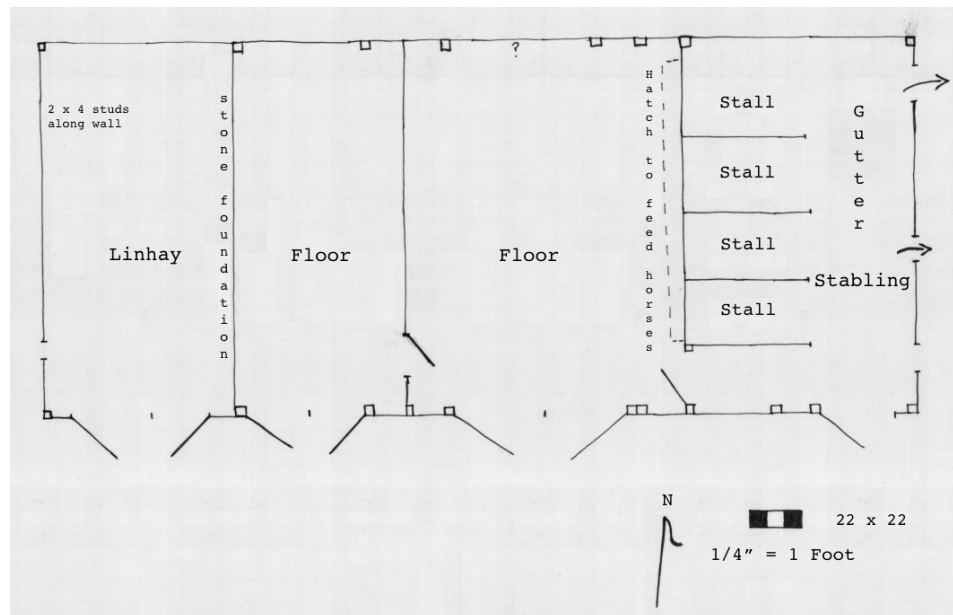


Figure 101. George Fisher horse barn, Fisher's Mills. Date of construction unknown. Plan recorded by Angelina Jack and author. Drawn by author.



Figure 102. George Fisher horse barn, Fisher's Mills. Photo by author.

The benefit of another floor in extended barns is that it provided storage for the growing number of mechanized farm implements—hay rakes and mowers, reapers, harrows, manure spreaders, fanning mills, and threshing machines. While statistical

figures are not available for the number of agricultural implements acquired over successive census years, it is widely understood that farmers across all of North America increased their holdings of mechanized equipment throughout these middle decades of the nineteenth century. Table 8 below gives an indication of the types and numbers of mechanized tools on the average St. Mary's farm in 1871. By the later decades of the nineteenth century, the number of mechanized farm implements had risen dramatically across all of Nova Scotia, as tasks that had been done by hand a few decades earlier were replaced by horse power and various implements.

Table 8. Farm Equipment in St. Mary's, 1871.

<b>District</b>	<b>Carriages/ Sleighs</b>	<b>Ploughs/ Cultivators</b>	<b>Reapers/ Mowers</b>	<b>Horse Rakes</b>	<b>Threshing Machines</b>	<b>Fanning Mills</b>
<b>Forks</b>	298	183	8	4	2	32
<b>Caledonia</b>	66	29	1	1	—	3
<b>St. Mary's, Pictou Co.</b>	184	127	—	1	1	12

Source: Canada Census Summaries, 1871. Adapted in part from Timothy Archibald, *A Question of Staying or Leaving: Rural Decline in Guysborough County, 1881-1931*, MA Thesis. Halifax: St. Mary's University (1987), 184.

One clear way that mechanized machinery correlates with an increased output in farm productivity is the amount of hay harvested in St. Mary's between the periods of 1871 and 1891. Census data indicates a steady growth in tonnes of hay at both the local St. Mary's level and the wider provincial level (see Table 2 in Chapter Two). Threshing machines were rare, and early ones could be owned cooperatively by the local agricultural improvement society. The 1858 St. Mary's Agricultural Society annual report indicates the society purchased a threshing machine collectively.<sup>283</sup> However, individual farmers

---

<sup>283</sup> RG 8, vol. 15, #190, NSA.

owned equipment such as mowers, rakes, ploughs, and a wide variety of hand tools and conveyances. By mid-century, the prosperity of a farm was increasingly linked to the ability to purchase farm machinery. In 1871, Samuel Archibald of Glenelg was one of the more successful farmers in the area, owning a 485-acre farm, with 100 improved acres<sup>284</sup> and 50 in pasture. The farm produced 200 bs. of oats, 300 bs. of potatoes, 300 lbs. of butter, and 60 tons of hay. There were eight milk cows and 16 horned cattle. In contrast, Samuel Cumminger and his son Jesse had a combined total of 518 acres, of which only 40 were improved. No data is provided for the amount of pasture. They grew together 90 bs. of oats, 150 bs. of potatoes, and 30 tons of hay, about half of what Samuel Archibald was producing. There were also six milk cows who produced 300 lbs. of butter, and six horned cattle.<sup>285</sup> Samuel and Jesse owned only one plough/cultivator between them, and no other farm machinery. Samuel Archibald's farm returns, then, could well indicate a correlation between machinery ownership and productivity. Indeed, Archibald was one of a limited number of farmers in St. Mary's who owned both a mower and rake, two ploughs/cultivators, as well as a fanning mill.

Certainly, mid-to-late nineteenth century St. Mary's farms continued to participate in traditional systems and strategies of barter and exchange, and they raised a diversity of products required for their subsistence beyond oats, buckwheat, hay, livestock, and root vegetables, such as homespun, maple syrup, and apples. The farm family also continued

---

<sup>284</sup> Improved means acres under cultivation, or producing a crop.

<sup>285</sup> Jesse Cumminger and Samuel Cumminger are listed as separate heads of household, despite sharing the same dwelling house. Thus their census returns are listed individually. Although they appear to have divided the farm, I'm not completely certain that their returns represent their individual endeavours; they could reflect a combined effort. For instance, in the 1871 census both are listed as having produced 75 bs. of potatoes, 45 bs. of oats, 25 bs. of buckwheat, 15 tons of hay. However, each have a different number of heads of cattle and acres of land owned. I have interpreted each return as an individual effort.

to perform the majority of labour on the farm. As Craig notes in the context of New Brunswick, “commercial farming did not exclude self-sufficiency” and farmers may have used the market as required to buy and sell certain foods, but were not truly dependent on it.<sup>286</sup> Local farmers also continued to seek off-farm, or non-agricultural on-farm, employment such as lumbering and milling, in order to improve incomes. As Marilyn Gerriets summarizes regarding the agricultural contexts of mid-century rural Nova Scotia: “some communities and some farmers prospered by meeting the needs of their own tables and by supplying surpluses to the market; others struggled to survive, supplementing incomes derived from farming work on more prosperous farms or in diverse non-agricultural activities.”<sup>287</sup> Thus there were limits to both the extent and successes of rural capitalism in places like St. Mary’s. Farmers relied on subsistence methods, but they also put their energies into shaping their agricultural practices for the market. Some farmers benefited, others did not. Regardless, an agricultural context emerged after mid-century in St. Mary’s that was defined by an increased engagement with markets due to industrial development within the region, a corresponding shift in agricultural focus towards products that were reliable, suited the local landscape, and required less labour (livestock rearing; hay, oat, and buckwheat cultivation vs. wheat cultivation), as well as more mechanized technologies that permitted a greater scale of agriculture. Such changes were all reflected in the size and design of barns.

---

<sup>286</sup> Craig, *Backwoods Consumers*, 177.

<sup>287</sup> Gerriets, “Agricultural Resources, Agricultural Production and Settlement at Confederation,” 131.

*The Ideological Reasons for Barn Reform: Improvement and Agriculture*

While a changing economy was no doubt the impetus behind the extension of barns in St. Mary's after mid-century, changes in farm production could not have happened without the agricultural reform movement. Ideology therefore intersected with the economy in the design and construction of Phase II barns. Extending the barn was part of a series of new expectations, changes, and challenges for the work and productivity associated with barns and the wider farmstead. The extended barn might have been spatially familiar, but the organization of labour and the attitudes that surrounded farm work were most certainly changing. Reformed barns were intended to accommodate this change in thinking about the farm.

From the ornate Gothic window in his farmhouse's peaked wall dormer, Samuel Cumming might have looked out over the dewy yard the morning after the barn extension was finally complete, and reflected on how much his farm and the whole community of St. Mary's had changed since he first moved there in the 1820s. With the land now cleared and productive, framed houses built in the newest of Gothic and Classical Revival fashions, Samuel and many of his neighbours were also members of a local agricultural improvement society.<sup>288</sup> They were well positioned in their small corner of the world to reconsider their farming operations and to consider the changing expectations for agriculture in Nova Scotia that now called for improved practices.

These emerging improved practices for agriculture involved, among many other things, raising more livestock and manufacturing more dairy products, rotating fields and

---

<sup>288</sup> The first agricultural improvement society was actually formed in 1824, but lasted only a few years. The earliest record of the next society appears by 1846.

accumulating manure. Improved practices also included ensuring that daily farm work was executed in the most efficient, convenient, and tidiest way possible through the arrangement of buildings, the use of mechanized equipment, and the employment of other labour-saving strategies, like good project planning. In short, the farm family's attitude towards the introduction of these new ideas surrounding agriculture had to be liberal and accommodating, or they were apt to get left behind. Extending an English barn was one important step in conforming to the new order. As Nora Pat Small observes of the changing times, only through the reforming ideas of convenience and economy could the farm family "hope to sustain itself," and the family's adoptions of those ideas would be most "visible in the buildings in which they all, men and women, lived and worked."<sup>289</sup>

Thus extended barns were intended to perform or accommodate very specific functions and activities that reflected agricultural reform: mechanization, intensification, and (re)organization. How hopeful Samuel must have been in his improved farming endeavours, but perhaps also worried about meeting these new, sometimes impossible, expectations for agriculture. Expanding the barn was essentially about sustaining the farm into the future for the next generation, for Samuel's son Jesse. It was about embracing an improved world of agriculture that promised success. Although improvement could be a risky venture, Samuel was willing to accept change on the farm, but that did not mean he would not seek to negotiate it on his own terms.

What were the specific demands for improved agriculture that St. Mary's farmers like Samuel Cumminger were trying to fulfill by extending their barns? In order to better

---

<sup>289</sup> Small, *Beauty & Convenience*, 91.

understand extended barns and their cultural significance in nineteenth-century St.

Mary's, it is important to contextualize the agricultural reform movement at both local and wider levels before moving on to an analysis of how some of the uses and functions of extended barns in St. Mary's integrated particular prescriptions for improvement.

An ideology of improvement first became a force in Nova Scotia in the early decades of the 1800s as agricultural reformers—clergy, bureaucrats and politicians, social commentators, and progressive farmers—sought to modernize the work of farming by advocating and implementing new and improved “scientific” approaches to husbandry, breeding, fertilization, and cropping in conjunction with mechanization and reformed farm building design. But what did improvement actually entail? As Sarah Tarlow argues in her *Archaeology of Improvement*, we tend to take the idea of improvement for granted today. She writes: “the notion that things can and should be made better through human agency is so very normal to us that the attempt to historicize it is rarely made.”<sup>290</sup> Tarlow continues, “Improvement remains an implicit value underpinning contemporary political and social philosophy,” and is thus a “characteristic of modernity.”<sup>291</sup> As an ideological or philosophical concept, improvement emerged only gradually beginning in the late eighteenth century. Its accepted status in our present time was realized through a long process of cultural reform that was not met without contestation or negotiation, and it is important to recognize that improvement was not always the imperative of most people, in most places, in most times. By the Victorian period, however, the reach of improvement had widened. Its influence was evident in the emergence of a number of

---

<sup>290</sup> Sarah Tarlow, *The Archaeology of Improvement in Britain, 1750-1850* (Cambridge: Cambridge University Press, 2007), 11.

<sup>291</sup> Ibid.

strategies or movements to reduce or contain social problems such as illiteracy, intemperance, slavery, crime, and poverty. Civic improvement was also prioritized in reforms to public services like sanitation, and in the careful planning of urban housing, streets, and parks.<sup>292</sup>

The belief in improvement was also profound and transformational in the landscape and labour of farming. Disseminated through a number of public avenues such as agricultural societies, prescriptive literature, and government-funded grants and incentives for agricultural growth and reform, the idea of improvement preoccupied discourse on the methods and expectations of agriculture all over nineteenth-century Nova Scotia. A dual-pronged idea, agricultural improvement entailed both economic profit and moral betterment.<sup>293</sup>

In order to achieve prosperity, improvement demanded innovation, proficiency, energy, and ambition in agriculture. Improvement looked towards the future, to the imminent success and refinement of agriculture. These ideals of farm improvement can be illustrated in the contrasting didactic figures of “Farmer Slack” and “Farmer Snug,” two fictional characters who appeared in a variety of forms and names in period prescriptive literature. Farmer Slack persisted in the old ways of disorder, laziness and incompetence—that is, subsistence farming. He scoffed at scientific or “book farming” by refusing to subscribe to agricultural journals. He kept a sloppy yard with buildings and fences in disrepair, practiced wasteful habits, and was “contented to go on in the same

---

<sup>292</sup> Ibid., 90-162.

<sup>293</sup> See Quentin Lewis, *An Archaeology of Improvement in Rural Massachusetts: Landscapes of Profit and Betterment at the Dawn of the 19th century* (New York: Springer, 2016); Samson, *The Spirit of Industry and Improvement*, 56-79.

routine of life his father did before him.”<sup>294</sup> Though a fictional caricature, farmers like Slack seem to have been at least partly recognized in real-life by Nova Scotia’s progressive agriculturalists such as William McKeen, who denounced his neighbours as having no “regular system of culture,” and who “plodd[ed] on in [their] own way without any other stimulus but to acquire the necessities of life.”<sup>295</sup> Farmers like Slack had no place in a burgeoning world of rural capitalism, where they would inevitably be left behind, choking in the dust of reform and progress.

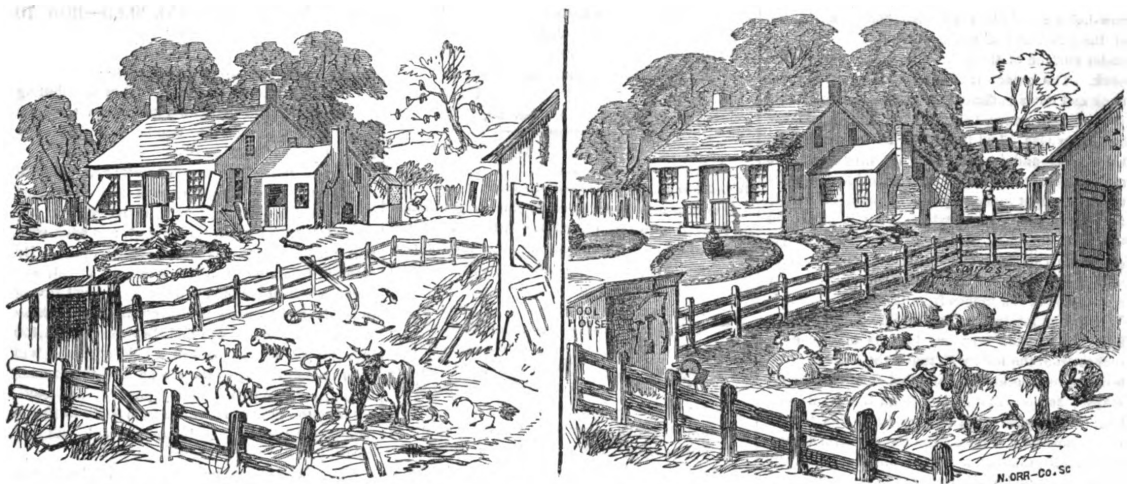


Figure 103. Farmer Slack’s slovenly farmyard (left) versus Farmer Snug’s trim and orderly yard, with fat and content livestock (right). Note the clearly indicated “tool house” in the right image. From *The American Agriculturalist*, vol 16, 1857, 60.

The new order of farming, rather, called for men like Farmer Snug. “This is the *scientific farmer*,” described a columnist in an 1851 edition of *The American Agriculturalist*, scientific being a popular blanket term for progressive, new and systematic farm practices. Snug accumulated manure, his cattle did not roam but rather

<sup>294</sup> “Farmer Snug and Farmer Slack – The Contrast,” *American Agriculturalist*, vol 10, no. 12 (December 1851): 366-367.

<sup>295</sup> William McKeen to John Young, 1 August 1821, RG 8 vol 7, #126, NSA. Note that this is William McKeen of Mabou, Cape Breton and not St. Mary’s, although the Mabou McKeens were cousins of the St. Mary’s McKeens.

stayed in their own well-fenced and provisioned pastures, and his house, barns, and outbuildings were “a perfect model of neatness ... all is snug and in order.”<sup>296</sup>

Improvement promised that if farmers were more like Farmer Snug, that is, they worked hard, maintained open minds, and implemented order and regularity in their entire farm endeavours, financial gains would certainly be had (Fig. 103).

Achieving profit through improvement also required the application of certain scientific methods recommended by reformers, specifically rotational cropping, manuring, selective breeding, and attentive animal husbandry. The below verse, written on the front of an early Pictou County agricultural society minute book smartly summarizes the key interests and expectations of nineteenth-century progressive farmers in Nova Scotia:

Let this be held the farmers' creed  
For stock seek out the choicest breed,  
In peace and plenty let them feed.  
Your lands sow with the best of seed,  
Let it not dung nor dressing want,  
And then provisions won't be scant.<sup>297</sup>

Keeping well-bred and cared for livestock, sowing good seeds, carefully cultivating the land, and accumulating plenty of manure for fertilizer would surely yield dividends, according to reformers.

Improvement was also an ethic that stipulated an adherence to a prescribed moral order that was shaped by ideas like reason and rationality, utility and practicality, individual agency and independence (in short, self-reliance), and beauty and

---

<sup>296</sup> “Farmer Snug and Farmer Slack,” 366.

<sup>297</sup> From the front of the minute book of the West River Farming Society (formed in 1817) and quoted in Rev. George Patterson, *A History of the County of Pictou* (Montreal: Dawson Bros. 1877), 297.

convenience—which meant the integration of aesthetics with functional efficiency.<sup>298</sup> A passage from the August 1851 entry in *Belchers Nova Scotia Almanac* captures some of the moral characteristics an improving farmer was expected to practice: “the judicious and enterprising farmer will see where improvements *should* be made, and will see that they *are* made” [emphasis added]. In other words, the farmer would be proactive in identifying and rectifying any negligence in the running of his farm, taking responsibility for its success through his own actions.

The same Almanac also emphasized that improvement need not always involve radical and expensive alterations to farm plans and buildings, but that small, functional changes would not only make a farm more efficient, but also beautiful. Using the example of bars versus a gate in a fenced pasture or yard, the Almanac explains the nuisance and energy expended in lifting or taking away bars multiple times per day. It recommends that the farmer “just put a gate there, which can be done at a trifling expense, and there is an improvement from which benefit will be derived every day. A gate not only facilitates passing in and out, but it looks better.” As the Almanac further elaborated, “the farmer who in his system combines beauty with utility, will need no suggestions in regard to the improvement of his farm.” The good farmer, then, recognized that beauty and utility, even in the smallest tasks, was the hallmark of improved farming.

Farmers were also expected to be literate men who improved their *minds*, and in turn their farms, through the reading of scientific agricultural treatises and other useful publications. As an 1865 issue of *The Journal of Agriculture for Nova Scotia* stated, “To

---

<sup>298</sup> Tarlow, *An Archaeology of Improvement*, 22-25; Small, *Beauty & Convenience*, 2003.

be successful the farmer must *think* and work” [emphasis added].<sup>299</sup> This idea of mental improvement mandated the abandonment of farming practices and beliefs rooted in “tradition,” a term which implied willful ignorance and superstition. Tradition was perceived to be the antithesis of the modern approaches advocated by reformers, and innovation—not deep-seated custom—was intended to be the driving force behind improvement. The October 1876 entry in *Belchers Almanac* aptly summarizes the improver’s attitude towards tradition in agriculture: “In this age of inventions and machines and swift moving forces, farmers cannot afford to hold on to the old traditionary [sic] methods that were all very well thirty or forty years ago. Their minds must be very open to every new idea. They must be ready to try new plans.” As one member of the Middle River, Cape Breton agricultural society remarked in his 1854 annual report to the Central Board of Agriculture, Nova Scotia’s farmers needed to embrace improvement and “shake off those prejudices and old customs of their forefathers” that hindered the acceptance of progressive methods and approaches to agriculture.<sup>300</sup> Improved minds and improved farms were interconnected. As *Belchers Nova Scotia Almanac* advised in its January 1855 entry, “Farmers *should be improved* as well as farms, and their improvement should be attended to first, and then the other will be more easily accomplished.” It is not surprising, then, that some mid-to-late nineteenth century farmhouses in St. Mary’s incorporate built-in bookshelves within the parlour. Were these to hold the volumes of agricultural treatises and periodicals that the modern,

---

<sup>299</sup> *The Journal of Agriculture for Nova Scotia*, vol 1, no. 10, December 1865, pp. 92, CIHM no. P04714, Retrieved from: [http://eco.canadiana.ca.qe2a-proxy.mun.ca/view/oocihm.8\\_04714\\_10](http://eco.canadiana.ca.qe2a-proxy.mun.ca/view/oocihm.8_04714_10)

<sup>300</sup> Annual Report of the Middle River Agricultural Society, 27 Dec 1854, RG 8, vol 16, # 221, NSA

improving farmer was expected to read during the farm family's quiet evenings of Victorian domestic bliss? (Fig. 104)



Figure 104. Built-in cabinetry from the parlour of the McConnachie Gunn house, East River St. Mary's, circa 1873. Photos by author.

Moral principles like industriousness, economy, cleanliness and neatness were also characteristic of improvement. Time and its careful, efficient management—an especially industrialized, capitalistic view of the world of work—were given special prominence for the farm. For example, the Nova Scotia reformer James Ross advised against borrowing implements from neighbours, warning that the time lost in “running from house to house in quest of articles” is “often more valuable than the article itself.”<sup>301</sup> Borrowing tools from a neighbor or, worse, keeping a disorderly barn, house, or yard would engender “carelessness about that systematic distribution of time on which success eminently depends.”<sup>302</sup> As *Belcher's Almanac* entry for June of 1854 suggests, the old

---

<sup>301</sup> Ross, *Remarks and Suggestions on the Agriculture in Nova Scotia*, 19.

<sup>302</sup> *Ibid.*

adage “a place for everything, and everything in its place” was the improving way. The Nova Scotia reformer Rev. Thomas McCulloch likewise agreed on the importance of organizing the farm and its contents: “keeping everything in its own place, is both an excellent preservative of articles, and a great saving of time and labour to those who use them.”<sup>303</sup> The “new scheme of things,” as Bernard Herman observes about this dynamic period, foremost involved the imposition of *order* on all facets of rural work and living.<sup>304</sup>

Further, the work of agricultural improvement was a moral obligation in and of itself: the good farmer performed a civic duty through practice and example. The work of improvement was therefore meant to be *seen*. The farmer arbitrated taste and style through the aesthetic betterment and beautification of his farm buildings and yards, and he demonstrated the “proper” system of management in the daily actions of his labour, in his choices of buildings, seeds, livestock, and in his schedule of cultivation and harvest. To distribute information and diffuse the ideals of progressive farming through actual implementation, through *lived* improvement, though the visual and tangible example of the farmstead, was considered the most effective way to fulfill the social responsibility of reform. Local agricultural societies were one important facilitator in this visible work of improvement. Operating at the community level, their members (frequently rural elites like elected representatives, clergy, and justices of the peace) looked to instill a spirit of emulation and enterprise among their farm neighbours through public display and example, whether through agricultural exhibitions and competitions, society sponsored

---

<sup>303</sup> Davies, *The Stepsure Letters*, 90.

<sup>304</sup> Herman, *Architecture and Rural Life*, 119-120.

prizes for tangible evidence of reform such as farm building improvements, or farm tours among society members. As Graeme Wynn notes,

everywhere, agricultural societies were the cutting edge of reform endeavours. Broadly modelled on societies established in England and Scotland as the agricultural revolution gained momentum in the 18<sup>th</sup> century, they were intended to disseminate the new knowledge, to foster discussion of sound agricultural principles, and to reinforce the conviction of those who had implemented the new methods.<sup>305</sup>

Improvement as an ideology and discourse, then, was about methods and morals, and was manifested around a wide variety of farm domains. In domestic economy, in animal husbandry and breeding, in seed selection, field rotations, and manuring, improvement demanded that farmers show practices that drew on modern, scientific principles. In the ordering of farm labour, in the tasteful arrangement of farm buildings and yards, in the careful reading and study of agricultural treatises, and in actions of self-sufficiency, improvement stipulated that farmers raise themselves up to be a higher, more meritorious class of people who conformed to Victorian virtues like system and thrift, sobriety and toil. Indeed, improvement was an ethic, a philosophical framework that called for the betterment of individuals and society through the application of industriousness, strategy, taste and refinement in the realization of an agrarian ideal.

### *The Beginnings of Improvement in Nova Scotia*

The agricultural reform movement began in earnest in Nova Scotia in the 1820s under the influence of John Young, a Scots-born Halifax merchant and reformer known

---

<sup>305</sup> Wynn, "Agricultural Reform in Pre-Confederation Nova Scotia," 9.

by the pen name “Agricola.” He published a series of sixty-four letters in the *Acadian Recorder* between 1818 and 1821 on methods of tillage and manuring, advocating a new age of improved agriculture across the Nova Scotia countryside.<sup>306</sup> Dispelling myths that the colony was unfit for farming and would never repay the expense of regular cultivation, his initiatives led to the formation of a government-supported Central Board of Agriculture under the patronage of Lord Dalhousie, lieutenant governor of Nova Scotia, in 1819. Under the combined influence of Agricola and the board, 27 local agricultural societies were formed between 1818-1824 to promote improvement, and their activities were funded through both member subscriptions and government grants.<sup>307</sup>

Young’s intent was not only to “put agriculture in Nova Scotia on a scientific and cooperative basis,” but also to usher Nova Scotia into a state of self-sufficiency—a colony independent of New England agricultural and manufacturing imports, one that flourished through innovation and modernization.<sup>308</sup> As J.S. Martell observes, Young’s letters suggested to Nova Scotians, struggling through perilous economic conditions after the brief prosperity of the Napoleonic wars, that “agriculture, if properly attended to, would be the salvation of Nova Scotia.”<sup>309</sup>

Young’s letters were part of a momentum that has been labeled the “intellectual awakening” of Nova Scotia, when in the first half of the nineteenth century the region began to shape its identity as a people and place. For the first time, settlers were learning in educational facilities within their own province and were encouraged to “know and to

---

<sup>306</sup> These were published in book form in 1822.

<sup>307</sup> J.S. Martell, “The Achievement of Agricola and the Agricultural Societies, 1818-25,” *PANS Bulletin* 2, no. 2 (1939): 1-47.

<sup>308</sup> *Ibid.*, 1.

<sup>309</sup> *Ibid.*

love their own country,” and, ultimately, to “think as Nova Scotians.”<sup>310</sup> The growing ideology of agricultural improvement was an important influence in the intellectual and patriotic exercises of the pre-confederation period. Making an agriculturally successful landscape through reformed farming was viewed by men like Agricola as the cornerstone of achieving a thriving, modern, and liberalized, self-governing place. Improved agriculture would advance society and usher prosperity, and it was considered crucial that any truly flourishing place have the capacity to support its population. “That country which does not feed itself,” Young wrote, “is doomed to poverty and degradation.”<sup>311</sup> Nova Scotia was only poor and little, plain and obscure, Young argued, because “a false and pernicious estimate of her soil and climate” had hitherto caused her people to neglect “her true, her best, her only interest”—agriculture.<sup>312</sup> Nova Scotia could succeed politically and economically within the broader Atlantic world, Young reasoned, “on the foundation of the plough.”<sup>313</sup>

A number of reformers followed Agricola’s improving example, advocating reformed agriculture as the panacea for Nova Scotia’s disadvantaged state. In Pictou, the Presbyterian Ministers Rev. James MacGregor and Rev. Thomas McCulloch “called for a return to the landed ways and strengths,” advancing the Calvinist virtues of “frugality, self-sufficiency, and sobriety” among farming folk. They asserted that “progressive, methodical agriculture in the improving mould ... would reward initiative and invention

---

<sup>310</sup> D.C. Harvey, “The Intellectual Awakening of Nova Scotia,” *Dalhousie Review* XIII (April 1933): 1.

<sup>311</sup> John Young, *The Letters of Agricola on the Principles of Vegetation and Tillage, written for Nova Scotia and published first in the Acadian Recorder*. (Halifax: Holland, 1822), 454-5.

<sup>312</sup> *Ibid.*, 452.

<sup>313</sup> *Ibid.* 460.

and be linked to sound commerce.”<sup>314</sup> McCulloch’s satirical Stepsure Letters (1821-1823), referenced in Chapter Two, were a scathing condemnation of shoddy farming and slovenly ways in the early Nova Scotia landscape.

As the decades progressed since Agricola’s first letters, other domestic publications on improved farming were released, often with the financial support of the provincial legislature, including Dr. J.W. Dawson’s *Scientific Contributions Towards the Improvement of Agriculture in Nova Scotia* (Pictou, 1853), which was combined with his *Practical Hints to the Farmers of Nova Scotia on the Management and Improvement of Livestock, and on General Husbandry* (Halifax, 1854) in a revised and improved second edition published in 1856.<sup>315</sup> Perhaps the most pertinent and applied text for Nova Scotia’s farmers was James Ross’ *Remarks and Suggestions on the Agriculture of Nova Scotia*, published in 1855.<sup>316</sup> Ross, a Scots born farmer with practical farming experience, ran Fadden Farm in Rawdon, Hants County. While Dawson’s text was unoriginal, compiled largely from existing British agricultural treatises, Ross wrote with the intent to address the issues and challenges of agriculture for a local climate and topography. He maintained (in a direct jab at the Dawson text no doubt) that, “Our Legislature may encourage the publication of treatises, culled from those of other lands, but, until such treatises contain more of the really practical experience of our own husbandmen, little benefit can be rationally anticipated from them, so far as our Province is concerned.”<sup>317</sup>

---

<sup>314</sup> Alan Wilson, *Highland Shepherd: James MacGregor, Father of the Scottish Enlightenment in Nova Scotia* (Toronto: University of Toronto Press, 2015), 147-148.

<sup>315</sup> See also Alfred C. Thomas, *Comparisons of English & American Farming*, C.W. Knowles, Printer and Publisher, Windsor, NS (1880), V/F V. 39, # 14, NSA.

<sup>316</sup> V.F. Vol 40 # 3, NSA.

<sup>317</sup> Ross, *Remarks and Suggestions on the Agriculture of Nova Scotia*, 5.

For Ross, his efforts were intended to bolster home-grown ingenuity, confidence, and energy towards agriculture. As he relates, “I am not one of those who can see nothing good but what comes across the water.”<sup>318</sup>

Duly, *The Nova Scotian Journal of Agriculture* was published under the direction of the legislature’s Central Board of Agriculture in March of 1865 (it ceased publication in 1885) with the purpose of making known the work of the Board for all farmers across the province, not just those centrally located.<sup>319</sup> The principal objective of the journal was to disperse valuable information that could be “thoroughly adopted to the climate, circumstances, and present requirements of Nova Scotia.” While the journal would go on to reproduce materials from agricultural periodicals in Britain, Upper Canada and the Northeastern United States, the editors recognized that “the kind of information likely to prove most useful to the Nova Scotian farmers is to be sought in the Province and chiefly among the farmers themselves.”<sup>320</sup> The editors thus encouraged local farmers to write to the journal with their perspectives, but an overview of the journal’s issues indicates that while a great many local agricultural society reports and other board related communiques were present, the majority of the content was drawn from a variety of non-domestic source material.

Government initiatives and incentives to promote the development of agriculture were also prevalent across the Nova Scotia countryside. These primarily took the form of

---

<sup>318</sup> Ibid., 15.

<sup>319</sup> A preceding publication was *The Journal of Education and Agriculture for Nova Scotia*, first published in July of 1858 by the province, and edited by the Superintendent of Education, Dr. Alexander Forrester. It ceased publication in June of 1860. The agricultural content emphasized was largely theoretical, not practical.

<sup>320</sup> *The Nova Scotian Journal of Agriculture*, vol. 1, no. 1 (March 1865): 1.

government grants, overseen by the Central Board of Agriculture, towards the continued work of local agricultural societies who offered premiums for superior farming practices, distributed prescriptive literature, and worked to develop seed and livestock. The Central Board also directly imported livestock, seeds, and implements from the United States and Great Britain which were sold at public auction, and continued to circulate prescriptive literature and support agricultural exhibitions and fairs. For example, between 1864-1868, the Board imported “not fewer than 22 thorough bred bulls, 9 thorough-bred cows and heifers, upwards of 100 thorough-bred rams, and 20 thorough-bred pigs.”<sup>321</sup> Livestock, seeds, and implements sold at public auction were often purchased by representatives from the local agricultural societies, who in turn sold them to their community members. In 1847, the St. Mary’s agricultural society allocated £15 of their budget for the purchase of implements and sent Simon Fraser to Halifax to buy them at the sale. Unfortunately, by the time Fraser arrived, they had all been sold.<sup>322</sup>

There were other, one-time initiatives, offered by the legislature to stimulate agriculture in Nova Scotia. In the 1820s, and again in the 1840s and 50s, the government offered bounties for the construction of oat mills. This was in hopes of encouraging more domestic production of foodstuffs so that farmers might “save the constant drain upon their pockets arising from the unnecessary but at the same time unavoidable using the best description of American Flour,”<sup>323</sup> and rather permit their own flour and meal to

---

<sup>321</sup> J.S. Martell, “From Central Board to Secretary of Agriculture, 1826-1885,” *Bulletin of the Public Archives of Nova Scotia*, vol. II, no. 3 (1940): 17.

<sup>322</sup> RG 8, vol. 15, #102, NSA.

<sup>323</sup> Agricultural Committee, 1847, quoted in Martell, “From Central Board to Secretary of Agriculture,” 9.

“command a fair price in any market.”<sup>324</sup> The St. Mary’s Agricultural Society put forward the oat mill being constructed by William and David Fisher to receive the government premium in 1824-1825.<sup>325</sup> As well, in 1849, St. Mary’s residents petitioned the legislature for a portion of the mill bounty offered. They argued Alexander Archibald Jr.’s mill (the new mill and kiln were built on the site of the old one in 1846), which was “boulded [sic] by an experienced man from North Briton on the improved plan adopted there,” should qualify for the financial aid.<sup>326</sup>

While an interest in improvement throughout nineteenth-century Nova Scotia is demonstrated through prescriptive literature, the formation of agricultural societies, and government initiatives and incentives for agriculture, there were many who ultimately voiced their criticisms of such “book farming,” and the abandonment of traditional practices that relied on common sense and vernacular knowledge of local soils, climate, and livestock. Farmers certainly did not evenly engage with improvement’s prescriptions. One skeptical farmer wrote a scathing letter to reformer John Young in November of 1820 that sums up many of the criticisms many ordinary nineteenth-century farmers felt towards an improvement advocated by an elite “agricultural class” far removed from merchant debt and the sweat and struggle involved in the single-handed, day-to-day running of a small Nova Scotia farm. The correspondent, who simply signed his letter “An Experienced Farmer,” expressed his attitude towards the improvement campaign and agricultural societies like this (spelling and punctuation is left original):

---

<sup>324</sup> Petition by the inhabitants of St. Mary’s to the legislature, 27 June 1849, RG 5, vol. 7, # 40, NSA.

<sup>325</sup> Letter from William McKeen and William Bent to the Central Board, 30 January 1825, RG8, vol. 7, # 222, NSA.

<sup>326</sup> Petition by the inhabitants of St. Mary’s to the legislature, 27 June 1849, RG 5, vol. 7, #40, NSA.

As for the Ag'l class they say they are resolve to conquer all difficultys they say they will use lime summer fallow and rais large quantities of turneps that the land thus prepared will raise more wheat then they will want the surplus they will sell to pay their debts with the turneps they will fat their beef sell it in spring ... that one cow fed on turneps and kept in good order will make double the butter that one fed on hay will that they will soon get out of debt ... and claves that have a full flow of milk will make larger cattle but we laugh at them an their Agricola plans we prophesy that their plans will fail their society come to nothing though it increase yet but they will get tired of paying 10/ year<sup>327</sup> we are not such fools at to pay 10/ for nothing it is more money than many of us can muster or if we get it we want to buy bread with it but let them go on and we will allow our good old way another year and then you shall hear from us again.<sup>328</sup>

Whether or not a farmer belonged to an agricultural society or subscribed to an agricultural journal does not, however, mean that he was impervious to improvement, or unaware of the cultural and social mores of his times. It does not mean that he did not participate in the integration and adoption of ideas of improvement into local farming culture in some form or another. As Nora Pat Small has suggested in *Beauty & Convenience*, ideas can be very ingrained—almost universal—in a society throughout particular times. Improvement was certainly one such universal by the mid-nineteenth century in British North America. Because a farmer could not follow the prescriptions of improvement precisely does not mean that he did not wish to do so, or that he was unaware of an idea as universal as “improvement” and how to apply the concept to the business and labour of running a farm. It was probably not so much improvement as a general concept that “An Experienced Farmer” disagreed with, but the naiveté,

---

<sup>327</sup> Ten shillings was the rate of membership to a government-sponsored local Agricultural Society.

<sup>328</sup> 16 November 1820, RG 8, vol. 2, # 233, NSA.

paternalism, and condescension with which most elite improvers—based in urban Halifax where they “spent their money on farms for their own amusement”<sup>329</sup>—often espoused change.

*Locating Improvement on the St. Mary’s Landscape*

How did St. Mary’s farmers think about agricultural improvement? Improvement was certainly not remiss in the rural landscape of St. Mary’s throughout the nineteenth century. St. Mary’s farmers may have been geographically in the backwoods of Nova Scotia, but intellectually, at least, they were eager to participate in wider social and political debates, and consider the merits of new ideas of their time.<sup>330</sup> One way that local farmers engaged with the discourse of improvement was through the formation and ongoing work of a local agricultural society.

The noted reformer John Young actually visited St. Mary’s in the summer of 1824. Campaigning for a seat in the legislature in a bye-election for Sydney County,<sup>331</sup> he was successfully voted-in, despite not being a freeholder in the region. During his visit, he met local farmers in the Forks of St. Mary’s and gave an “interesting and impressive address” on the merits of progressive farming, encouraging the formation of a local agricultural improvement society. His visit must have persuaded some of the St. Mary’s farmers in attendance, because several came together to form the first St. Mary’s Agricultural Society on July 21<sup>st</sup>, immediately following Young’s talk. The society had

---

<sup>329</sup> *Novascotian*, 9 April 1840, quoted in J.S. Martell, “From Central Board to Secretary of Agriculture,” 4.

<sup>330</sup> For a discussion on the importance of intellectual and political debate among farmers in rural Nova Scotia, see Daniel Samson, “Damn TORYISM, Say I: Dissent, Print Culture, and Anti-Confederation Thought in James Barry’s Diary,” *Acadiensis* XLVI, no. 1 (Winter/Spring 2017): 177-190.

<sup>331</sup> Sydney County was later divided into present day Antigonish and Guysborough Counties in 1836.

thirty subscribed members, paying an annual subscription fee of five shillings each.<sup>332</sup>

William McKeen was appointed president, and William Bent as secretary. The hope was that the society would “promote the best interests of the settlement,” and “introduce an improved system of husbandry and rural economy,” diffusing information on “these important objects throughout the whole township.”<sup>333</sup>

It is certainly indicative of the desire for progressiveness and community-building that some early St. Mary’s farmers would strive to form an agricultural society when their region was only so newly settled. St. Mary’s was virtually in its infancy, with farms still being cleared when the first society was formed. As the society secretary, William Bent, described in a letter to John Young, there was not even “regular post communication to this place at present.”<sup>334</sup> Yet despite local farmers being limited in their developments given the “natural obstructions attending the converting of the wilderness into well cultivated fields,” Bent observed that a “considerable degree of enterprise seems to prevail among our farmers.” There was a desire for improving the breed of cattle, and Bent claimed that the St. Mary’s farms were “managed with greater neatness, and in a more systematical manner” which he attributed “chiefly to the influence of agricultural societies and to the more general diffusion of agricultural knowledge.”<sup>335</sup>

This was the beginning of many iterations of agricultural improvement societies throughout nineteenth-century St. Mary’s. By the end of 1826, the Central Board of Agriculture had collapsed, and the majority of societies, including St. Mary’s, soon

---

<sup>332</sup> William Bent to John Young, 21 July 1824, MG 2 vol. 728, #638, mfm# 22,731, NSA.

<sup>333</sup> Ibid.

<sup>334</sup> Ibid.

<sup>335</sup> Letter from William Bent, Secretary of the St. Mary’s Agricultural Society in response to a letter of enquiry by the provincial society, RG 8, vol 5, #63 and #64, NSA.

followed suit. However, in 1841 the legislature revived the board and provided funding, with many societies resuming operations on a grant of £75 per county.<sup>336</sup> The St. Mary's society re-formed in March of 1846, raising the £10 required to receive the provincial grant. They were no doubt driven to form, in part, because the Guysborough Society alone was receiving the full legislative grant allocated for their county, as no other societies were active.<sup>337</sup> Indeed, over the subsequent decades since their initial beginnings, many agricultural societies across the province became defunct only to be later revived when legislative interest and funding were renewed, or there was a more continued period of concern for collectively organizing the work of improvement—often when times were hard, such as the commercial depression and the potato and wheat failures of the 1840s, and the poor hay crops from the late 1840s to early 1850s.<sup>338</sup> The legislature withdrew support from the Central Board again in 1857, and any societies that remained were placed under the direction of the Superintendent of Education, Dr. Alexander Forrester. I am unsure if a St. Mary's society continued after 1857. However, an abstract of the annual report for the Glenelg Agricultural Society was included in the first issue of the Central Board's *Journal of Agriculture*, published in March of 1865,

---

<sup>336</sup> Martell, "From Central Board to Secretary of Agriculture," 5.

<sup>337</sup> Letter from William Sinclair to William S. Moore, 25 March 1846, RG 8, vol. 15, #156, NSA. Interestingly, Samuel Cumming is listed as being part of this society's committee.

<sup>338</sup> Martell, "From Central Board to Secretary of Agriculture, 1826-1885, 7; 11. Neil Gunn noted in his 1847 report for the St. Mary's society that he could not boast much of improvement in the district on account of "the partial failure of our crops with which Providence visited us for some time past and which we fear will be more severely felt here during this than on former years. Potatoes may be considered a total failure. Many individuals have not any, others may have nearly their seed, and a few planted in new lands in the outskirts of the district were a little better. Wheat promised well during the earlier part of the season; but was latterly so much injured by the weevil that it will not average returns of more than five bushels for each one sown ... no doubt St. Mary's come [sic] considerably short of supplying itself with bread" (RG 8, vol. 15, #102, NSA). In 1848, the weevil again destroyed the wheat crop in St. Mary's, and a freshet most of the oats just before harvest (RG 8, vol. 15, #163, NSA).

indicating a society presence was established after the Central Board was re-instituted in 1864. The Central Board was ultimately abolished and replaced by a Secretary for Agriculture in 1885.<sup>339</sup>

Such societies were not easily sustained in the early Nova Scotia countryside for factors beyond the politics of government spending and the whims of local interest. One reason was that subscriptions were costly for many farmers. In 1849, Neil Gunn, the secretary of the St. Mary's society, reported that many members in the last year could not afford subscription for want of means.<sup>340</sup> Further, most farming communities could not operate an improvement society without direct government funding. The St. Mary's society secretary, John Campbell, noted in 1854 that "although many are sensible of the advantages secured from the society it is almost certain that it would soon cease to exist were the public grant withdrawn."<sup>341</sup> The District of Guysborough Agricultural Society, for example, could not even raise the £10 required to qualify for the provincial government grant in 1860.<sup>342</sup> Meetings were also hard to arrange, and thus societies less effective, because farmers in remote places like St. Mary's were dispersed across a wide geography. In 1847, farmers in the upper districts of St. Mary's even looked to form their own society with at least twenty new members who would not join the current society farther down the river because the distant was so great to traverse, as they observed that the district was 60 miles from end to end.<sup>343</sup> Combine all these issues with the fact that

---

<sup>339</sup> Wynn, "Exciting a Spirit of Emulation," 12.

<sup>340</sup> Report of the Agricultural Society of the District of St. Mary's, 1849. RG 8 vol. 15, #169, NSA.

<sup>341</sup> Report of the Agricultural Society of the District of St. Mary's, 1854. RG 8, vol. 15, #186, NSA.

<sup>342</sup> Agricultural Report for the District of Guysborough Agricultural Society, 8 January 1861. RG 8 vol. 15, #154, NSA.

<sup>343</sup> John Kirk to Central Board of Agriculture, 10 May 1847, RG 8, vol. 9, #110, NSA.

farmer's activities were subject to weather and livestock health, and the seasonal nature of their occupation entailed periods of intense labour with little time for social gatherings, it is no wonder that the structural organization and continued maintenance of such improvement societies proved problematic.

Nevertheless, St. Mary's agricultural societies persisted over the course of the nineteenth century and were active in numerous ways (see Table 9). One key way that societies helped instill the idea of improvement into the conversations and mindsets of farmers living along the St. Mary's River was through the dissemination of popular prescriptive literature. This literature included agricultural columns and reports in local newspapers, international and Canadian agricultural treatises and periodicals, farmer's almanacs (widely available Nova Scotian titles included Belchers and Cunnabells), and, to a lesser extent, privately published and government-sponsored pamphlets and booklets. Yearly reports from the St. Mary's society show significant funding allocated for such literature, and that a small agricultural library was established. For example, the report of the society for the year 1855 notes that the £10.18.19 was expended "to agricultural publications including a number unpaid for from the previous year."<sup>344</sup> After receiving twelve copies each in 1852 of *The Cultivator* and *The Plow, the Loom, and the Anvil* from the Central Board of Agriculture, St. Mary's society president William McKeen had them numbered and gave them out to the members weekly to be returned so that they could all have access to read them. McKeen observed,

"I think that by the perusal of such agricultural publications it will cause a spirit of enquiry such as there is something to be learned about agriculture more than their Father has taught

---

<sup>344</sup> RG 8, vol. 15, #189, NSA.

them therefore they will begin to search and read that they may obtain some new instruction in the management of the soil to bring the plants to better perfection.”<sup>345</sup>

By the 1850s, several dozen periodicals existed across the United States and Great Britain, and a few from Upper Canada as well, although there were hardly any journals published by native Nova Scotians. Content varied from journal to journal, but the general interests of agricultural publications included: advertising and publicizing new breeds of stock, varieties of seeds, and mechanical implements; the encouragement of various methods of fertilization and the promotion of soil science; the eradication of superstition; general agricultural education; practical farm household management; and the overall aesthetic and moral improvement of domestic rural culture. Building plans and advice on farm arrangement and the structuring of daily farm labour, were also made available. In addition, the journals were an opportunity for farmers to exchange advice and correspondence through submitted letters and articles.<sup>346</sup> While there is no list of particular subscriptions engaged by the St. Mary’s society in the Central Board of Agriculture fonds at the provincial archives, society subscriptions generally appear to be comprehensive as evidenced in the following list of subscribed periodicals in the 1852 annual report for the neighbouring Antigonish Agricultural Society:<sup>347</sup>

<i>New England Farmer</i> , monthly	\$1
<i>Cultivator</i>	\$1
<i>Working Farmer</i>	\$1
<i>American Agriculturalist</i>	\$1
<i>Journal of Agriculture</i> , semi-monthly	\$2
<i>Plough, Loom, and Anvil</i> , monthly	\$2
<i>Horticulturist</i>	\$2

---

<sup>345</sup> RG 8, vol. 15, #173, NSA.

<sup>346</sup> McMurry, *Families and Farmhouses*, 4.

<sup>347</sup> RG 8, vol. 15, #1, NSA.

<i>Massachusetts Ploughman</i> , weekly	\$2
<i>Scientific American</i>	\$2
<i>London Art-Union</i>	\$5

Over the years, St. Mary's agricultural societies also imported new varieties of seed as well as choice livestock (especially sheep and cattle) which they made available for purchase or breeding use among members and often the wider community as well. Appointed society members travelled to Pictou, Antigonish, Halifax, and as far away as Prince Edward Island to obtain seed and livestock in order to ensure that genetic diversity was introduced into the community. Glenelg Agricultural Society secretary John A. Kirk reported that in April of 1865 the society spent \$11 in endeavouring to procure one bull (an Ayrshire) and two rams from Prince Edward Island—all "prize animals" that cost \$83.55 in total. The society decided that year that expending funds on acquiring good livestock from distant Prince Edward Island was much more important than holding an exhibition, though they resolved to spend \$100 on one the next year.<sup>348</sup>

The importation of much desired agricultural implements was another prerogative of the St. Mary's societies. In 1855, the St. Mary's society reported that during the summer and fall "agricultural implements were imported and sold at public sale. Some of these implements especially the Fann mills were much needed here and are highly prized. It is probable that a considerable portion of next year's funds will be expended in the purchase of these mills. The two last were sold for more than they cost in Halifax."<sup>349</sup> Did John Cruickshank buy his fanning mill, still sitting in the floor of his English barn today, from the local society? Indeed, implements were so much desired that in 1858 the St.

---

<sup>348</sup> *Nova Scotia Journal of Agriculture*, vol. 1, no. 11 (Jan. 1866).

<sup>349</sup> RG 8, vol. 15, #189, NSA.

Mary's society reported that it was largely inactive because all of the society's money was spent on paying the debt of a threshing machine and separator purchased from Halifax that cost £89. Yet the society reported having "no regrets for having paid so much ... It does work well and exceeds anything that was expected from it."<sup>350</sup>

Implements were also imported in hopes that local St. Mary's mechanics would be able to replicate them, thus inciting advancement in local manufacturing. William McKeen wrote in January of 1852 of his plan that year to import a Scotch plow or "such as would be recommended for breaking in new upland then we would probably use as models for our mechanics to make others by."<sup>351</sup> He continues, "I am fully persuaded that encouragement held out to our mechanics to manufacture our farming implements among ourselves would be more beneficial than purchasing those manufactured in the States such as rakes, hay forks, manure forks, and many other which proves in the using of them to be mere polished trash."<sup>352</sup> Again, part of the impetus of improvement was that Nova Scotia might achieve independence from foreign imports (especially Yankee ones).

The societies also organized public exhibitions with prizes and premiums for superior farm practices and products. The Glenelg Agricultural Society reported that their 1866 annual fair was held on October 16 at the farm of Mr. Isaac Archibald, where "good quality" livestock and domestic manufactures were shown. The society report noted that \$51.95 was offered in premiums.<sup>353</sup> In October of 1855, an exhibition of cattle, colts,

---

<sup>350</sup> RG 8, vol. 15, #190, NSA.

<sup>351</sup> Letter from William McKeen to Central Board, 16 January 1852, RG8, vol. 15, #172, NSA.

<sup>352</sup> Letter from William McKeen to Central Board, 3 December 1852, RG 8, vol. 15, #173, NSA.

<sup>353</sup> *The Journal of Agriculture for Nova Scotia*, vol 1., no. 23, (1867): 199, CIHM P04715. Retrieved from: [canadiana.ca](http://canadiana.ca)

sheep, pigs, cabbage, turnips, butter, cloths, oats, wheat, barley, and buckwheat was held in the vicinity. The animals and articles exhibited were, according to the society report, “undoubtedly good and would not lose in comparison with those of places of a higher name in the agricultural world.” However, the secretary, Simon Fraser, observed that “the interest taken in these exhibitions is not by any means what it ought to be; and it is difficult to manage them in such a way as to avoid giving dissatisfaction to some.”<sup>354</sup> The spark for improvement, then, often proved challenging to ignite, and societies could face difficulty in reaching consensus.

Table 9. Account of Monies Received and Expended by the Agricultural Society of St. Mary’s during the year 1855. The account gives a general overview of the kinds of work the St. Mary’s societies oversaw. The majority of initiatives societies focused their expenditures on throughout the years usually involved making available improved livestock breeds, seeds, and implements.

By balance from last year	23.15.3
By agricultural paper sold	0.8.9
By members subscription	10.0.0
By cash from provincial treasury	25.0.0
By cash for implements sold at sundries	53.8.1 ½
	<hr/> £112.12.0 ½
Expended as follows	
To agricultural publications including a number unpaid for from the previous year	£10.18.9
To implements purchased at sundries	61.4.2
To seeds, turnips, and cabbage	6.3.6
To premiums in 1855	12.16.7
To incidental expenses including postage Stationary	2.12.3
	<hr/> £93.15.3
Amount received in 1855	£112.12.0 ½
Balance in hand	<hr/> £18.16.9 ½

Source: RG 8, vol. 15, #189, NSA.

<sup>354</sup> RG 8, vol. 15, #189, NSA.

Agricultural societies were active much in the same ways in the district of St. Mary's through the 1860s until the twentieth century, as indicated in annual reports printed in *The Journal for Agriculture in Nova Scotia* (discontinued in 1885) and in the agricultural appendix of the Journal of the House of Assembly for Nova Scotia. However, by the 1880s, Martell observes that most agricultural societies across Nova Scotia had become "little more than co-operative livestock buying clubs."<sup>355</sup> Certainly by 1898, the only expenditures and work reported by the New Town Agricultural Society was acquiring a short-horn bull named "Forester" from Harry Stewart of Melrose for \$45.00, and paying A.W. Fraser and Wm. McKeen \$30.00 each for his maintenance over the year. Another \$4.50 was spent to shift the bull between both sections of the society, another .25 for a nose ring. The society also spent \$4.50 on a boar for breeding purposes.<sup>356</sup> Life-long farmer Robert Archibald of Newtown, born in 1928, recounted to me in an interview that agricultural societies were present in both Glenelg and Newtown in the early decades of the twentieth century. Again, their sole purpose seemed only to be that of acquiring and maintaining bulls for breeding purposes. "It was a group of farmers that formed a society, I suppose, and I think they got a grant on buying a purebred bull, and somebody kept that bull and the farmers used him," Robert relates. He figures the society stopped around 1955.<sup>357</sup>

In St. Mary's, and across wider Nova Scotia, the Central Board and its grants to local agricultural societies appear to be the most dominant influence in the work and

---

<sup>355</sup> Martell, "From Central Board to Secretary of Agriculture," 21.

<sup>356</sup> New Town Agricultural Society Report, *Journal of the House of Assembly*, Appendix no. 8 – Agriculture, 1898, 60-62.

<sup>357</sup> Personal communication, 05 December 2013.

dissemination of improvement, which was clearly a collective as well as individual effort for farmers. While improvement in St. Mary's was encouraged across a number of farming domains, especially field and crop management, and the breeding and importation of livestock, how was it materialized in barns?

### *Manure Management and The Barn*

Through the dark, damp, dank cellar in the belly of his barn, Samuel Cumminger became an active participant in the larger movement of agricultural reform and improvement that was manifested on the nineteenth-century landscape in numerous ways, but especially in the form and function of barns in relation to the management of manure. "Manuring and soil politics," as Quentin Lewis explains, "were the most important and prominent subjects of concern to nineteenth century improvers."<sup>358</sup>

Indeed, depleted soils had become a concern for mid-century farmers as their family's tenure on the farm progressed. The fertility of the virgin soil began to decline, and improvers recognized the necessity of capturing as much animal waste as possible and returning it to nourish the fields. In 1842, the Musquodoboit Agricultural Society reported that Nova Scotia soil was "imperfectly tilled and partially manured" and consequently that scanty crops were taken from the land.<sup>359</sup> Traditionally, cattle would spend the summer outdoors, grazing wild in natural meadows or in a fenced pasture. Their dung would fertilize the fields as they moved about, but it was not accumulated or distributed on the farm in a very concentrated, systematic way. In winter, cattle were

---

<sup>358</sup> Lewis, *An Archaeology of Improvement in Rural Massachusetts*, 15.

<sup>359</sup> Annual Report of the Musquodoboit Agricultural Society, 1842, RG 8, vol. 13, # 62, NSA.

stabled in the barn and their manure was shoveled outside and exposed to the elements, much as it was when it was dropped naturally around the pasturage. Sun, rain, and snow dry out manure, so that in such exposed conditions, much of its nutritive value is lost. The removal of manure from the barn also required a great deal of physical exertion on the part of the farmer, who was required to heave up above waist level a great shovel-full of dung, and then toss it out a small hatch in the wall, to accumulate in a pile against the gable end of the barn. While fertilization in one form or another was practiced since the beginning of agricultural settlement in North America, what was needed, reformers advocated, was a *better system* for dealing with manure. The solution, they argued, was through the effective accumulation and sheltering of manure in a barn cellar.<sup>360</sup>

Probably the most significant and visible way that St. Mary's farmers put the ideology of improvement into action was through the inclusion of manure cellars in their extended barns (Fig. 105). Indeed, all nineteenth-century St. Mary's barns surveyed make use of manure cellars, and they form an integral part in the design and siting of the extended form. In nineteenth-century agricultural terminology, manure was seen not just as animal excrement, but a product that was "made" over time from a variety of organic matter, both solid and liquid, found on the farm: livestock dung and urine, straw bedding, henhouse litter, kitchen scraps and waste, wood and coal ashes, yard muck, soil, shavings, the farmhouse's winter banking, and even natural bog or river mud or sediment (found along the intervalles of the St. Mary's River). In the 12 May 1880 diary entry of Maurice Harlow, a young man who lived and worked on his parent's farm in North Brookfield, Queen's County, Nova Scotia, Maurice notes that he "took away the banking from the

---

<sup>360</sup> Ibid.

house. Fenced and cleaned out the hog yard and composted the soil with the manure.”<sup>361</sup>

The house banking was probably sawdust from the family’s sawmill, and I interpret the passage to mean that this, too, was composted with the other waste matter. Often, pigs were permitted to move about the cellar in order to help “turn” or process the raw organic matter into a value-added product suitable for the field and garden.

Most farmers did not begin to really consider manure cellars until after the 1840s. As detailed in Chapter Two, it is possible that John Cruickshank Sr. was very progressive in his barn designs and incorporated a manure cellar when he constructed his pre-1840 English barn, but Samuel Cummingier certainly did not build a cellar until he extended his English barn at mid-century.



Figure 105. Typical stone retaining wall from the manure cellar of the demolished Erwin Cameron barn, East River St. Mary’s. Photo by author.

Perhaps the most crucial commodity on the nineteenth-century farm, dung was, as the April 1846 entry in Belcher’s Nova Scotia Almanac affirms, the “basis of all good husbandry” and eminently vital to all aspects of a farm’s success. The manure fertilized the crop, ensuring an abundant yield. The crop in turn nourished the cattle, producing

---

<sup>361</sup> Maurice Almon Harlow Diary, North Brookfield, Queen’s County, 1877-1886. MG 100, vol. 1300, mfm# 10,284, NSA.

more manure, and the cycle repeated year after year. As *Belcher's Almanac* declared in the same 1846 entry, the equation was simple: "dung feeds the crops; crops feed the cattle; cattle make dung." Indeed, reformers valued manure so much that they even likened it to currency. As the same Almanac offered in 1868, "Remember your manure is gold and your farm your mint!"

Manure, then, was at the center of the new farming methods being advocated by improvers. As James Ross, the experienced farmer from Rawdon wrote in his 1855 essay *Remarks and Suggestions on the Agriculture of Nova Scotia*, "the collection of manure must keep pace with improvement in every part of the system. That course is not worthy of the name whose parts do not harmoniously cooperate like the several links of a chain. ... In this department of his labours, both in collecting and distributing, the farmer has an opportunity of showing what his *real* agricultural character is."<sup>362</sup> Ross was a keen advocate for the protection of manure through cellars. He argued that sheltering manure better preserved the fluid content and fertilizing capabilities than exposure to the elements did, and he recommended that the Nova Scotian farmer "hous[e] it completely. This may be done by digging a cellar under the stable."<sup>363</sup> He observes that "one load, thus carefully protected and saturated with the fluids of the stable, will be more profitable than two, blanched by protracted exposure to the weather in winter, or deprived by evaporation in summer of those principles which can render it worthy of the name of manure."<sup>364</sup> While some objections were raised by contemporaries about the smell and damp rising up from a cellar where cattle are housed above, Ross dismisses such criticisms and instead

---

<sup>362</sup> Ross, *Remarks and Suggestions on the Agriculture of Nova Scotia*, 11.

<sup>363</sup> *Ibid.*, 12

<sup>364</sup> *Ibid.*

highlights the inherent convenience of barn cellars, noting that they save “considerable expense and labour, and, whatever tends to abridge the amount of either, is certainly worthy of serious attention.”<sup>365</sup>

While the inclusion of a cellar under the barn ensured that both pasturage and arable land were maximized in productivity through a ready supply of optimally sheltered fertilizer, economizing how manure was handled was also important because manure was so central to both the daily and seasonal round of labour of the nineteenth-century farm. For example, in the diary<sup>366</sup> of Maurice Harlow, the days’ work from mid-May to early June of 1880 was devoted to hauling manure to the fields and garden, and ploughing it in. The diary of William Porter of Centreville, in the Annapolis Valley, indicates that he spent the end of April and much of May 1900 with his father hauling manure to the fields.<sup>367</sup> Manure was also applied to fields on some Nova Scotia farms in the Fall. Further, the twice-daily removal of livestock manure, part of what Maurice Harlow simply calls “the work,”<sup>368</sup> constituted one of the first and last actions of barn-related labour a farmer performed during the day. The movement of manure was part of a continual cycle of maintenance, wherein once it left the animal, it was shoveled and tossed into the cellar. There it accumulated over the winter months, as cattle remained in the barn. At the spring thaw, the manure was turned, then shoveled, tossed, and hauled to

---

<sup>365</sup> Ibid.

<sup>366</sup> There are no known farm dairies from any period for St. Mary’s farms. Thus I rely on dairies from other parts of the province to provide insight on nineteenth-century agriculture. Queens County in the century was very similar to St. Mary’s in terms of geography and relative isolation.

<sup>367</sup> Diary of William H. Porter, Centreville, Kings County, Nova Scotia, 1895-1911, S451.5 N935 P848, NSA.

the fields where it was spread by either dung fork or later, mechanical spreader, and then ploughed into the field.

Thus, as the *New England Farmer* observed in 1842, these kinds of operations on a farm “require incessant toil; the corporeal machine must be in constant motion. How many of us can see after performing an important agricultural operation, that with a little study, we might have accomplished it with much less labour.”<sup>369</sup> Employing any kind of labour saving strategy, then, showed that the farmer could use his brain as well as his brawn in his farming operations—an important tenet of improvement. As the *New England Farmer* continued regarding the work of managing manure, “there is no more important or profitable labor on the farm, but how to do it right, requires head work as well as bodily toil.”<sup>370</sup>

Manure cellars, therefore, contributed to the convenience of managing manure in two ways. First, because manure cellars were situated directly below the cattle stabling, the farmer, with a view of convenience in mind, could simply scrape the manure down to the lower level through a removable plank that slid back on the floor, or a hatch that was raised up with a leather strap (Fig. 106).<sup>371</sup> In addition to the hatches and sliding boards for shoveling out manure, a rear door opened at the back of the barn to the intervalle fields to facilitate convenient carting (Fig. 107). Maurice Harlow briefly refers to this process when he writes on May 15, 1880 that “Zenas & I finished hauling up the manure on ¼

---

<sup>368</sup> Diary of Maurice Harlow, 5 and 12 February 1880, MG 100, vol. 1300, mfm# 10, 284, NSA.

<sup>369</sup> *The New England Farmer*, vol. 20, no. 29, 19 January 1842.

<sup>370</sup> Ibid.

<sup>371</sup> In the case of Samuel Cumming’s barn, however, where the manure cellar does not have a floor above it until the mow level, the labour was less reduced because the manure was deposited to the cellar through a series of hatches along the rear *wall* rather than *floor* of the byre.

acre and ploughed it in. As the waggon went around the barn, one wheel caught on the corner and took off a board so we had to get a ladder and nail and fix that.”<sup>372</sup> Finally, if such physical effort was required to spread manure on fields, it made sense that the farmer would want to nurture the most potent product possible. Both sheltering and making manure maximized these energies.



Figure 106. Manure floor hatch, James Fisher barn, Fisher’s Mills. Photo by author.

---

<sup>372</sup> Diary of Maurice Harlow, MG 100, vol. 1300, mfm# 10, 284, NSA.



Figure 107. Cellar door, Ross Upper barn, Waternish. Photo by author.

Agricultural societies certainly played a role in the adoption and diffusion of manure cellars across the Nova Scotia countryside. In 1842, and again in 1843 and 1844, the Musquodoboit Agricultural Society offered first, second, and third place prizes totaling ten pounds for the best-constructed barn and barnyard based on the economy of feeding and increasing and preserving manure.<sup>373</sup> The premiums seem to have offered incentive, as the society observed a considerable improvement in the collection and preservation of manure, so much so that some members reported one third—others one half—more manure than they had before the society was in operation. Constructing barns that saved manure was not confined to the members of the society, however. The president, David Archibald, observed in 1845 that “our members are all busy in constructing their buildings in a manner that will house all the manures and not only the members but those that are not members and neighbouring settlements are applying our

---

<sup>373</sup> Annual reports for the Musquodoboit Agricultural Society, 31 Dec 1842, RG8 vol. 13, #62 and 18 Jan 1845, RG 8, vol. 13, #64, NSA.

example.”<sup>374</sup> Archibald’s remarks do hold weight, because in 1851 Henry Villiers of Country Harbour—within the wider district of St. Mary’s—wrote to the Central Board of Agriculture that he had visited Musquodoboit where the barn premium was offered, and obtained and built a plan of the same prize-winning barn that was put together with “a view to economise stable manure.”<sup>375</sup> The barn measured 41x31, and was likely an English form with a cellar below, perhaps similar to John Cruickshank’s. Did the concept of a barn with a manure cellar diffuse among St. Mary’s farmers from examples like Villiers in Country Harbour?

### *Animal Welfare*

Another important way that improvement was materialized in barns was through the idea of animal welfare. One of the ways the uses of the extended English barn differed from the early English barn was in the length and duration of livestock stabling throughout the farming year, and in the quality of the conditions in which the livestock were stabled. In the settler period of English barns, many cattle and sheep were never housed, but roamed outdoors in wild meadows or in pastures, finding shelter in the woods or makeshift lean-tos (Fig. 108). The St. Mary’s Township book, an early record of the first thirty or so years of settlement, kept by an appointed clerk, offers diagrams of “cattle marks.” Unique identifying scores on the ears of cattle, they let residents know whose cow they might encounter (Fig. 109). There were also early officers in charge of ensuring that fences were maintained to high standards to prevent roaming livestock from entering house yards and gardens. Those few roaming cattle that were not slaughtered in the fall,

---

<sup>374</sup> David Archibald to Titus Smith, letter regarding the Musquodoboit Agricultural Society, 5 August 1845, RG 8 vol. 13, #66, NSA.

<sup>375</sup> Henry Villiers to Central Board, 16 April 1851, RG8 vol. 15, #196, NSA.

but over-wintered in the barn, often faced inadequate stabling conditions in what was undeniably harsh winter weather.



Figure 108. “View On St. Mary's River (In A Freshett),” in *Sketches of Nova Scotia*, by John Elliott Woolford, 1817. Nova Scotia Museum, 78.45.80. In addition to the punters, the image shows two long horned cattle freely roaming the flooded landscape.

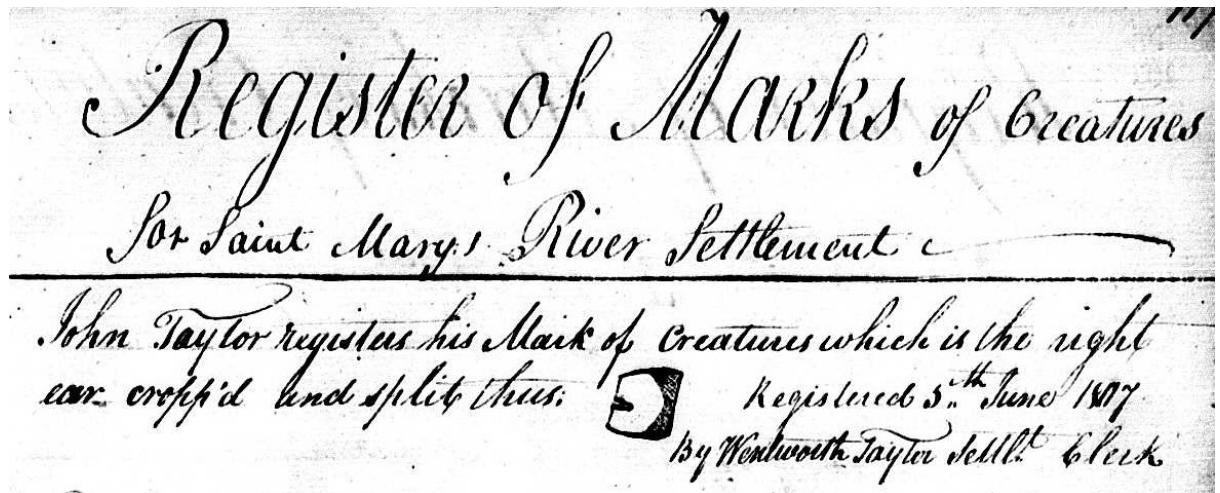


Figure 109. Register of Marks of Creatures, St. Mary's Township Book, MG 4 No. 138, NSA.

Many contemporary agricultural critics remarked on the scrawny condition of cows and the cruelty of poorly housed livestock in rough barns. Drafts from the gaps in

the vertical barn boards were one frequent criticism. Reformers argued that by providing abundant and adequate shelter for cattle, and in carefully feeding and managing livestock, farmers would maximize profits with fatter and more content cattle, thus producing more milk or fetching a higher price at market. It was therefore important that milch cows, especially, received more space in the barn, were fat, and did not roam at will, and that their stabling space was snug, secure, and well-lit. Explained the farmer M.C.P. in an issue of *The New England Farmer*:

It is a very great and beneficial improvement in building barns to have them shingled down the sides as well as the roof; the extra expense is not so much as many people are ready to imagine, as there is considerable saving to be made in the quality of boards and nails where shingling is practiced: besides it keeps a barn warm and the frame dry; therefore I think there is no loss and considerable gain in the end by shingling the sides. ... Another exceedingly convenient improvement is, having a number of glass windows (about six lights of 6 by 8 glass in each) in the side of the barn directly behind the cattle which will admit the light without admitting the cold winds and storms: there is not so much danger of their getting broken as some might think, by the cattle going in and out. I have used mine two years nearly, and not a single light has even been cracked. (The manure made by the cattle in their stalls is not thrown out of the windows, but is let down through the floor into the cellar).<sup>376</sup>

The reformed barn, then, certainly shows a growing concern for animal welfare that was achieved by larger stabling areas, windows for sunlight, and an overall tighter building through sheathing choice. Many extended barns documented in St. Mary's were altered with animal welfare in mind when their sheathing and exterior cladding were switched from vertical boards to horizontal boards and shingles applied (Fig. 110). Some

---

<sup>376</sup> "The Proper Construction of Barns," *New England Farmer*, 3 March 1841, 273-274.

later barns even show evidence of strips of birch bark employed as insulation between the horizontal sheathing boards and the shingles. Paned windows were also added to barns.



Figure 110. The Cruickshank barn, Caledonia. To the right is the original vertical board sheathing of the gable end of the barn. To the left, the vertical board sheathing, with studs, probably applied when the barn was extended. The boards on this wall are covered with wood shingles. Photo by author.

### *Material Signs of Agricultural Distress?*

Both spacious and efficient enough to meet many of the demands of modern agriculture, double English and other extended barns continued to be used, further altered, or newly constructed into the early twentieth century. Tom and George Ross, for example, built new following a five bay extended plan, with the tie-beam below post framing system when they re-designed their Waternish farmstead in a duplex pattern around 1903, as suggested by their father's probated will.<sup>377</sup> Adam Gunn's barn in East River St. Mary's was also probably built new in the double English design in the first

---

<sup>377</sup> RG 48 mfm# 22,733, NSA

years of the twentieth century. A 1903 community newspaper column for East River St.

Mary's reveals:

Adam Gunn (Klondiker) has just completed the carpenter work on his barns, which are no doubt a credit to have in the community. Prospects are that Mr. Gunn is going to settle down in life. But not alone.<sup>378</sup>

Though Gunn's barns are no longer extant, this circa 1955 or 56 image of the rear view of his West Side East River St. Mary's farmstead indicates one double English plan barn of approximately seven bays (Fig. 111).<sup>379</sup> Adam Gunn was a prominent figure in his community, and was mentioned in oral history interviews I conducted with both Robert Gunn and the late Harold Greene of the same community. He had journeyed with his brother, Alexander, to the Klondike gold rush in the late 1890s and achieved prosperity not in prospecting, but, more wisely, in trading horses and supplies. Together with Alexander and brother-in-law C.W. Anderson, he founded the successful Scotia Lumber Company around 1906, an important lumbering and shipbuilding firm in the village of Sherbrooke. Even though Gunn had substantial financial means, he clearly opted to eschew the latest barn designs—gambrel roof line, ground level stabling—for a more local, traditional form.<sup>380</sup>

---

<sup>378</sup> *The Eastern Chronicle*, 5 January 1903, pp. 4. col. 2.

<sup>379</sup> My interpretation here is speculative, as the barn in the image was torn down about 15 years ago, undocumented (it last belonged to Gordon and Anna Cameron). I am not sure when the other barn mentioned in the newspaper column was destroyed, or if the writer was referring to a horse barn or one of the other farm outbuildings visible in the photograph.

<sup>380</sup> It is likely, however, that he in part employed lightweight, machine sawed framing held together with nails. Because the barn is no longer extant, I cannot determine the characteristics of its construction.



Figure 111. View of West Side, East River St. Mary's, with the Adam Gunn barn and farmhouse. The main road runs parallel to the barn. The rear of the barn faces the main road, and the intervale fields beyond. Circa 1955 or 56. From a photo album compiled for the Women's Institute by Isabel Archibald. Image courtesy the Archibald family and Sherbrooke Village Restoration.

However not all St. Mary's farmers were as architecturally conservative as Adam Gunn in their building choices. Many embraced new expectations for the look and design of their barns as they entered a new century and a rapidly changing world of agricultural production, reflected in both mechanization and specialization. By the twentieth century, most Nova Scotia's farmers used labour saving machinery, rotated their fields, and fertilized their crops not only with organic barnyard manure, but also non-organic mineral and phosphorus fertilizers. A cheese factory had been established in East River St. Mary's, as dairy processing moved from the domestic realm of the farmhouse kitchen ell to centralized, commercial creameries. The staccato of a hay mower pulled by a high stepping team of horses was a familiar sound echoing up from the St. Mary's intervalles. The ideology of improvement had certainly been persuasive, the transition to rural capitalism far-reaching.

In addition to the impetus of mechanization and specialization, urban growth in the last half of the nineteenth century meant a larger domestic market. As a result, Nova Scotia experienced its most productive, successful years of farming around the turn of the century. By the 1891 census, almost half of Nova Scotia's land area was listed as "occupied farmland," fifty-two percent of the province's labour force was working in agriculture and there were 60,122 farms in the province—double the number counted in the census of 1851.<sup>381</sup> As Robert MacKinnon maintains, "by whatever measure one chooses – number of farms, amount of occupied and improved farmland, farm employment – Nova Scotian agriculture reached its peak in the 1890s."<sup>382</sup> Farmers, experiencing continued success on their farms and still others facing the unfortunate destruction of their older barns by fire or lightening, were compelled to build anew. They chose alternative forms that reconsidered the spatial and structural designs of the barn, aligning it with both modern principles of building construction and new ideas of animal husbandry. Farmers hoped, no doubt, that building innovative barns would move their farm forward, ensuring continued prosperity and longevity. For even though the province had grown in agricultural capacity, not all farms successfully made the transition to rural capitalism: it was costly to build or purchase the infrastructure necessary to mechanize and specialize. There were also signs of distress in the wider provincial economy, and competition from farms in Ontario and the developing West proved a real challenge for Nova Scotia farmers. Rural to urban migration was unwelcome, but common; outmigration, however, was devastating.

---

<sup>381</sup> MacKinnon, "The Historical Geography of Agriculture in Nova Scotia," 131.

<sup>382</sup> Ibid.

Patricia Thornton has estimated that 49,000 people left Nova Scotia between 1881 and 1891, while another 46,000 between 1891 and 1901.<sup>383</sup> St. Mary's was no exception to this wave of outmigration, and the river valley farms were the worse for it. In fact, Guysborough County, so geographically isolated from urban centers and without a rail line, displayed the greatest net migration ratio of any county in the Atlantic region between 1911-1921.<sup>384</sup> According to Timothy Archibald, between 1881 and 1921 Guysborough County lost 36% of its total population.<sup>385</sup> Many young people left to homestead in the expanding Canadian or American West, others to labour in factories or build businesses in New England manufacturing towns like Providence, Rhode Island. As the writer of *The Eastern Chronicle's* news column for the community of Blue Mountain, Pictou County (within the wider region of St. Mary's) lamented: "there are now seventy young men and women who have left Blue Mountain for the United States, within a few years. In the same time, four farms have become vacant and only ten of our young men have settled here. Would some of our politicians be kind enough to tell us why it is that the Dominion of Canada cannot support her own sons and daughters."<sup>386</sup> The plethora of old photographs I encountered in my research from portrait studios in Providence speak to the concentration of emigrant St. Mary's people within that place. The tables below outline the ultimate decline of population in the decades after 1881:

---

<sup>383</sup> Patricia Thornton, "The Problem of Out-Migration from Atlantic Canada, 1871-1921: A New Look, *Acadiensis* 15, no. 1 (Autumn 1985): 32.

<sup>384</sup> Patricia Thornton, "Some Preliminary Comments on the Extent and Consequences of Out-Migration from the Atlantic Region, 1870-1920," in *Merchant Shipping and Economic Development in Atlantic Canada*, ed. Lewis R. Fischer and Eric W. Sager (St. John's: MHG, 1982), 213.

<sup>385</sup> Archibald, "A Question of Staying or Leaving," 2.

<sup>386</sup> *Eastern Chronicle* 26 February 1891, pp. 5 col. 2.

Table 10. Population by district, 1851-1901.

District	Total Population					
	1851	1861	1871	1881	1891	1901
<b>Forks</b>	no data	1162	1356	1411	1284	1116
<b>Caledonia</b>	—	—	237	376	214	268
<b>St. Mary's, Pictou Co.</b>	595	775	936	951	831	687

Source: Canada Census Manuscripts for St. Mary's & Garden of Eden, 1851 NSA mfm# 13588. Report of the Secretary of the Board of Statistics of the Census of Nova Scotia, 1861. Canada Census Summaries, 1871-1901.

Table 11. Number of occupiers of houses by district, 1851-1891. Occupiers refers to the number of dwelling houses actively being lived in, not the number of families in the district. However, the number of families is frequently the same number as dwelling houses inhabited. Only a few families, no doubt multi-generational, share the same house in each district. \*Records do not survive for 1851 census returns for Guysborough County.

District	No. of Occupiers				
	1851	1861	1871	1881	1891
<b>Forks</b>	no data*	188	217	154	166
<b>Caledonia</b>	—	—	43	65	38
<b>St. Mary's, Pictou Co.</b>	101	127	146	153	138
<b>Nova Scotia</b>	41 455	49 569	62 501	74 154	79 102

Source: Canada Census Summaries, 1871-1901; Report of the Secretary of the Board of Statistics of the Census of Nova Scotia, 1861 (Includes district, county, and provincial figures for 1861 census and some comparative figures for 1851); "Appendix 94 [Final Report of the 1851 Census]." *Journal and Proceedings of the House of Assembly, 2nd Session 1851, April 3, 1852*. Halifax, NS, Richard Nugent, 1852, p. 417-435.

Perhaps the largest obstacle for St. Mary's farmers was the ultimate failure in establishing railway access through Guysborough County that compounded marginalization and underdevelopment in the region. Although local residents continually pushed for a railway at all levels of government, and a partial line was laid in the 1930s, no train ever rolled into St. Mary's.

Census returns indicate that entering the last decade of the nineteenth century St. Mary's farms, like those in the rest of the province, were producing more per acre than

they ever had. However, agriculture in the region was, on the whole, contracting.<sup>387</sup> We can see this contraction in barns. While additive forms of barns, like the double English plan, were numerically more common than subtractive forms throughout the mid-nineteenth century, by the final period of Phase II barn building nearing the end of the nineteenth century, the elimination of bays is evident as farming retracted. This retraction can be demonstrated in the William G. Cruickshank barn.

*The William G. Cruickshank Barn: From Extensive to Intensive Building*

By the late 1880s St. Mary's timber-frame barn building was a tradition in transition. As previously discussed, industrialized milling techniques, like dimensional framing, increasingly influenced the way barns were constructed. While old forms certainly continued, their building technology evolved. William George Cruickshank's barn on the Black Brook Road in East River St. Mary's is a good example of the merger of traditional form with modern construction techniques (Figs. 112 & 113). A miller by trade, Cruickshank moved to the area in the Fall of 1888, and probably built his barn in the same year or the next. His modest house soon followed. A line in the *Eastern Chronicle's* community column for East River St. Mary's in early 1889 remarks on Cruickshank's arrival to the area:

George W. Cruickshank, formerly of West River, Caledonia, has bought the Grist Mill owned by Robert Gunn, and is doing good work. George is a first class miller and should be patronized.<sup>388</sup>

---

<sup>387</sup> See MacKinnon, *A Historical Geography of Agriculture in Nova Scotia*, 1981.

<sup>388</sup> *Eastern Chronicle*, 14 February 1889, pp2, col 7.

The grandson of John Cruickshank Sr., who built the Phase I English barn in Caledonia discussed throughout this chapter and the preceding one, William left the farm he was raised on and turned to milling and subsistence farming to support his family. The homestead he set up in East River St. Mary's is only about twenty acres—a sliver cut from the much larger farm of Robert Gunn, who shared a dam site on the Black Brook with his brother and neighbor, McConnachie; Robert milled grain while McConnachie milled logs. Cruickshank undoubtedly purchased the property for the mill site and dam access. Whether he milled grain initially, I do not know, but he proceeded to transform the gristmill site into a modernized sawmilling operation with a steel turbine and circular sawblade. As an emerging sawmiller in a new era of technology, W.G. Cruickshank's barn construction choices reflect his participation in industrialized lumbering, because his barn is framed using dimensional lumber (the lumber for part of the barn was sawn with a vertical saw, however, possibly from McConnachie Gunn's operation).

Cruickshank's barn building choices differ from his grandfather's English barn and father's expanded English barn. He was familiar with the three bay "mental template" of the English barn he would have grown up working in but, as a miller, Cruickshank had little use for a barn as large as his father's. His small stead of twenty acres was not ideal for farming: it was on a steep hillside and without intervalle access. He directed his attentions to his dam and his expanding sawmilling business, acquiring small woodlots in the vicinity for both firewood and lumber access. Taking advantage of the naturally sloping farm, and familiar with his family's own barn siting in Caledonia, he built a small, two-bay side-hill structure, with one bay allocated to a threshing floor, and the other bay divided in half as a small hay mow and byre. The plan is subtractive, as one bay

of the three-bay English mental template has been removed, and a small, two bay asymmetrical barn (**rb**) formed. A third bay was added later, primarily for storing wagons and hay above, making the barn more symmetrical (**rbr**). This addition was probably after Cruickshank had set up his turbine circular saw mill, as the joists, studs, and boards in the addition are circular sawn.

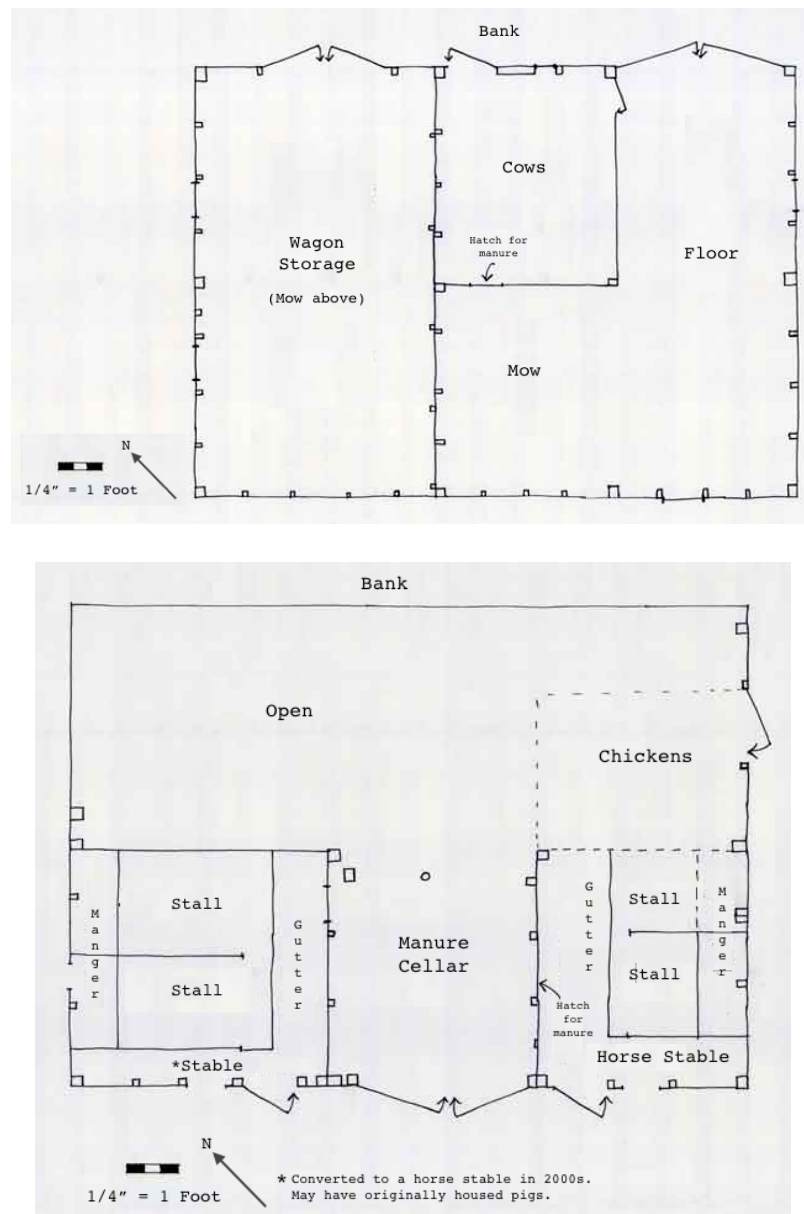


Figure 112. W.G. Cruickshank barn, East River St. Mary's. Upper level (above). Basement level (below). Plan recorded by author and Maggie Sutherland. Re-drawn by author.

W. G. Cruickshank's barn makes use of the cellar level to stable specific animals. In the barn, the cattle byre is in the upper level, with a manure cellar directly below. Horses (as well as smaller livestock like sheep, pigs, and in later periods even hens, according to oral history) were stabled in the cellar level directly below the threshing floor bay. A hatch opens from the floor level in order to pitch hay directly down into the horse's manger. It is important to mention here that one other late period documented barn, the George Fisher barn (ca. 1890s to early 1900s), which also employs dimensional framing, incorporates cellar-level stabling into its plan. Such barns are transitional forms not just because they employ dimensional framing, but because it was not until the middle decades of the twentieth century that St. Mary's farmers began to widely adopt barn designs that allocated the full length of the barn's cellar (by then cement) to housing both large and small livestock. While sheep and pigs were occasionally sheltered in the cellar levels of Phase II extended barns, larger livestock—both horses and cattle—were exclusively kept in the upper level of the barn. In this regard, the plan of the W.G. Cruickshank barn is not unlike the Pennsylvania style bank barns mentioned at the beginning of the previous chapter.



Figure 113. W.G. Cruickshank barn, East River St. Mary's. The side-hill siting is clearly evident in this image. The structure is the only extant 19<sup>th</sup>-century barn remaining in this particular community. Photo by author.

A hybrid barn form, Cruickshank wanted the benefits of a manure cellar that extended barns like his father's entailed, but he clearly sought to build a spatially compact unit of only two, and later three, bays. In the basement level of the barn, Cruickshank excavated the requisite manure cellar under the cattle who were housed above, but he broke with tradition when he chose to stable his team of horses in the lower level of the barn. Again, Cruickshank's barn is framed following the post-1880 tie-beam-below-post assembly, and the barn's posts, bracing, plates, rails and so on are all mill sawn, rather than hand hewn. The barn is also framed with 3x5 studs, sheathed in horizontal boards and shingled, with a layer of birch bark for insulation. Was Cruickshank's barn progressive in its design and construction, or an indication of the need to build a small barn that maximized space by optimizing the cellar level through stabling?

Although employing cellar-level stabling and dimensional framing in late 1880s St. Mary's was indeed progressive, W.G. Cruickshank's small, two bay barn is probably indicative of the beginning of a contraction of agriculture within the St. Mary's region. The transformation of subsistence-oriented to specialized commodity production like dairying was slow and incomplete for St. Mary's. Despite the economic stimulus of gold, that industry was relatively short lived, waning in the 1890s. Cruickshank likely saw that farming in rapidly de-populating Caledonia was not a viable option, and so he turned his ambitions to sawmilling in East River St. Mary's. The Cruickshank's had always milled, but in the case of William, it eventually subsumed any agricultural endeavour. His small, two bay barn that housed a couple cows for the family's milk, a team for the wagon, and the hay to feed this trifling stock, was even smaller than what his grandfather had first built when he settled the densely forested backwoods of Caledonia in the 1830s. W. G. Cruickshank's little barn on the Black Brook Road was perhaps the first material sign of agricultural distress in St. Mary's.

#### *Conclusion: Materializing Improvement in Nova Scotia's Rural Landscape*

This chapter has explored the second phase of barn building in the St. Mary's River valley as reflective of the age of agricultural improvement and capitalistic, market-oriented enterprise. I examined how a shifting economy as well as the cultural logic of improvement impacted barn building and design, demonstrating how the materiality of barns indicates a significant cultural shift in regards to farming in St. Mary's communities in the middle decades of the nineteenth century. The shift towards rural capitalism had been in the making for the past few decades across the rural Nova Scotia countryside as

ideas changed about just what a farmer should be and how a family should run their farm. The ideology of “improvement” helped facilitate the rise of capitalistic, market-oriented agriculture and the necessary material and spatial restructuring on the nineteenth-century St. Mary’s farm. As Quentin Lewis argues, improvement was an important “language and set of practices for implementing the rural transition to capitalism.”<sup>389</sup>

The development of industrial enterprises such as gold mining opened up new markets for agricultural products, which in turn helped grow the rural economy. The agricultural reform movement, and with it, new means of distributing agricultural information through venues like societies, exhibitions, and periodicals, as well as an increase in the capacity of farmers to access mechanized equipment, all impacted the way farm life and work was organized, especially concerning crucial structures like barns. The burgeoning world of rural capitalism coupled with the progressive ideas and methods of agricultural improvement, had significant material implications for the St. Mary’s barn. As Cynthia Falk has observed for this period of agricultural history, the rural built environment responded to both reflect and make possible new ways of agricultural production and organization, and the new expectations and procedures for farming that emerged “required new types of buildings”—buildings like extended barns.<sup>390</sup> Reforming barns through extension, expansion, and the integration of manure cellars presented opportunities to manage the farm in ways more aligned with the discourses of improvement. Indeed, by the mid-nineteenth century, the farmers of St. Mary’s had begun

---

<sup>389</sup> Lewis, *An Archaeology of Improvement in Rural Massachusetts*, 5.

<sup>390</sup> Falk, *Barns of New York*, 22.

a great material re-structuring of their rural landscape to accommodate this pervasive and persuasive idea.

In his study of Southern Ontario barns, Peter Ennals remarks that Upper Canadian farmers “demonstrated a remarkable penchant for investment in buildings,” suggesting that they viewed their barns as symbols of status.<sup>391</sup> Certainly, in St. Mary’s as in Ontario, farmhouses followed a similar sequence to barns in rebuilding and reform, which further emphasizes the significance of buildings in understanding the lives and attitudes of nineteenth-century farm families. By the 1860s, St. Mary’s farmers were shaping their domestic sphere as much as their barns to conform to the ideals espoused by improvers: fenced yards with ornamental trees and gardens; house plans that incorporated kitchen ells to efficiently separate food and dairy processing from the more formal parlour and sitting rooms; proportioned center and side hall plans without the old-fashioned cooking hearth; and the latest Classical and Gothic Revival styles trimmed doors and windows, fascia and cornerboards, creating a powerful social façade that proclaimed to the passerby that the farm family had taste (Fig. 114). This suggests that houses as well as barns were becoming influential, visual tools in the work of improvement. More research is thus needed to understand St. Mary’s farmhouses, as well barns, in the context of improvement.

---

<sup>391</sup> Ennals, “Nineteenth-century Barns in Southern Ontario,” 268.



Figure 114. McConnachie Gunn house, East River St. Mary's, built on the side-hall plan circa 1873. The house epitomizes nineteenth-century agricultural reform in St. Mary's. Note the kitchen ell and conveniently adjacent woodshed, the elements of Classical style, and the tasteful fenced garden near the formal front door, beneath the parlour window. Not long after this image was taken, a fashionable verandah was added to the ell. Image courtesy the Cunningham family.

Agricultural societies and their progressive members endorsed innovation in the plan and arrangement of barns. The growing momentum of agricultural improvement across Nova Scotia undoubtedly played a role in the barn designs that emerged after mid-century. While prescriptive literature offering advice on farm architecture was published more widely in New England than in Nova Scotia, there was nonetheless concern among local reformers involved in regional agricultural societies to design the best structures possible. As this chapter shows, we need look no further than the materiality of barns themselves to recognize that they underwent an intentional process of revaluation in mid-century St. Mary's that altered their form, appearance, and spatial functions, and which brought them in line with the key ideology of improvement: order and convenience, especially in regards to the accumulation of manure.

Improvement is by no means an entirely new avenue of historical research on the nineteenth-century Nova Scotia countryside. The particular forms of economic, political, and social organization that enabled improvement to be the defining social discourse of the period have been documented most prominently in the context of Nova Scotia in the work of Daniel Samson.<sup>392</sup> However, there has been, to my knowledge, no analysis of the material dimensions of this period of agricultural reform in Nova Scotia, despite very blatant evidence on the landscape of a great re-building of both barns and farmhouses beginning roughly at mid-century. Scholars have largely failed to explore what reforms Nova Scotia's farmers actually put into practice on their farms from the most widespread, available, and democratic indicators of intention: farm buildings. This chapter, in contrast to the majority of research on agriculture in Nova Scotia, has explored how farmers actually adapted and modified their barns to align with changing expectations of farm success in the reality of capitalistic systems of farm production. It has examined how improvement, as both an ideological concept and a *tangible practice*, was negotiated on the St. Mary's farm.

The leading historical geographer Graham Wynn has considered local improvement literature and the formation of agricultural societies, suggesting a seemingly negligible impact on the efforts of farmers to improve their land and systems of husbandry in nineteenth-century Pictou County.<sup>393</sup> He suggests that despite a popular rhetoric of reform throughout pre-confederation Nova Scotia, the expectations of improvement were unrealistic for most Nova Scotia farmers to actually implement. He

---

<sup>392</sup> Samson, *The Spirit of Industry and Improvement*, 2008.

<sup>393</sup> Wynn, "Exciting a Spirit of Emulation," 1993.

has suggested that improvement, especially stabling livestock and the “burden of manuring” were too prohibitive in time and cost, and that most farmers could not risk trying new schemes, that, in the end, were inappropriate for Nova Scotia farming conditions. Even the most progressive farmers—the rural elite who frequently made up improvement societies—“made clear the inappropriateness of much reform doctrine to Nova Scotian circumstances by failing to make their own farms profitable models of reform practice.”<sup>394</sup> His analysis indicates that farm returns for agricultural society improvers were no different than other farmers. Wynn surmises that the agricultural reform movement in a place like Pictou County provided only a “scattered fora, in which small groups of enthusiasts could preach to equal numbers of converts ... [B]eyond the narrow confines of their membership ... their impact was severely limited.”<sup>395</sup> The elitist and scientific overtones of the agricultural reform movement, he suggests, fostered an attitude of ambivalence towards improvement amongst ordinary farmers and the advice of improvement promoted by agricultural societies—often avenues for government largess for a few leading farmers—had limited impact on the nineteenth-century landscape.<sup>396</sup>

This chapter has shown, in contrast, that materially at least, the “logics, ideologies, and moralizing tendencies”<sup>397</sup> of improvement were more widespread than Nova Scotia’s rural historians have acknowledged. A close look at the rural built landscape reveals that a great many rural Nova Scotians, just like our farmers in St. Mary’s, built barns of improved designs with new spatial and functional expectations in

---

<sup>394</sup> Ibid., 51.

<sup>395</sup> Ibid., 50.

<sup>396</sup> See also Samson, *The Spirit of Industry and Improvement*, 61.

<sup>397</sup> Lewis, *An Archaeology of Improvement in Rural Massachusetts*, 5.

the decades after 1850. As Lewis contends, the diffusion of improvement extended “far beyond what its presence in publications and agricultural societies might suggest.”<sup>398</sup> As evidenced from St. Mary’s barns, buildings are “vital indexes” to understanding a community. Buildings, as Bernard Herman maintains, are “the results and therefore the signs of what a community values and believes in.”<sup>399</sup> They express intention. For St. Mary’s farmers, that intention was to be progressive.

Granted, improvement’s rhetoric overestimated its own potential, at times nauseatingly so. Most writers of prescriptive literature had no practical experience in the day-to-day reality of farm labour, nor understood just how hard it is to “improve” a farm when you did not have much capital to begin with. As Grace Maffei notes, advice literature “needs careful handling—it cannot be taken as direct evidence of past experience; it is not a record of what people actually did.”<sup>400</sup> It is still of value, however, and she suggests that prescriptive literature and reform movements circulate “real ideals” that can be normative. These normative ideals, shared by members of a society, “prescribe desirable behaviours and consumption practices.”<sup>401</sup> What matters in the case of St. Mary’s is how farmers actively negotiated the idealized landscapes of improvement for themselves, and how they came to terms with the swirl of ideas concerning agriculture that were circulating around them. St. Mary’s barns are a convincing indication that while we cannot accept improvement literature at face value, we should also not be so quick as

---

<sup>398</sup> Ibid., 6.

<sup>399</sup> Bernard Herman, “Multiple Materials, Multiple Meanings: The Fortunes of Thomas Mendenhall,” *Winterthur Portfolio*, 19, no. 1 (Spring 1984): 68.

<sup>400</sup> Grace Maffei, *Design at Home: Domestic Advice Books in Britain and the USA since 1945* (London: Routledge, 2013), 2.

<sup>401</sup> Ibid.

to dismiss the underlying ideas behind it, and how they impacted the material life and landscape of the farm.

Acting as an individual, but also within a wider community consensus of collective intention and tradition—that shared notion of design aesthetic and spatial preference drawn from experience—farmers like Samuel Cumminger ordered and built their barns. As staunch Presbyterians and as active participants in their Victorian world order, St. Mary’s farmers valued system and thrift, sobriety and toil, and this shaped their understandings of what it meant to be successful, competent farmers in a dynamic period guided by ideas of reform, improvement, modernity, and capitalism. Their barns demonstrate in observable, tangible ways how their ideas regarding improvement and “good” farming were transformed into their every day, material lives.

## Conclusion

---

Two phases of barn building that reflect two architectural typologies were identified from my fieldwork in St. Mary's. Phase I, The Early Barn (c.1800 - mid-century) represents the earliest, settler barn form on the St. Mary's landscape. Of New England origin, the three-bay English barn type expresses both the spatial requirements and economic realities of the early St. Mary's mixed farming system. Phase II, Reformed Barns (c.mid-century - early 1900s) can be considered the peak period of barn building in St. Mary's, when the region experienced moderate agricultural growth due to varying factors, including an emphasis on animal husbandry and dairying and the economic stimulus of gold mining within the district. The period represents innovation in traditional design through a process of extension, and the development of a popular regional barn type, the double English, that had its origins in the progressive ideals of agricultural reform. Nearly all of the extant nineteenth-century barns documented in St. Mary's reflect this period of building. The latest barns in this phase are transitional forms, fusing traditional construction techniques like mortise and tenon joinery and the bay system with industrial era sawmilling practices like dimensional framing. By the close of the nineteenth century, however, barn building contracted as some barns decreased in length and reoriented in plan to become more compact. Barns transitioned from extensive objects to intensive objects, signaling the beginning of agricultural decline in St. Mary's.

It is important to acknowledge here that not all barns I examined fit neatly within each phase identified. In fact, many buildings are transitional, adopting features from

different phases. For example, some phase II barns incorporate cellar-level livestock shelter, which is a feature common in twentieth century barn building practices in Nova Scotia. I attempted to address this complexity throughout the chapters, but it is important to remember that building chronology is not always linear. Further, it is important to consider that there was more variety in barn plan and design throughout the nineteenth and early twentieth centuries in St. Mary's than this thesis has suggested. I could only examine the thirteen nineteenth and early twentieth-century barns that physically remain on the landscape; this is a small percentage of the numerous agricultural buildings that once dotted the St. Mary's River valley. I have seen historic images of barns, long demolished, that do not conform to the barns I have outlined in this thesis: a barn that has a full masonry cellar, another with a gambrel roof and hay hood and so on.

Nevertheless, the material, photographic, and oral history evidence I examined suggests that extended English barns were the most prevalent type of barn form in the region since the mid-nineteenth century, and that most farmers worked within a tradition of consensus in their barn building choices. We just simply cannot know the full richness of diversity in the landscape when the material record is so sparse, but this should not preclude architectural investigations, as a single building example can be a rich and complex source of historical and cultural information.

This thesis set out to explain the cycle of transformation in nineteenth-century St. Mary's timber-framed barns. As Bernard Herman explains, expressive culture (including the material) is at once fluid and constant, so that cultural artifacts like barns are "always subject to a reordering process that provides a combination of immediacy, cohesion, and

relevance.”<sup>402</sup> In St. Mary’s, barns were subject to this process of reinterpretation and revaluation at the mid-nineteenth century, when the early English barn form was manipulated in a lateral extension, doubling in size to increase the processing, storage, and sheltering faculties of the barn. There were varied reasons for architectural renewal in St. Mary’s throughout the nineteenth to early twentieth century. Shifting economies and industrial technologies certainly impacted the way barns looked as the farm family transitioned to rural capitalism, but changing attitudes towards animal husbandry and the work of farming were also significant factors. The emergence of modernity and the social discourse of agricultural reform and improvement were powerful movements on the rural landscape, and probably more influential, material evidence suggests, than Nova Scotia’s rural historians have acknowledged.

Barns are prime indexes of agricultural landscapes. As Small observes, the barn can “serve as both evidence of, and tool for, financial success.”<sup>403</sup> Barns also provide a tangible indication of the extent to which the cultural appropriation of an abstract principle like improvement is received. Probate inventories for St. Mary’s reveal that real estate (land and buildings) was the most valuable portion of a farmer’s estate. When Samuel Cumming’s will was probated upon his death in 1881, the homestead farm (including buildings and land) and 167 acres of wilderness land near Fisher’s Mills, was valued at \$260. His meagre personal possessions—one bureau, one table, one bedstead and bedding, and an old wagon—were valued at \$22.<sup>404</sup> Thus as J. Ritchie Garrison maintains, on a “small or large scale, farmland and buildings represented a considerable

---

<sup>402</sup> Herman, *Architecture and Rural Life*, 129.

<sup>403</sup> Small, *Beauty & Convenience*, 91.

<sup>404</sup> RG 48, estate files A1-A26, 1855-1882, mfm # 22 729, NSA.

investment in modification to the landscape, in labor, and in equipment.”<sup>405</sup> To alter the barn or to build anew was not just a financially expensive undertaking, but one that cost in both time and labour. Trees needed to be felled and finished, large amounts of soil needed to be excavated to construct manure cellars, foundation stones moved to the site, craftsmen hired, neighbours recruited, and the farm family’s own labour redistributed from other important areas of domestic and farm work to the building endeavours. We therefore gain a fuller picture of the intent to adopt or invest in ideologies like reform and improvement, and begin to understand the heightened competition of capitalist agriculture at mid-century that fueled farm change, when we examine the material record of barns. As Sarah Tarlow observes, “landscapes and material culture in [the nineteenth century] were both the results and instruments of improvement.”<sup>406</sup> It is for this reason that St. Mary’s barns provide a meaningful indicator of cultural change and adaptability at mid-century. We can begin to differentiate what is real and what is simply rhetoric where reform is concerned when we examine the material evidence of barns.

Unfortunately, rural historians often neglect the evidence of the built landscape—the addition of a few bays or the digging of a new manure pit—as evidence of the hopeful actions of ordinary folk. The idea of improvement was not so distant in the minds of St. Mary’s farmers, who clearly transformed their built landscape to align with the values of reform. The work of improvement was a serious undertaking, and St. Mary’s farmers collectively transformed their built landscape in the period after mid-century. They deftly

---

<sup>405</sup> Garrison, *Landscape and Material Life*, 116.

<sup>406</sup> Tarlow, *The Archaeology of Improvement*, 13.

built their landscape to succeed when the right markets were presented. Barns were powerful instruments in the processes of farm change and reform.

Barns, therefore, offer several statements about the history and development of agriculture in Nova Scotia. First, St. Mary's timber-framed barns demonstrate the ways that farmers came to terms with the swirl of new ideas and choices surrounding them. To be sure, some St. Mary's farmers were skeptical of agricultural reform, of new methods and rules for order unfamiliar and often untested in local contexts. In 1854, Rev. John Campbell, the Secretary of the St. Mary's Agricultural Society, bemoaned the signs of improvement as "deplorably few."<sup>407</sup> Other St. Mary's farmers thought periodical subscriptions were a waste of money. But in the wider Victorian world, perceptions of farming success were increasingly defined by the adoption of improving discourses, and St. Mary's farmers had to find their place in this new domain; they had no intention of being left behind. But most reformers advocated the abandonment of tradition, and St. Mary's farmers looked to find a middle ground, where modernity could be negotiated on their own terms. They were progressive, but perhaps cautiously so.

While St. Mary's farmers listened to improvers and showed their ideological and economic progressiveness by embracing key agricultural reforms like manure cellars, unlike neighbouring New Englanders and Upper Canadians, they did not build new barns on new plans or raise their old barns onto basements. Instead, St. Mary's farmers preferred a more architecturally conservative route, but a route, in the end, that was easier, cheaper, and probably smarter than building a new barn or raising one up to build

---

<sup>407</sup> Report of the Agricultural Society of the District of St. Mary's, 1854, RG 8, vol. 15 #186, NSA.

basement stabling below. The double English barn and the multiplying of bays allowed St. Mary's farmers to solve their problem—modernity—without moving beyond their tried and tested building tradition. The barn permitted farmers to use the set of design rules that made sense to them, that looked and felt “good,” but were flexible enough to adapt to new agricultural ideas and values. Agricultural practices could become progressive, modern, while architectural forms continued the old, traditional vocabularies. “Without a cultural balance and coherence,” writes Bernard Herman, “buildings can become too radical, can fail to convey the message they were designed to communicate, and may even confound the social interactions they were intended to channel.”<sup>408</sup> Extended English barns therefore offered St. Mary's farmers cultural balance and coherence, while at the same time the flexibility to embrace some of the new ideas of reformed farming. Manure cellars, for example, were an altogether novel addition to the plans of St. Mary's barns, and such features were directly related to the rhetoric of reform. The extended barn, then, was a form that exhibited characteristics of both long standing tradition and the new influences of improvement and modernity.

The English barn did not become functionally obsolete in St. Mary's; rather it was adapted through extension for changing expectations of productivity and market engagement, indicating that St. Mary's farmers were reluctant to abandon traditional forms. St. Mary's barns are therefore an example of a persistent but flexible cultural building tradition. In fact, the early English barn may have even anticipated the major changes that would occur in agriculture, and was thus designed with the intent to be

---

<sup>408</sup> Herman, *Architecture and Rural Life*, 131.

expanded as time and resources permitted. Indeed, as farming in St. Mary's underwent a period of significant reform, this was both reflected in, and facilitated by, the design of the barn.

Most farmers are concerned with leaving their farm in a better state than the one in which they first acquire it. Many nineteenth-century reformers strived for this balance between practicality and science in their approach to improvement, looking to incorporate aspects of the old with the new. The working combination of science and first-hand experience led to a better-managed farm according to reformer James Ross, who wrote, "[w]hen science and practice are united, they work admirably together."<sup>409</sup> Innovation and conservatism, then, were not necessarily opposing poles; many farmers clearly accepted innovation in order to remain in their traditional occupations. The (re)ordering of barns is reflective of a constant desire for a stewardship that succeeds. For St. Mary's farmers, this meant keeping in momentum with modernity while not forgetting the lessons of the past.

While St. Mary's did experience agricultural growth after the mid-nineteenth century, like other regions of Nova Scotia, farming failed by the beginning of the twentieth century. Ultimately, disappointment shrouded most farms as they did not live up to the promise the extended barn offered. The system of small scale, mixed farming and occupational pluralism that defined many farms across Northeastern Nova Scotia was simply not viable in the new, increasingly mechanized and specialized system of capitalistic agriculture. Combined with an unfavourable growing season, such farms

---

<sup>409</sup> Ross, *Remarks and Suggestions on the Agriculture of Nova Scotia*, 11.

could never compete with steads in Ontario and the expanding West. The nineteenth-century pessimists who viewed Nova Scotia, to quote the reformer James Ross, as “doomed to remain without any agricultural reputation,”<sup>410</sup> were right in the end. Farming today only continues to decline across the province.

Bernard Herman has suggested that architecture is an anticipatory domain. As he explains,

In architecture—which requires a large expenditure of resources and long term financing and which is meant to be permanent—we discern an anticipatory domain. [Buildings] are frequently built at the threshold of success rather than at its fulfillment. They anticipate a condition within the values and beliefs of a particular culture or community and, therefore, stand as signs of such values and beliefs.<sup>411</sup>

In other words, architecture is not always temporally specific. Rural mid-century St. Mary’s was arguably at a threshold of agricultural opportunity, and reformers rightly sought to capitalize on the moment, to push the country forward to independence and success, to build momentum for modernity. Even though in 1871 Samuel Cumming was not cultivating as much land and producing as much agricultural returns as his neighbor, Samuel Archibald, he nevertheless had a barn of the same plan and dimension. And if William G. Cruickshank’s 1889 barn is any indication of the state of farming in the region, the emergence of agricultural productivity in the 1860s was but a brief window of opportunity that farmers sought to take advantage of. In all the architectural acts that St. Mary’s farmers performed, they looked toward the future: to the next generation, to the sustainability of the farm, to community place-making. They sought to either initiate or

---

<sup>410</sup> Ibid., 6.

<sup>411</sup> Herman, “Multiple Materials, Multiple Meanings,” 85.

manage change as the factors of change presented themselves. Thus the extended barns of St. Mary's are material manifestations of expectation; they anticipate success, and suggest what St. Mary's farmers thought they should be, what they wanted to be: modern and progressive. Their derelict barns now stand as signs of what they ultimately failed to sustain.

## Epilogue

---

We come back to the place where we started, the barn at Glenelg. The frame was shipped to the Annapolis Valley and reassembled, in part, as a pool house-garage for a wealthy lawyer (Fig. 115). From a preservationist's perspective, the structure is a Frankenstein's monster of a barn, the bents cobbled together in messed up arrangements; the structure barely recognizable as that weathered barn I photographed on a hot August day (Fig. 116). Though altered, the barn does serve a purpose after years of disuse. The new owner recycled a redundant building that would have fallen down regardless. He saved thousands of dollars in lumber, and many new trees from being cut. But is what that is gained worth what that is lost? While this thesis is in no way an examination of issues in the historic preservation of barns, part of my intent in studying St. Mary's barns was to bring recognition to their merit as built heritage in Canada. We must engage with questions of historic preservation and sustainability beyond urban and/or elite contexts. Following UK and American examples, how can we begin a dialogue on the preservation and meaning of barns in Canada's rural communities?

That the majority of timber-framed barns continue to fall down throughout the countryside without documentation is a great disservice to our rural past. We glorify houses and preserve them, while the material basis of our nineteenth-century rural landscape remains unrecorded and poorly understood. Romanticized, certainly. But not understood. As the most vulnerable of buildings, every time a barn falls or is torn down, we lose an important piece of material evidence of the way ordinary farmers like Samuel

Cumminger and John Cruickshank created meaning along the intervals of the St. Mary's River, hoping to succeed. Builders and constructors, they had great faith and hope in their work.



Figure 115. The framing timbers of the Elwyn Archibald barn, Glenelg, have been adaptively re-used as a pool house at a private property in the Annapolis Valley. Photo by author.



Figure 116. Framing assembly of the re-located Elwyn Archibald barn. Photo by author.

## Bibliography

---

### Primary Sources

#### Census Records

Census of Nova Scotia, 1838. RG 1, vol. 449, #150, NSA

Census of Nova Scotia, 1851. Returns, microfilm collection, NSA.

Census of Nova Scotia, 1861. Returns, microfilm collection, NSA.

Census of Canada, 1871 – 1901. Returns, microfilm collection, NSA; Census summaries available from [canadiana.org](http://canadiana.org)

#### Digital Exhibits and Image Archives

Black Creek Pioneer Village, “The Dalziel Barn,” <http://www.dalzielbarn.com>

Library of Congress

Nova Scotia Museum

St. Marys Museum, St. Marys, Ontario

University of Maine, “Acadian Culture in Maine,” [http://acim.umfk.maine.edu/acadian\\_houses.html](http://acim.umfk.maine.edu/acadian_houses.html)

#### Family Papers

John Murray Diary and Farm Accounts, Hardwood Hill, Pictou County. 1853. MG 100, vol. 194, # 16.

John Young Fonds, MG 2, vol. 726-730, NSA.

Joseph Alexander Diary, St. Mary’s and Eastern Shore of Guysborough County, 1845-46. Unaccessioned item in the collection of Sherbrooke Village Restoration.

Maurice Harlow Diary, North Brookfield, Queen’s County, 1877-1886, MG 100, vol. 30, mfm# 10,284, NSA.

S.G.W. Archibald Family Papers, MG 1, vol. 89, NSA.

William H. Porter Diary, Centreville, King’s County, 1895-1911. S451.5 N935 P848, NSA.

#### Genealogies

Christison, John. Cruickshank Family of Pictou and Guysborough Counties, Nova Scotia. Self-published, 1990. Copy accessed at Pictou-Antigonish Regional Library.

Marble, Alan. *The Archibald Family of Nova Scotia: No Reward Without Effort*. Tantallon, NS: Glen Margaret Publishing, 2008.

Wallis, Guy and Elma Fraser Perry. *Descendants of Cornelius Comegys in North America*. Private printing, 2012.

#### Government Records

Annual Reports of Nova Scotia's Agricultural Societies/Central Board of Agriculture for Nova Scotia, RG 8, Agriculture, NSA.

Appendix no. 8, "Agriculture," Journals of the House of Assembly of Nova Scotia.

Journal and Proceedings of the House of Assembly of Nova Scotia.

Probate Records, RG 48, NSA.

Various Deed Books, Nova Scotia Registry of Deeds (available from Access Nova Scotia).

#### Maps, Atlases & Descriptive Illustrations

Church, A.F. County maps of Nova Scotia, Guysborough Co. 1876.

Illustrated Historical Atlas of Pictou County. 1879. J.H. Meacham & Co.

Woolford, John Elliott. *Sketches of Nova Scotia*. 1817.

#### Newspapers

*Eastern Chronicle* (New Glasgow) [copies of all articles pertaining to St. Mary's, for various years, compiled, arranged, and indexed in a series of binders at Sherbrooke Village Restoration]

*Mechanic and Farmer* (Pictou)

*NovaScotian* (Halifax)

#### Agricultural Periodicals

*Belcher's Farmer's Almanac*

*Cunnabell's Nova Scotia Almanac and Farmer's Manual*

*Maine Farmer*

*Nova Scotia Almanak*

*The American Agriculturalist*

*The Journal for Agriculture in Nova Scotia*

*The New England Farmer*

*The Nova Scotian Journal of Agriculture*

#### Published Eighteenth, Nineteenth, and Twentieth-Century Manuscripts

A List and Description of Farms and Lands for Sale in the Province of Nova Scotia.

Halifax: H.W. Blackadar, 1872, AK F105 L69, NSA.

- Dawson, J.W. *Contributions toward the Improvement of Agriculture in Nova Scotia; with Practical Hints on the Management of Livestock, compiled from Youatt, Johnston, Young, Peters, Stephens &c.* Second edition. Halifax: Richard Nugent, 1856.
- Foster, W.A. and Deane Carter. *Farm Buildings*. New York: John Wiley, 1922.  
Available from: <https://archive.org/details/farmbuildings00fostgoog>
- McClare, Dale ed. *Louisa's Diary: The Journal of a Farmer's Daughter, Dartmouth, 1815*. Halifax: Nova Scotia Museum/Nimbus Publishing, 1989.
- McCulloch, Thomas. *The Mephibosheth Stepsure Letters*, Centre for Editing Early Canadian Texts Series no. 7, edited by Gwendolyn Davies. Montreal & Kingston: McGill-Queen's University Press, 1990 (Letters first published in the *Acadian Recorder*, 1821-1822).
- Pain, William. *The Carpenter's Pocket Directory*. London: Printed for J. Taylor, 1781.  
Available from: <https://archive.org/details/carpenterspocket00pain>
- Patterson, Rev. George. *A History of the County of Pictou*. Montreal: Dawson Bros., 1877.
- Robinson, John and Thomas Rispin. *Journey Through Nova Scotia, Containing a Particular Account of the Country and its Inhabitants*. 1774. Reprint, Maritime Literature Reprint Series. Sackville, NB: Ralph Pickard Bell Library, Mt. Allison University, 1981.
- Ross, James. *Remarks and Suggestions on the Agriculture of Nova Scotia*. Halifax: James Bowes and Sons, 1855. V/F v. 40, # 3, NSA.
- Thomas, Alfred C. *Comparisons of English & American Farming*. Windsor, N.S.: C.W. Knowles, 1880. V/F v. 39, #14, NSA.
- Young, John. *The Letters of Agricola on the Principles of Vegetation and Tillage, written for Nova Scotia and published first in the Acadian Recorder*. Halifax: Holland, 1822.

### Theses

- Archibald, Timothy. "A Question of Staying or Leaving: Rural Decline in Guysborough County, 1881-1931." Master's thesis. St. Mary's University, 1987.
- MacKinnon, Robert. "The Historical Geography of Agriculture in Nova Scotia, 1851-1951." PhD diss., University of British Columbia, 1991.

### Interviews Conducted

- Archibald, Dale and Ian Archibald. Sept. 12, 2013.
- Archibald, Eldon and Ray Archibald. July 2013.
- Archibald, Robert. December 05, 2012.
- Bambrick, (Cruikshank) Karen. June 14, 2014.

Cameron, Edith "George". June 29, 2013.  
 Cumming, Frankie. June 29, 2012 & Jan. 18, 2014.  
 Eshbaugh, W. Hardy. August 09, 2012.  
 Fraser, Daniel. September 10, 2013.  
 Fraser, Robert. January 17, 2014.  
 Greene, Harold. December 21, 2012.  
 Gunn, Robert. April 15, 2012.  
 Jack, Robert. July 2012.  
 MacDonald, Jessie. August 20, 2013.  
 Sutherland, Lester. August 15, 2013.  
 Willumson, (Fisher) Janet. June 17, 2014.

## Secondary Sources

Adams, Annemarie. "The Monumental and the Mundane: Architectural History in Canada." *Acadiensis* 30, no. 2 (Spring 2001): 149-159.  
 Antrop, Marc. "A Brief History of Landscape Research." In *The Routledge Companion to Landscape Studies*, edited by Peter Howard, Ian Thompson, and Emma Waterton, 12-22. New York: Routledge, 2013.  
 Appadurai, Arjun. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press, 1986.  
 Archibald, Stephen and Sheila Stevenson. *Heritage Houses of Nova Scotia*. Halifax: Formac, 2003.  
 Axtell, James. "Ethnohistory: An Historian's Viewpoint." *Ethnohistory* 26, no. 1 (Winter 1979): 1-13.  
 Baker, Allan and Gideon Biger, eds. *Ideology and Landscape in Historical Perspective: Essays on the Meanings of some Places in the Past*. Cambridge: Cambridge University Press, 1992.  
 Bauman, Richard. "Folklore and the Forces of Modernity." *Folklore Forum* 16, no. 2 (1983): 153-158.  
 Berlinger, Gabrielle. *Framing Sukkot: Tradition and Transformation in Jewish Vernacular Architecture*. Bloomington: Indiana University, 2017.  
 Beaudry, Mary. "Trying to Think Progressively about 19th-Century Farms." *Northeast Historical Archaeology* 30/31 (2001): 129-142.  
 Bitterman, Rusty. "Farm Households and Wage Labour in the Northeastern Maritimes in the Early 19<sup>th</sup> Century." *Labour/Le Travail* 31 (Spring 1993): 13-45.

- Bitterman, Rusty, Robert MacKinnon and Graeme Wynn. "Of Inequality and Interdependence in the Nova Scotian Countryside, 1850-1870." *Canadian Historical Review* 74, no. 1 (1993): 1-43.
- Brown, Bill. *Things*. Chicago: University of Chicago Press, 2004.
- Blakeley, Phyllis. *The History and Development of Sherbrooke in Guysborough County, Nova Scotia*. Halifax: The Nova Scotia Museum, 1969.
- Blank, Trevor, ed. *Folklore and the Internet: Vernacular Expression in a Digital World*. Logan: Utah State University Press, 2009.
- . *The Last Laugh: Folk humor, Celebrity Culture, and Mass-Mediated Disasters in the Digital Age*. Madison: The University of Wisconsin Press, 2013.
- Brunskill, R.W. *Traditional Farm Buildings and their Conservation*. New Haven: Yale University Press, 2007.
- . *Vernacular Architecture: An Illustrated Handbook*. London: Faber & Faber, 2000.
- Buchli, Victor. "Architecture and the Domestic Sphere." In *The Material Culture Reader*, edited by Victor Buchli, 207-213. Oxford: Berg, 2002.
- Bushman, Richard. "Markets and Composite Farms in Early America." *William and Mary Quarterly* 3rd ser. 55 (1998): 351-374.
- Byers, Mary and Margaret McBurney. *Atlantic Hearth: Early Homes and Families of Nova Scotia*. Toronto: University of Toronto Press, 1994.
- Carter, Allan, and Susanna Wade Martins, eds., *A Year in the Field: The Norfolk Historic Farm Buildings Project*. Norwich: Centre of East Anglian Studies, University of East Anglia, 1987.
- Carter, Thomas. *Building Zion: The Material World of Mormon Settlement*. Minneapolis: University of Minnesota Press, 2015.
- . "Where Did the Folklorists Go?: Folklore, History, and the Study of Vernacular Architecture." *The Folklore Historian* 29 (2012): 34-55.
- Carter, Thomas and Elizabeth Collins Cromley. *Invitation to Vernacular Architecture: A Guide to the Study of Ordinary Buildings and Landscapes*. Knoxville: University of Tennessee Press, 2005.
- Christopher Clark, *The Roots of Rural Capitalism: Western Massachusetts, 1780-1860*. Ithaca: Cornell University Press, 1990.
- Conrad, Margaret, ed. *They Planted Well: New England Planters in Maritime Canada*. Fredericton: Acadiensis Press, 1988.
- Craig, Beatrice. *Backwoods Consumers & Homespun Capitalists: The Rise of Market Culture in Eastern Canada*. Toronto: University of Toronto Press, 2009.
- Crawford, O.G.S. *Archaeology in the Field*. London: Phoenix House, 1953.
- Cresswell, Tim. *Place: A Short Introduction*. Oxford: Blackwell, 2004.
- Cronon, William. *Changes in the Land: Indians, Colonists, and the Ecology of New England*. New York: Hill and Wang, 1983.

- Cummings, Abbott Lowell. *The Framed Houses of Massachusetts Bay, 1625-1725*. Cambridge: Harvard University Press, 1979.
- Dandekar, Hemalata C. *Michigan Family Farms and Farm Buildings: Landscapes of the Heart and Mind*. Ann Arbor: University of Michigan Press, 2010.
- De Vries, Pieter and Georgina MacNab. *They Farmed, Among Other Things: Three Cape Breton Case Studies*. University College of Cape Breton Press, 1983.
- Donahue, Brian. *The Great Meadow: Farmers and the Land in Colonial Concord*. New Haven: Yale University Press, 2004.
- Eliot, T.S. *The Four Quartets*. 1943. Reprint, New York: Harcourt, Brace and World, 1977.
- Ennals, Peter. "Nineteenth-Century Barns in Southern Ontario." *Canadian Geographer*, 16, no. 3 (1972): 256-270.
- . "The Yankee Origins of Bluenose Vernacular Architecture." *The American Review of Canadian Studies* 12, no. 2 (Summer 1982): 5-21.
- Ennals, Peter and Deryck Holdsworth. *Homeplace: The Making of the Canadian Dwelling over Three Centuries*. Toronto: University of Toronto Press, 1998.
- . "Vernacular Architecture and the Cultural Landscape of the Maritime Provinces: A Reconnaissance." *Acadiensis* 10, no. 2 (Spring 1981): 86-106.
- Ensminger, Robert. *The Pennsylvania Barn: Its Origin, Evolution, and Distribution in North America*, 2<sup>nd</sup> ed. Baltimore: Johns Hopkins University Press, 1992.
- Erickson, Frederick. "Qualitative Methods in Research on Teaching." In *Handbook of Research on Teaching*, edited by M.C. Whitrock, 119-161. New York: Macmillan, 1986.
- Essex County Planning Department. *The Essex Countryside Historic Barns: A Planning Appraisal*. Chelmsford: Essex Planning Dept., 1979.
- Falk, Cynthia. *Barns of New York: Rural Architecture of the Empire State*. Ithaca: Cornell University Press, 2012.
- Fancy, Catherine. *The Historic Architecture of Pictou: A Walking Guide*. Pictou: McCulloch Heritage Centre & Archives, 2012.
- Fenton, Alexander. *The Rural Architecture of Scotland*. Edinburgh: J. Donald, 1981.
- Fleming, McClung E. "Artifact Study: A Proposed Model." In *Material Culture Studies in America*, edited by Thomas J. Schlereth, 162-173. Nashville: American Association for State and Local History, 1982.
- Foster, Michael Dylan and Jeffrey A. Tolbert, eds. *The Folkloresque: Reframing Folklore in a Popular Culture World*. Logan: Utah State University Press, 2016.
- Garrison, J. Ritchie. *Landscape and Material Life in Franklin County, Massachusetts, 1770-1860*. Knoxville: University of Tennessee Press, 1991.
- Garvin, James L. *A Building History of Northern New England*. Hanover: University Press of New England, 2001.
- Gerriets, Marilyn. "Agricultural Resources, Agricultural Production and Settlement at Confederation." *Acadiensis* 31, no. 2 (Spring 2002): 129-156.

- Ginsburg, Rebecca. *At Home with Apartheid: The Hidden Landscapes of Domestic Service in Johannesburg*. Charlottesville: University of Virginia Press, 2011.
- Glass, Joseph W. *The Pennsylvania Culture Region: A View from the Barn*. Ann Arbor, Michigan: UMI Research Press, 1986.
- Glassie, Henry. "Archaeology and Folklore: Common Anxieties, Common Hopes." In *Historical Archaeology and the Importance of Material Things*, edited by Leland Ferguson, 23-35. Langsing, Mich.: The Society for Historical Archaeology, 1977.
- . *Folk Housing in Middle Virginia: A Structural Analysis of Historic Artifacts*. Knoxville: University of Tennessee Press, 1975.
- . Foreword to *Discovering American Folklife: Essays on Folk Culture & the Pennsylvania Dutch*, by Don Yoder. Ann Arbor: UMI Research Press, 1990.
- . *Material Culture*. Bloomington: Indiana University Press, 1999.
- . *Passing the Time in Ballymenone: Culture and History of an Ulster Community*. Philadelphia: University of Pennsylvania Press, 1982.
- . *Pattern in the Material Folk Culture of the Eastern United States*. Philadelphia: University of Pennsylvania Press, 1969.
- . "Studying Material Culture Today." In *Living in a Material World: Canadian and American Approaches to Material Culture*, edited by Gerald L. Pocius, 253-266. St. John's, NL: ISER, 1991.
- . "The Barn across Southern England: A Note on Transatlantic Comparison and Architectural Meanings." *Pioneer America* 7, no. 1 (January 1975): 9-19.
- . "The Old Barns of Appalachia." *Mountain Life & Work* 40 (Summer 1965): 21-30.
- . "The Pennsylvania Barn in the South." *Pennsylvania Folklife*, 15, no. 2 (Winter 1965-66): 8-19 and no. 4 (Summer 1966): 12-25 (published in two parts).
- . "The Variation of Concepts within Tradition: Barn Building in Otsego County, New York." *Geoscience and Man*, vol. 5 (1974): 177-235.
- . "The Wedderspoon Farm." *New York Folklore Quarterly* 22, no. 3 (September 1966): 165-187.
- . *Vernacular Architecture*. Bloomington: Indiana University Press, 2000.
- Gowans, Alan. "New England Architecture in Nova Scotia." *The Art Quarterly* 25, no. 1 (Spring 1962): 7-33.
- Grant, John. *The Development of Sherbrooke Village to 1880*. Halifax: The Nova Scotia Museum, 1972.
- Groth, Paul and Todd W. Bressi, eds. *Understanding Ordinary Landscapes*. New Haven, Conn.: Yale University Press, 1997.
- Handsman, Russell G. "Historical Archaeology and Capitalism, Subscriptions and Separations: The Production of Individualism." *North American Archaeologist* 4, no. 1 (1983): 63-79.
- Hart, John Fraser, *The Rural Landscape*. Baltimore: John Hopkins University Press, 1998.

- Harvey, DC. "The Intellectual Awakening of Nova Scotia," *Dalhousie Review* XIII (April 1933): 1-22.
- Heritage Trust of Nova Scotia. *Lakes, Salt Marshes, and the Narrow Green Strip: Some Historic Buildings in Dartmouth and Halifax County's Eastern Shore*. Halifax: Heritage Trust of Nova Scotia, 1979.
- . *Seasoned Timbers: A Sampling of Historic Buildings Unique to Western Nova Scotia, vol. 1*. Halifax: Petheric Press, 1972.
- . *South Shore; Seasoned Timbers: Some Historic Buildings from Nova Scotia's South Shore, vol. 2*. Halifax: Petheric Press, 1974.
- Herman, Bernard. *Architecture and Rural Life in Central Delaware, 1700-1900*. Knoxville: University of Tennessee Press, 1987.
- . "Multiple Materials, Multiple Meanings: The Fortunes of Thomas Mendenhall," *Winterthur Portfolio*, 19, no. 1 (Spring 1984): 67-86.
- . "The Objects of Discourse: Evidence and Method in Material Culture Study and Agricultural History." In *Living in a Material World: Canadian and American Approaches to Material Culture*, edited by Gerald L. Pocius, 31-54. St. John's, NL: ISER, 1991.
- . *The Stolen House*. Charlottesville: University Press of Virginia, 1992.
- . "Time and Performance: Folk Houses in Delaware." In *American Material Culture and Folklife: A Prologue and Dialogue*, edited by Simon Bronner, 155-186. Ann Arbor, MI: UMI Research Press, 1985.
- . *Townhouse: Architecture and Material Life in the Early American City, 1780-1830*. Chapel Hill: University of North Carolina Press, 2005.
- Herman, Bernard and Gabrielle Lanier. *Everyday Architecture of the Mid-Atlantic: Looking at Buildings and Landscapes*. Baltimore: Johns Hopkins University Press, 1997.
- Hicks, Dan and Mary C. Beaudry, eds. *The Oxford Handbook of Material Culture Studies*. Oxford: Oxford University Press, 2010.
- Horn, Walter. "On the Origins of the Mediaeval Bay System." *Journal of the Society of Architectural Historians* 17, no. 2 (Summer 1958), 2-23.
- Hoskins, Janet. "Agency, Biography and Objects." In *Handbook of Material Culture*, edited by Chris Tilley, Webb Keane, Susanne Küchler et al., 74-84. London: SAGE, 2006.
- Hoskins, W.G. *Fieldwork in Local History*. London: Faber, 1967.
- Howard, Peter, Ian Thompson and Emma Waterton, eds. *The Routledge Companion to Landscape Studies*. New York: Routledge, 2013.
- Hubka, Thomas C. *Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England*. Hanover N.H.: University Press of New England, 1984.

- . “Farm Family Mutuality: The Mid-Nineteenth Century Maine Farm Neighbourhood.” In *The Farm*, edited by Peter Benes, 13-24. Boston: Boston University Press, 1988.
- . “Just Folks Designing: Vernacular Designers and the Generation of Form.” *Journal of Architectural Education* 32, no. 3 (February 1979): 27-29.
- Hufford, Mary. *One Space, Many Places: Folklife and Land Use in New Jersey's Pinelands National Reserve*. Washington, D.C.: American Folklife Center, Library of Congress, 1986.
- Humphreys, Michael. “Getting Personal: Reflexivity and Autoethnography Vignettes.” *Qualitative Inquiry* 11, no. 6 (2005): 840-860.
- Inwood, Kris, ed. *Farm, Factory, and Fortune: New Studies in the Economic History of the Maritime Provinces*. Fredericton: Acadiensis Press, 1993.
- Isaac, Rhys. “Ethnographic Method in History: An Action Approach.” In *Material Life in America 1600-1860*, edited by Robert Blair St. George, 39-61. Boston: Northeastern University Press, 1988.
- Ives, Edward D. “Common-Man Biography: Some Notes By the Way.” In *Folklore Today: A Festschrift for Richard M. Dorson*, edited by Linda Dégh, Henry Glassie, Felix J. Oinas, 260-263. Bloomington: Indiana University, 1976.
- James, Terry and Bill Plaskett. *Buildings of Old Lunenburg*. Halifax: Nimbus, 2011.
- Jenkins, Geraint, ed. *Studies in Folklife: Essays in Honour of Iorwerth C. Peate*. London: Routledge & K. Paul, 1969.
- Johnson, Matthew. “Vernacular Architecture: The Loss of Innocence.” *Vernacular Architecture*, 28 (1997): 13-19.
- Jones, Michael Owen. Comments. In “Material Culture Studies: A Symposium,” ed. Simon Bronner. Special issue, *Material Culture* 17, no. 2/3 (Summer/Fall 1985): 99-105.
- . *Craftsman of the Cumberlands: Tradition & Creativity*. Lexington: University Press of Kentucky, 1989.
- Jost, A.C. *Guysborough Sketches and Essays*. Guysborough: Private printing, 1950.
- Kinsman, Gordon B. *Colchester County Century Farms: Their Histories as Well as Photographs of Farm Homes and Outbuildings Over a Century Old*. Truro: Nova Scotia Department of Agriculture and Marketing, 1979.
- Kirshenblatt-Gimblett, Barbara. “The Future of Folklore Studies in America: The Urban Frontier.” *Folklore Forum* 16 (1983): 175-234.
- Klee, Jeffrey. “Viewpoint: Fieldwork, 2001.” *Buildings & Landscapes: Journal of the Vernacular Architecture Forum* 19, no. 1 (Spring, 2012): 1-17.
- Kobayashi, Audrey and Suzanne MacKenzie. “Introduction: Humanism and Historical Materialism in Contemporary Social Geography.” In *Remaking Human Geography*, edited by Audrey Kobayashi and Suzanne MacKenzie, 1-16. Winchester, MA.: Unwin Hyman, 1989.

- Konrad, Victor. "Against the Tide: French Canadian Barn Building Traditions of the St. John Valley of Maine," *The American Review of Canadian Studies* XII, no. 2 (1982): 22-36.
- Latremouille, Joann. *Pride of Home: The Working Class Housing Tradition in Nova Scotia, 1749-1979*. Hantsport, NS: Lancelot Press, 1986.
- Lavoie, Catherine C. "Recording Vernacular Building Forms." In *Recording Historic Structures*, edited by John A. Burns, 142-157. Hoboken, N.J.: John Wiley & Sons, 2004.
- Lewis, Pierce. "Common Landscapes as Historic Documents." In *History from Things: Essays on Material Culture*, edited by Steven Lubar and W. David Kingery, 115-139. Washington: Smithsonian Press, 1993.
- Lewis, Quentin. *An Archaeology of Improvement in Rural Massachusetts: Landscapes of Profit and Betterment at the Dawn of the 19th century*. New York: Springer, 2016.
- Lotz, Pat, ed. *Affairs with Old Houses: Personal Stories About Preserving Heritage Houses in Nova Scotia*. Halifax: Heritage Trust of Nova Scotia and Nimbus, 1999.
- Lounsbury, Carl. *An Illustrated Glossary of Early Southern Architecture and Landscape*. Charlottesville: The University Press of Virginia, 1999.
- Lowenthal, David. *The Past is A Foreign Country*. Cambridge: Cambridge University Press, 1985.
- MacDonald, Bruce. *The Guysborough Railway: 1897-1939*. Antigonish, NS: Formac, 1973.
- Maffei, Grace. *Design at Home: Domestic Advice Books in Britain and the USA since 1945*. London: Routledge, 2013.
- MacNeil, Alan R. "Cultural Stereotypes and Highland Farming in Eastern Nova Scotia, 1827-1861." *Histoire sociale—Social History* 19 (May 1986): 39-56.
- MacKinnon, Richard. "Log Architecture on Cape Breton Island, Nova Scotia: Cultural Borrowing and Adaptation." *Material Culture* 24 (Fall 1992): 1-17.
- . "Making a House a Home: Company Housing in Cape Breton Island." *Material History Review* 47 (Spring 1998): 46-56.
- . "Tompkinsville, Cape Breton Island: Cooperativism and Vernacular Architecture." *Material History Review* 44 (1996): 45-63.
- . *Vernacular Architecture in the Codroy Valley*. Mercury Series No. 52. Ottawa: Canadian Museum of Civilization, 2002.
- MacKinnon, Robert. "Agriculture and Rural Change in Nova Scotia, 1851-1951." In *Canadian Papers in Rural History vol. 10*, edited by Donald H. Akenson, 231-274. Gananoque, Ontario: Langdale Press, 1996.
- MacKinnon, Robert and Graeme Wynn. "Nova Scotian Agriculture in the "Golden Age": A New Look." In *Geographical Perspectives on the Maritime Provinces*, edited by Douglas Day, 47-60. Halifax: St. Mary's University, 1988.

- MacLeod, Mary K. and James O. St. Clair. *No Place Like Home*. Sydney: University College of Cape Breton Press, 1992.
- . *Pride of Place: The Life and Times of Cape Breton Heritage Houses*. Sydney: University College of Cape Breton Press, 1994.
- Mannion, John. *Irish Settlements in Eastern Canada: A Study of Cultural Transfer and Adaptation*. Toronto: University of Toronto Press, 1974.
- Marshall, Howard Wight. *Folk Architecture in Little Dixie: A Regional Culture in Missouri*. Columbia: University of Missouri Press, 1981.
- Martell, J.S. "From Central Board to Secretary of Agriculture, 1826-1885." *Bulletin of the Public Archives of Nova Scotia*, vol. II, no. 3 (1940): 3-30.
- . "The Achievement of Agricola and the Agricultural Societies, 1818-25." *PANS Bulletin* 2, no. 2 (1939): 1-47.
- Martin, Charles E. *Hollybush: Folk Building and Social Change in an Appalachian Community*. Knoxville: University of Tennessee Press, 1984.
- Martins, Susanna Wade. *The English Model Farm: Building the Agricultural Ideal, 1700-1914*. Macclesfield, UK: Windgather, 2002.
- Maudlin, Daniel. "Politics and Place-Making on the Edge of Empire: Loyalists, Highlanders, and the Early Farmhouses of British Canada." In *Building the British Atlantic World: Spaces, Places, and Material Culture, 1650-1850*, edited by Bernard Herman and Daniel Maudlin, 290-312. Chapel Hill: University of North Carolina Press, 2016.
- . *The Highland House Transformed: Architecture and Identity on the Edge of Britain, 1700-1850*. Dundee: Dundee University Press, 2009.
- McIlwraith, Thomas. *Looking for Old Ontario: Two Centuries of Landscape Change*. Toronto: University of Toronto Press, 1997.
- McMurry, Sally. *Families and Farmhouses in Nineteenth-century America: Vernacular Design and Social Change*. New York: Oxford University Press, 1988.
- . *From Sugar Camps to Star Barns: Rural Life and Landscape in a Western Pennsylvania Community*. University Park: Pennsylvania State University Press, 2001.
- . "The Pennsylvania Barn as Collective Resource, 1830-1900." *Buildings & Landscapes* 16, no.2 (Spring 2009): 9-28.
- McMurry, Sally and Nancy van Dolsen, eds. *Architecture and Landscape of the Pennsylvania Germans, 1720-1920*. Philadelphia: University of Pennsylvania Press, 2011.
- McMurry, Sally and J. Ritchie Garrison. "Barns and Agricultural Outbuildings." In *Architecture and Landscape of the Pennsylvania Germans, 1720-1920*, edited by Sally McMurry and Nancy van Dolsen, 94-123. Philadelphia: University of Pennsylvania Press, 2011.
- Moffett, Marian and Lawrence Wodehouse, *East Tennessee Cantilever Barns*. Knoxville: University of Tennessee Press, 1993.

- Morrison, James H. "Maurice Almon Harlow's Nineteenth Year: Farming in Nova Scotia, 1877-1884." In *The Farm: The Dublin Seminar for New England Folklife Annual Proceedings 1986*, edited by Peter Benes, 24-35. Boston: Boston University, 1988.
- Myerhoff, Barbara. *Number Our Days*. New York: Dutton, 1978.
- Noble, Allen, and Gayle A. Seymour. "Distribution of Barn Types in Northeastern United States." *Geographical Review*, 72, no. 2 (April 1982): 155-170.
- Noble, Allen, and Richard Creek, *The Old Barn Book: A Field Guide to North American Barns & Other Farm Structures*. New Brunswick, NJ: Rutgers University Press, 2009.
- Nova Scotia Dept. of Culture, Recreation & Fitness. *A Nova Scotian's Guide to Built Heritage: Architectural Styles 1604-1930*. Government of Nova Scotia, n.d.
- O'Dea, Shane. "Architecture and Building History in Atlantic Canada." *Acadiensis* 10, no. 1 (Autumn 1980): 158-163.
- Penney, Allen. *Houses of Nova Scotia: An Illustrated Guide to Architectural Style Recognition*. Halifax: The Nova Scotia Museum, 1989.
- Peters, J.E.C. *Discovering Traditional Farm Buildings*, Princes Risborough, Buckinghamshire: Shire Publications, 2003
- Peterson, Fred. *Homes in the Heartland: Balloon Frame Farmhouses of the Upper Midwest, 1850-1920*. Lawrence, Kansas: University Press of Kansas, 1992.
- Pictou Heritage Society and L.B. Jenson. *Country Roads: Rural Pictou County, Nova Scotia*. Halifax: Petheric Press, 1974.
- . *Wood and Stone: Pictou, Nova Scotia*. Halifax: Petheric Press, 1972.
- Plaskett, Bill. *Understanding Lunenburg Architecture*. Lunenburg County District Planning Division, 1979.
- Pocius, Gerald. "Architecture on Newfoundland's Southern Shore: Diversity and the Emergence of New World Forms." In *Perspectives in Vernacular Architecture*, edited by Camille Wells, 217-232 (Annapolis: Vernacular Architecture Forum, 1982).
- . "The House that Poor Jack Built: Architectural Stages of the Newfoundland Fishery." In *The Sea and Culture of Atlantic Canada: A Multidisciplinary Sampler*, edited by Larry McCann with Carrie Macmillan, 63-105. (Sackville: Centre for Canadian Studies, Mount Allison University, 1992).
- . "'Interior Motives': Rooms, Objects and Meaning in Atlantic Canada Homes." *Material History Bulletin* 15 (1982): 5-9.
- . "Mass Housing and Its Impact on Traditional Forms in a Newfoundland Community." In *Perspectives in Vernacular Architecture II*, edited by Camille Wells (Columbia: University of Missouri Press, 1986): 222-23.
- . *A Place to Belong: Community Order and Everyday Space in Calvert, Newfoundland*. Athens: University of Georgia Press, 1991.

- . Preface to the paperback edition of *A Place to Belong: Community Order and Everyday Space in Calvert, Newfoundland*. Montreal & Kingston: McGill-Queen's University Press, 2000.
- . "Privacy and Architecture: A Newfoundland Example." In *Perspectives in Vernacular Architecture III* edited by Thomas Carter and Bernard L. Herman (Columbia: University of Missouri Press, 1989): 246-47.
- . "Rebuildings on Newfoundland's Southern Shore: Cut-Down Roofs, Raised Hopes." *Material Culture*, 19 (1987): 67-83.
- Rasmussen, Wayne D. "Wood on the Farm." In *Material Culture of the Wooden Age*, edited by Brooke Hindle, 15-34. Tarrytown, N.Y.: Sleepy Hollow Press, 1981.
- Roberts, Warren. *Log Buildings of Southern Indiana*. Bloomington, Indiana: Trickster Press, 1996.
- . *Viewpoints on Folklife: Looking at the Overlooked*. Ann Arbor : UMI Research Press, 1988.
- Roberston, Barbara R. *Gingerbread & House Finish of Every Description*. Halifax: Nova Scotia Museum, 1990.
- Russell, Peter. *How Agriculture Made Canada: Farming in the Nineteenth Century*. Kingston & Montreal: McGill-Queens University Press, 2012.
- Ryden, Kent. *Mapping the Invisible Landscape: Folklore, Writing, and Sense of Place*. Iowa City: University of Iowa Press, 1993.
- Samson, Daniel. *The Spirit of Industry and Improvement: Liberal Government and Rural Industrial Society, Nova Scotia, 1790-1862*. Kingston: McGill-Queen's University Press, 2008.
- Small, Nora Pat. *Beauty & Convenience: Architecture and Order in the New Republic*. Knoxville: University of Tennessee Press, 2003.
- Smith, Ryan K. "Viewpoint: Building Stories: Narrative Prospects for Vernacular Architecture Studies." *Buildings & Landscapes* 18, no. 2 (Fall 2011): 1-14.
- St. George, Robert Blair. "A Retreat from the Wilderness: Pattern in the Domestic Environments of Southeastern New England, 1630-1730." PhD diss. University of Pennsylvania, 1982.
- . "Artifacts of Regional Consciousness in the Connecticut River Valley, 1700-1780." In *The Great River: Art and Society of the Connecticut Valley, 1635-1820*, edited by William N. Hosley and Elizabeth Pratt Fox, 29-40. Hartford, Conn.: Wadsworth Athenaeum, 1985.
- . *Conversing by Signs: Poetics of Implication in Colonial New England Culture*. Chapel Hill: The University of North Carolina Press, 1998.
- . "Material Culture in Folklife Studies." In *The Oxford Handbook of Material Culture Studies*, edited by Dan Hicks and Mary C. Beaudry, 123-149. Oxford: Oxford University Press, 2010.

- . “The Stanley-Lake Barn in Topsfield, Massachusetts: Some Comments on Agricultural Buildings in Early New England.” *Perspectives in Vernacular Architecture*, Vol. 1 (1982): 7-23.
- Stokes, Peter John. *Ross House, New Ross, Nova Scotia: Architectural Report*. Ottawa: Historic Sites and Monuments Board of Canada, 1970.
- Sunstein, Bonnie and Elizabeth Chiseri-Strater. *Fieldworking: Reading and Writing Research*. 4<sup>th</sup> edition. Boston: Bedford-St. Martin’s, 2011.
- Tangherlini, Timothy R. *Talking Trauma: Paramedics and Their Stories*. Jackson: University Press of Mississippi, 1998.
- Thornton, Patricia. “Some Preliminary Comments on the Extent and Consequences of Out-Migration from the Atlantic Region, 1870-1920.” In *Merchant Shipping and Economic Development in Atlantic Canada*, edited by Lewis R. Fischer and Eric W. Sager, 185-218. St. John’s: MHG, 1982.
- . “The Problem of Out-Migration from Atlantic Canada, 1871-1921: A New Look, *Acadiensis* 15, no. 1 (Autumn 1985): 3-34.
- Tilley, Chris, Webb Keane, Susanne K  chler et al., eds. *Handbook of Material Culture*. London: SAGE, 2006.
- Titon, Jeff Todd. *Powerhouse for God: Speech, Chant, and Song in an Appalachian Baptist Church*. Austin: University of Texas Press, 1988.
- Troughton, Michael J. “From Nodes to Nodes: The Rise and Fall of Agricultural Activity in the Maritime Provinces.” In *Geographical Perspectives on the Maritime Provinces*, edited by Douglas Day, 25-46. Halifax: St. Mary’s University, 1988.
- Tuan, Yi-Fu. *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press, 1977.
- . *Topophilia: A Study of Environmental Perceptions, Attitudes, and Values*. Upper Saddle River: Prentice-Hall, 1974.
- Turner, Sam. “Landscape Archaeology.” In *The Routledge Companion to Landscape Studies*, edited by Peter Howard, Ian Thompson, and Emma Waterton, 131-142. New York: Routledge, 2013.
- Upton, Dell. “The Power of Things: Recent Studies in American Vernacular Architecture.” *American Quarterly* 35, no. 3 (1983): 262-279.
- . “The VAF at 25: What Now?” *Perspectives in Vernacular Architecture*, 13, no. 2, Special 25th Anniversary Issue (2006): 7-13.
- . “Toward a Performance Theory of Vernacular Architecture: Early Tidewater Virginia as a Case-Study.” *Folklore Forum* 12, no. 2/3 (1979): 173-196.
- . “Traditional Timber Framing.” In *Material Culture of the Wooden Age*, edited by Brooke Hindle, 51-68. Tarrytown, N.Y.: Sleepy Hollow Press, 1981.
- Visser, Thomas. *Field Guide to New England Barns and Farm Buildings*. Hanover: University Press of New England, 1997.
- Vlach, John Michael. *Barns*. New York: Norton, 2003.

- . Comments. In “Material Culture Studies: A Symposium,” ed. Simon Bronner. Special issue, *Material Culture* 17, no. 2/3 (Summer/Fall 1985): 81-84.
- Wells, Camille. “Old Claims and New Demands: Vernacular Architecture Studies Today.” In *Perspectives in Vernacular Architecture II*, edited by Camille Wells, 1-11. Columbia: University of Missouri Press, 1986.
- Williams, Michael Ann. After the Revolution: Folklore, History, and the Future of our Discipline.” *Journal of American Folklore* 130, no. 516 (Spring 2017): 129-141.
- . ““Come on Inside”: The Role of Gender in Folk Architecture Fieldwork.” *Southern Folklore* 47 (1990): 45-50.
- . *Homeplace: The Social Use and Meaning of the Folk Dwelling in Southwestern North Carolina*. 1991. Reprint, Charlottesville: University of Virginia Press, 2004.
- Wilson, Alan. *Highland Shepherd: James MacGregor, Father of the Scottish Enlightenment in Nova Scotia*. Toronto: University of Toronto Press, 2015.
- Winson, Anthony. “The Roots of Agrarian Decline: Farming in the Maritimes: 1850-1930.” Working Paper 7-85. Halifax: Gorsebrook Research Institute, St. Mary’s University, 1985.
- . “The Uneven Development of Rural Economy in Canada: The Maritimes and Ontario.” Working Paper No. 6-85. Halifax: Gorsebrook Research Institute, St. Mary’s University, 1985.
- Woodforde, John. *Farm Buildings in England and Wales*. London: Routledge & Kegan Paul, 1983.
- Wylie, Robin. “The Barn in Nova Scotia.” Halifax: Heritage Unit, Nova Scotia Dept. Tourism and Culture, 1988.
- Wynn, Graeme. “Exciting a Spirit of Emulation Among the ‘Plodholes’: Agricultural Reform in Pre-Confederation Nova Scotia,” *Acadiensis* 20, no.1 (Autumn 1990): 5-51.
- . “A Province Too Much Dependent on New England.” *The Canadian Geographer* 31, no. 2 (1987): 98-113.
- . ““This Dark Vale of Sorrow.” ” *The Nova Scotia Historical Review* 6, no. 2 (1986): 55-62.
- Yoder, Don. *American Folklife*. Austin: University of Texas Press, 1976.
- Zettell, Susan. “Jane Urquhart: On Becoming a Novelist.” *Canadian Forum* 59 (1991): 18-21.