THE EDIBLE LANDSCAPE OF A NEWFOUNDLAND OUTPORT

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Abstract
This paper presents the remarkably edible landscape of Tilting, Fogo Island, Newfoundland. Tilting is a Cultural Landscape District (Historic Sites and Monuments Board) and a Registered Heritage District (Heritage Foundation of Newfoundland and Labrador). Tilting has outstanding extant examples of vernacular architecture relating to Newfoundland’s inshore fishery, but Tilting was also a farming community despite its challenging sub-arctic climate and exposed North Atlantic coastal location. There was a delicate sustainable balance in all aspects of life and work in Tilting, as demonstrated through a resource-conserving inshore fishery and through finely tuned agricultural and animal husbandry practices. Tilting’s landscape was “literally” edible in a way that is unusual for most rural North American communities today. Animals like cows, horses, sheep, goats, and chickens were free to roam and forage for food and fences were used to keep animals out of gardens and hay meadows. This paper documents this dynamic arrangement and situates local agricultural and animal husbandry practices in the context of other communities and regions in outport Newfoundland. It also describes the recent rural Newfoundland transition from a working landscape to a pleasure landscape.

Keywords: Sustainability, Agriculture, Fishery, Vernacular Architecture, Cultural Landscapes
INTRODUCTION

This paper presents the remarkably edible landscape of Tilting. Tilting is an outport on the northeast coast of Fogo Island, and Fogo Island is located just off the northeast coast of Newfoundland. Newfoundland is the island portion of Canada’s easterly-most province (Province of Newfoundland and Labrador: Figure 1). Tilting was recently designated as a Cultural Landscape District (Historic Sites and Monuments Board of Canada) and a Registered Heritage District (Heritage Foundation of Newfoundland and Labrador). The French fished in the area in the 17th and early 18th centuries but did not establish permanent settlements. British settlers arrived at Tilting in the early 18th century, followed mainly by the Irish from the late-18th Century to the present day. What distinguishes Tilting from other present-day historic towns and fisheries outports in Newfoundland and Labrador is its living and working aspect. Tilting is still populated by the descendents of the Irish planters and entrepreneurs who first settled there, and many traditional practices are still part of present-day life in the community. Tilting’s residents pursued agriculture and animal husbandry more intensively than residents in other communities on Fogo Island.

A NOTE ON METHODOLOGY

I first started my fieldwork and research on Tilting in 1987, and shortly after this I became involved with volunteer work for heritage conservation in the community. This has been a long-term and seemingly never-ending process. With hindsight, a great deal of good luck had as much to do with any positive research and advocacy results as any initial methodological prowess I may have possessed. I am surprised by how much I did not know about Tilting at first, especially the intensity of its Irish cultural links and also the importance of agriculture and animal husbandry.

When I began my research, I was strongly influenced by Professor Henry Glassie, especially his book on folk housing in Middle Virginia (Glassie, 1975) as well as his later book on the Northern Ireland community of Ballymenone (Glassie, 1982). My study began as a well-intentioned study of Tilting’s folk houses in a structuralist and typological mode similar to Glassie’s research in Virginia, mainly because my original research proposal focused on housing (I was very fortunate to have received a scholarship from the Canada Mortgage and Housing Corporation). I later began to realize that this focus was too narrow, and that a rigorous structuralist approach representing the syntax of the artifact system was not necessary as contextual information could be obtained from local informants. Nevertheless, my initial synchronic typological research helped me to understand the design, construction, and use of Tilting’s houses, and to demonstrate a connection with a way of life that appeared to be changing rapidly. I later embraced a shift in my research similar to the way Professor Glassie has described a shift in his own research; away from rigorous structuralism towards a “neo-inductive and quasi-phenomenological approach,” as is evident in his study of Ballymenone. For me, this shift required that I study not only Tilting’s houses, but also its outbuildings, tools, furniture, and the use of the land and sea. After my initial attempts to make sense of the artifact system and cultural landscape of Tilting, I realized that further research progress would require a long-term, "experiential" approach. For example,

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1 Conversation with Professor Henry Glassie, 1986, Philadelphia.
mapping techniques using aerial photographs that I had found to be helpful for other research projects could not be used in Tilting as things were constantly changing. Older houses were typically moved when they were sold, and due to the fragility of the architecture and some landscape features like wooden fences or wooden fishing flakes, what was extant one week could disappear the next. Understanding the artifact system and the way of life involved piecing things together from small fragments of information over a long period of time, as there had already been many physical changes to houses, outbuildings, and the use of the land when I arrived in Tilting.

In this article, I present an overview of Tilting’s edible landscape with new, basic quantitative information and new maps on land use. For readers who may be interested, detailed descriptions of agricultural and inshore fishing practices are available in my book on Tilting (Mellin, 2003), and in this regard I was again influenced by Part Five (“Working the Land”) of Glassie’s book on Ballymenone. Glassie presents detailed information, drawings, and photographs of many traditional practices, such as rooking hay, animal husbandry, growing crops, and harvesting turf (peat) for fuel. These types of traditional practices are fast disappearing in Tilting and in other Newfoundland outports, and I am pleased that locally my book has recently been described as a “Newfoundland survival manual.” If writers like James Howard Kunstler (Kunstler, 2006) are correct, we may once again need this type of knowledge in order to feed ourselves when oil gets scarce.

THE LANDSCAPE

Tilting has outstanding extant examples of vernacular architecture relating to Newfoundland’s inshore fishery, but Tilting was also a farming community despite its challenging sub-arctic climate and exposed North Atlantic coastal location (Figure 2, aerial photograph, 1965). There was a delicate sustainable environmental balance in all aspects of life and work in Tilting, as demonstrated through a resource-conserving inshore fishery and through finely tuned agricultural and animal husbandry.
practices (Mellin, 2003).

Part of the inspiration for this paper came from large-scale maps I prepared in early 2007 for an exhibit on Tilting’s vernacular architecture and cultural landscape. From these maps, I began to realize that more research should be done on the detailed mapping of land use. On one of these large maps (Figure 3, house/garden relationship), I show the relationship between gardens, hay meadows, and houses. In this roughly 4.6 sq. kilometer map area, almost all of the activities relating to the means of subsistence can be found, such as ocean and freshwater fishing, farming, animal husbandry, agriculture, foraging, trapping, and hunting (gunning).

Fogo Island is located in the “North Shore Forest” ecoregion of the province. This is a narrow coastal band of boreal forest (black spruce, white spruce, balsam fir, and pockets of mixed hardwoods), barrens, and basin bogs that has the warmest summer temperatures and the least rainfall of any ecoregion on the island of Newfoundland, despite its coastal proximity. By the end of the summer, moisture deficiencies are not uncommon. The North Shore Forest sub region has forests similar to the forests found in the “Central Newfoundland” forest ecoregion, yet has barrens much like those in the eastern hyperoceanic barrens. Soils on Fogo Island are “organic fibrisols, a type of soil that occurs in peatlands composed mostly of organic matter.” Writers often characterize Fogo Island as a fairly inhospitable place. Donald Holly, an archaeologist who has done fieldwork in Tilting, wrote: “The northern half of the island is an undulating plain of exposed bedrock, lichen, and treeless bogs. The southern shore, in contrast, is blan-

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3 The hyperoceanic barrens are to the east of Fogo Island, mainly on the northern tip of the straight shore by Lumsden but also on the northeastern tip of the Bonavista Peninsula. See the pdf file authored by the Department of Environment and Conservation, Government of Newfoundland and Labrador: http://www.env.gov.nl.ca/parks/library/pdf/Ecoregions/Island_3_north_shore_forest%20-%202007.pdf

4 ibid.
ked by tangled forest and boggy wetlands, both equally impenetrable. Oral histories explain this dichotomy in cultural terms. The Irish, concentrated primarily in the northern community Tilting, it is said, transformed their new forested home into that of their grassy old one, through extensive clearing. While perhaps true to some extent, the exposed nature of the northern shore to wind, sea, and salt spray, has also undoubtedly contributed to its barrenness. In addition, the ravages of forest fires, as visible in several places across the island, cannot be ruled out as a contributing factor. Accordingly, it is likely that a combination of cultural and environmental factors worked to shape the forest-barren landscape dichotomy currently visible on the island.5

Environment Canada's description of the region is equally discouraging:

A variety of conditions are found in this basin, which range from very thin cover to greater than 1.5 m with a base of till... The majority of the land in this area contains soils, which have no capacity for arable culture or permanent pasture. The remaining land contains soils which are capable of only producing perennial forage crops, but improvement practices are feasible... this area has moderately severe limitations to the growth of commercial forests.6

In this paper, I hope to show that despite the bleak picture painted by these descriptions, with careful land conservation many generations of Tilting residents defied all odds and thrived for the most part, even though there were years of scarcity. Fundamental to an understanding of Tilting's settlement pattern, use of the land, and even the use of the sea is the concept of the "commons" (see "animal husbandry" below).

In most rural Newfoundland communities today, the character of the landscape is changing from a "working" landscape to a "pleasure" landscape. This is reflected in the appearance of neat and level suburban front lawns, and in the demise of animal husbandry. Tilting's landscape was a "working" landscape that reflected industrial and agricultural requirements as well as social relations and local cultural patterns. However, the appear-

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5 http://www.nfmuseum.com/977Ho.htm
6 http://map.ns.ec.gc.ca/canal/root/main/station_details_e.asp?envirodat=NFO2ZJ0024
ance of the town of Tilting as a collective artifact was very important to the residents, as expressed in the painted fronts of the houses, all facing the harbour, in contrast to the red ochre stained outbuildings. These outbuildings symbolized prosperity in the era of the salt cod fishery. In Tilting, most houses and outbuildings were clustered around the harbour in patrilocal family neighbourhoods. These buildings were constructed for mobility, and when a building was sold, it had to be moved, as the land was not typically included in the sale. There were often no clear boundaries or fenced-in areas to indicate ownership of outbuildings, and each family had many different single-purpose outbuildings that were often interspersed with the outbuildings of neighbours (Figure 4, Kinsella premises).

Residents had to live close to their harbour fishing premises, as the preparation of salt codfish, the mainstay of the fishery, required intensive work in the summer and fall. There were infield and outfield gardens and hay meadows, but most gardens and meadows were located about a ten or fifteen minute walk from the harbour, either in Oliver's Cove (Figure 5, "lazy beds" ready for planting in Oliver's Cove) or in Sandy Cove. All Tilting's residents cultivated land in this way. These remote, fenced gardens and meadows were individually owned, and were usually clustered together with those of other residents. Common land not fenced in was used for the common grazing of animals, or for such activities as gunning, trapping, or berry picking. The potable water supply came mainly from Sandy Cove Pond, supplemented by community wells (there was no piped municipal water supply in Tilting until the early 1990's). Water for gardens came from Sandy Cove Brook, Oliver's Cove Brook, small ponds near remote gardens, or from rainwater collected from roofs.

Tilting's residents had an intimate knowledge of the land and sea. For example, local knowledge dictates that only nine sheep can be safely sustained over the summer on Pigeon Island, the large island that acts as a breakwater protecting Tilting's outer harbour (Figure 6). This is reminiscent of ways of knowing or describing the land once common in Ireland. "In the west of Ireland to this day a farmer measures his land not by the acre but by the 'cow's grass'; that is, by its grazing capacity: I have

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7 It is one kilometer from Greene's Point to Oliver's Cove, and about 1.5km from the west side of Tilting's harbour to Sandy Cove.

8 My calculations indicate each sheep required approximately 4 hectares, based on the foraging land area and quality available on Pigeon Island.
the grass of ten cows.’ (Evans, E., 1977:38).” In Tilting, the transmission of knowledge of the landscape and seascape from generation to generation has recently been disrupted by demographic shifts, and these shifts are presently being experienced in all rural areas in Newfoundland and Labrador. Young people are moving away from outport communities in record numbers. Although they may occasionally return to visit, they do not engage in seasonal work activities with the frequency or intensity of their parents and grandparents. At one time, Tilting’s residents knew hundreds of place names on the land and sea that represented affiliations, or corresponded to events, work, and other activities that took place at certain locations (Mellin, 2003).

Knowledge of the land and sea related strongly to seasonal activity patterns that involved excursions for such things as berry picking, harvesting wood, shoal fishing, sealing, and gunning. The cognitive territory of the community was extended by sea with trap berth and shoal fishing locations, and by land with summer paths and winter slide paths for harvesting wood by horse and slide.

Tilting’s houses and outbuildings conformed to limited variations of single structural bay typologies for small wooden buildings (Mellin, 2003). These buildings were constructed either from wood harvested on Fogo Island, or from materials and components recycled from older houses and outbuildings. Locally made furniture was often constructed using recycled materials from houses and outbuildings. Many tools were locally made, and most residents had basic carpentry skills.

AGRICULTURE

To the first-time visitor, Tilting’s landscape appears like a rocky, barren, and exposed coastal landscape that could not sustain agriculture. However, there is a surprisingly high proportion of fenced-in land area devoted to agriculture. The soil of arable land in the protected coves of Sandy Cove and Oliver’s Cove was built up over many generations. In addition to concentrations of gardens and hay meadows in these major coves, there were gardens closer to houses, especially in locations like Greene’s Point. The gardens on Greene’s Point would have been subject to regular salt spray from the ocean, and they were also vulnerable to high seas. Some gardens requiring a long walk were remote and scattered, either along the coast or in
Fences used for gardens and hay meadows in Tilting were woven-type riddle fences, picket fences, and longer fences. Thousands of pickets and longers were harvested on Fogo Island for the construction of these fences, and they had to be rebuilt every 15-20 years or so. More than 300 fenced gardens are shown on Figure 3, and the total length of the fencing is over 35 kilometers. Vegetable gardens were cultivated using well-drained lazy beds. There were subterranean storage buildings for agriculture, such as root cellars (storage of root crops) and cabbage houses (Mellin, 2003). Hay was stored either in the lofts of stables near houses, or in remote hay houses located in hay meadows. Hay was cut using scythes, placed in piles called “pooks,” and carried to stables by “horse and wheels” or hauled manually in “linnets (nets).

In certain “non-arable” areas near the community, berry picking was an important activity on commons areas in late summer and fall, and residents relied on the berry harvest. Bakeapples were the first berries to come into season in late August, and these were found in marshy areas. Bakeapples were followed by blueberries in early September (making blueberry wine was a Tilting tradition), and blueberries were followed by partridgeberries in late September. Marshberries could be gathered in October and sometimes even in November. Plants in non-arable areas were also harvested for medicinal and other purposes. Jim McGrath told me his mother Gladys sent him to Henan’s Hill to cut juniper plants, and these were used to make juniper beer.

**ANIMAL HUSBANDRY**

Until the late 1980’s, Tilting’s landscape was once “literally” edible in a way that was most unusual elsewhere in North America. In Tilting, fences were used to keep animals out of vegetable gardens and hay meadows. All land outside these fenced areas was part of the commons for fairly unrestricted communal grazing of animals. This pattern, known also as “commonage” or the “open field system,” was not exclusive to Tilting and until the mid-19th Century was once present in most rural Newfoundland communities. Regarding the open field system in England, Dahlman writes “the system never was an unchanging and monolithic entity: there never was an open field system that had an identical shape all over England through the centuries from its appearance until its replacement with the modern system of farming (Dahlman, 1977:16).” Cole writes, “it would be a mistake to suppose that commonfield agriculture is an obsolete institution with no contemporary relevance. Variations on the open field system persist today in many parts of the world, including the mountains of Japan and Switzerland, the Himalayas, Vietnam, and the Andean mountain regions of Peru and Bolivia (Cole, 2002:116).”

In Tilting, even if individuals or The Crown claimed ownership of unfenced land, animals like horses, cows, sheep (in the hundreds), and goats were free to graze on this land. Near the houses, chickens were often permitted to roam free. While cows would usually stay fairly close to home, horses, used mainly in the winter for work on the slide paths for hauling wood for construction and firewood, often congregated in large herds and roamed the entirety of Fogo Island in late spring, summer, and fall, thriving by foraging on indigenous vegetation. A time-consuming daily chore that was often the responsibility of the women in the community was “cow chasing,” and some cows had a propensity to practically disappear when it was time for milking.

Regulations restricting common grazing were implemented in the late 1980’s in Tilting. The reasons were twofold: the provincial government threatened to cut off funding for municipal infrastructure to any community that refused to pass these regulations, and some Tilting residents began to feel that open grazing was a nuisance. The main complaint was about roaming horses destroying landscaping in fenced-in, ornamental front yards in front of new houses. The horses were very clever getting into these yards. But there was also no tolerance for the droppings of other animals like sheep and cows. What looked like a landscape of grassy areas that was maintained by a fulltime team of gardeners has gone wild in recent years without grazing animals.

A few of Tilting’s residents have tried to maintain animal husbandry traditions, but it has been difficult for them. Some residents loudly complain when sheep escape fenced areas, but complaints are not so loud when local dogs break in and kill sheep. Some residents like Cyril and Neil McGrath have had to take their sheep to nearby islands for the summer. Little Fogo worked well for this purpose, but in recent years coyotes on these islands have killed sheep. However, Pigeon Island is still
used for grazing sheep.

**THE FISHERY**

As was typical of many other fishing villages in the province, the inshore fishery was pursued in different ways in different seasons. When fish were plentiful in summer, traditional cod traps made of barked cotton linnet were used along shore and each location or "berth" had a name. In the fall of the year, the inshore fishery was pursued slightly further offshore on the "eastern ground," shoals within a few kilometers of shore where handlining and trawling for fish was used. Extensive wooden platforms called "flakes," located next to fisheries outbuildings along the shoreline of the harbour, were used to dry salted codfish for market. Some of the senior residents in Tilting told me that the French once dried codfish on carefully placed small stones on the ground.9 In addition to the codfishery, other species were harvested as part of the inshore fishery such as lobster, and these could often be easily caught in Tilting's inner and outer harbour. Some ocean fish were caught for bait or harvested for fertilizer, such as capelin and lance. There were other species of fish that were available to fishers involved with the traditional inshore fishery, but until the codfish became scarce in the late 1980’s, not much attention was paid to these. The harbour also contains one of the few areas where clams can be harvested, and American soldiers stationed in nearby Sandy Cove during World War II dug for clams in the eastern part of the inner harbour. Subsequently, the inner harbour became polluted when residents changed from outhouses to septic tanks (septic systems without properly installed drain fields). Pollution has abated in recent years with the completion of the town's sewer system that has an outfall east of Greene's Point.

The sea was an extension of the "commons" in Tilting. Cole has written about common property regimes governing fishing rights on the Camlik lagoon and at Alanya on the Mediterranean Sea. He describes system for drawing lots for fishing sites that is similar to the way lots for cod trap fishing berths were once drawn in Tilting (Cole, 2002: 119).

Freshwater fishing took place in Sandy Cove Pond (mud trout) and Sandy Cove Brook (sea trout). Eels could be caught in Henan's Brook, a small brook that ran through the Gulch under a wooden bridge for the road. This brook no longer flows today due to beaver dams (beavers were not native to Fogo Island) and also due to water and sewer infrastructure.11 The eels would migrate from the harbour to the pond in the spring of the year, and they would return to the ocean in the fall.

**SEALING, GUNNING, AND TRAPPING**

In Tilting, the seashore and inshore was used for sealing and gunning. Gunning refers to hunting for birds with rifles, usually salt-water ducks that pitched in the coves. Favourite gunning locations were at Oliver's Cove Head, Long Point, The Garrison on Greene’s Point near Mike Greene's house (Jim McGrath told me Mike would often shoot ducks flying over his property: his was the house furthest out on the point), Careless Point, Wild Cove, and Sandy Cove. In Sandy Cove, Jack Reardon often shot ducks from his fishing stage. Gazes, temporary structures built to camouflage the gunners, were semicircular structures made of stone. In winter, on sheets of ice along the shoreline called ballicatters, gunners used axes to cut out pieces of ice that were used to build semi-circular gazes.

In the forests near Tilting, rabbits were plentiful, and rabbit snaring was often done on Tate’s Hill (known as Tate’s). Neil McGrath still snares rabbits there. The Long Country, a bit further away from the community along one of the main slide paths, was also used for rabbit snaring. Jim McGrath's grandfather William Broders was one of the best-known trappers in Tilting, often catching foxes by The Fox's Rock. Some Tilting residents presently snare beavers for their pelts.

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9 This may be similar to the "graves" used by the French in places like St. Pierre and Miquelon.

10 Interview with Arthur Ludlow, Joe Batt's Arm, 2006.

CONCLUSIONS

The "delicate sustainable environmental balance" I referred to in the introduction relates to the dynamics of the individual vs. the collective in all spheres of activity found in Tilting: harvesting, production, consumption, land stewardship, and social behaviour. This issue relates to basic principles expressed in a prescient and seminal sustainability essay written in 1968 by Garrett Hardin, "The Tragedy of the Commons." As there were indeed commons in Tilting, these commons provide a literal example of Hardin’s analogy:

"The rebuttal to the invisible hand in population control is to be found in a scenario first sketched in a little-known Pamphlet in 1833 by a mathematical amateur named William Forster Lloyd (1794-1852). We may well call it “the tragedy of the commons,” using the word “tragedy” as the philosopher Whitehead used it: "The essence of dramatic tragedy is not unhappiness. It resides in the solemnity of the remorseless working of things." He then goes on to say, "This inevitability of destiny can only be illustrated in terms of human life by incidents which in fact involve unhappiness. For it is only by them that the futility of escape can be made evident in the drama." The tragedy of the commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy. As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component:

1) The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1.

2) The negative component is a function of the additional overgrazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of -1.

Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another.... But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit -- in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all (Garret, 1968: 1243-1248).

Had he passed some time in Tilting during the years before common grazing was banned, Hardin may have encountered herdsmen whose rationality was tempered by limits to freedom and by the ethics of egalitarianism and cooperation. In Tilting, these ethics extended to other spheres of endeavour besides management of the commons. Hardin’s understanding of Whitehead’s "tragedy" refers to the inexorable momentum of an artifact system that is out of balance and out of control, a world where “negative utility” is rarely manifested in a local, practical demonstration. Tilting is, if nothing, else, a practical demonstration of the consequences of the behaviour of individuals in an environment where cooperation was required in order to survive. When I interviewed senior residents in Tilting many years ago, their stories often ended with a moral about care for the land, recycling, helping others in need, and ingenuity when faced with limited resources: words of wisdom that seem particularly relevant today.

REFERENCES


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