"WEEDS UPSPRING WHERE THE HEARTH SHOULD BE": RURAL HOUSE ABANDONMENT IN SOUTHERN ONTARIO'

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A site type often encountered in the course of archaeological field surveys is the rural house abandoned in the nineteenth or early twentieth centuries. The creation of such sites is related to two phenomena well-recorded in contemporary documents. Initially most houses were built of logs, but as settlement progressed these were often replaced by "improved" structures of frame, stone or brick construction. Later, in the half-century between 1880 and 1930, came a second phase of house abandonment, when much of rural Ontario underwent a general depopulation. This paper examines these two periods of house abandonment, and looks more specifically at the underlying factors². In particular, contemporary descriptions and statistical information from census records will be used to develop a framework for understanding the space-time dimensions of rural house abandonment and loss.

INTRODUCTION

At the opening of the nineteenth century, European settlement in Ontario was largely confined to the loyalist-settled townships arrayed along a narrow strip bordering the St. Lawrence River, Lake Ontario and Lake Erie an area inhabited by less than 100,000 people (Figure 1). From this ribbon-like core, only about 25 to 50 miles wide, settlement expanded northwards. From the late 1820s to the 1850s there was a tremendous wave of emigration to Ontario, especially from Scotland and Ireland. Each year, something like 10,000 to 50,000 emigrants arrived in British North America, many attracted to Ontario where interior townships were rapidly being opened for settlement. By 1851, rural population in Ontario exceeded 800,000 people. Although emigration declined in the 1860s, still, by about 1880, most

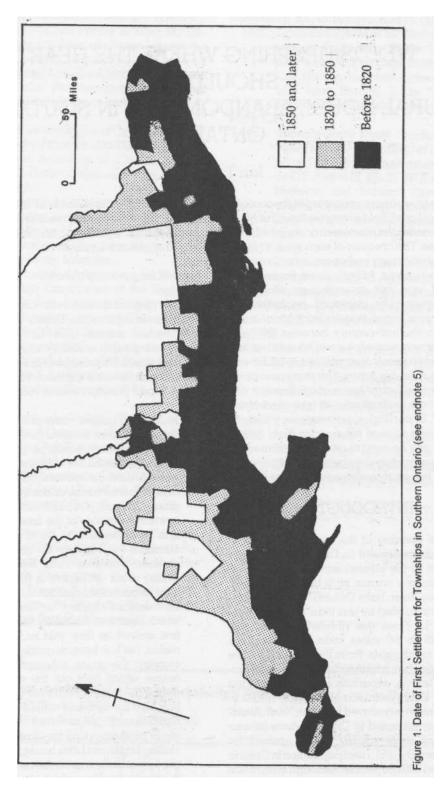
townships in Ontario south of the Canadian Shield were reasonably well-settled. In fact, rural population peaked in the 1880s, reaching a total of about 1.4 million.

Log Housing In Early Ontario

Many nineteenth century accounts chronicle the pioneer experience. Unless a settler had independent means, their first house was usually a log cabin or shanty. Only later was it possible to build a more substantial dwelling of frame, brick or stone. Of these various house types, 'Tiger" Dunlop wrote in 1832:

Most of the houses, more particularly those of recent settlers, are built of logs. When a man gets on a little in the world, he builds a frame house, weather-boarded outside, and lathed and plastered within; and in travelling along the road, you can form a pretty accurate estimate of the time a man has been settled, by the house he inhabits; — indeed, in some instances, you may read the whole history of his settlement in the buildings about his farmyard.

The original shanty, or log-hovel, which sheltered the family when they first arrived on their wild lot, still remains, but has been degraded into a piggery; the more substantial log-house, which held out the weather during the first years of their sojourn, has, with the increase of their wealth, become a chapel of ease to the stable or cowhouse; and the glaring and staring bright-red brick house is brought forward close upon the road, that the frame-dwelling, which at one time the proprietor looked upon as the



very acme of his ambition, may at once serve as a kitchen to, and be concealed by, its more aspiring and aristocratic successor.... [Dunlop 1967:130-131].

Cost and convenience dictated why log houses predominated in the backwoods — in remote settlements sawn lumber or bricks were either not available or very expensive; but logs could be had for free on the settler's own farm. Through the use of a "bee" - where neighbours were enlisted to erect a house - a log cabin could be built in a few days for as little as £5 to £10. In contrast, a frame house of modest size could cost 5 to 10 times as much³.

As a farm lot was cleared and more land put into production, frame or brick houses became more affordable. For those without independent means, nineteenth century writers suggested that it might take 10 to 20 years until the settler was in a financial position to erect an improved house. In 1855, Catherine Parr Traill advised prospective emigrants that:

... a wild farm is not to be made in one, two or even five years. - The new soil will indeed yield her increase to a large amount, but it takes years to clear enough to make a really good farm, to get barns and sheds and fences and a comfortable dwellinghouse; few persons accomplish all this under ten, fifteen and sometimes even twenty years. I am speaking now of the poor man, whose only capital is his labour and that of his family.... [Traill 1968:36-7].

Similarly, MacGregor observed in 1832 that:

Few habitations can be more rude than those of the first settlers, which are built of logs, and covered with bark or boards.... The most that an emigrant can do the first year, is to erect his habitation, and cut down the trees on as much ground as will be sufficient to plant ten or twelve bushels of potatoes, and to sow three or four bushels of grain....In course of five years, industrious man may expect, and should have, twelve acres under cultivation....In ten years, the same man, with perseverance

and frugality, ought to have from twenty-five to thirty acres under improvement....a comfortable house, a good barn, and plenty of food for himself and family [MacGregor 1832:I:468-469]

Such estimates of land clearing rates appear to be overly optimistic. As shown later, only in areas where cleared land exceeded 40 or even 50 acres per farm did improved houses supplant the log cabin. According to Peter Russell's (1983) calculations, an average farm family could clear about only 1.5 acres per year. It could take 30 or more years until a farm was productive enough to permit financial investment in a frame or brick house.

The relationship between the average amount of land cleared per farm and the amount of improved housing was reflected in the geography of nineteenth century Ontario. Many nineteenth century writers observed that in making a journey from the developed "front" townships to the backwoods the whole settlement history could be traced. For example, the Rev. Beaven in the early 1840s remarked on the change in landscape and house types in the Grand River area as he emerged from the backwoods and entered into the long-settled countryside:

...I had an opportunity of witnessing the clearing process in all its stages. In one place might be seen a few trees cut down, and the first rough shanty of boards set up....Then about an acre, with the trees felled, and lying irregularly about; about a couple of roods cleared in the centre of it, a small log cottage set up, and the rest planted with potatoes. This would be fenced in perhaps with the boards of the original shanty, nailed to a few stumps and small trees, with their tops cut off and left rooted in the ground....Further on the process has advanced another step comfortable stables and barns are erected; an addition is perhaps made to the log hut; the chimney, which was of wood, filled in and plastered with clay, is replaced by one of brick or stone, built up from the ground....As we approach the older settled country

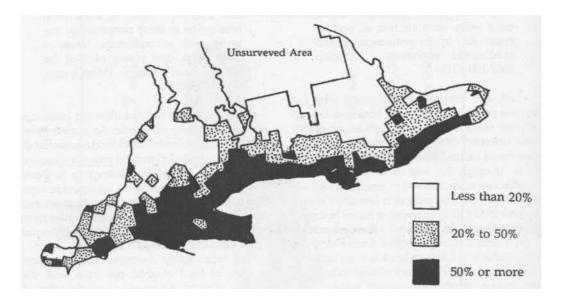


Figure 2. Percentage of Improved (Non-log) Housing in 1861 (Wightman 1974)

the rough clearings scarcely appear, such as the first I described: the farm buildings, (all of wood) become capacious, and are kept in good order. There is a good garden with upright paling or boards; and a substantial frame-house, painted white or roughcast, with its neat verandah, and pretty green French blinds, shows that the occupier has triumphed over necessity, and possesses both leisure and ability to think of comfort, even perhaps of elegance [Beaven 1846:58-62].

In fact, spatial distribution of housing material types for 1861, as shown in a map (Figure 2) by the geographer W.R. Wightman (1974), very much parallels the settlement history of Ontario (Figure 1). To the south, in the old loyalist core bordering the Lakes, most townships had over 50 percent improved housing. But further north, in the backwoods, this figure declines, and log cabins predominated.

Printed census records provide a source of information that can be used to obtain quantitative information about house types.4.4 Unfortunately only the 1851 and 1861 censuses contain details on house construction materials. As a result, it is not possible to use census records to develop a longitudinal study to trace chang

es in house construction material throughout the nineteenth century. With the 1851 and 1861 data, however, a sort of "cross-sectional" study can be made, since, as indicated above, different parts of Ontario were settled at different times.

To examine quantitatively the shift from log to improved housing the following variables were recorded for 89 townships, using printed census records:

• number of log houses in 1851 and in 1861; number of improved houses (frame, brick and stone combined) in 1851 and in 1861; number of farms in 1861; amount of land occupied and cleared in 1861; total acreage of the township; and length or age of settlement (i.e. 1861 minus the year when township was first settle&).

Using total acreage of a township, information on houses was standardized by converting raw numbers into densities per 100 acres, since 100 acres was about the average farm size. When certain variables are plotted against length of settlement, several strong relationships emerge. As the length of settlement increases, so too does the average size of cleared land per farm. For older settlements the average farm had about 50 to 60 acres of cleared land, but for townships settled less

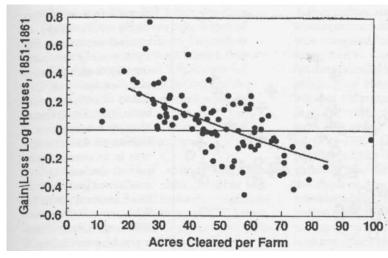


Figure 3. Gain/Loss of Log Housing between 1851 and 1861 (Density per 100 Acres) vs. Average Cleared Acres per Farm

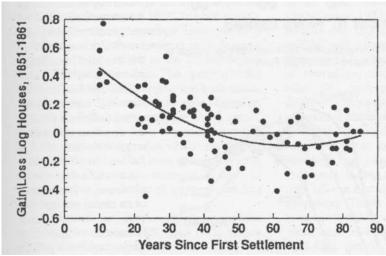


Figure 4. Gain/Loss of Log Housing between 1851 and 1861 (Density per 100 Acres) vs. Length of Settlement

than 20 years the average farm had only about 20 to 30 acres.

In general, house density increases with the age of settlement and with acres cleared. When, however, densities of log and improved houses are considered individually, two different trends are apparent. Improved housing increases with the length of settlement and with cleared acreage. In contrast, log housing density decreases with the same two variables. When the difference of log housing density between the 1851 and 1861 censuses is plotted

against acreage cleared, there is a net loss of log housing in town-ships that average over 53 cleared acres per farm (Figure 3). For townships that had been settled for about 40 to 70 years there is a tendency for log house density to drop between 1851 and 1861: typically the loss may be -.1 to -.3 per 100 acres (Figure 4). That is, for certain town-ships something like one out of every 5 to 10 log houses disappeared in the decade

between 1851 and 1861.

decrease in log house density is there-fore determined by both the of length time township has been settled and the amount of land cleared per farm. When these two variables are considered together, generally the loss of log houses tends to occur only in townships that have been both settled for over 40 years and where the average amount cleared land per farm exceeds 50 acres (Figure

These quantitative estimates of log cabin

loss

have certain limitations. Not all log cabins truly disappeared. As Dunlop suggested, some could be converted into outbuildings, while others could have been framed or bricked over and therefore be counted in the next census as an improved house (e.g.,Rempel 1867: 23). As well, these figures are overall losses, they do not take into ac-count log houses built in the decade between 1851 and 1861. Once again, there is nothing unique about this decade, however it is the only period for which such systematic comparisons can be made.

provided a satisfying

finale to the saga of pioneer settlement. But

by the early twentieth

century, it was increasingly evident that On-

tario's countryside was once again being transformed. A conspicuous feature of this change

was in its demographics: a decline in the number of people who lived in rural Ontario. Each census between

1891 and 1921 recorded a net loss in Ontario's

(Cudmore 1912; Watson

1947; Young 1972). In contemporary writings "rural depopulation", as

it was termed, created an emotion-laden de-

bate⁶. For example, to

1913 book Rural Life in the

documentation that a

ian base — the source of its moral strength -

houses were standing

and schools were half-

empty. McDougall bol-

stered his arguments by interweaving dense

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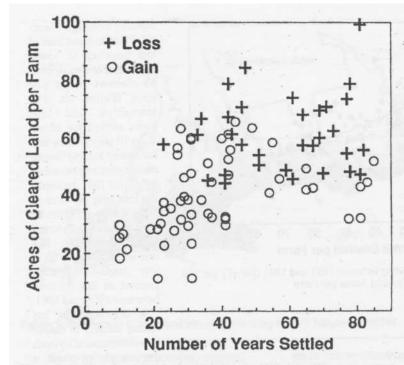
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Figure 5. Net Gain/Loss of Log Housing between 1851 and 1861 vs. Length of Settlement and Average Acres Cleared per Farm

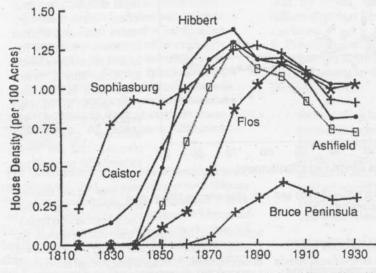


Figure 6. Housing Density per 100 Acres for Six Example Rural Townships, 1817 - 1931

and religiosity, as well as a touch of racism:

Late Nineteenth And Early Twentieth Century Rural Depopulation

Clearing forests and replacing log cabins with frame or masonry houses should have

How serious, therefore, is our situation when we find that under the first count in the social strain - the abandoned home - in Ontario, Lennox and

Addington have 366 fewer dwelling houses than ten years ago, a loss of 6.9 per cent; East Huron 310 less, a loss of 7.5 per cent; North Lanark had 265 of its dwellings, or 7.7 per cent, go out of use in the decade; and Lambton East 491, or 8.3 per cent; while in Grenville 352, or 9.17 per cent, became unoccupied - the largest loss, for a county, in the Province.

There was nothing wrong with Rev. MacDougall's numbers, although other contemporary writers took a more dispassionate view of rural change. For example, C.C. James, a former deputy minister of agriculture, published a brief history of Ontario farming in 1914. Although he noted the decline in Ontario's rural population, James regarded this as a "trying" but necessary adaptation to changing economic circumstances.

Reasons for this change are multiple but not hard to find (Drummond 1987). In part, people left Ontario's rural townships because of a perception of better economic opportunities elsewhere: in the cities, in the United States and in Canada's own west. The opening of the CPR line in 1886 finally made the bulk transportation of people and commodities between Ontario and the west practical. As a result, population of the prairies expanded rapidly, and the west became the wheat producing region of Canada. The west attracted many people from Ontario; for example, in 1911, 16 percent of the population of western Canada was Ontario-born.

The structure of Ontario agriculture was also changing (Drummond 1987; Lawr 1972). With a shift to mixed farming between 1881 and 1931, wheat production dropped by more than half and there was a corresponding increase in livestock and fodder crops like oats and hay. While the McKinley tariff act of 1891 restricted agricultural exports to the United States, "finished" farm products like beef and pork, butter and cheese, found a ready and profitable market in the rapidly growing cities of Ontario. Mechanization — at first based on horse power, later on steam and gasoline - resulted in labour-reducing farm efficiencies. While the number of farms decreased, as did farm population, overall farm acreage for Ontario remained much the same.

To examine more precisely the effect of rural

depopulation on housing stock, information on house and farm density between 1817 and 1931 was compiled for a sample of 45 rural townships; that is, townships that never contained an incorporated village8. When house density profiles are charted through time, some intriguing differences and similarities emerge (e.g., Figure 6). Since the sample townships were first settled at different times - from as early as 1780 to as late as 1852 - the initial population "take-off" dates are correspondingly variable. Also there are marked differences in the slope or rate of increase. The old loyalist townships (e.g., Sophiasburg) - those settled before the War of 1812 - tend to show a gradual increase in house density. In contrast, the new townships (e.g., Hibbert) like those in the Huron Tract and Queen's Bush - first opened to settlement during the 1830s and 1840s when immigration was at a peak - tend to have high initial growth rates. Despite these differences, most townships reach their peak density between 1870 and 1890 at about .8 to 1.7 houses per 100 acres. Townships with little arable land, however, may have lower overall densities (e.g., Bruce Peninsula). Most, but not all townships, display a decreasing density after 1881, with a tendency for the rate of decline to be similar. So, notwithstanding the different dates and rates of settlement there is a sort of "equifinality" in the abandonment of rural housing in the late nineteenth and early twentieth centuries.

Overall, loss of farm houses between 1881 and 1931 is about 10 to 20 percent for many townships. There is, however, a difference between the old and new townships in the date when such housing loss takes place. For the 1881-1911 period there is a positive trend between the length of time a township had been settled and the gain of rural housing (Figure 7). During this period it is mainly the new townships — those settled after the War of 1812 — where house loss occurs.

Between 1911 and 1931 there is a contrasting trend: a negative correlation between length of settlement and increase of house density (Figure 8). While almost all townships were now losing houses, the loss is greater in the old townships. For the new townships a loss rate of about -.1 per 100 acres is typical; for the old township this figure approaches -.2. In all, between 1881 and 1931 many rural townships in Ontario displayed a decrease of about -.1 to

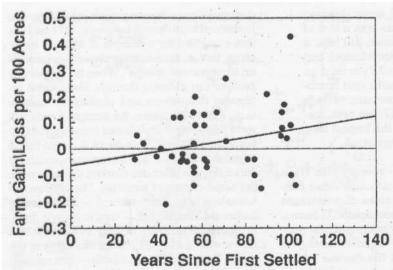


Figure 7. Gain/Loss of Rural Housing Between 1881 and 1911 (Density per 100 is Acres) vs. Length of Settlement take

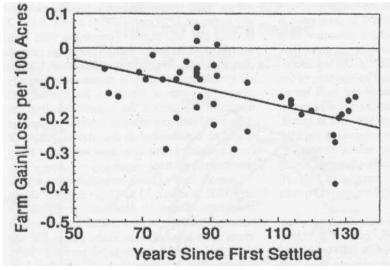


Figure 8. Gain/Loss of Rural Housing Between 1911 and 1931 (Density per 100 Acres) vs. Length of Settlement

-.3 houses per 100 acres. In effect, one out of every 5 to 10 farm houses disappeared — a figure, in fact, similar in scale to the loss of log houses at an earlier time. Except for areas of marginal agriculture, farm land itself was not abandoned, but combined with existing holdings. As farm house density decreased, farms became larger. In the 45 sample townships, farm size increased by 20 percent — from 96 acres in 1881, to 115 in 19319.

Such depopulation and farmhouse loss can be vividly illustrated comparing two maps of the central portion of Ashfield Township Huron County. Ashfield was one of the new townships, first settled around 1838, reaching a population peak in the 1881 census (Figure 6), about the date of the 1879 map data shown on the left in Figure 9. In 1879 the 10,800 acre block contained 109 houses, mostly those of farmers: a density of

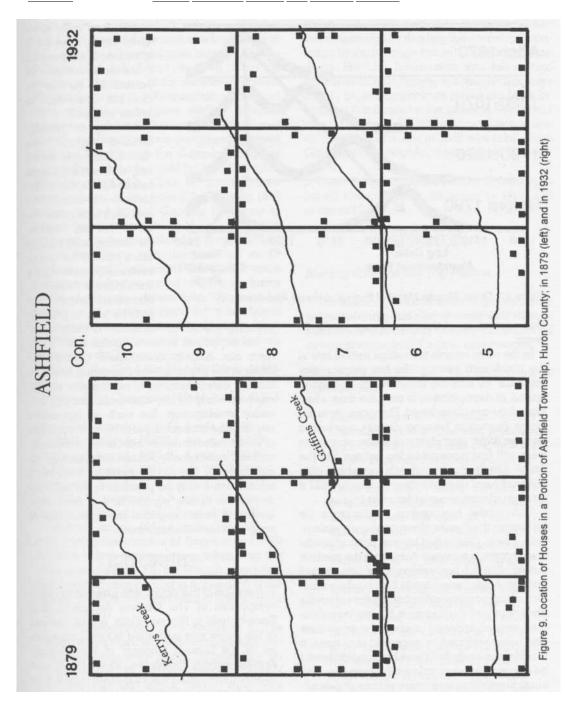
1.01 per 100 acres. On the right in Figure 9,

is house location data taken from a 1932 topographic map. By this time, a half century after the first map, there were only 87 houses. Density had declined to .81 per 100 acres — one out of every 5 houses had vanished.

SUMMARY AND IMPLICATIONS

As discussed earlier, initially most houses were built of logs, but as settlement progressed, and land was cleared and put into

agricultural production, these were often replaced by "improved" structures of frame, stone or brick. Typically this period of log cabin abandonment occurs about 40 to 70 years after first settlement, although the rate of farm clearance has a contributing effect. In the southern tier of counties, which were first settled in the late 18th century, this phase of log cabin abandonment should occur at a relatively early date, about 1830 to 1850. In the more northerly tiers of counties, which were settled more recently, this phase should correspondingly occur later.



A second phase of house abandonment took place between 1880 and 1930. This phase was associated with a general depopulation of rural Ontario. When these two trends are taken together it is evident that for most rural townships there should be two reasonable discrete

periods of house abandonment (Figure 10). For the old loyalist townships these two phases should be separated by a period of roughly 70 years, since log cabin abandonment came early, but depopulation after 1910. For townships settled in the 1820 to 1850 period there is

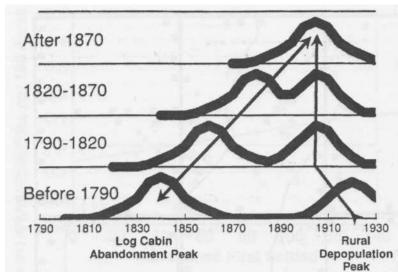


Figure 10. Tiered Bimodal Model of Periods of House Abandonment

historical maps) that

less separation of the two phases, about 50 years.

In the more remote townships settled late in the nineteenth century, the two phases may coincide, so that the early twentieth century period of depopulation is also the time when log cabins are abandoned. For example, in the Bruce Peninsula housing density reached a peak in 1901, and many of these structures were still first generation log cabins. But the Bruce, like the more southerly townships, also suffered rural depopulation, so that by 1921 it had lost almost one-quarter of its houses.

This model has certain implications for analyzing the results of regional archaeological surveys. One is that in most parts of south-ern Ontario, if terminal dates (not the median dates) of rural homestead sites are plotted through time, there should be two date clusters, which correspond to the two eras of house abandonment. Furthermore, if many log cabins are being abandoned at about the same time and being replaced by improved structures, it would seem likely that these households would be at a similar economic level, since they had enough wealth to erect more substantial dwellings. In such cases, the abandoned cabin sites may display similar material cultures. It would be interesting to know more about the socioeconomic features (e.g., income, farm productivity) of families that abandoned farm houses during the period of rural depopulation at the turn of the century. If this phenomenon tended

may be able to provide township-specific information — a "calibration" — on periods of house abandonment. Such data can help archaeologists, particularly those in the planning and consulting fields, in making determinations of relative site significance or rarity for any nineteenth century site under investigation. But such an approach requires the archaeologist to be aware not just of "mean ceramic dates," but also of historically and archaeologically defined initial and terminal dates for the site in question. With such information it may be possible to equate any discussion of site significance to both truly local and broad regional measurements of

ENDNOTES

rarity and representativeness.

1. A version of this paper was given at the 1993 symposium of The Ontario Archaeological Society, held in Niagara Falls. A later version of this paper was published in *Kewa*, newsletter of the London Chapter of The Ontario Archaeological Society Inc.: 95-6:2-16. Thanks to Susan Kenyon for tracking down some of the printed census material, and to Neal Ferris for his editorial assistance.

2. Since there is a decided spatial aspect to this, changes in house types and population densities are features of settlement well-studied by historical geographers, notably W.R. Wightman and his colleagues (e.g., Clarke et al. 1978; Taylor et al. 1986; Wightman 1974).

to occur on more marginal farms, then such sites may not represent a random sample of households for the period, but rather ones of lesser wealth.

Looking at broadly defined regions (the "tiers"), this paper deals only with some general trends for southern Ontario in the nineteenth and early twentieth centuries. For any particular locality under study there should be documents (e.g., census and

3. In 1817 — a time of high prices — Gourlay (1974:292) reported the cost of a log house at £25 and a "good" frame house between £ 125 to £250. In 1824, E.A. Talbot cited £10.10s as the cost of a log house fit for settlement duties. Respondents to an 1840 questionnaire about farm making costs gave slightly different estimates (Ankli and Duncan 1984). Estimated costs to construct a log house ranged between £5 and £20, although the Canada Company respondent said one could be built through a "bee" for only £2.10s. Costs for frame houses were higher, ranging from £50 to £90. An 1843 folder, issued by the Canada Company to attract prospective settlers to its lands, gave the price of a "comfortable Log House, 16 feet by 24, two floors, with shingled roof" as £9 (Coleman and Anderson 1978:118). The same document indicates a cost of £50 for a frame house of the same dimensions. This must be taken as a minimal price for most frame houses were larger than 16' by 24'.

4. Printed census records consulted include volumes in the following series:

Census of the Canadas 1851-52. 2 vols. (1853-55)

Census of the *Canadas 1860-61*. 2 vols. (1863-64)

Census of Canada 1870-71. 5 vols. (1875) Census of Canada 1880-81.4 vols. (1882-85)

Census of Canada 1890-91.4 vols. (1893-97)

Census of Canada 1901. 4 vols. (1902-06)

Census of Canada 1911. 6 vols. (1912-15) Census of Canada 1921. 5 vols. (1924-29)

Census of Canada 1921. 5 vols. (1924-29) Census of Canada 1931. 13 vols. (1933-42)

Census of Canada 1941. 11 vols. (1944-50)

- 5. Following the practice of Taylor et al. (1986) the date of first settlement was taken from the answer to question 1 in the township-by-township survey that appeared in Appendix B of the *Report* of the *Ontario Agricultural* Commission (Ontario 1881).
- 6. This phenomenon also occurred in the United States. Barron (1984) summarizes some of the contemporary social commentary on rural depopulation, and provides an account of the economic and social impact in a New England rural community.
- 7. For example:

"Stands a house by the river side, Weeds upspring where the hearth should be.

Only its tottering walls abide."

8. Number of houses per township was not

given in the 1921 and 1931 censuses. These were estimated by dividing the township population by the average household size for those years. Pre-1851 information was taken from assessment rolls where, too, house numbers had to be estimated from population size by dividing this figure by the average household size as given in the 1851 census. Information on number of houses in 1817 was taken from Gourlay's *Statistical Account of Upper Canada* (1974).

9. These figures compare well for the averages for all Ontario farms: 93 acres in 1881; 119 acres in 1931.

APPENDIX

Building Shanties and Log Houses

The following are a number of quotes on the subject of cabin and shanty construction taken from nineteenth century traveller accounts. All accounts come from Ontario experiences.

1) Catharine Parr Traill, *The Backwoods of Canada* 1836:

The shanty is a sort of primitive hut in Canadian architecture, and is nothing more than a shed built of logs, the chinks between the round edges of the timbers being filled with mud, moss, and bits of wood; the roof is frequently composed of logs split and hollowed with the axe, and placed side by side, so that the edges rest on each other; the concave and convex surfaces being alternately uppermost, every other log forms a channel to carry off the rain and melting snow. The eaves of this building resemble the scalloped edges of a clam shell; but rude as this covering is, it effectively answers the purpose of keeping the interior dry; far more so than the roofs formed of bark or boards, through which the rain and snow will find entrance. Sometimes the shanty has a window, sometimes only an open doorway, which admits the light and lets out the smoke. A rude chimney, which is often nothing better than an opening cut in one of the top logs above the hearth, a few boards fastened in a square form, serves as the vent for the smoke; the only precaution against the fire catching the log walls behind the hearth being a few large stones placed in a half circular form, or more commonly a bank of dry earth raised against the wall [1966:44].

2) Col. Talbot, Five Years' Residence in the Canadas 1824:

On arriving at the destined spot, the first consideration is to construct a shanty, or shed, for sleeping in. It is covered with bark; and when a large fire is made on the outside opposite the entrance, the interior of the temporary dwelling is rendered sufficiently comfortable, during the short time that it is necessary to make use of it. The next thing required, is to clear a spot for laying the foundation of the house; and, this being effected, the whole party proceed to cut down a sufficient number of small tress for building. The trees must not exceed a foot in diameter; and, on being cut to the required length, they should be drawn up close to the foundation of the proposed house. Beams and sills are then made out, and drawn up to be hewn. Large White Ash and Basswood trees are also cut down; and, after being divided into lengths of 10 feet each, supposing the house to be 20 feet in the clear, they are split into planks, and prepared for the flooring. When all this has been effected, 10 or 12 persons, who reside in the vicinity of the intended building, are requested to assist in raising it. On the arrival of those persons, the foundation is laid, by dove-tailing four of the largest logs together, and notching down the sills. A man then steps up on each corner of the frame, and as quickly as the logs are rolled up, they are connected together. The roof is carried up in the same way, and is covered either with bark or split clapboards. The door and window-places are then cut out; a stone back is built to the fire-place; and the chimney is

carried out in a manner something similar to the stick chimnies common in Irish cabins. The floors are then pinned down and the inside of the walls hewn. The vacant spaces between the logs are filled up with small timber; and the outside is carefully mudded over, so as to render it perfectly airtight. Windows and doors are then put up; the mansion is pronounced fit for the residence of a Monarch; and the family for whom it was intended, take immediate possession (1824, Vol. 11:187-190).

3) J. MacGregor, British America 1832:

The habitations which the new settlers first erect are constructed in the rudest manner. Round logs, from fifteen to twenty feet long, are laid horizontally over each other, and notched at the corners to allow them to come along the walls within about an inch of each other. One is first laid on each side to begin the walls, then one at each end, and the building is raised in this manner by a succession of logs crossing and binding each other at the corners, until seven or eight feet high. The seams are closed with moss or clay; three or four rafters are then raised to support the roof, which is covered with boards, or with the rinds of birch or spruce trees, bound down with poles tied together with wires. A wooden framework placed on a stone foundation is raised a few feet from the ground, and leading through the roof, its sides closed up with clay and straw kneaded together, forms a chimney. A space large enough for a door, and another for a window, is then cut through the walls; and in the centre of the cabin a square pit or cellar is dug, for the purpose of preserving potatoes or other vegetables during the winter. Over this pit a floor of boards, or of logs hewn flat on the upper side, is laid, and another overhead to form a sort of garret. When a door is hung, a window sash with six or more panes of glass is fixed....New settlers who

have means build much better houses at first, with two or more rooms; but the majority of emigrants live for a few years in habitations similar to the one here described [1832:558-5591.

4) Samuel Strickland, *Twenty-Seven* Years in *Canada West* 1853 (where he describes his experience as a settler, first building a shanty and then soon after a log house):

My friend in Douro turned out the next day and assisted me to put up the walls of my shanty and roof it with basswood troughs, which was completed before dark. I was kept busy for more than a week chinking between the logs and plastering up all the crevices, cutting out a doorway and place for a window, casing them, making a door and hanging it on wooden hinges, &c....Four thick slabs of lime-stone, placed upright in one corner of the shanty with clay well packed behind them to keep the fire off the logs, answered very well for a chimney with a hole cut through the roof directly above, to vent the smoke (1970:92).

I was anxious to commence building my house, so that I might have it ready to receive my wife in before the winter commenced. My first step towards it was to build a lime-heap. I calculated I should require for plastering my walls and building my chimneys, about a hundred bushels. We set to work accordingly, and built an immense log-heap of all the largest logs I could get together. It took at least the timber growing on half an acre of land for this purpose....We made a frame of logs on the top of the heap, to keep the stone from falling over the side. We drew for this purpose twenty cart-loads of lime-stone, which we threw upon the summit of the heap, having broken it small with a sledge-hammer; fire was then applied to the heap, which was consumed by the next morning....This is the easiest and most expeditious way of burning lime; but the lime is not so white, and there are more pieces of

unburnt stone, which make it not so good for plastering. I built my house of elm-logs, thirty-six feet long by twenty-four feet wide, which I divided into three rooms on the ground floor, besides an entrance-hall and staircase, and three bed-rooms up stairs. I was very busy till October making the shingles, roofing, cutting out the door and window-spaces, and hewing the logs down inside the house. I was anxious to complete the outside walls, roof, and chimneys before winter set in, so I might be able to work at the finishing part inside, under cover, and with the benefit of a fire (1970:97-99).

5) Wm. Magrath to Rev. T. Radcliff, Authentic Letters From *Upper Canada* 1831 (describing the erection of a log house near Erindale):

To return to the new settler. Having determined on the plan, the proper scantlings, he has the logs cut, accordingly, to the right lengths, and drawn together where the formation of the house is to take place.

The walls are contrived in the same manner as a schoolboy makes a crib, except that they must be upright; but, like that, they have corresponding notches, cut out of the ends of the respective logs that their adjoining surfaces may close, with as little space as possible between them, and that the coins or angles may be thus strongly braced.

The elevation must depend on the room required within; where upper apartments are intended, it must rise according, and proportionately high in a log house, which is generally finished with a shed, or pent-house, roof.

In the formation of this roof, however simple, much accuracy is to be observed.

Black ash and bass wood are considered best adapted to this purpose the stems should be about fourteen inches in diameter, straight, clean, and easily split. Having cut them into lengths, corresponding with the pitch

of the roof, they are then to be cleft asunder and hollowed out by the axe like rude troughs.

These are ranged in sufficient number from front to rear, in the line of the roof with the hollow side uppermost; and over them are ranged alternately, an equal number, with the round side uppermost; so that the adjoining of each two of the upper logs meet in the hollow of that beneath them, whilst the adjoining edges of each two of the lower logs are covered by the hollow of that which is above them; thus forming a compact roof perfectly water tight, as the hollows of the under logs effectually carry off all rain that may fall through the joints of the upper surface; and the roof continues staunch as long as the timbers remain undecayed.

This being completed - means must be taken to admit both the family and the light. The openings of the doors and windows (Which are generally procured, ready made, from the nearest settlement) are then formed in the walls by a cross-cut saw or an axe.

The chimney is then built with mud, if stones be scarce. The stubbing afterwards takes place, which means the filling up the vacancies between the logs with slips of wood, mud and moss; the floor is then formed of cleft planks pinned to logs sunk in the ground, and smoothed or rather levelled with an adze; the interior partitions &c may be got forward by degrees; but the oven, which is an essential, must be completed before the arrival of the family.

Stones or bricks must be procured for this, at any inconvenience, for security against fire; but mud will serve as mortar; it is always built outside the house, and stands alone. It is heated with pine, or very dry hard wood split into small pieces, and burnt in the oven to ashes, which being swept out, the bread is baked as in the common brick ovens at home, where dried furze are used to heat them (1953:16-18).

6) Martin Doyle, *Hints of Emigration to Upper Canada* 1831:

The first habitation which a settler thinks of, is the log house - and this is very speedily erected. Proceed in the following way:- After clearing the underwood....with a peculiar kind of hook, like our billhook, except it has a long handle, gather it into a heap and set fire to it, then cut down as many trees as will answer your purpose; these divide into lengths from 14 to 20 feet, according to the size of your family - square and dress them with an adze as well as you can; then lay three of these pieces thus [figure] morticed at the angles, on the ground, and raise corresponding logs over them, fitted into each other by notches previously cut, until your walls are 8 feet in height, building up the second gable at the same time with stones, to prevent danger from the fire, which is to be placed on a flagged portion of the floor next to it; then fasten your rafters for the roof, which is to be covered with boards lapped over, or if permanence be intended, with short pieces of boards called shingles which are more easily renewed than long pieces - you then cut out a door and window: the crevices in the walls, appearing between the logs, are to be closed up with clay and moss, then floor the house either with smooth boards or rough ones, thrown across sleepers; timber being abundant, and dryness essential to health and comfort, a clay floor is never used in Canada. An oven will be essential, especially in summer, when the heat would render the operation of baking inside the house very disagreeable, and this is frequently made of clay, and perhaps raised on the stump of a large tree [1831:59-61].

7) David Kennedy, Incidents of Pioneer Days at Guelph and the County of Bruce 1903 (reminiscing about erecting a shanty in Bruce County in 1851):

...we commenced at once to cut logs

to build a shanty near by a pure running spring creek....we also got the logs of the shanty put up, which was only thirteen feet square....began to saw a doorway into our shanty, and before night I had completed the cutting....We managed to roof our shanty with elm bark and we chinked the cracks up with pieces of split basswood and moss, and we made a fireplace with stones from the river, and a chimney place of bent sticks plastered with mud, and a floor of basswood slabs, split and hewn with an adze [1903:31-37].

8) John Strachan, A Visit to the Province c *Upper Canada in* 1819 1820:

In some excursions which we made, we saw the first struggles of the new settler. As soon as he gets in a little Indian corn and a few potatoes in the ground, he endeavours to put up a log house: accordingly, he chooses a spot most convenient for his residence, and cuts down trees of a suitable size for his cabin. These he cuts into lengths; the most common dimensions of the first building are 18 feet long by 16 broad; and it is so built as to become the kitchen of a superior house to be erected in its front, when the settler has enlarged his clearing, and got a little more forward in the world. After cutting a sufficient number of logs, his neighbours assemble, and raise the building for him, by laying the logs in a rectangular figure, with the ends notched, so as to interlock with one another, by which means the whole are secured and braced together. The spaces for the door and windows are then cut through; and towards winter, the interstices, or openings between the logs, are chinked, that is, filled with pieces of wood, and mudded, or daubed with plaster of common mud. It is covered with bark; and, where mills are distant, or the newness of the country makes it difficult to get out to the roads which lead to them, the floor is likewise covered with bark.

The chimney is then built spacious, with a few stones for the back, to prevent the fire from communicating with the logs, which nevertheless it often does; and log houses are frequently burnt. Seldom any accident happens, and the smallness of their value renders the loss inconsiderable. When time and circumstances admit, and saw-mills are accessible, a frame-house is built, and covered neatly with boards, planed and painted [1820:82-83].

9) J. MacGregor, *British* America 1832 (a half-pay officer describing his settlement near Rice Lake, writing about 1827 or 1828):

In February, 1820, I contracted with two men to put me up a log-house, 28 feet by 20; and thirteen logs, or as many feet high; to roof it with shingles, and to board up the gable ends; and to clear off one acre about the house, to prevent the trees from falling on it, for all which I paid them 100 dollars. This shell of a building had merely a doorway cut out of the middle....[During the summer] I was now anxious to get my house made habitable as soon as possible, and a carpenter being employed not far off, I endeavoured to engage him to put in the windows and door; but finding that he wished to take advantage of my situation, I determined to do it myself, and thus was forced to learn the business of a carpenter....In the fall, or autumn, I put up a log-kitchen, and a shed for my cattle....During the summer, I got my house chinked, or filled the interstices between the logs with pieces of wood to make the inside flush or smooth, and to prevent the mud used as plaster on the outside from coming through [1832:468-469].

10) J. Beavan, *Recreations of a* Long *Vacation* 1846 (observations made while travelling in the Grand River area):

I had the opportunity of witnessing the clearing process in all its stages. In

one place might be seen a few tress cut down, and the first rough shanty of boards set up, with which by the bye many of the Irish appear to content themselves altogether for two or three years together. Then about an acre, with the trees felled, and lying irregularly about; about a couple of rods cleared in the centre of it, a small log cottage set up, and the rest planted with potatoes. This would be fenced in perhaps with the boards of the original shanty, nailed to a few stumps and small trees, with their tops cut off and left rooted in the ground.... Further on the process has advanced another step.... comfortable stables and barns are erected: and an addition is perhaps made to the log hut; the chimney, which was of wood, filled in and plastered with clay, is replaced by one of brick or stone, built up from the ground [1846:58-621.

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