

Regional Urban History: A Statistical and Cartographic Survey of Huron and Southern Bruce Counties, 1864-1981

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Article abstract

Statistical and cartographic methods were used to trace the evolution of a group of settlements in Huron and Southern Bruce Counties from 1864 to 1981. Despite the fact that the number of settlements ranged from 30 to 95 during the period under consideration, there was remarkable stability among 15 large places which dominated the area economically at all periods. Competition, date of original settlement, location and changes in transport technology accounted for many of the trends observed. Places established early often continued to benefit from the "momentum" created by their size and age, while more recently developed service centres were adversely affected by the adoption of the motor vehicle and by rural depopulation. The study of a group of settlements over a long time period facilitated explanations of the evolution of individual places.

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Résumé/Abstract

L'auteur utilise des méthodes statistiques et cartographiques pour retracer l'évolution d'un groupe de localités établies dans le comté de Huron et dans la partie sud du comté de Bruce, de 1864 à 1981. Malgré le fait que le nombre de localités varie de 30 à 95 durant cette période, les 15 centres qui dominent économiquement la région présentent une stabilité remarquable tout au long de la période. La compétition, la date de fondation, la situation géographique et les transformations de la technologie des transports comptent pour beaucoup dans les tendances observées. Les endroits établis plus tôt continuent souvent de bénéficier de la force d'impulsion provoquée par leur taille et leur ancienneté, tandis que les centres de services développés plus récemment se trouvent défavorablement affectés par l'adoption de l'automobile et par le dépeuplement rural. L'étude d'un groupe de localités sur une longue période facilite les interprétations sur l'évolution des endroits particuliers.

Statistical and cartographic methods were used to trace the evolution of a group of settlements in Huron and Southern Bruce Counties from 1864 to 1981. Despite the fact that the number of settlements ranged from 30 to 95 during the period under consideration, there was remarkable stability among 15 large places which dominated the area economically at all periods. Competition, date of original settlement, location and changes in transport technology accounted for many of the trends observed. Places established early often continued to benefit from the "momentum" created by their size and age, while more recently developed service centres were adversely affected by the adoption of the motor vehicle and by rural depopulation. The study of a group of settlements over a long time period facilitated explanations of the evolution of individual places.

A number of studies of urban history and geography have considered the processes occurring to change the distribution and functions of settlements through time.¹ This approach suggests that we must be aware of the spatial and temporal intractions among places if we are to understand the reasons why some prosper and others "die." Settlements are considered to be interdependent within systems and they are affected by events in their hinterlands. Over time, their residential, commercial, industrial and administrative functions have become increasingly interdependent as modern transportation and communications have decreased the friction of distance and increased the potential for interaction among them.

It is relatively easy to make a comprehensive study of the factors affecting the growth and development of one place through time, but this approach often ignores external relations and treats the city or town as if it were isolated from all others.² On the other hand, the detailed study of a large number of settlements over a long period of time is enormously difficult and time consuming. This paper presents a compromise that combines some of the more traditional aspects of urban history with a long-term statistical and cartographic survey of a group of settlements containing from 30 to 95 places between 1864 and 1981 (Figures 1-4). In this context, urban is defined as any activity carried on at fixed locations and divorced from the tilling of the soil. Thus, all locations providing goods, services, processing or manufacturing are considered urban. This definition is more comprehensive than that of "central place" where only retail and service activities are considered. The purpose of the paper

is to demonstrate the value of several cartographic and statistical techniques to the study of urban history, and to explain why the number and distribution of urban settlements in part of Ontario have changed so radically in 112 years. It will also attempt to contribute to our more general knowledge of urban processes through time by comparing its findings to those derived elsewhere.

DATA

Much of the analysis depends on statistical manipulation and cartographic representation of information from the census and Dun and Bradstreet directories. Table 1 summarizes statistical trends in the area and correlation analyses are used to assist in the interpretation of the trends. A series of maps was prepared to illustrate the changing distribution and relative importance of all places having any economic functions between 1864 and 1981. The centre of each circle is at the location of the place it represents, while the area of each circle is proportional to the number of economic functions in each place at each date. Even a cursory glance at Figures 3 and 4 reveals the relative accessibility of such centres, their growth or decline through time and the changing distribution of the settlements. The processes of centralization and the effects of changing transportation and

economic conditions are reflected by the maps. They provide a convenient shorthand summary of the changing relative importance and distribution of many places over a large area through a long period of time.

In the early years, the directory data on which the maps are based may understate the economic functions in some settlements, since the general store-post office, shoemaker-tanner or grist mill-distillery count only as one business establishment each. In later years, Dun and Bradstreet tend to omit small services such as hairdressers, new or marginal businesses or franchise operations with headquarters elsewhere, again understating the economic importance of some places. Nevertheless their directories have been compiled in a consistent and reliable manner for many years and are generally considered to be the best single data source for this type of study.³

THE STUDY AREA

The study area consists of Huron County and the four southern townships of Bruce County, an area that is far removed from major urban areas and their economic influence (Figure 1). It was initially settled between 1828 when John Galt established Goderich, and the late 1840s when

TABLE 1

Population and Business Data: Huron and Southern Bruce Counties 1871-1981

Year	1871	1881	1891	1901	1911	1921	1931	1941	1951	1961	1971	1981
No. of Establishments	1,070	1,904	1,963	1,522	1,502	1,508	1,443	1,598	1,323	1,128	1,389	1,318
No. of Places	69	93	95	89	93	82	78	76	73	62	48	39
Total Population	82,518	97,512	76,462	69,402	69,950	58,726	53,665	53,904	59,308	63,976	63,431	64,118
Urban Population	7,338	18,779	18,734	17,192	17,164	16,951	14,494	14,588	17,790	21,387	23,031	23,738
Per Cent of Total	8.9	19.3	24.5	24.8	26.0	28.9	27.0	27.1	30.0	33.4	36.3	37.1
Rural Population	75,180	78,733	57,728	52,210	48,786	41,775	39,171	39,316	41,518	42,689	40,410	40,380
Per Cent of Total	91.1	80.7	75.5	75.2	74.0	71.1	73.0	72.9	70.0	66.6	63.7	62.9
Unincorporated Settlements Over 25 ¹										5,093	7,989	11,475
										7.9	12.6	17.9
No. of Establishments Per Place	15.5	20.5	20.7	17.1	16.1	18.4	18.5	21.0	18.1	18.2	28.9	33.8
No. of Persons Per Establishment	77.2	51.2	38.9	45.5	43.9	38.9	37.1	33.7	44.8	56.7	45.6	48.6
No. of Persons Per Place	1195.9	1048.5	804.9	779.8	709.1	716.2	688.0	709.3	812.4	1031.9	1321.5	1644.1

Source: Dun and Bradstreet, *Reference Books* (Toronto: Dun and Bradstreet of Canada Ltd., 1871-1981); Statistics Canada, *Census of Population*, 1871-1981.

Note: ¹ over 50 before 1976.

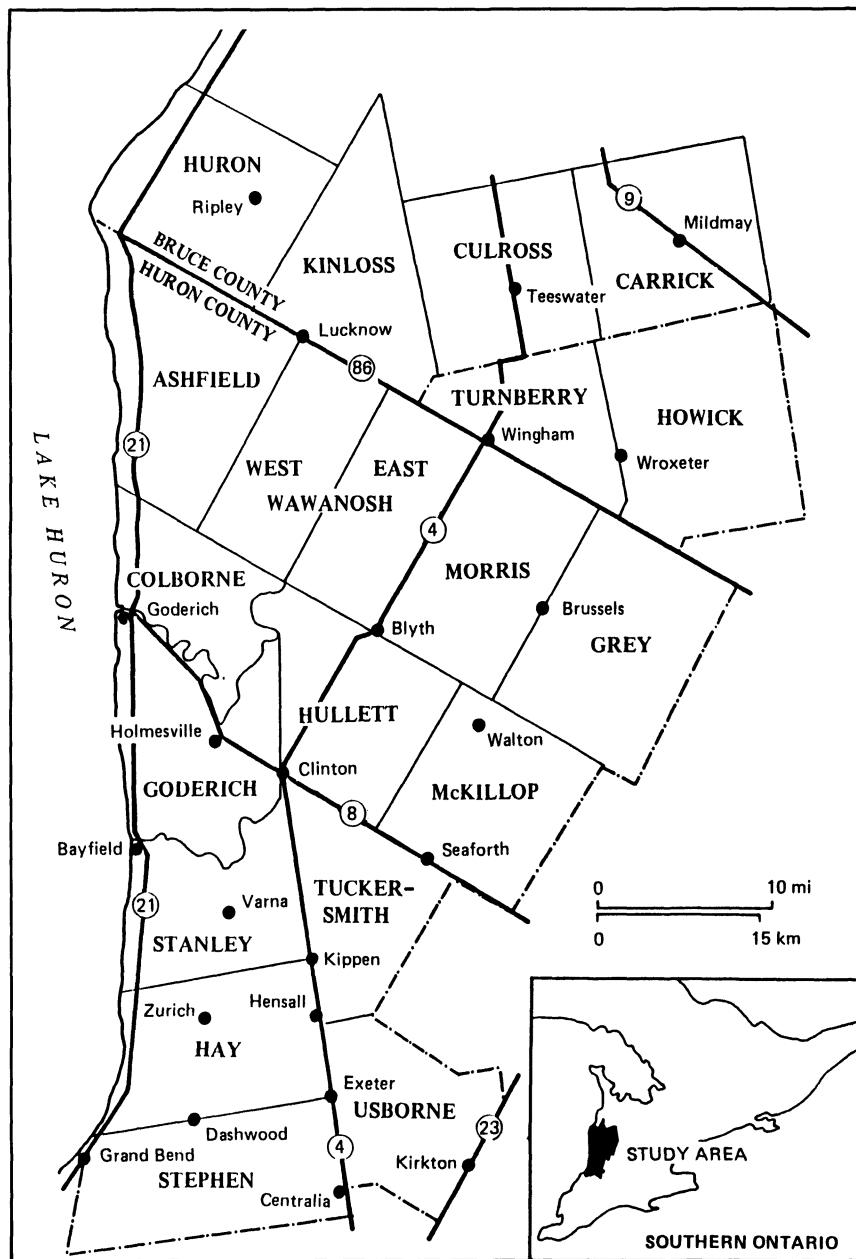


FIGURE 1. Location of Study Area.

surveys were made in the Queen's Bush along what are now the first concessions of Kinloss and Huron Townships in South Bruce.⁴ The early history of Huron County is closely associated with activities of John Galt, "Tiger" Dunlop and Colonel Anthony Van Egmond who recognized the rich agricultural potential of the Huron Tract. They advertised the area to encourage settlement, developed Goderich and built colonization roads to link the area to the Canada Company headquarters at Guelph and to the middle Grand settlements around Berlin-Waterloo.⁵

The nucleus of early development was around Goderich, which was the first settlement. It was also the western ter-

minus of the Huron Road which ran to the east, through what are now Clinton and Seaforth to Stratford and the middle Grand settlements. This road was opened in 1832 but was in poor condition for a number of years. In the same year, another road was begun to the south from Clinton to London, and even though it and the Huron road were difficult to travel for a number of years, they were the major routes followed by early settlers of Huron County. The land along those roads and around Goderich and Bayfield was generally settled first and pioneers then diffused from it into the rest of the area.⁶

Initially, the major function of Huron and Southern Bruce Counties was agricultural, and most settlements developed

TABLE 2

Intercorrelations Among Variables, 1871 - 1981*

	No. of Est.	No. of Places	Total Pop.	Urban Pop.	Rural Pop.	No. Est. Per Pl.	No. Pers. Per Est.	No. Pers. Per Pl.
Number of Establishments	1.0	0.68	0.35	-0.05	0.31	-0.06	-0.06	-0.41
Number of Places		1.0	0.29	-0.50	0.42	-0.76	-0.33	-0.84
Total Population			1.0	-0.12	0.94	-0.08	0.52	0.23
Urban Population**				1.0	-0.44	0.66	-0.15	0.47
Rural Population**					1.0	-0.28	0.54	0.14
Number of Est. Per Place						1.0	-0.08	0.81
Number of Persons Per Establishment							1.0	0.52
Number of Persons Per Place								1.0

*N = 15

**N = 14

to serve their rural hinterlands while a few such as Goderich and Bayfield were also important as ports. Huron County remains a leading agricultural area today, as is South Bruce.⁷ In 1981 the largest urban places in the area were Goderich with a population of 7,385, Exeter with 3,494 and Clinton with 3,151.⁸ Now they have a number of additional functions, such as retirement or recreational activities, some of which have little to do with their agricultural hinterlands.⁹ Many of these new functions are the result of major changes in technology and lifestyles. The remainder of this paper will illustrate some of the factors bringing about change over 117 years, and will attempt to provide explanations for the major trends described.

Statistical Trends

The data in Table 1 are summarized in Figure 2 which is a semi-logarithmic graph. On such a graph the slope of each line represents the rate of change over time, allowing accurate comparisons of trends in data of different magnitude. This greatly facilitates visual comparisons and may suggest cause and effect or statistical relationships among data sets. Like the maps, these graphs present a concise summary of information for many places over a long period of time.

Total population, rural population and urban population all peaked in 1881, declined until 1931 and then increased at varying rates. The rapid rise in urban population from 1871 to 1881 was paralleled by an increasing number of business establishments and settlements between those dates. This suggests that rapid urbanization is accompanied by rapid proliferation of economic activities in urban places; a logical and expected relationship.

The interpretation of other trends reflected by data in Table 1 is somewhat more complex, and will be facilitated by the correlation analysis. On the other hand, Figure 1 clearly illustrates the rapid increase of rural non-farm residents and those living in unincorporated settlements between 1951 and 1981. These trends were accompanied by a rapid decrease in the farm population in the same period, a finding suggesting major changes in the local economy and settlement patterns.

Correlation Analysis

Coefficients of correlation (Table 2) were calculated for the data in Table 1 for which 10 or more observations were available. The value of a coefficient of correlation may vary from 1.0 to -1.0, which reflect perfect positive or negative linear relationships respectively. A strong correlation is generally considered to be .70 or above, and although a statistical relationship does not necessarily imply a cause and effect relationship, such is often the case.¹⁰ For example, the 0.94 correlation between rural population and total population reflects the fact that rural population has always constituted a high enough proportion of the total population to strongly affect its variation over time (Table 2, Figure 2).

The -0.84 correlation between the number of persons per place and the number of places is typical of strong negative correlations. In the early and recent years when there were fewer places, the number of persons per place was high, but it dropped with the proliferation of settlements between 1881 and 1956. The next strongest correlation, 0.81 indicates that the number of business establishments per place increases

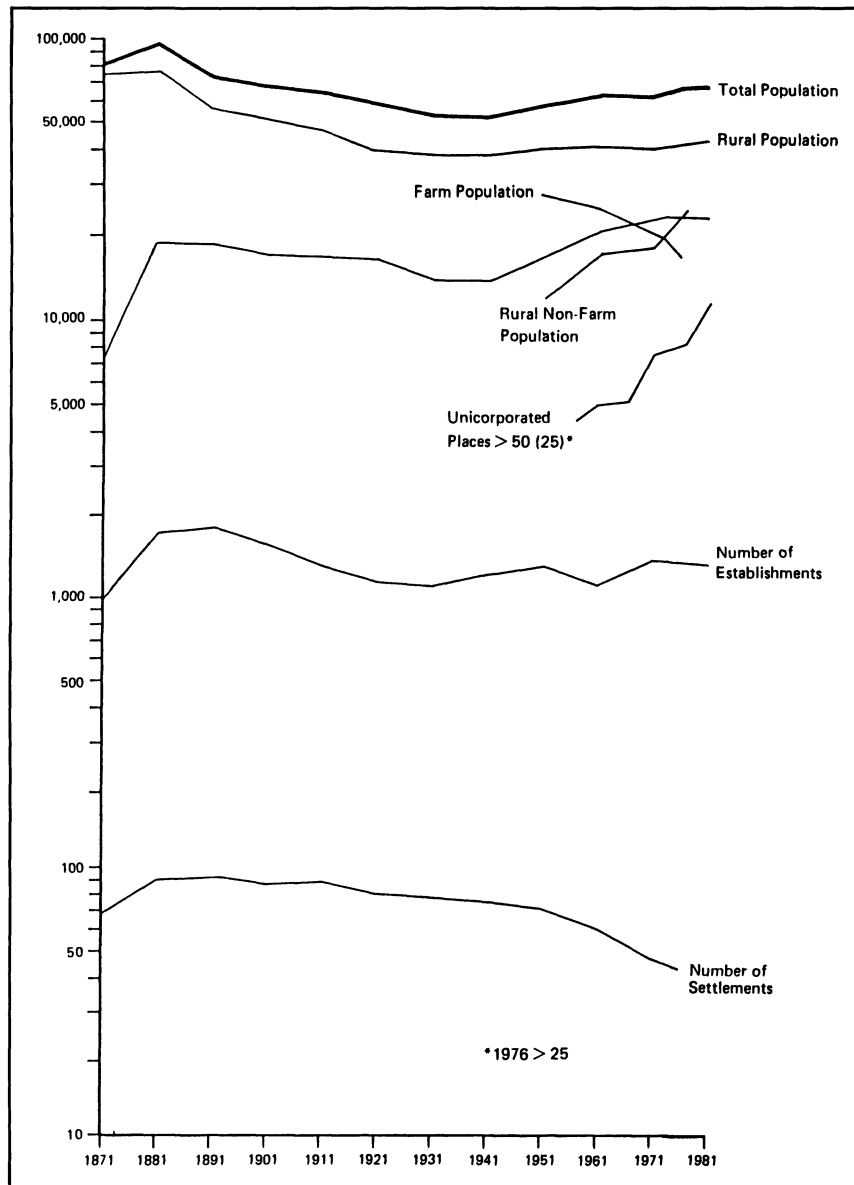


FIGURE 2. Aggregate Data Trends for Study Area

as the number of persons per place increases. The .66 correlation between urban population and number of establishments per place leads to the same conclusion, and the .68 correlation between the number of settlements and the number of establishments also reflects business proliferation with increasing urbanization. These correlations suggest that residents of settlements contribute increasingly to the support of local businesses as urbanization increases. The converse notion that places then rely less for business on their rural hinterlands is also suggested by these correlations, and it is supported by the relatively minor effect of recent decreases in farm population on the number of local businesses. The lack of any significant correlation between rural population and any measure of the economic strength of settlements also points to the importance of urban populations to urban economic strength.

THE CARTOGRAPHIC SURVEY

The series of maps (Figures 3 and 4) depict the changing relative economic importance of all settlements listed by Dun and Bradstreet *Reference Books* between 1864 and 1981. They add a spatial dimension to the statistical data and enable us to evaluate some of the conclusions suggested by statistics. They should also illustrate visually the results of some of the regional relationships and processes affecting the settlements over time. Did urbanization and centralization affect some places more than others? How were settlements affected by being on or off early colonization roads? What were the long-term results of proximity to or isolation from other places? How accessible were places to their rural hinterlands at various periods? What was the impact of the railway?

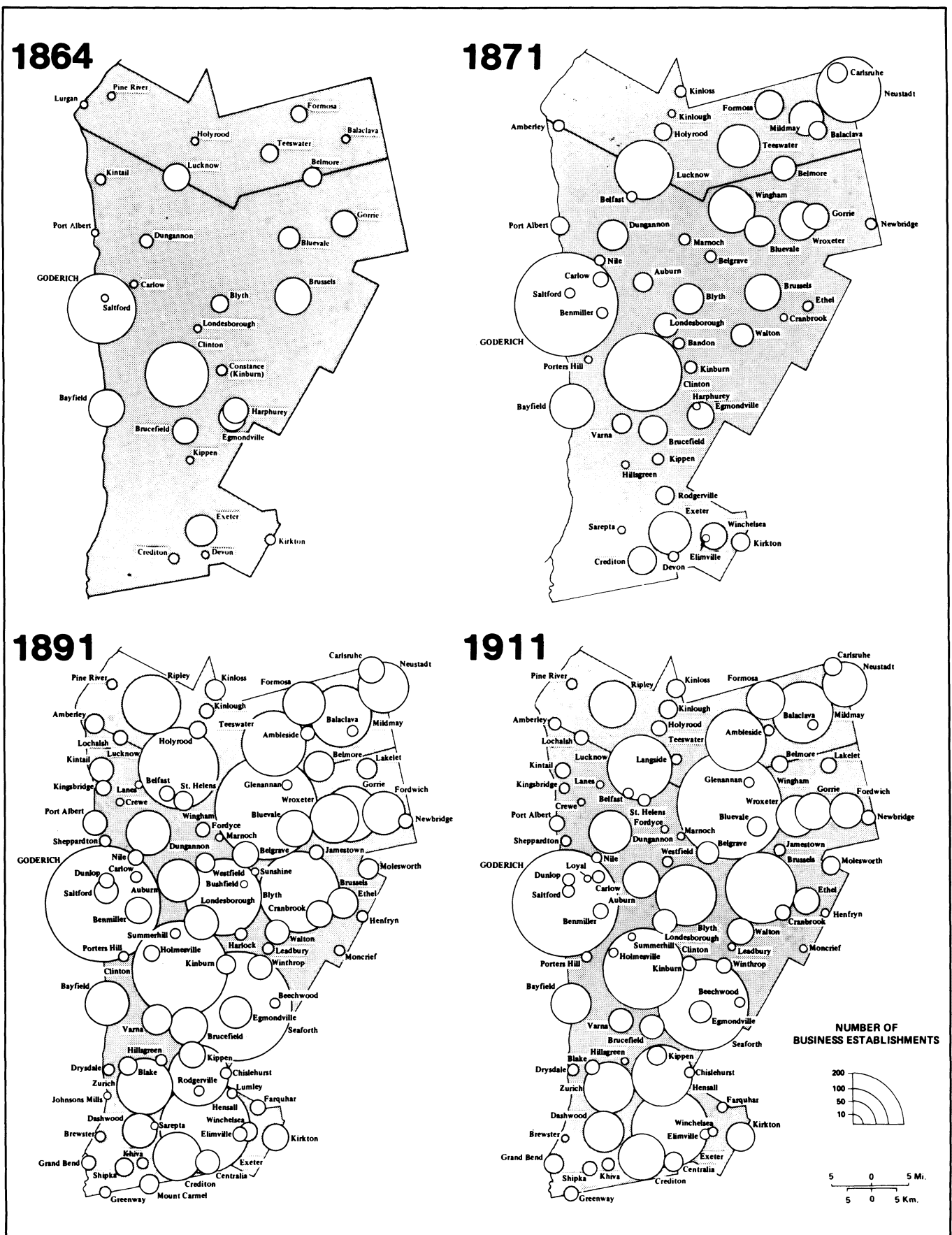


FIGURE 3. Number of Business Enterprises in Settlements; 1864-1911.

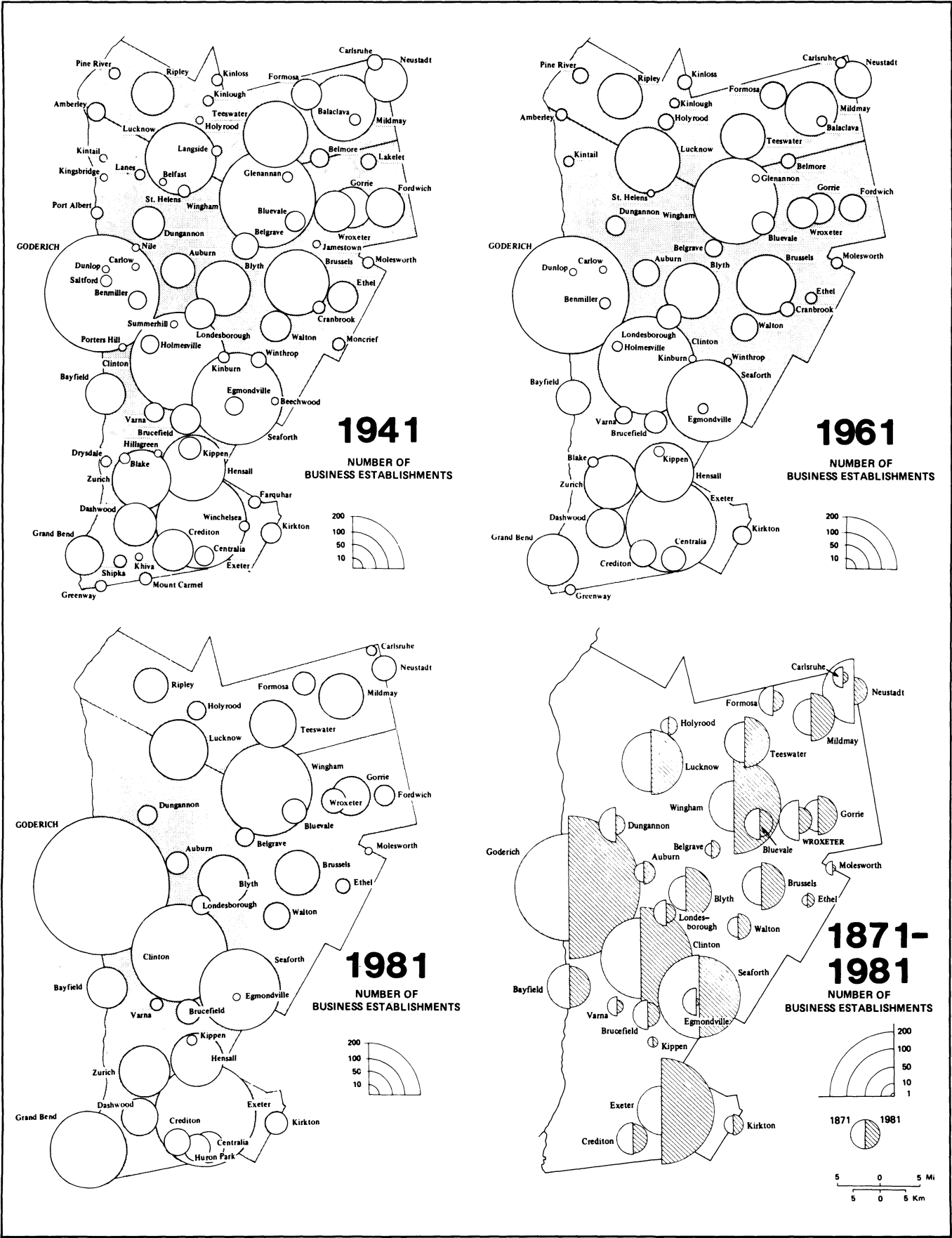


FIGURE 4. Number of Business Enterprises in Settlements; 1941-1981 and overview 1871-1981.

THE EARLY PERIOD

Early settlement in Huron County was slow, and was concentrated around Goderich and along the Huron Road. According to Scott, Huron was still in the pioneer era in 1850, but emerged into a period of commercial agriculture in the next decade.¹¹ By 1871 the majority of farms were between 50 and 100 acres as the scale of farming increased. By 1880 the average farm holding was 100 acres.¹²

The 1864 map presents a picture of the area as it was emerging from a stage of pioneer settlement and subsistence agriculture into one of commercial agriculture (Figure 3). Even at this period, a developing hierarchy of places was evident, with Goderich and Clinton clearly at the top, followed by Bayfield and Brussels. The two largest places were both on the Huron road, with Goderich at the terminus and Clinton at the junction of the London Road. The wide distribution of smaller places elsewhere reflected the slower settlement of the north and the south, away from the major land transportation routes. With very few exceptions the settlements of 1864 were at dam sites, a result of the demand for milling of grain and sawing of logs. In many respects, the settlement pattern in this area was similar to that in those farther east a few years earlier.¹³

By 1871 the period of commercial agriculture was well established and the number of settlements had increased dramatically. Their wider distribution (Figure 3) reflected the fact that settlers had spread far beyond the original nuclei. The development of Lucknow, Neustadt and Wingham into major centres followed the rapid settlement of the northern areas which had been surveyed much later than the Canada Company lands around Goderich.¹⁴ Only the extreme northwest and southwest, which were still relatively inaccessible by land, lacked settlements. Goderich, Clinton and Bayfield continued to grow, and a series of smaller centres such as Marnoch, Auburn, Belgrave, Hills-green and Sarepta sprang up to serve the increasing farm population in the centre of the area. The year 1871 was the beginning of 20 years of rapid increases in urban population and the creation of business enterprises, despite small declines in total population and rural population after 1881 (Figure 1). As the land was almost completely cleared and cultivated, service centres developed at almost every major crossroad to serve settlers who still relied on walking or horses for transportation to the blacksmith, general store or post office. The economic landscape of the area had begun to resemble that proposed by Walter Christaller in his Central Place Theory.¹⁵

The "Central Place" Landscape 1871-1911

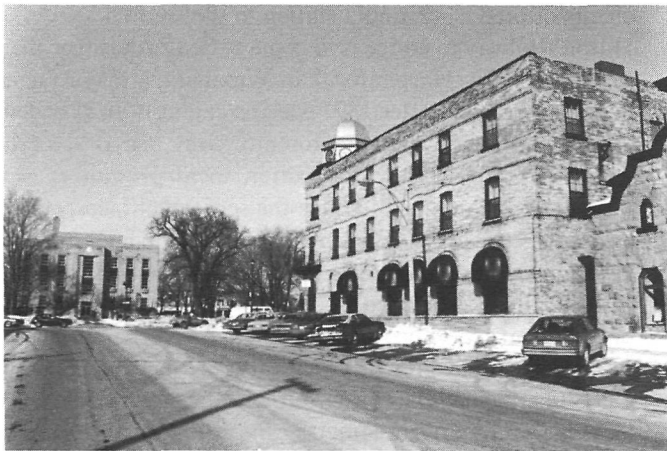
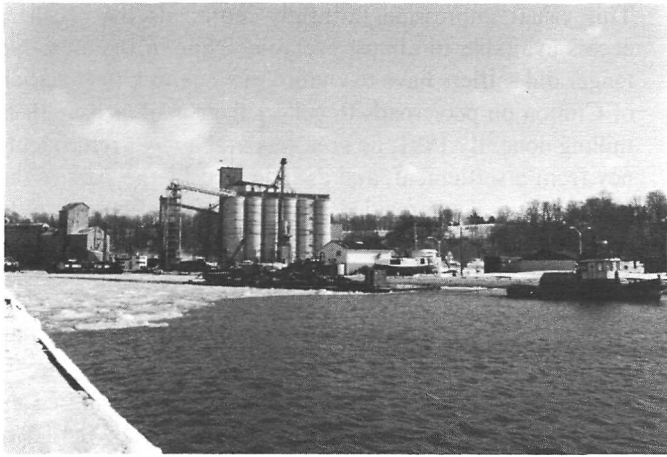
Between 1871 and 1891, twenty-six new places providing goods, services and manufacturing or processing had been established. The 1891 map appears to be almost totally covered by the 95 settlements that existed then (Figure 3).

This visual impression faithfully represents the excellent access available to almost everyone living in the area. No longer did settlers have to endure the long trek to Goderich or Clinton on poor roads to collect their mail or have their milling done. By 1891, no area was over a day's return journey from a settlement, and as indicated by the sizes of the circles, many now provided a large number of businesses to serve both the local farmers and their own residents.

By 1891 a distinct urban hierarchy had developed. The large old places, Goderich and Clinton, had been joined by Seaforth, Wingham and Exeter at the top of the hierarchy. While the former two had the advantage of being established early and being served by the first roads, the latter were stimulated by the coming of the railway. Seaforth merchants offered a site and a station to the Buffalo and Lake Huron Railway to entice it to come to Seaforth rather than to neighbouring Harphurey.¹⁶ In Wingham, a major factor in its rapid growth after 1871 was the joining of the London, Huron and Bruce with the Toronto, Grey and Bruce railways there in 1872.¹⁷ In Exeter, local promoters and businessmen combined to have the settlement incorporated as a village in 1873, after which a \$10,000 bonus and free land for a station were offered to the London, Huron and Bruce Railway. The acquisition of the railway and a number of additional acts of boosterism thereafter contributed greatly to Exeter's rapid growth despite its slow beginnings.¹⁸ By 1891 it had joined the earlier settlements near the top of the local hierarchy and became the most important village in the south of the area.

In a survey such as this it is not possible to provide detailed evidence on the growth and development of every place. Suffice it to say that the most important places in 1891 were stimulated by some of the following, singly or in combination: early settlement, early roads, local water power, the railway; local boosterism and entrepreneurial activity. In general, the most successful combined a number of these factors, while those lower in the hierarchy had only one or two. Places at the very bottom of the hierarchy generally had no major advantages other than a location at a crossroads close to local farmers. As in other areas of Ontario, the railway tended to stimulate industry and commerce in places that were already relatively successful, and in the short term had little effect on those that did not attract it.¹⁹ Farmers still had to travel by horse and buggy to the nearest urban place to do their trading or to collect their mail. Between 1881 and 1911, the total number of settlements in the area remained remarkably constant, despite the fact that a number of smaller places "died" and were replaced by others.

By 1891, numerous now long forgotten places such as Sunshine, Lanes, Bushfield, Summerhill, Sarepta and Leadbury offered a hotel, blacksmith or general store to the local farmer or weary traveller. Now some have disappeared entirely, others remain as names on old maps, others are strictly residential communities and a few have been reju-



Top Left: The port and industrial area of Goderich. *Top Right:* Home overlooking lake in Goderich. *Bottom Left:* Restored Duke of Bedford Hotel on the "octagon" (main business area) Goderich with County Court House in background. *Bottom Right:* Intersection of London and Huron Roads: Clinton.

SOURCE: F. Dahms.

venated economically by the development of a major hotel or feed mill.²⁰ By 1891 competition among farmers and among businessmen began a process that would ultimately reduce both the number of farmers and the number of settlements serving them. In this period, Neustadt had already felt the effects of competition from Mildmay, Lucknow and Teeswater, all of which had begun to outstrip it. Zurich, Hensall, Formosa and Gorrie had also prospered from the influx of population after 1871. Between 1871 and 1891, in the scheme suggested by Hudson, the area had passed from a period of colonization and spread to one of competition.²¹

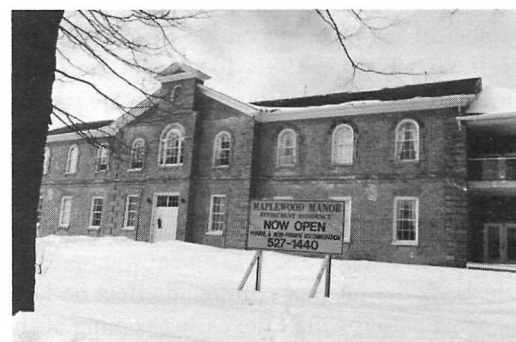
In some respects, the area was more urbanized in 1891 than it was ever to be again, despite the fact that some settlements would ultimately become larger. In 1891, many places had reached their peaks of population and business establishments, and would either decline or disappear in the future. At that year the area's characteristics were very similar to those proposed by Christaller, with a hierarchy of

settlements evenly distributed to serve a relatively uniformly spaced rural population.²²

Competition and Consolidation

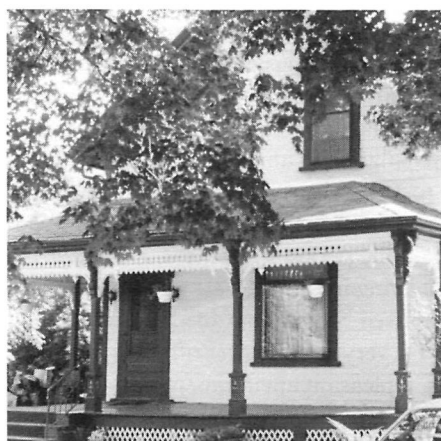
Despite the fact that the total population and the rural population declined sharply (-32 per cent) between 1881 and 1911 the number of settlements dropped only to 89 in 1901 and then increased again to the 1881 total of 93 by 1911. In the same period, however, the number of businesses fell by 402; a 21 per cent decrease. Urban population dropped by 1,615 (-9%) and rural population declined dramatically by 29,947 (-38%). After 1871, faced with increasing competition, many farmers, some owning only marginal land, either left for the city or headed for greener pastures in the west.²³

These changes are not reflected accurately by the correlations in Table 2 which refer to a period 110 years long. Because of varying relationships at different periods, there is a low (.31) correlation between the number of businesses



Top Right: Main Street Seaforth: opera hall was in upper level of building occupied by Stedmans. *Middle Right:* Former school in Seaforth converted to retirement home: a sign of changing demography. *Top Left:* Agricultural industry and the railway; one key to Seaforth's early prosperity. *Bottom Right:* Seaforth: large homes reflected economic success in the late 1800s. *Below:* One of Bayfield's new tourist attractions. *Bottom Left:* Old and new homes on tree lined streets provide accommodation for an aging population in Bayfield.

SOURCE: F. Dahms.



and rural population. But, between 1871 and 1911, the relationship is clear. Even though there were the same number of places in 1891 and 1911, the average number of persons per place fell from 20.5 to 16.1 and the average number of persons per business changed from 51.2 to 43.9 in the same period. These decreases were almost entirely a result of rural depopulation. One must therefore infer that in this period businesses (which decreased by 402) in settlements were heavily dependent on rural customers, and functioned primarily as classical central places providing goods and services to people living outside their borders.

It is interesting to note that the number of settlements with business functions did not decrease from 1891 to 1911.

What did happen was a decrease in the average number of businesses in each (Table 1) and the replacement of numerous one function places by others at various times. In terms of the smallest places there was considerable volatility in the area between 1891 and 1911. When the two maps are compared it is obvious that a number of places such as Mt. Carmel, Lumley, Bushfield and Harlock disappeared, only to be replaced by others such as Loyal, Huntingfield, Langside, or Prosperity by 1911. These places, almost all of which had only one business enterprise, were clearly susceptible to changing consumer loyalties and to the decrease in farm population in some areas. Some "died" when a businessman moved or retired, while others were "born" as new entrepreneurs tried their luck. During the 1891-1911 period,

businesses in the settlements had to compete for a declining number of customers and many did not survive.

DECLINE AND CENTRALIZATION

A number of factors affected the area after 1911. Total population continued to drop erratically till 1931 as did the number of businesses until 1961. During this period the ratio of rural to urban population remained relatively constant, with a slow increase in the urban component after 1931 (Table 1). It is difficult to find statistical trends or correlations that shed much light on the reasons for the drop in the number of settlements from 93 in 1911 to 76 in 1941 and finally to only 39 in 1981. To some extent it appears anomalous to have a relatively high "death rate" among settlements during a period of little population change. More traditional historical methods help to explain why this occurred.

The introduction and subsequent widespread use of motor vehicles had a far more profound effect on local travel and shopping patterns than the earlier coming of the railway. It had stimulated manufacturing in large centres but did not serve rural customers coming to town to shop. With motor vehicles at their disposal, farmers and residents of small settlements could easily bypass the local general store to shop in a larger place farther away. Major local road improvements were demanded by farmers who owned over a third of Ontario's 182,000 passenger vehicles by 1922. City dwellers had also begun to agitate for better roads, and a major building program produced 400 miles of new provincial highways and upgrading of much of the rural system by 1925.²⁴ The number of cars in Ontario increased from 1,530 in 1907 to 114,376 in 1918 and to over 300,000 by 1926.²⁵ In this period, settlements prospered if they enjoyed good or improved road access, but were often victims of increased mobility if not so favoured.

By 1930 most towns and villages were joined by paved roads and gained considerable advantage over their less fortunate rivals.²⁶ After rural mail delivery had been introduced in 1908, many general stores lost business as they ceased to be postal pick-up centres for their local trade areas, and catalogue sales made a large variety of merchandise available by mail from Toronto.²⁷ By 1941 some 17 places such as Brewster, Sheppardton and Westfield had lost all their economic functions while Goderich and Exeter increased in importance. By 1961 the demise of another 14 places including Drysdale, Hillsgreen, Lanes and Jamestown was clearly evident from the maps which were beginning to be dominated by a few large settlements. The number of persons per place increased from 709 in 1911 to 1,644 in 1981, a 57 per cent increase. Goderich, Clinton and Exeter had gained in business establishments by 1961, while their major rivals, Wingham, Seaforth, Brussels, Mildmay and Teeswater had declined somewhat since 1941. The most significant change, which was the disappearance of all businesses in numerous

small places was a clear reflection of the impact of the motor vehicle, as was the change in the relative status of the larger settlements. Competition and centralization caused by the car had a considerably greater overall impact on settlements in the area after 1911 than had the earlier coming of the railway.

THE RECENT PAST

Even greater changes than before occurred from 1961 to 1981 (Figures 3, 4). Compared to the earlier maps, that for 1981 looks empty, with only 39 settlements, and dominated by 6 (Goderich, Grand Bend, Exeter, Clinton, Seaforth and Wingham).²⁸ Several new factors contributed to this situation, including the rapid loss of rural farm population and the proliferation of rural non-farm population (Figure 1, Table 1). In recent years, large scale agribusiness with holdings up to several thousand acres has replaced the traditional 100 or 200 acre family farm.²⁹ Some of the former family farmers have moved to nearby towns while others have settled along the lake or in unincorporated places offering pleasant residential environments. The decrease in farm population tends to reduce the number of local customers available to small general stores, just as the advent of large scale agribusiness decreased demand for small scale mills and agricultural services.

The effects of increasing non-farm population are more difficult to interpret. In many instances, small residential nuclei no longer supporting any businesses have increased in population, as retired farmers or people from the city have sought a "rural" residential environment.³⁰ The 125 per cent increase (6,382) in population in unincorporated settlements over 25 from 1961 to 1981 clearly illustrates this trend. In contrast, the change in urban population as defined by Statistics Canada in the same period was only 2,351, or 11 per cent. But when those living in the smallest places are added, "urban" people comprised 55 per cent of the total population by 1981 (Table 1). Very small places offering amenities such as water, sports, a pleasant environment or inexpensive housing have generally grown in population if not in business enterprises since 1961. Their highly mobile residents often live in one settlement, shop in another and work in yet another. Their mobility has created a new form of spatial organization called a dispersed city by some and a regional city by others.³¹ Specialized and highly successful businesses may thrive in very small settlements while others have centralized in the larger places.³² The map of 1981 settlements understates the distribution of numerous businesses simply because some are too new to be listed by directories or do not interest advertisers or major suppliers. Field work has indicated an increasing number of services and shops oriented to tourists and to local residents that are omitted by directory compilers.³³

Although the 1981 map accurately displays the relative economic importance of the settlements, it masks a number



Top Left: The car helped to make Exeter into one of the most important towns in the area after 1930. *Top Right:* Main Street Wingham still reflects its 19th century prosperity. *Middle Left:* The railway has lost its importance in Wingham. *Middle Right:* Like many crossroads settlements, Carlow had no major economic attractions other than a general store and hotel. *Bottom Left:* The Crystal Spring Brewery (1859) in Neustadt no longer operates. *Bottom Right:* Even in declining centres like Neustadt, buildings have been carefully restored.

SOURCE: F. Dahms

of important changes since the earlier days, as do the data in Table 1. Before the widespread use of the car, general stores, mills, hotels, and blacksmiths were widely distributed in settlements that developed primarily to serve farmers in their local hinterlands. To a large extent their economic growth resulted from demand generated outside their

boundaries and they functioned as central places. By 1981 many of the largest places had become manufacturing and wholesale centres, with large populations to support local retail and service functions. Although they continue to attract business from their hinterlands, this is far less significant now than it was when the majority of the population was

TABLE 3
Number of Establishments in Major Places
1891 - 1981

Year	1891			1921			1961			1981			Mean Rank**	Standard
Total No. Places	95			82			62			39			1891-1981	Deviation
Place	Est.	Rank	% *	Est.	Rank	%	Est.	Rank	%	Est.	Rank	%		
Goderich	161	1	8.2	119	1	7.9	181	1	16.0	231	1	17.5	1.0	0.00
Seaforth	134	2	6.8	83	3	5.5	94	5	8.3	90	5	6.8	3.9	0.94
Wingham	122	3	6.2	97	2	6.4	103	4	9.1	110	4	8.3	2.9	0.83
Clinton	110	4	5.6	72	5	4.8	126	2	11.2	127	3	9.6	3.0	1.00
Exeter	105	5	5.3	73	4	4.8	109	3	9.7	137	2	10.4	4.2	1.16
Brussels	84	6	4.3	51	7	3.4	53	7	4.7	31	12	2.4	7.3	1.62
Lucknow	78	7	4.0	59	6	3.9	64	6	5.7	54	6	4.1	6.2	0.40
Blyth	73	8	3.7	47	8	3.1	44	9	3.9	39	8	3.0	9.3	1.41
Teeswater	55	9	2.8	46	9	3.1	37	12	3.3	36	9	2.7	9.5	1.20
Hensall	50	10	2.5	45	10	3.0	52	8	4.6	43	7	3.3	9.4	1.64
Mildmay	49	11	2.5	42	11	2.8	43	11	3.8	32	11	2.4	10.0	1.00
Ripley	44	12	2.2	34	12	2.3	34	13	3.0	20	14	1.5	12.8	0.60
Gorrie	40	13	2.0	21	15	1.4	17	15	1.5	24	13	1.8	14.2	1.16
Zurich	37	14	1.9	33	13	2.2	44	9	3.9	39	10	3.0	11.2	1.98
Neustadt	35	15	1.8	24	14	1.6	23	14	2.0	11	15	0.8	13.9	1.14

* % of Total Establishments in study area in each year.

** Based on 10 year intervals 1891-1981.

SOURCE: Dun and Bradstreet, *Reference Book* (Toronto: Dun and Bradstreet of Canada Ltd., 1891-1981).

rural. In the countryside, many of the rural non-farm residents will patronize successful economic enterprises outside the major towns, and travel to several small settlements rather than always shopping at the largest local town.³⁴ Their new mobility has provided them with a wide choice of places in which to live, work, or shop just as this mobility has facilitated antique shops, major hotels or successful general stores in villages formerly considered economically defunct. Despite the apparent simplicity of the urban pattern on the 1981 map, a new pattern of commuting, living and shopping, divorced from the old rural restraints has begun to develop.

OVERVIEW 1871 - 1981

Much of the economic history of the area is summed up by comparing the 1981 status of all settlements established by 1871 (Figure 4) with their 1871 status. Relative sizes of the split circles indicate change between the two dates and relative importance at each. The places making major gains were Goderich, Exeter, Wingham and Clinton, while Seaforth declined slightly from its 1871 status. The effect of historical inertia (or momentum) is clearly evident in the growth and persistence of the places established early on the Huron Road (Goderich, Clinton and Seaforth). Wingham now dominates the northern part of the area from its loca-

tion at the junction of Highways 86 and 4, a factor now more important than its relatively early acquisition of the railway. Lucknow, Teeswater, Gorrie and Mildmay have all increased in business importance since 1871, but Neustadt, on a minor local road has declined significantly in competition with Mildmay and Hanover nearby. Blyth and Brussels have gained since 1871, but have not yet regained their 1891 business totals.³⁵

The persistence of places settled by 1871 is reflected also by Table 3 which indicates the relative ranks of the first 15. This table also illustrates the remarkable stability of the largest places in the hierarchy. Goderich has always been first, followed closely by Exeter, Clinton, Wingham and Seaforth in 1981. This order is slightly different from their 1891 ranks and from their mean ranks at 10 year intervals from 1891 to 1981. During this period on average, the order was Goderich, Wingham, Clinton, Seaforth and Exeter. Small standard deviations indicate that none of these places varied greatly in rank during the 90 years being considered. In fact, the largest standard deviation is 1.98 for Zurich which has fluctuated from 8th to 14th in the local hierarchy. Major changes from 1891 to 1981 are the drop from 6 to 12 by Brussels and the increase from 10 to 7 by Hensall while Seaforth fell from 2 to 5. Nevertheless, remarkable stability

is the most striking characteristic, a finding that verifies conclusions reached in other areas of Canada and the United States.³⁶

Table 3 also displays the increasing centralization of businesses in a few large places over time. In 1891 Goderich contained 8.2 per cent of all the businesses in the area compared to 17.5 per cent by 1981. Similarly, Exeter's share increased from 5.3 to 10.4; Clinton's from 5.6 to 9.6 and Wingham's from 6.2 to 8.3. In 1891 the top 5 places contained 32.1 per cent of all businesses in the area while the same 5 contained 52.6 per cent by 1981; a major but expected increase in centralization.

CONCLUSION

The history of settlements in the Huron-Southern Bruce County area of Ontario has been at the same time static and dynamic. On one hand there have been wide variations in the number of settlements and in population between 1871 and 1981. On the other, the rank order and relative economic importance of the 15 largest places varied little over 90 years. A combination of cartographic and statistical techniques graphically illustrated the demise of 59 places between 1864 and 1981 and raised numerous questions about the reasons for the changes observed. Despite the fact that there were no statistically significant correlations between any measure of population and the number of business establishments between 1871 and 1981, analyses of the 1891 to 1911 period showed that dropping rural population led to major business declines in those years. Settlements then functioned primarily as central places providing goods and services to farmers in their local areas. The widespread use of the car profoundly affected this relationship, as small places were increasingly bypassed for larger, and urban populations became more important to businesses in the towns and villages. Later, rural non-farm people and those living in settlements over 25 began to proliferate and enabled formerly "defunct" places to support one or two specialized enterprises. Often such businesses are not recorded by directory compilers and do not appear in Table 1. The study area now has a settlement system that serves a declining rural population but is becoming more diversified in both its function and its characteristics than it was in earlier days.

To some extent this area displayed a two tier settlement hierarchy, with the largest, oldest places at the top remaining stable, and a large group of small and vulnerable places below. This finding suggests that the momentum provided by early development and a relatively large local "built-in" market helped the major places to attract the newest transport technology of the time and to diversify their functions. Conversely, the smallest places with very small populations and only one or two enterprises serving local farmers were far more susceptible to competition and declining rural population. As roads improved and cars became widespread they declined or died as business went elsewhere. More recently

some of these 56 places have been revived as business centres, and many have persisted as residential nucleations, but few ever became large and diversified enough to challenge their older and larger rivals. On the other hand, the most rapid population growth over the last 20 years has been in the very smallest unincorporated settlements, rather than on the farms or in the towns and villages. This trend has now become widespread in both Canada and the United States. Although explanations remain tentative, most evidence points to the attractions of local amenities, small size and perceived improved lifestyles in these places. It is too soon to suggest whether or not such trends will persist, but they have been increasingly evident during the last few years.³⁷ In the final analysis it is clear that the key to the relative success of settlements lies in their areal and economic interrelationships, and that this is a function of the transport facilities available to facilitate interaction among them. The relative cost of such interaction may ultimately determine the course of the future evolution of settlement systems, both in our study area and elsewhere.

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NOTES

1. See for example Jacob Spelt, *Urban Development in South Central Ontario* (Toronto, 1972); Maurice Careless, "Metropolis and Region: The Interplay Between City and Region in Canadian History Before 1914," *Urban History Review* VII, (February 1978): 99-118; James W. Simmons, "The Evolution of the Canadian Urban System," in *The Usable Urban Past*, ed. Alan F.J. Artibise and Gilbert Steller (Toronto, 1979), 9-33; Gilbert Rozman, *Urban Networks in Russia 1750-1800 and Premodern Periodization* (Princeton, 1976); F.A. Dahms, "The Evolution of Settlement Systems: A Canadian Example, 1851-1970," *Journal of Urban History* 7 (1981): 169-204.
2. Alan F.J. Artibise, *Winnipeg: A Social History of Urban Growth, 1874-1914* (Montreal, 1975); Donald C. Masters, *The Rise of Toronto 1850-1890* (Toronto, 1974); John Dyos, *Victorian Suburb: A Study of the Growth of Camberwell* (Leicester, 1961); Leo A. Johnson, *History of Guelph 1827-1927* (Guelph, 1977) are representative of this approach to urban history.
3. J.U. Marshall, *The Location of Service Towns* (Toronto, 1969); Dahms, "Evolution of Settlement Systems."
4. N. Robertson, *The History of the County of Bruce* (Toronto, 1906); J. Scott, *The Settlement of Huron County* (Toronto, 1966).
5. Scott, *The Settlement of Huron County*, 56-58.
6. *Ibid.*, 59.
7. G. Penfold, "Agribusiness Relocation at the Local Level: A Case Study," in *Farming and Rural Community in Ontario*, ed. A.M. Fuller (Toronto, 1985), 315-328.
8. Statistics Canada, *Census of Population*, 1981.
9. F.A. Dahms, "The Process of 'Urbanization' in the Countryside: A Study of Huron and Southern Bruce Counties, Ontario, 1891-1981," *Urban History Review*, XII (February 1984): 1-18.
10. H.M. Blalock, *Social Statistics* (New York, 1960), 285-299.
11. Scott, *The Settlement of Huron County*, 102.
12. *Ibid.*, 104.
13. F.A. Dahms, "The Changing Functions of Villages and Hamlets in Wellington County, 1881-1981," *Urban History Review* VIII (Feb-

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14. Scott, *The Settlement of Huron County*, 213; Robertson, *The History of the County of Bruce*.
15. W. Christaller, *Die zentralen Orte in Suddentschland* (Jena, 1933), translated by C.W. Baskin as *Central Places in Southern Germany* (Englewood Cliffs, 1966).
16. Scott, *The Settlement of Huron County*, 204.
17. *Ibid.*, 273.
18. *Ibid.*, 281-283.
19. Dahms, "The Evolution," 185-190.
20. Dahms, "The Process of Urbanization."
21. J.C. Hudson, "A Location Theory for Rural Settlement," *Annals, Association of American Geographers* 59 (1969): 365-381.
22. Christaller, *Die zentralen Orte*.
23. J. Schull, *Ontario Since 1867* (Toronto, 1978), 105-107.
24. *Ibid.*, 244-245.
25. J.E. Middleton and F. Landon, *The Province of Ontario: A History, 1615-1927*, 713.
26. R.M. Smith, "Kings Highways of Ontario," *Canadian Geographical Journal* 16 (1938): 159-193.
27. Spelt, *Urban Development*, 182.
28. Grand Bend became officially incorporated in Lambton County in 1952 but is included for historical continuity because it still functions as a service centre for southern Huron County.
29. Penfold, "Agribusiness Relocation."
30. F.A. Dahms, "Demetropolitanization or the 'Urbanization' of the Countryside? — The Changing Functions of Small Rural Settlements in Ontario," *Ontario Geography* 24 (1984): 35-61.
31. F.A. Dahms, "The Evolving Spatial Organization of Settlements in the Countryside — An Ontario Example," *Tijdschrift voor Economische en Sociale Geografie*, 71 (1980): 295-306; J.F. Hart, N.E. Salisbury, and E.G. Smith Jr., "The Dying Village and Some Notions About Urban Growth," *Economic Geography* 44 (1968): 343-349; L.H. Russwurm and C.R. Bryant, "Changing Population Distribution and Rural-urban; Relationships in Canadian Urban Fields," in *The Pressures of Change in Rural Canada*, ed. M.R. Bunce and M.J. Troughton (Downsview, 1984), 113-137.
32. Dahms, "The Evolving"; G.D. Hodge and M.A. Qadeer, *Towns and Villages in Canada: The Importance of Being Unimportant* (Toronto, 1983).
33. Dahms, "Demetropolitanization," 55-57.
34. F.A. Dahms, "Wroxeter Ontario: The Anatomy of A 'Dying' Village," *Small Town* 14 (1983): 17-23.
35. Dahms, "The Process," 8.
36. Dahms, "The Evolution"; Hart, Salisbury and Smith "The Dying Village"; Simmons, "Evolution of Canadian System"; J.R. Borchert, "America's Metropolitan Regions," *Annals, Association of American Geographers* 62 (1972): 352-373.
37. Hodge and Qadeer, *Towns and Villages*; Dahms, "Wroxeter Ontario."