

*Review of Peel County History Project and the Saguenay Project**

by Ian WINCHESTER**

“Quantitative social history” is now old hat in Canada, though it was shiny and new only twelve years ago. At the beginning, whenever a “quantifier” presented a paper at a learned, historical gathering, there were usually questions of a philosophical nature raised in the question period and very few about the content of the paper itself. All that has changed. There is now a cadre of Ph.D. graduates from Canadian universities, whose dissertations have primarily focused on the social history of Canada and whose methods were partly or mainly quantitative. There is also a number of Canadian university professors whose training abroad was in the quantitative methods pioneered by the *Annales* school in France, and the Cambridge Group for the History of Population and Social Structure. There are also quite a few who have graduated from a variety of American graduate schools, perhaps most notably those influenced by Stephen Thernstrom or Charles Tilly. Although there are probably some practitioners who still think that quantifying is a passing fad, or doomed to be limited because of source limitations, the prevailing attitude seems to be that it is one among the battery of possible historical methods which one might employ, just as electron microscopy (say) is now merely one among the methods which a medical researcher might employ. While this is true, I think that something else of a significant nature for historical practice has occurred.

The interesting development is not that from qualitative to quantitative history — which is not really a development at all, since the underlying research logic remains the same.¹ Rather, it is the impact of large-scale, collaborative research in social history on the practices of historical research as a whole. Perhaps the most extensive early Canadian example of such collaborative research is that of the “Hamilton” Project which became the OISE “Canadian Social History Project” in 1970.² This project had a life span of eleven years, involved two directors, produced numerous reports and graduated six Ph.D.s. Of the large scale ongoing proj-

* Originally prepared for the Canadian Historical Association, Regional History Session, June 1979, Saskatoon, Saskatchewan.

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¹ See, for example, my article “On referring to ordinary historical persons”, in *Identifying People in the Past*, ed: E. A. WRIGLEY (London: Edward Arnold, 1973).

² See, for example, Canadian Social History Reports, Nos. 1-6; and many articles by Michael KATZ, Ian WINCHESTER, Ian DAVEY, Harvey GRAFF and others in various social history journals including the *Journal of Interdisciplinary History*, *Histoire sociale — Social History*, *The Journal of Social History*, *The Journal of Marriage and the Family*.

ects since 1970, perhaps the most interesting are the two rural history projects associated with the inspiration of Professor David Gagan at McMaster and Gérard Bouchard at Chicoutimi; the former a student of the rural social history and demography of Peel County, Ontario and the latter that of the Saguenay region in Quebec.

The Peel County History Project of Professor Gagan and the Saguenay Project of Professor Bouchard and his colleagues are at once very alike and also very unlike. They are both, of course, explorations in regional history. They treat of a local, rural Canadian population of remarkable geographical mobility. Further, and most strikingly, they find their central historical puzzlement to date connected with a manner or style of inheritance which is somewhat unusual (or at least little discussed) outside the Canadian context.³

At the time of writing their central articles, each author thought that this style of inheritance was peculiar to his region and group. There was supposed to be, that is, a peculiarly "English Canadian" inheritance pattern in rural Ontario and a peculiarly "French Canadian" inheritance pattern in rural Quebec. It is, therefore, of considerable interest to discover that these inheritance patterns are essentially the same.

The two projects are different in this: the Peel Project covers a short time span and relies on census records as the backbone with wills and land records as additions. The Saguenay Project covers a longer time span and depends mainly on parish records, reconstituted into families, for its primary source, with census records in the nineteenth century as a backup.

The orientation of the Saguenay Project — because of its larger ambitions and funding — has been largely technical. On the contrary, the Peel Project has had a mainly philosophical tone — indeed, almost a defensive tone at times. The Saguenay Project has no doubt either about the appropriateness of what it has been doing or about its general acceptance by the historical community. Why this is so, seems to me to be connected with the dominant milieu in which the two projects primarily work. The Saguenay Project can see itself as essentially following in the great tradition of the *Annales* school,⁴ while the Peel Project is embedded in the Ontario History tradition, which, with the major exception of Michael Katz's work,⁵ is primarily oriented to issues and personalities of Upper Canada, uses non-quantitative sources, non-demographic methods, and asks non-demographic questions. Indeed, Gagan's later work explicitly admits this in referring to land speculation by the "Family Compact" in Peel County. I shall briefly review Gagan's work, commenting as I go. Then I shall turn to that of Bouchard and do the same.

³ There has been a recent study of inheritance patterns reported in R. E. GIESEY, "Rules of Inheritance and Strategies of Mobility in Pre-revolutionary France", *American Historical Review*, 82 (April 1977): 271-89; and more broadly in L. K. BERKNER and Franklin F. MENDELS, "Inheritance Systems, Family Structure and Demographic Patterns", in *Historical Studies in Changing Fertility*, ed: Charles TILLY, (New Jersey: Princeton University Press, 1978), pp. 209-24.

⁴ The *Annales* school has contributed both paradigm methods and results in historical demography and sociology since World War Two. A number of reviews of this work exist including Louis Henry's 1970 review in the *Journal of Interdisciplinary History*.

⁵ Michael B. KATZ published a spate of annual reports, articles and a book spanning 1968-1975 all in the quantitative vein on Ontario urban history illustrated by data from Hamilton.

The Peel County History Project

Working initially from census records for 1851, 1861, 1871, Gagan demonstrated that the geographical mobility in the Ontario countryside was similar to that already demonstrated for the cities — less than five percent of the Peel population (actually the Gore one) persisted over two decades (three censuses). Not surprisingly, this persistence was correlated with occupational mobility both as cause and as effect since it was only by persistence that vertical mobility, in this case mainly land ownership, was possible. It was only by land ownership that persistence was usually possible and hence the maintenance of status.

In his original paper in the *Canadian Historical Review* in March 1973, Gagan describes the object of the Peel County History Project as that of “seeking answers to... questions in the historical development of one rural community from the beginning of organized settlement to the creation of an established society and its imminent decline”.⁶

The sort of questions with which he intended to engage were ones like: Do the memoirs of the literate few accurately characterize the conditions and the quality of life in rural Upper Canada and Ontario? What was the nature of the processes whereby a wilderness was transformed into an established society as a result of the constant interaction between families and the land? What were the broad characteristics of that society at each stage in its development, and how were they altered from time to time by the movements of people or groups of people into or out of that society? What did life hold in store in social, economic and demographic terms for the individual who was born into and functioned within that society as a child, an adolescent, a mother, a father, a widow, or widower? Could his children and grandchildren expect anything better? Why did some families put down permanent roots while for others rural Ontario offered a place to stand just long enough to catch their breath? Was rural Ontario an Arcady spoiled by industrialization and urbanization, as Height and others would have it? Or was life in the “garden” as demoralizing as it was presumed to be in the city?

We should not expect Professor Gagan to stick to these questions. But it is instructive to see how far his original intentions compare with his actual achievements. He has had something to say in his 1976 paper about whether the memoirs of the literate do or do not accurately reflect the life under scrutiny.⁷ But we do not learn much from him about the actual processes whereby the wilderness was transformed into an established society. We learn from him something about the broad characteristics of that society in relation to family and land,⁸ something about the

⁶ David GAGAN and Herbert MAYS, “Historical Demography and Canadian Social History: ‘Families and Land in Peel County, Ontario’”, *Canadian Historical Review*, LIV (March 1973): 27-47.

⁷ David GAGAN, “‘The Prose of Life’: Literary Reflections of the Family, Individual Experience and Social Structure in Nineteenth-Century Canada”, *Journal of Social History*, XI (1976): 367-81.

⁸ David GAGAN, “The Security of Land: Mortgaging in Toronto Gore Township, 1835-95”, in *Aspects of 19th Century Ontario*, ed: F. H. ARMSTRONG et al. (Toronto: U. of T. Press, 1974), pp. 135-53.

movements of people laterally and vertically.⁹ We learn something about the future prospects of children born into the society in the two mid-century decades of the 1800s.¹⁰ But we learn very little about the detailed reasons why some prospered and rooted and others merely passed through.

The initial work by the Peel Project is in the Toronto Gore district, by chance a district comparable in size to that of Notre-Dame de Laterrière which was used initially by Bouchard in looking at his Saguenay district. Gagan's efforts have established the fact that there was very high geographical mobility in the Gore district, the age composition of which changed as the district matured (the younger people dominating the earlier movement and middle-aged people dominating the later movements).¹¹ What is astonishing (and certainly counter-intuitive) is that only five percent of the inhabitants in 1851 were still around twenty years later. Of those who persisted, their dominant feature was that they owned their own land.

I do not know why Professor Gagan actually decided to look at mortgaging patterns in Toronto Gore or whether he did so before he looked at his mobility sources (directories, census). But it is natural, having discovered these facts about mobility, to ask how people secured their land, how they coped in times of trouble, which leads quite naturally to asking about mortgaging patterns.¹² In Gagan's own words:

Contrary to expectation, mortgages against property were not as common among landholders of Toronto Gore as might have been expected given the excessive costs of land acquisition, concentration on a single, extremely vulnerable crop, and the persistence of unfavourable market conditions for half the time span of the study. The mortgaged population of the township does not include all, most, or even a bare majority of proprietors in any decade (the 1870's accounted for this peak), and throughout this period 1831-91 they constitute substantially less than a third of all landholders. Moreover, of those proprietors who did encumber their land nearly three-fifths did so on one occasion only, and one-fifth acquired two mortgages. Plainly, this was not a society of chronic debtors.¹³

Although there was a hard core of multiple mortgages, these were drawn from no particular class lines and no particular occupational groups. However, one peculiar pattern began to suggest itself, namely that "for every son who acquired his patrimony in return for one dollar and his 'filial love and devotion' another, and sometimes two paid full market value."¹⁴ These indentures were mortgages in name only. They were really performance bonds posted by a son who, in return for his father's land, guaranteed his parents' security in their old age. "Of the ninety-six estates of deceased Toronto Gore residents probated between 1851 and 1912, nearly 30 percent oblige principal heirs, as a condition of inheriting land, to discharge

⁹ David GAGAN, "A Matter of Life and Death: The Ontario Farm Family and Its Land on the Eve of Confederation," *Proceedings of the First Annual Agricultural History of Ontario Seminar*, 16 Oct. 1976. Edited by T. A. CROWLEY, Office of Continuing Education, University of Guelph, 13 pp.

¹⁰ David GAGAN, "The Indivisibility of Land: A Microanalysis of the System of Inheritance in Nineteenth-Century Ontario," *Journal of Economic History*, XXXVI (Spring 1976): 126-41.

¹¹ David GAGAN, "Geographical and Social Mobility in Nineteenth-Century Ontario: A Microstudy," *Canadian Review of Sociology and Anthropology*, XIII (June 1976): 152-63.

¹² Gagan's paper on mortgaging (GAGAN, 1974, fn. 8 above) actually precedes by two years his paper on geographical and social mobility (GAGAN, 1976, fn. 11 above).

¹³ GAGAN, "The Security of Land", p. 137.

¹⁴ *Ibid.*, p. 142.

direct monetary bequests and annuities to surviving spouses, children and relatives. A. R. M. Lower has called this the English Canadian system of inheritance and its effect on those who experienced it was to start life burdened with the debts of a well-intentioned but impecunious parent...¹⁵ It is not surprising that such inheritors almost invariably encumbered their inheritance shortly after probate.

As regards the economic fate of those who mortgaged, those who had to sell off their property before discharging their debt (i.e., those who failed) were never less than one-third of the community's total outstanding mortgage debts. Yet their total number was small.

So Professor Gagan's answer to the question: What impact did indebtedness have on transiency? is that it had little effect. Indeed, the main impact was the other way around. Persistence was forced due to land ownership, and indebtedness was sometimes forced due to inheritance patterns. Since who lent the money is an important driving force to the patterns here, we should perhaps be told who did?

It is clear from the Peel Project's four 1976 publications that the question of inheritance patterns ramified into questions about family size, about the details of inheritance (and attendant problems) in large families, and the impact of those details and problems on forcing geographical and social mobility.¹⁶

As Gagan shows, those 160 farm families in Peel county who persisted from 1851-1871 had a minimum average family size of 8.5 children. These children were a veritable army of hands on the farm. But as the parents grew older, the children constituted a great dilemma for the Peel farmer since they could not each inherit the land of their parents without splitting it into economically unviable units. Yet they deserved (as a rule) equal inheritance. The solution, as Arthur Lower earlier pointed out, was to try to combine the merits of the single heir (perfectly non-partible) system and the perfectly equitable (partible) one, by bequeathing the farm to one child whose obligation it became to treat all other survivors equally. Gagan's researches show that the main effect of this besides encumbering the heir with mortgages, was to drive the remaining family from the county, perhaps to emulate the patterns of their parents elsewhere.

What is interesting here from a demographic point of view is that neither family limitation nor land redistribution found favour, over the period 1800-1870 at least. Indeed, the non-partible but equitable inheritance system became more popular as the nineteenth century wore on.

In his last three papers relating to the Peel County Project, a definite change seems to be apparent in Gagan's writing. First of all, in 1976, a piece using literary sources to illustrate everyday life appears.¹⁷ In 1978, in the natural enough topic of land speculation, the "Family Compact" appears.¹⁸ Finally, in his paper for Saskatoon, CHA (1979) Conference, Professor Gagan is concerned with generalities,

¹⁵ *Ibid.*, p. 143.

¹⁶ GAGAN, "The Indivisibility of Land"; GAGAN, "A Matter of Life and Death"; GAGAN, "Geographical and Social Mobility"; GAGAN, "The Prose of Life".

¹⁷ GAGAN, "The Prose of Life".

¹⁸ GAGAN, "Property and 'Interest'".

explanations and a philosophical defence of the programme in which he has been mainly engaged this decade.¹⁹

My impression is that Gagan's mature reflection has led him to integrate his historical interest in the ordinary people and their activities, and the expertise he has acquired in his use of quantitative methods, with his interest in traditional sources and methods, and in the prominent individuals who partly drove the processes at work (or at least aided them). Such were the land speculations of the family compact, which partly forced the moving of the children of farms; and such were those monied few who lent their money to those needing it in return for a mortgage on land. I shall say some things later about Gagan's general reflections, so I shall now turn to the Saguenay Project.

The Saguenay Project

The Saguenay Project, under the direction of Professor Gérard Bouchard, has, to date, been very largely concerned with methodological considerations and planning, since the scope of their work and the documents from which they work demand this. I shall have something to say about these methodological considerations later. First, I wish to turn to their substantial progress, and particularly their detailed treatment of one parish, Notre-Dame de Laterrière, a parish village situated about ten miles from Chicoutimi in Northern Quebec.

I think we may take this work to be a model of, or at least representative of, the work which will follow when the technical problems of automated family reconstitution are solved. With respect to Laterrière, Bouchard discovered early that special problems are posed by attempting family reconstitutions among a highly mobile population, a problem which had not really been discussed in classical French work in the field.²⁰ Secondly, and I think this is an important matter, Bouchard, like Gagan, refuses to see the social history of a population as being limited merely to assessing the number of persons involved in migratory movements or to reconstructing displacement patterns. Rather, he wants, also like Gagan, to relate these to the agrarian regime, to the economic and social structure, and to cultural configurations. Both Bouchard and Gagan, it seems to me, agree that integrating demographic and social history with mainstream historical research is an important and useful thing to do.

What has Bouchard found out about this one village-cum-parish in the period comparable to Gagan's? First of all, Laterrière had in the nineteenth century and well into this one, very high birth rates, relatively low death rates and marriage rates characteristic of a young population.²¹ One would expect the population to double every thirty years or so. So Bouchard's first question, facing these facts, was, how did Laterrière accommodate to the three percent natural growth rates annually? To

¹⁹ David GAGAN, "Regional History and Social History: A Comparative Approach to the Study of Social Change", paper for CHA Conference, Regional History Session, June 1979, Saskatoon, 66 pp.

²⁰ Gérard BOUCHARD, "L'histoire démographique et le problème des migrations: l'exemple de Laterrière", *Histoire sociale—Social History*, VIII (mai 1975): 21-33.

²¹ Gérard BOUCHARD, "Family Structures and Geographic Mobility, 1851-1935", *Journal of Family History*, 2 (1977): 350-69.

answer this, he first looked at the emigration from the village by looking at the total population curve for the village. The results showed that up to 1870 the population growth is what you would expect, a rapid advance from 400 in 1850 (for example) to 1300 or so in 1870. Then the population dips drastically to 800 or so and does not rise again until 1910.

It was tempting for Bouchard to see this as a simple overpopulation crisis, with no work for the children, and hence their out-migration. So he set out to look at how the economy worked in Laterrière, and also at emigration (and immigration, if any) directly. Since the economy was an agro-forest one, it was plausible to look to Blanchard's hypothesis of the dependence of agriculture on forestry and, in particular, that logging turned rural inhabitants away from farming for too long a period of the year, leading to no progress or even decline in agricultural capacity. In Bouchard's words:

We are thus inclined to connect the population displacements observed at Laterrière with the wide swing in the region's center of gravity towards Lac St-Jean. Deprived of an income from the forest, unable to draw their subsistence from insufficiently developed and already crowded land, vulnerable farmers may well have been driven towards new forest-clearing zones.²²

Unfortunately, promising as this line is, it cannot be followed at the moment since records are not available to chart the activity of logging. The reconstitution of families does not show any influence of the apparent surplus of manpower or of the massive out-migration on the birth rate. Nor does the household structure show any real deformation such as one might suspect, as Gagan's data apparently do. A *crisis* brought on by overpopulation should have led to more adults coming into one household, and more than one family unit appearing in a household. Throughout the hypothesized "crisis" period, there is no indication of poverty or that a scarcity of land delayed marriage among young people. Indeed, the marital units in a household declined as population rose, and rose when emigration was supposed to be at its peak. Nor was there uncleared land in the vicinity available for the farmers' sons to settle with their new brides on. Nor is there any reason to believe that a modernization of agriculture caused the massive departures, since there was little change in average farm size.²³

Now it is at this point that Bouchard and Gagan find a striking parallel hypothesis. For both the Saguenay Project and the Peel Project it is plausible to maintain that the massive migration of the native born is connected with the fact that both in Peel and the Saguenay, rural society is dominated by the stem family and a special system of inheritance in which the family property is not partible, but in which the father or the heir must financially aid the remaining family members to go elsewhere.

In reconsidering his migration data, as well as by adding the federal census material of 1851, 1861, 1871 to the 2126 families, reconstituted from the Laterrière parish sources, Bouchard pursued emigration and immigration to a finer level. This indicated that it was at the beginning of colonization, both when land was most available and when population growth was most rapid that emigration reached its peak. Consequently, the main impetus for emigration could not possibly consist in any

²² BOUCHARD, "L'histoire démographique".

²³ BOUCHARD, "Family Structures".

Malthusian-type contraction on the part of the agro-forest economy. The study of immigration via the federal census suggests that the heavy emigration was partially made up for by the immigration of families into the area. A conservative estimate for the period using reconstitution data suggests a parallel with the emigration, viz, both peak at 1871, decline until 1911 and then recover.

The parallel with the picture which the Peel County Project reveals is striking: high geographical mobility, with persistence correlated to land ownership. As well, the Saguenay Project suggests that the stem family plus the single heir account theoretically for the inducement of other brothers and sisters to leave home. As yet, Professor Bouchard has no evidence other than a characterization of the manner of inheritance by one witness of the time, suggesting that the parents were concerned to set up each son in turn on a neighbouring parish and finally bequeath the property to the youngest son in return for a life annuity assured his parents by a contract signed before a notary.

By looking at inheritance patterns for the entire Saguenay region, it is possible that Professor Bouchard will be able to demonstrate the hypothesis that the non-partible but perfectly equitable inheritance patterns (whether the inheritance occurs during the lifetime of the parent or not) was the standard one in the Saguenay district. He also raises the possibility that the pattern in Peel County may also have features in which the parents actively try to "set-up" the older children in nearby districts and give the property (with some provisions) to the youngest son.

One might even suspect here a Canadian, rather than an English or French Canadian inheritance pattern. If this were true, it would be a remarkable fact that the inheritance patterns in two very dissimilar regions, one with heavy dependency upon a wheat export economy and the other with a heavy dependency upon logging operations as well, tended to maintain a stem-family arrangement and non-European inheritance patterns.

Where Gagan and Bouchard have divergent results-cum-hypotheses, is that whereas Gagan thinks that *one* of the factors driving emigration in Peel was the family and inheritance arrangements, Bouchard thinks it is the main (or at least a main) causal factor.

The Peel Project has already looked at patterns of indebtedness for the Peel region. The Saguenay Project plans to. Similarly the Peel Project has looked at more features of the land market and at speculation in land in the region; the Saguenay Project has plans to do so.

It would be natural enough that two such similar projects would be driven by the inner logic of their data and the questions it forces upon them, to pursue much the same questions. What is remarkable, is the similarity of their results and their conclusions, given the wedge we tend to drive between the two founding Canadian cultures when we tend to speculate about them in the absence of data or in the presence of only anecdotal or literary evidence.

Methods

Before turning to some philosophical matters which are raised by both Gagan and Bouchard, I shall say a few words about methodology.

While each project has had special methodological problems to overcome, neither project is playing any really new methodological tunes — rather, each is playing variations on some old and popular ones. However, because of the concern of the Saguenay Project to cover the entire Saguenay region, it has had to meet and overcome a number of very trying problems connected with ambitions to standardize, and ultimately to automate, the reconstitution of the family relationships in their data. Bouchard and his co-workers have reported a great deal on these various problems, especially those of standardization. Though such things are of the first importance, since they are common to all attempts at social history and demography which involve geographical spread, I shall not say anything about those. However, the most recent work, on which I shall comment is that of steps preliminary to the automatic reconstitution of families.

The reconstitution of families from baptism, marriage and death records is essentially dependent upon judging two or more names to be that of the same individual or of belonging to the same family. Since names are subject to much variation in recording due to initial mishearing, bad spelling, or, at the level of processing the data, to misreading, or illegibility of handwriting and so on, it is necessary to develop rules to determine when two such different arrangements of letters are to be judged as being the same, as referring to the same individual.

From the evidence of Professor Bouchard's most recent paper on their technical progress, the problem of names in the Saguenay region is very great and very complicated indeed.²⁴ The strategy employed is basically to construct a table of equivalences (to declare two names as really the same) and then, if no equivalence is found, to determine how *similar* the two names in question actually are; first the names are coded phonetically according to a rather complicated set of rules deriving from one recently published by Louis Henry²⁵ and, second, after they are sorted alphabetically, pairs of names with the same coding are then compared, as well as names with similar coding to determine just how similar they are. As Gloria Guth pointed out in 1976, a mere class inclusion comparison of letters in a name pair can be very misleading.²⁶ It can both exclude names that really are similar and include names that are alike. She has devised a simple strategy, which the Saguenay Project uses to overcome this problem.

The final technical problem is that of actually deciding which of a number of record pairs actually relate to the same individual. Here the Saguenay Project has chosen a number of decision rules dependent upon whether or not a simply calculated index of similarity is within a certain range of values or not. In those cases in which there is an inclusion of one name in the spelling of the other, the name pairs are treated as equivalent *ad hoc* unless a few specially identified cases obtain. According to Professor Bouchard, ninety-eight percent of all cases are covered by this treatment, the remaining two percent are to be covered by a hand and eyeball method.

²⁴ Cf. Gérard BOUCHARD and Patrick BRARD, "Un code de transcription phonétique pour la reconstitution automatique des familles saguenayennes", unpublished working paper.

²⁵ Louis HENRY, "Projet de transcription phonétique des noms de famille", *Annales de démographie historique*, 1976.

²⁶ Gloria J. A. GUTH, "Surname spellings and computerized record linkage", *Historical Methods Newsletter*, 10 (December 1976): 10-19.

This is an excellent system. It promises to give great accuracy. The numbers involved seem to be few enough that cases of multiple linkage would be few; and there will be an opportunity to treat manually the remaining problems. The general lesson to be learned from Bouchard's special technical difficulties is that in any large project such as that of Bouchard and his colleagues, or that of Gagan, there will be unique technical difficulties which arise in handling the data especially for purposes of family reconstitution or multiple record linkage. These may be overcome, as a rule, by analogy with work already done, but there is no substitute for the researcher's being intimately acquainted with the properties of his record files.

Philosophical Questions

The work of the Saguenay Project and that of the Peel County Project, both raise general questions which approach the philosophical. For Bouchard, these began as "Can we study rural Canadian history in a more comprehensive manner than has been done anywhere else before?" Now they are at the "How can we...?" stage, a "yes" answer being given to the general question.

For Professor Gagan, if we may take his recent theoretical paper as definitive,²⁷ his research has led him to the following general theoretical question, viz: Under what general framework are we to comprehend movements of the kind which he and Professor Bouchard describe? He raises the question in the context of his pointing out that two sub-regions, in immediate juxtaposition, may nonetheless be demographically and socially quite divergent. Consequently no single theory like, say, distance from a metropolis is likely to give any explanation of the divergence. One possibility is that there is no general account which can be given. Perhaps the social historian must be satisfied with limited causal explanations, relating to limited regions. The object of the historian's research might best be seen as analogous to mapping all the paths and byways in a forest, rather than explaining the biochemical cycles of the plants and animals in it. As things stand, we have so few examples of regional history of the kind which Bouchard and Gagan are so admirably providing that it is much too early to judge just what is possible here.

We have in Gagan's work on Peel County a convincing counter-example to the suggestion that any simple theory explaining regional development is possible. We have in the combined work of Gagan and Bouchard a convincing counter-example to any simple cultural divergence thesis, since two societies of quite different origins and in different economic environments developed a similar inheritance pattern. Are we to think of this on the analogy of the shark and the dolphin (one a fish and one a mammal), looking alike, but of different origin? Or are we to think of this on the analogy of two species of dolphins, merely in different parts of the same ocean, but with common ancestors? Neither Bouchard nor Gagan offers a solution to these sorts of questions. But theirs is among the central work of the western world which enables us to pose them.

²⁷ GAGAN, "Regional History and Social History".

Conclusion

Since this is a research note, this review of two important Canadian team research projects should conclude accordingly. In this review no mention has been made of the various co-workers, historians, computer experts and others, who have made it possible for one to refer to Bouchard and Gagan, *simpliciter*, throughout. In the technical publications of the Saguenay project, multiple authorship is common. But, perhaps as a holdover from the earlier research tradition, the historical articles tend to be singly authored even though their writing may presuppose a technical team.

In the physical, chemical and biological sciences the practice is, as a rule, to include the whole team after the name of the principal author. Are we to expect this to become the rule in this kind of large scale collaborative research in history? My suspicion is that, in fact, there will tend to be single authors for historical products in the future, as opposed to the multiple authorship of technical and methodological contributions to historical research. I think this because of the nature of historical research. Even if in some suburbs of history the data gathering and evaluation is increasingly "scientific" or, perhaps, "science-like", the writing up of the results of the research in a particular fashion is a large part of the historical contribution. History is still *litterae humaniores*. Joint authorship, while genuinely possible, is rather unlikely as the norm of history written in the quantitative vein. But schools of research following a particular methodology, with myriads of collaborating scholars at the doctoral and post-doctoral level, is an increasing possibility.