originaires d'Angleterre dans l'avant-propos alors que de nombreux francophones sont actifs au sein de la grande bourgeoisie dans la conclusion), un certain nombre de digressions, une syntaxe souvent laborieuse, des anglicismes ici et là et, même, le mot créancier à trois endroits où il faudrait lire débiteur (153-154). Voilà qui est assez pour faire douter du travail de l'éditeur.

Ce livre est une preuve qu'il ne suffit pas à l'historien d'aimer son sujet pour bien le traiter. Bervin a raison de dire qu'il nous faut mieux connaître l'élite des affaires bas-canadienne. Malheureusement, son livre contribue peu à cet objectif.

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Paul A. Bogaard, ed. — *Profiles of Science and Society in the Maritimes prior to 1914*. Fredericton: Acadiensis Press, 1990. Pp. 283.

Yves Gingras — *Physics and the Rise of Scientific Research in Canada*, translated by Peter Keating. Montreal and Kingston: McGill-Queen's University Press, 1991. Pp. xii, 203.

One of the important questions an area of study must settle if it is to remain intact is: what are the units of action that explain what happens in this field? Among chemists, in the nineteenth century, a long debate went on over whether the "atom" was properly such a unit; in twentieth-century medicine, doctors and their clients wonder whether the opposite unit is the disease or the patient; in seventeenth- and eighteenth-century physics the status of "force" as a unit of action was a source of deep worry to natural philosophers. In history, one asks what makes things go: individuals? states? classes? problems or periods? In history of science, for a long time, the basic unit was the timeless "discovery," and the first derived unit was the "genius" who made the discovery. At a slightly more refined level, the "concept" (still an individual possession) was laboriously traced; when it was not possible to locate it in an individual mind, the "concept" became the "tradition," as, for example, in the phrase "Hermetic tradition." Now, however, we are debating whether these units get us to the heart of the matter. Perhaps discoveries are not so clearly intuitions into nature; perhaps ideas are not so strictly private property; perhaps individuals are only accidentally and not essentially the authors of scientific thought; perhaps, even, as the Edinburgh Science Studies Unit insisted, **all** so-called scientific knowledge is "socially constructed." If so, perhaps the proper unit of action is the **society** in whose bosom science is cherished. Or, if we regard science as being a mental phenomenon, the "culture" is what we should direct our attention to.

The books under review are halfway between the two extremes — that is, between thinking the "discovery" is the proper unit and thinking only the "culture" counts. Before I show what I mean, let me say a word about their contents. The Bogaard collection contains a dozen essays on various aspects of scientific culture in the Maritimes — primarily Nova Scotia, and mainly in the 19th century. A brief "Forward" by Robert Bruce, who has studied the social history of American science for a long time, provided south-of-the-border validation for these parochial efforts. Bogaard wrote an introduction summarizing the volume's contents; Bertrum H.

MacDonald analyzed patterns of publication by scientists and amateurs in the region; Suzanne Zeller (she of "inventory science" fame — a phrase that appeared in her thoughtful *Inventing Canada* and recurs in *Profiles*; it perfectly captures the sense of Canada as a small shop inherited by a Scottish merchant) considered the case of George Lawson and his efforts to determine the origin of Nova Scotian heather; Roy Bishop, in a paper published earlier in the *Journal of the Royal Astronomical Society of Canada*, introduced me to the strange and romantic dream of J.F.W. DesBarres, a kind of new-world Tycho Brahe, who (DesBarres) set up an astronomical observatory in the Nova Scotian wilderness in the middle 18th century; Susan Sheets-Pyenson explored the mentality of Sir William Dawson in his pre-McGill, Pictou years; Leslie Armour examined the views of four philosophers who wrote on the relations between science, religion and philosophy in the century or so (1820-1910) when these relations were tectonic in character. George Rawlyk presented two valuable documents on the same theme — sermons by J.M. Cramp and W.C. Keirstead, both Baptist educators. One begins to get a whiff of more current breezes in Hugh M. Grant's paper on oil exploration in Nova Scotia and New Brunswick late in the 19th century: 'science' figures less in this paper than in the others, for Grant is really interested in the formation of public policy towards exploration. In contrast, Randall C. Brooks' paper on finding longitude and establishing time standards took for granted public policy in these matters and concentrated on details of instrumentation and outfitting of observatories designed accurately to determine the where and the when. Michael J. Smith turned the discussion to medicine and public health in a paper on the promotion of sanitation by doctors and educators in the 19th-century Maritimes. Richard Farrell chronicled efforts by government in Nova Scotia to make agriculture scientific. Finally, Martin Hewitt followed the ups and downs of the St. John, N.B., Mechanics Institute, whose purpose fluctuated through the last century from educational and uplifting to entertaining and bamboozling (with mesmerism).

In a sense, Gingras' monograph starts where the Bogaard collection leaves off. The small-college science teacher who might be asked to teach chemistry one year, biology the next and geology the third year, the rock-hound, the Baptist natural philosopher steeped in Paley, the solitary baronial astronomer, the body-purifier with a system for purging all evil through proper diet and exercise — all this gave way to the "professional" scientist (Gingras of course limits himself to physics) in large university departments or in government laboratories. These men (few women were part of this world) thought about "research," about building a "strong" country through military or industrial applications of basic science, and about slotting into the international world of itinerant post-docs, conferences, specialized journals, and the prestige ladders that are the consequence of it all. The way Gingras tells the story, the drive behind the transition from natural philosophy, pedagogy, polymathy and the sermon to physics, research, specialization and the journal "paper" came about partly as an imitation of German practices (an imitation scientists in the United States also succumbed to) and partly as a natural concomitant to industrialization. He relates how men committed to specialized research and to the laboratories that necessarily went with it — men like James Loudon, J.C. McLennan and J.G. MacGregor — fought for money, space and recognition by those who controlled those goods, and convinced them that research must be built into institutions of higher learning and also into government labs. World War I tended powerfully to concentrate the mind; the National Research Council was born out of its turmoil; the idea of "mobilization" of all the state's resources for its defense and aggrandizement persuaded government that

it ought to have a research "arm." (This idea, although Gingras does not mention it, came out of the France of the later 1790s, when the monarchies came slumping around; the Republic suddenly discovered a need for *savants* with their keen insights into the nature of gunpowder and its chemistry.)

When I said earlier that these two books were halfway between two historiographies, here is what I meant. The Bogaard collection's title, *Science and Society*, shows that someone thought those two entities to have some relation — that science was not a perdurable pursuit, the same in every setting. But the two are brought together as though each was an independent being. They enjoy an "interplay," and yet somehow "science" is always itself. "These profiles," Bogaard explains in his introduction, "represent different fields of scientific practice which arose in the Maritimes and reflect the sorts of reaction — religious, philosophical, economic and popular — which it aroused in this social context" (13). Science remains the same; others react. Further, "science" being progressive and thoroughly core (as opposed to peripheral), one must show that what existed in the Maritimes shone as brightly as the stars anywhere. Pictou Academy, in Sir William Dawson's years there, with its collection of scientific apparatus, stood "on a par with the most advanced German *gymnasia* of the day, and even with some of the German universities" (Sheets-Pyenson, 92). The active unit here was a hard-driving individual, Thomas McCulloch, who may not himself have had the luck or genius for discovery, but who laboured to bring a unitary science to Nova Scotian youth.

Gingras too takes "science" at times as an independent variable, universal and to be assessed by cosmopolitan standards: "Rutherford made fundamental discoveries" at McGill (34). Much of his account in fact conventionally narrates the "rise": who first had the idea (of, say, an experimental laboratory), whom he pressured, who coughed up, and so on. His notion, however, of why all this happened, has little to do with the ostensible purposes of the main actors in the struggle to get physics established in Canada. Instead, he relies on the far-fetched (all the way from Paris) ideas of Pierre Bourdieu. In Bourdieu's scheme of things, an amalgam in about equal parts of game theory and socio-biology, the point of science is not to find something out, but to set in motion a self-perpetuating group. As Gingras says,

> Since scientific research is produced by social agents..., a description of the emergence of this activity supposes explaining the production of this type of agent... [O]ne must...show how the transformation of the educational system, conceived as an "apparatus for the production of agents," made possible the emergence of these agents, by instituting a new form of pedagogical action which inculcates the scientific "habitus" — a system that generates practices, perceptions, and evaluations of practice (4; the internal quotations are from Bourdieu).

How reminiscent it is of the "selfish gene" whose only goal in life is to make sure it survives the death of the individual bearer. The only trouble is, it makes no distinction between groups devoted to science and street gangs. The passage quoted could as well apply to the latter. A "habitus," any set of habits that will help the group to survive, cannot, in the cultural sciences, be divorced from the group's purpose, without a complete forfeiture of historical understanding. No one from the land of Montaigne, Montesquieu and De Tocqueville should have to be scolded by me about his.

The assumptions, then, that underlie the presentations in these very interesting books, are incompletely thought through. Probably it is not possible to be thoroughly consistent and comprehensive about the "units of action" in the study of human history in general, or in the study of the history of science in particular. But let us think a little longer and harder about what we mean by "science" and, God help us, "society."

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Anita Caron, dir. — *Femmes et pouvoir dans l'Église*, Montréal, VLB Éditeur, 1991, 256 p.

Les articles et les livres qu'on écrit sur les femmes et sur leur rapport au pouvoir dans l'Église mettent bien du temps à devenir désuets. Et pour cause ! La situation qu'ils décrivent, qu'ils analysent, qu'ils expliquent, qu'ils dénoncent ou qu'ils justifient a ceci de particulier : elle n'évolue en surface que lentement et demeure la même dès qu'on la scrute en profondeur. Parue en 1991, l'étude qu'un collectif de chercheuses regroupées autour d'Anita Caron, professeure et directrice intérimaire de l'Institut de recherches et d'études féministes de l'Université du Québec à Montréal, consacrait au thème *Femmes et pouvoir dans l'Église* mérite, à plus d'un titre, de retenir l'attention. Disons d'abord que cet ouvrage est accessible à un large public tout en présentant un grand intérêt pour les gens dont la formation personnelle ou professionnelle amène à réfléchir depuis longtemps sur les problèmes qu'il aborde et sur les enjeux qu'il soulève, tant pour les femmes que pour l'Église dans son ensemble. En deuxième lieu, l'approche multidisciplinaire qu'il déploie permet d'aborder la question des rapports entre femmes et pouvoir sous divers angles. Les perspectives historique, théologique et sociologique enrichissent le portrait et en révèlent en même temps toute la complexité. Troisièmement, les auteures nous montrent qu'à l'intérieur d'une même discipline — la théologie et la sociologie, notamment —, plusieurs grilles d'analyse sont légitimes, voire souhaitables, pour rendre possible une approche plus diversifiée et une compréhension plus éclairée des questions en cause. Finalement, les auteures ont enquêté sur le terrain pour se mettre à l'écoute de personnes que leur travail ou leurs fonctions ont plongées, en pratique, au cœur même de la problématique étudiée. Elles ont interrogé des femmes œuvrant dans deux paroisses de Montréal, des prêtres qui les ont engagées ou qui les ont côtoyées dans l'exercice de leur activité paroissiale — bénévole ou, plus rarement, rémunérée — et quelques laïcs qui les ont vues en action.

Jamais les auteures ne s'enlisent dans le témoignage, ce qui peut aisément devenir répétitif et lassant, et jamais elles ne se perdent non plus dans les analyses abstraites de nature à décourager un public non spécialisé.

Une question ne cesse, à juste titre, de hanter les chercheuses : « Pourquoi des femmes travaillent-elles avec tant de zèle, et le plus souvent bénévolement, à maintenir une institution qui les traite comme des citoyennes de seconde zone » (53). Pour toutes les féministes qui ne se réclament pas de la foi chrétienne, cette situation constitue une aberration scandaleuse. J'y reviendrai à la fin. Voyons d'abord les grandes articulations de cette fascinante recherche.