APPRENTICESHIP'S LEGACY:
THE SOCIAL AND EDUCATIONAL GOALS OF TECHNICAL EDUCATION
IN ONTARIO, 1860-1911

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Apprenticeship's Legacy
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ABSTRACT

The regime of apprenticeship, which provided both the foundation for a craft culture and basis of the social construction of skill in a pre-industrial society, was gradually supplanted by a regime of prescribed and systematic instruction. The development of technical education initiated a process which, over time, tied apprentices and workers more directly into the formal institutions of the community and the state to an extent that surely would have perplexed mid-nineteenth century observers. The process would eventually give employers and the state greater leverage in controlling the outcome of skills training at the same time as economic and technological transformations were giving employers greater leverage to control the mechanisms and procedures of production.

Formal technical education, like the public school itself, was a product of modernity. From the 1800s through the early 1900s, the normal sites of technical education and skills training underwent a fundamental shift. The setting moved from the workplace to the classroom. Responsibility shifted from skilled proprietors to the state. The authority to refine, to replicate and to define the value of skills shifted from private artisans to public policy makers. The cultural relationships embodied in skills replication shifted from personal paternalism to impersonal bureaucracy.
What had been, in the pioneer past, a predominately private domain was becoming increasingly a public responsibility at the behest of educators, business and labour leaders alike. Gradually, through the development of organized technical education, a less formalized 'apprenticeship model of education' was transformed into a formal 'educational model of apprenticeship.' This dissertation traces that development through the lens of an ongoing dialectic between competing conceptions of technical education: culture and utilitarianism.
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A doctoral dissertation is necessarily a lonely and, for the most part, a solitary endeavour. It is all too easy for writers to become possessed by the picayune details of their projects, and to be consumed by the independent life that these projects take on. The doctoral student becomes the thesis, and is generally so acknowledged among friends and colleagues. As the project progresses, "How's your thesis going?" becomes the opening salutation to most personal exchanges, gradually edging out "How are you doing?" and "How's life?" The answer to all three of the above questions is usually a nondescript "Fine, thank you."

Yet, it is also too easy to forget that, while the work may often appear solitary, one does not accomplish it alone. Like all dissertations, therefore, mine is very much the product of the scholarly and collegial influences that have come to bear upon me at McMaster, and of the social and personal relationships that have often sustained me.

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Chapter One

In Search of A Coherent Agenda:
Social History, Social Science and the 'New' History of Education

Control over both the form of schooling and its academic and moral content is the symbolic battlefield whereon ideas, beliefs, and cultures struggle perpetually for more control of what societies will be like in the future.

Jerry Paquette

Seldom has the writing of history not been touched by the wand of contemporary politics. While historians are always very keen to avoid the pitfalls of latent and overt presentism in their writing, their own views and perspectives of the past are likely still to be shaded, at least in part, by the ways in which they experience their own times. The present reveals itself in often subtle, though not imperceptible, ways: in the preoccupations of historians, in the types of questions that they ask of the past, and in the didactic lessons that they hope to draw. Yet, measured against the standards of contemporary relevance, standards which are not always appropriate for assessing the value of history, historians are often compelled to serve as more than just conduits in the ongoing dialogue between the present and the past. In the noble pursuit of enlightened subjectivity, they must attempt to

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reconcile the demand for a 'living history' against the constraints of a 'usable past.'

During the late-1960s, many of the conventional touchstones and benchmarks of post-war North American society were challenged in varying degrees by an emerging generation of thinkers and activists, for whom traditional historical perspectives no longer offered satisfactory explanations of social reality in the past or the present. The bias of traditional history towards topics of political, constitutional and economic concern was seen, at best, as being too limited in scope, placing too many constraints on history's explanatory power. At worst, traditional history was accused of sculpting a model of societal development that was markedly elitist and male-dominated, with its own sharply-cut grooves of ethnic and national chauvinism. In short, the standard perspectives of traditional histories failed to speak to the concerns of the society that would inherit them. After all, the concerns that preoccupied many younger scholars in the 1960s and 1970s were less those of statecraft, high politics, and economics, and more those of social inequality and class relations -- themes that the traditional histories seemed either to mask or to ignore.

Whether or not this depiction of traditional history was fair, it provided ample justification for the invention of new historical credos. As fresh perspectives were developed to embrace modern concerns, old assumptions were cast off or amended, and old histories were recast in the mould of new or rediscovered social theories. Academic history was never far removed from the currents of social change in the 1960s and 1970s; it either mirrored or mocked the naive enthusiasms and reactionary anxieties that competed for attention within North American society. Some of this new research indelibly bore the
imprint of the 'new' social history, a movement that promised to revamp the historical imagination by challenging the nostrums of traditional historicism and by exploring the hinterland of historical epistemology.

Far from monolithic, however, this 'movement' was deceptively complex. In the same way that modern social history splintered away from traditional 'mainstream' history, it also encouraged and facilitated the further fracturing and splintering of historians into a wide variety of sub-fields, each of which risked becoming a fortress unto its own. Under the rubric of the 'new' social history would be grouped the practitioners of the 'new' labour and working-class history, women's history, urban history, rural history, business history, and (most germane to the present discussion) the 'new' history of education. In as much as this new history represented an attempt to chart a new course of historical investigation, one that seemed to stand in opposition to the traditional liberal history of the Laurentian school and the staples thesis, the break with the past was still far from complete.

Nevertheless, the 'new' social history did introduce a powerful centrifugal force to the practice of Canadian history generally. By moving the thrust of modern historiography away from its traditional mainstream, Canadian historiography was itself decentralized. Increasingly specialized, several of the sub-fields of social history during the 1960s and 1970s went on to develop their own theoretical and methodological debates, their own conceptual paradigms, and (in a some cases) their own autonomous historiographies.² By

²Specialized academic journals, such as Labour/Le Travail, Histoire Sociale/Social History, Acadiensis, etc., have regularly included review articles outlining the specialized historiographical developments in the particular fields of labour history, family history,
the 1980s, some social historians began to concern themselves with the troubling question of synthesis.\textsuperscript{3} Was there a basis upon which the results of the varied social history research of the 1970s could be collated and integrated? Could the revelations of these new histories help to inform the traditional concerns of history? Was it possible to forge a synthesis within social history itself? Opinion, of course varied, on these questions. On the one hand, historians in other countries were already beginning to develop synthetic studies of social history. On the other hand, the tendency towards regionally-based, article length studies, had served to severely limit the breadth, the degree, and the direction of overlapping that would occur within social history research.\textsuperscript{4}

From the beginning, specialized academic journals have provided the principle forum for much of this new research. In fact, several Canadian historical journals, with an avowed commitment to cutting-edge research, were themselves direct products of social history and women's history and educational history, to name a few. But this movement towards specialized historiographies has even filtered into the ways in which contemporary Canadian historiography itself has come to be understood in the 1970s and 1980s. Carl Berger's \textit{Contemporary Approaches to Canadian History} (Toronto: Copp, Clark, Pitman Ltd., 1984) is actually a compendium of articles by sub-field specialists outlining the major developments and debates that have arisen in the various specialized sub-fields of Canadian history, rather than a collection of essays on the collective meaning of modern Canadian historiography.


\textsuperscript{4}Carl Berger did, however, attempt to offer a synthetic view of the historiography of the new social history in a revised edition of his well-known text on Canadian historiography. See, \textit{The Writing of Canadian History: Aspects of English-Canadian Historical Writing since 1900} (Toronto: University of Toronto Press, 1986), second edition.
its sub-fields. Yet, the momentum of the 'new' history, and its early flirtation with interdisciplinary approaches, also caused minor tremors that transcended the confines of the printed page. In the search for new avenues of inquiry, the 'purity' of academic departments was invariably called into question as historians began to experiment with research methods and social theories borrowed from the social sciences. These experiments did much more than offer new possibilities to a generation of historians and graduate students. For the more radically inclined, they also provided the arsenal required to launch a rear-guard offensive against the pillars of staid academic conventionality. Interdisciplinary research promised to liberate speculative inquiry by obscuring the rigid boundaries that separated disciplines.

Revisionism and The Limits of Traditionalism

Prior to the revisionist impulse of the 1960s, the history of education in Canada remained a markedly underdeveloped field of inquiry. Lacking much of the dimension and depth of mainstream Canadian historiography, educational history failed to embrace a critical tradition. Charles E. Phillips' The Development of Public Education in Canada (1957) was a case in point. Phillips' goal was to trace the progress of public education in Canada from its origins in the nineteenth century. However, his objective betrayed his distinctly Whiggish teleology. In Phillips' linear model of historical development, public

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Some examples include Labour/Le Travail[leurl], Histoire Sociale/Social History, and most recently Historical Studies in Education/Les Études Historique d'Éducation.
education was depicted as a laudable goal; and therefore, all movements that advanced this
goal were regarded as progress. The purpose of this history was clearly not so much to
interrogate and explain the past as to validate and legitimize it. Phillips' presentism was
consciously value-laden; yet, he offered no apologies. "The book," he confessed, "... is an
account of past developments as leading to the present and as judged by the values of the
present." But in this case, the "values of the present" ultimately condescended to an
"idealized past," a past that was vaguely remote and quaint.

No doubt Phillips' view of public education as being one of the crowning
achievements of democratic society was widely shared in the 1950s. Yet, there were still
sound reasons to scrutinize such a laudatory approach to educational history. In the 1950s,
some academics and educators, such as William Hume and Harold Taylor (1959) were
beginning to take sharp aim at what they perceived to be the implicit philosophical and
systemic deficiencies of public education. By the 1950s, public schools, which to some
represented the monumental achievements of democratic social reform, had themselves
become inert and resistant to change.

By the mid-1960s, educational history was being given a vital facelift by historians
who began to reassess critically the role of the school in society. Certainly, the emergence
in the early 1960s of important revisionist accounts of educational development and reform,
written by respected scholars like Bernard Bailyn (Education in the Formation of American

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"Quoted in J. Donald Wilson, "Some Observations on Recent Trends in Canadian
Educational History," History of Education Review 13, 1 (Spring 1984), reprinted in
Contemporary Approaches to Canadian History, 222."
Society, 1960) and Lawrence Cremin (The Transformation of the School, 1961) set the stage for a broadly based reassessment of many of the uncritical assumptions of previous writers. More than a few revisionist critics of the 1960s and 1970s made explicit their debt to these two writers for their timely instruction to historians to elevate the character of the debate in educational history from its insipid, inward-looking parochialism. In particular, Bailyn and Cremin were both successful at redirecting scholarly attention towards the social and political context of schooling and the cultural fabric of educational reform. They each implored that 'education' be viewed as more than just 'formal schooling' -- that it was, after all, part of a total experience of living encompassing not only schooling but also work, family, religion, and community. This broader mandate for educational history had a significant impact on the ways in which historians began to reappraise public schooling itself. Schools, as Selma Berrol has reminded us, are "the agents of the society that establishes and pays for them," reflecting both "the injustices as well as the ideals of that society."7

In part inspired by the appearance of the New Left in the United States, revisionist thinking had taken on the tone of contemporary social criticism. The history of education was quickly vested with a new potential. Educational history was clearly more than just a history of schools, more than just a validation of the unerring progress of democratic society. It was a possible vantage point from which to view the society from a different perspective.

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Brimming with questions concerning race, ethnicity, class, poverty and gender, revisionists were increasingly inclined to scrutinize the mandate of popular education and to call into question the long-held mantras of democracy and meritocracy in schooling.⁸

Educational research and scholarship in Canada received a dramatic boost after the founding of the Ontario Institute for Studies in Education (OISE). Opened in the 1965, OISE was located on the margins of the University of Toronto campus, a spacial metaphor for the rather unexalted place that educational studies had generally occupied in the social sciences and humanities in Canada. The school’s new Department of History and Philosophy provided a new seedbed for revisionist educational history in Canada.

Michael B. Katz had a formidable impact on the early introduction of revisionist history to OISE. A recent doctoral graduate of the Graduate School of Education at Harvard, Katz quickly distinguished himself when he added his voice to a growing chorus of dissent in North American educational historiography. The publication in 1968 of his first book, a reworked version of his doctoral dissertation at Harvard, signalled a radically new departure for the social history of education and proclaimed Katz’s own revisionist credentials. The Irony of Early School Reform (1968) presented a vigorous reassessment of the bureaucratic innovations and the entrenchment of social inequality that appeared to

accompany the project of school reform in the American past.

No doubt the atmosphere at OISE encouraged innovative speculations and experimental social thought. Katz joined the faculty at OISE while the school was still in its formative stages. In *Reconstructing American Education* (1987), he recalled the early years at OISE as a bold experiment in alternative university governance, an attempt to forge a model of participatory democracy in the school's administrative affairs. This experiment involved the establishment of an Institute Assembly in which all 'constituencies' of the OISE community were to be represented. Katz himself served as a faculty representative and first speaker of the Assembly, a position that among other things required him to serve as an ombudsman settling disputes among disparate interests. The main object of this assembly was to provide a broadly consultative body that would advise the Institute's administration on matters of school policy. Hampered by various impediments, however, such as the low participation rates of the school's overwhelming majority of part-time students, the assembly eventually waned. For Katz, this experience offered one profound lesson. "In a large organization," he surmised, "democratic procedures require bureaucratic forms," in order to encourage widespread commitment and involvement. (At a glance, this appears to be a curious conclusion, given the great pains he undertook in *The Irony of Early School Reform* to demonstrate the non-inevitability of bureaucracy, which he described as "routine and

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sterile."

Administrative affairs aside, OISE also offered significant opportunities to enterprising academics in the areas of research and teaching. During his years at OISE, Katz initiated and directed the Hamilton Social History Project, a ambitious undertaking that attempted to reconstruct the social structure and the social fabric of a Canadian city in the mid-nineteenth century. This sweeping project resulted in the publication of two books -- The People of Hamilton, Canada West (1975) and The Social Organization of Early Industrial Capitalism (1983) -- as well as a host of articles and research reports. The Hamilton Social History Project also provided the training ground in the early 1970s for several promising graduate students who had the unique opportunity to farm the project's data base during the preparation of their own theses and dissertations. An impressive array of students including Harvey Graff, Ian Davey, Michael Doucet, Alison Prentice and Susan Houston could all claim the strong influence of Michael Katz and the social history project upon their own development as researchers, scholars and teachers.

The OISE Era and the New Revisionist Impulse

The multi-disciplinary research generated at OISE figured prominently in the development and the direction of Canadian educational scholarship, but rarely has its

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profound contribution been critically scrutinized. OISE did become the subject of some reflection and reassessment when, in 1990, Chad Gaffield of the University of Ottawa invited Harvey Graff to address the Biennial Conference of the Canadian History of Education Association on the topic of 'the OISE era' and its contribution to educational historiography. For Graff, this invitation to speak was both an opportunity and a challenge to re-examine his own impressions and experiences as a graduate student at OISE between 1970 and 1975. Far from airing a formulaic platform of nostalgic reminiscences, Graff approached "the OISE era" (to use Gaffield's phrase) with a touch of ironic pathos.

Graff remembered the early 1970s at OISE as an exciting time for researchers and graduate students who vigorously advanced a critical reappraisal of the educational past and the social history that guided it. Students steered towards the development of a critical approach that was "problem-driven, question-oriented."\(^{11}\) They applied social theories to historical problems, and debated and aggressively scrutinized these applications during seminars. These seminars introduced the graduate students to a variety of materials, from published monographs to raw manuscripts. Educational and social questions that cut across national lines allowed for the development of comparative perspectives. Ideology came to be regarded (staunchly by some) as an indispensable tool of historical analysis. For these reasons, Graff recalled the atmosphere at OISE as 'energising.' "Long before the recent rage of critical theory, which poses challenges for history as usually practiced," he noted, "the

'new' or 'revisionist' history of education was critical in conception and execution, in origin and in consequence.\textsuperscript{12}

Critical in conception and execution, the new history of education quickly established itself as an alternative to the prosaic and parochial hagiographies of the past. Tapping into the theoretical and methodological debates of the social sciences, and inviting comparison with the research findings of educational historians in the United States and elsewhere, an emerging generation of Canadian educational historians could dream of evolving a new consensus of social criticism. However, consensus was elusive.

The revisionist impulse in the new history of education was far from coherent, far from consensual. Almost immediately, the critical foundations upon which the revisionist house was erected developed cracks. As J. Donald Wilson has pointed out, revisionists soon gravitated into "two camps" roughly defined respectively as radical revisionists and moderate revisionists.\textsuperscript{13} In the political climate of the early 1970s, the revisionist chasm was not difficult comprehend. OISE, which emerged as the locus of radical revisionist writing, could not boast a revisionist consensus among its own faculty and students. Graduate seminars at OISE, as Harvey Graff recalled, often became the sites of fierce ideological and theoretical debates. Furthermore, it bears noting that OISE, although seemingly dominant in educational historiography, was not the undisputed centre of activities. Much of the new work in the history of education was still the work of specialists assigned to traditional

\textsuperscript{12}Ibid. 203.

\textsuperscript{13}J. Donald Wilson, "Some observations on Recent Trends in Canadian Education Historiography," 224.
history departments and education faculties across the country. While some of these scholars embraced the radical revisionist critique, others did not.

Moreover, the apparent chasm among revisionists was not a uniquely Canadian phenomenon, but was also evidenced in the camps of both American and British educational historians. Still the staging of a debate de jure among 'radicals' and 'moderates' probably helped to attract more attention to the history of education than did the de facto appearance of revisionism itself. Although each camp advanced its own critique of the educational past, together they contributed to the expanding scope of critical inquiry into the educational past and established clear choices in the critical reappraisal of the social history of schooling.

Several of the representative anthologies in educational history prepared during the 1970s included submissions from both radicals and moderates, thus giving a clearer impression of the parameters of the revisionist debate. Among other things, these volumes suggested the central importance that was attached to re-examining Ontario's educational past by modern revisionists. In 1972, the American journal of educational history, History of Education Quarterly, took notice of the movement that was afoot in the history of Canadian education, particularly at OISE. The journal published a special Canadian edition which helped to expose the work of up-and-coming scholars, such as Alison Prentice and Susan Houston, to wider audiences of co-professionals than they might otherwise have attained. By the late 1970s, other collections were compiled to take stock of some of the results of a decade of revisionist research. Egerton Ryerson and His Times (1978), edited by Neil McDonald and Alf Chaiton, was a collection of articles focusing on the social and
political climate in which Ontario's public school system was forged, under the stewardship of the province's first Superintendent of Education. While this book seemed to suggest a moderate revisionist bias, it included several contributions by noteworthy radical revisionists such as Harvey Graff and Ian Davey. An earlier compendium volume, *Education and Social Change: Themes From Ontario's Past* (1975), edited by Michael B. Katz and Paul Mattingly, sought to establish more directly the relationship between social structure and schooling. While this volume seemed to emphasize the preoccupations of radical revisionism, it also included submissions by moderates such as R.D. Gidney and Douglas Lawr.

For most modern revisionists, the exploration of new historical paradigms -- the development of analytical frameworks that were "critical in conception and execution, in origin and in consequence," to echo Harvey Graff's words -- offered a unique opportunity to press educational history into the service of social reform rather than social validation. Radical historians of education, in particular, invited the opportunity to turn their critical histories into genuine critiques of society in the past and present.

Much of the radical revisionist literature tended to be thematically oriented rather than event-centred. Issues such as compulsory schooling, delinquency, literacy, school attendance, discipline, social class reinforcement, and gender relations began to dominate the agenda. Radicals attempted to delineate the relationship between schooling and social conditions outside of the school. Often spurning the narrative tradition, their histories were conscientiously analytical, and were aimed at addressing specific 'problems' in social history
rather that delineating chronological sequences and trends through the narration of events or the development of 'arguments'.

In the late 1960s, the problem of school reform attracted much attention. Writers like Lawrence Cremin and Bernard Bailyn, for instance, found cause to celebrate many of the initiatives undertaken by progressive-minded school reformers and educators who campaigned against educational inertia. Michael Katz, like other historians, shared Lawrence Cremin's concern with the social context of schooling, but rejected Cremin's fundamental liberal assumptions about that context. In fact, in *The Irony of Early School Reform*, Katz reserved many of his most damning indictments for school reformers themselves, sharply scrutinizing not only their actions and programmes but their underlying motives. Katz's sensitivity to disparities of social class and ethnicity in nineteenth-century Massachusetts led him to reappraise both the manifest causes and the measurable effects of school reform. This concern with social inequality and with the underlying motives of community leaders led Katz, along with other revisionist historians, into the camp of social control theory.  

Katz's work suggested some new perspectives on the relationship between the individual and the community. Throughout *The Irony of Early School Reform*, he attempted to portray the 'clients' of school systems not simply as the passive recipients of elite-sanctioned instruction but also as potential agents of social and institutional change -- a perspective that was vital to the sensibilities of radical critics and reformers in the late

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1960s. The mechanisms of popular schooling were imposed, to be sure, but not without considerable debate, reaction and resistance. By his own admission, this book was at once "a scholarly historical study and a piece of social criticism."\textsuperscript{15} Katz hoped that his critique would survive the pitfalls of academic obscurity and penetrate the consciousness of contemporary urban school reformers. Enunciating the relationship between history and reform has since been a conviction that has guided much of Katz's scholarly work.

While \textit{The Irony of Early School Reform} raised many of the issues of schooling that would preoccupy radical revisionism in the 1970s, its style of analysis was somewhat atypical of the type of work that Katz would lead at OISE. In the 1970s, social structural analysis supplanted community politics as the main conceptual concern of many radical revisionists. The world that concerned radical historians of nineteenth-century schooling was a world in transition. Urbanization and industrialization provided the main currents of change that affected the ways that society regarded its institutions and the ways that people interacted with them. Like other institutions, schools were swept up in these changes but, owing to the particularly social nature of schools, they were also considered as vehicles for directing change.

This paradox led to a compelling dilemma in some radical writing. Michael Katz responded to it by stressing how the conflicting pressures felt by schoolmen in mid-nineteenth century Massachusetts were reflected in their ambivalence towards social change. This ambivalence revealed itself in the efforts of school reformers to control the pace and

\textsuperscript{15}\textit{Ibid.}, "preface."
direction of social change through educational means. Social control in the systems of schooling suggested at once a defensive reaction against the forces of community declension and a proactive response to the challenges of a changing economy.¹⁶

Other writers found the social control analogy useful as well. In the 1970s, Susan Houston used social control as a device for analysing the behaviour and motivations of school reformers and community elites in mid-nineteenth century Ontario. She found, for instance, that the changing mid-Victorian notions about criminality and delinquency, which began to stress environment over innate dispositions as causes of social misdemeanour, beckoned responses that were not simply punitive but proactively interventionist. Changing conceptions of the causes of delinquency, in other words, provided a rationale for state or community intercession into the private domain of the poor and less advantaged elements of society.¹⁷ Similarly, the protracted debate that occupied the attention of Ontario schoolmen between 1851 and 1871 over compulsory school attendance suggested the growing tendency of a social elite, through the mechanisms of the state, to favour the imposition of their own values of conduct and propriety upon other classes in society.¹⁸

Alison Prentice viewed the development of Ontario’s educational system during the


Ryerson period similarly. In *The School Promoters* (1977), Prentice portrayed the movement towards public education under Ryerson as a process which also clearly delineated the social production and reproduction of a class structure and class system consistent with the progress of industrialism. For Prentice, social control in education took on dimensions of social ideology and the validation of inequality. Schools helped to mediate the social transformation that was going on in the world outside the classroom. Education helped to establish standards of respectability and gentility. It was used by some as a hedge against downward mobility, and only less frequently as a route towards upward mobility. Most tellingly, it was the avenue through which the government sought to intervene in the child-rearing responsibilities of parents. But for Prentice, the school system was not only involved in the replication of the class system; it also served to reinforce the social norms of gender as well. Different curricular objectives were frequently prescribed for boys and girls. Regardless of social class ascriptions, educational opportunities made available to boys far surpassed those available to girls. Even the professional roles of men and women in the schools differed significantly: men might become headmasters or principals; but women, who were increasingly hired by budget-conscious school boards for lower pay, filled the ranks of public school teaching by the late-nineteenth century.19

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Within radical revisionism, social control theory was also twinned with social structure analysis. In the early 1970s, the Hamilton Social History Project placed a powerful tool in the hands of social historians, as computers were pressed into the service of historical revisionism. One of the main objects of social history was to expand historical understanding beyond the level of the articulate elites, and to rediscover the historical experiences of the inarticulate -- the great mass of people who left few written records, yet lent the texture of their lives to the broad sweep of history. Social history was intended to be, in Stephen Thernstrom's words, "history from the bottom up."

The Hamilton Social History Project was an ambitious endeavour to compile intensive quantifiable data on the material circumstances and social conditions that comprised the timber of community life in a nineteenth-century urban setting. Throughout the intensive process of collating, manipulating, analysing and evaluating this data, project researchers were interested in uncovering some of the patterns of social relations and social structure that so largely influenced people's behaviour, interactions, motivations and choices in everyday life.

The use of social structural data as a resource in educational history lent itself to social critiques that were rooted in (though not necessarily obliging to) the assumptions of historical materialism. Such critiques tended to be less concerned with the individual than with the aggregate group. The role of human agency as a motive force of causation was


subordinated to the impact of pervading social forces. Social structural analysis emphasized
the common denominators within aggregate cohorts, and delineated the differences between
cohorts. It allowed for the measurement of change and the statistical reliability of probable
causation, so long as the probable causes were material and/or quantifiable.

Social structural analysis offered a novel opportunity for gleaning new facts about
the material conditions and social relations of nineteenth-century urban life. But it was also
rife with potential pitfalls and conceptual difficulties. The most pressing of these difficulties
concerned the problem of social class analysis. Michael Katz and other researchers in the
Hamilton project were fundamentally interested in delineating objective social class
parameters -- an attempt to mark the boundaries that separated classes in society, so that
theoretical assumptions of class behaviour and interaction might be tested against more
'objective' empirical evidence. Unfortunately, the existing demographic evidence
concerning incomes and occupations did not readily reveal clear class boundaries, and thus
necessitated the use of 'subjective' proxies by researchers. In the first major project
publication, The People of Hamilton, Canada West (1975), Katz focused on topics such as
family and household composition, settlement patterns and population mobility to shed
some light on the troublesome relationship between social structure and social class, but he
lacked a clearly defined theory of class to guide his analysis. This was a problem that he
sought to overcome in the more sophisticated sequel, The Social Organization of Early

21Michael B. Katz, "Occupational Classification in History," Journal of
Interdisciplinary History 3 (Summer 1972): 63-88.
Industrial Capitalism (1983), in which Katz and his associates advanced their controversial two-class model of urban society under modern capitalism.

The type of social structural research associated with the Hamilton Project had many potentially fruitful applications in social history. (A similar type of study was published by Theodore Hershberg in Philadelphia in 1981). Social structure analysis offered educational historians the opportunity to reappraise the relationship between educational levels and occupational attainment, as well as to delineate the structural environment of schooling in the past. In fact, social structure analysis provided urban historians with potentially new ways of framing the concept of 'urbanization;' and analysing the consequences of industrialization. Yet, as Chad Gaffield pointed out in 1984, "analysis of urban social structure has not become widespread in Canada."22 The problems of cumbersome data management and the well-known conceptual difficulties of social structure analysis may account for this deficit.

Moderate revisionists, for their part, tended to detach themselves from the rigours and pitfalls of systematic social structure analysis, and opted instead for a treatment of schools as cultural and political institutions. Rejecting the apparent reductionism of radical revisionism, moderate revisionists treated schools not simply as vehicles for social reproduction and the replication of entrenched structural inequalities, but as institutions of

social interaction and as potential agents of democratic reform. Schools were institutions both of the state and of the community, and they integrated the values of both. Much more prone to contextualization and regional particularism, the moderate revisionists insisted on a strong 'sense of place' in the history of education -- a sense that Katz's own population mobility findings seemed to call into question. In sum, moderate revisionism found meaning in the educational past rooted not so much in social structure and class relations as in progress and political culture.

While much may be said of the critical foundations of radical revisionism, it would be unfair to suggest that moderate revisionism was any less "critical in conception and execution." The two roughly defined camps were distinguished more by their ideological dispositions and interpretive biases than by their respective commitments to critical inquiry. Like the leading players in the radical revisionist camp, the best moderate writers were rigorous and systematic in their scrutiny of the sources.

The work of R.D. Gidney and D.A. Lawr provides some of the best examples of critical moderate revisionism in Canadian educational history in the 1970s. More inclined to view their subject in the broad sweep of historical processes over time, Gidney and Lawr tended to treat education as an index of political culture. Like many of the other revisionist writers based in Ontario, Gidney and Lawr were particularly concerned with re-examining the provincial origins of popular schooling and particularly the Ryerson legacy. In so doing, however, they eschewed the overwhelming urban bias of Katz and others in favour of a perspective that respected the persistent rural and small-town norms of mid-nineteenth
century Ontario. Throughout his career, after all, Ryerson presided over an educational system dominated by rural and small-town schools, rather than by city schools.

Understanding the role of schooling in the evolving political culture of nineteenth-century Ontario, for Gidney and Lawr, increasingly meant understanding the basic premises of rural and town life, and the manner in which these premises were gradually (and unevenly) transformed or adapted over time.

Throughout the 1970s, Gidney and Lawr explored the administrative and political dynamics of the development of public schooling as well as the tensions between centralization and local control. Rejecting the idea of a generally accepted public-school accord, Gidney and Lawr distanced themselves from the consensus interpretation of the development of popular education. They also avoided the temptation to depict educational administration and policy as being entirely elite-driven, centrist, and animated primarily by cynical motives of control. Public schooling was not a product of evolution or natural selection. It was the product of conscious social and political choices. If public schooling was indicative of a democratic ethos, this ethos was configured through a democratic contest rather than by a democratic consensus. Schooling and educational policy were adjuncts of the broader social and economic world in which they operated. In so far as the school system of the mid-to-late-nineteenth century was fraught with tensions between the major centripetal and centrifugal forces of the day -- state versus community, centralization versus localism, bureaucracy versus voluntarism, to name a few -- it was one of the battlegrounds in
which the contours of modern society were whittled and shaped.  

The orientation of some leading moderate revisionists towards progress and political culture also revealed the sometimes paradoxical position of popular schooling in a democratic society. Schools inherently reflected the values and structures of the society that created them. However, they were also invested with the mandate to shape values and to provide pathways and avenues to individual mobility within the established structures of society. Sometimes these roles collided. Yet, popular education did not collapse under the weight of its own contradictions. According to Neil McDonald, for instance, schools have been largely successful at balancing conflicting goals and mediating conflicting social pressures. One of the primary historic functions of popular schooling, as McDonald has shown in his analysis of schooling in the Ryersonian period, was political socialization.  

As one function of the school in society, political socialization aimed at instilling in pupils

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an understanding of the norms and values of democratic society and the rights and
obligations of democratic citizenship. The primary aim here was the development of civic
attitudes and civil habits -- in short, the development of character.

Socialization, however, did not merely imply social control. Unlike the more heavy-
handed models of social control, political socialization was subtly hegemonic, relying less
on imposition from above than on building consensus from within. As a socializing
institution, the school taught by instruction and by example. If social control emphasized
both the conscious and unconscious motivations of political and social elites in creating the
forms of popular schooling, socialization stressed the realization of social and political
objectives through systemic design and the functions of schooling.

Robert Stamp also spoke to this issue in his work on curricular reform and the New
Education movement in Ontario in the late-nineteenth and early-twentieth centuries. Stamp,
however, focused very clearly on the personalities involved in the campaigns for
educational reform. For Stamp, curricular reform -- particularly the child-centred reform
agenda of the New Education -- was a direct response on the part of progressive educators to
address changes in the society and the economy, and to better prepare students for a
changing world by making the school curriculum more relevant and practical.

Modernization and industrialization in the late-nineteenth century placed particular stress on
the schools in this regard. Particularly in the post-Ryersonian period, public schools were
called upon to reconcile their students to the changing conditions of the world outside the
school, both in civic life and in economic life -- that is, to understand, to accept, and to
prepare for their future roles as "industrial citizens."  

Unlike most radical revisionists, Stamp's moderate revisionism was decidedly liberal. In a series of biographical essays that he contributed to the anthology, Portraits of Canadian Educators (1970), his plaudits were reserved for those educators and reformers who espoused egalitarian and democratic goals, and who advanced reforms that focused on pedagogical innovations that were implicitly 'educational,' liberating learning from bookish rote. He lauded the Toronto school inspector, James L. Hughes, for his introduction of the kindergarten into Ontario schools and for his advocacy of manual training programmes at the turn of the century; he admired the domestic science crusader, Adelaide Hoodless, for her tireless work on behalf of women's educational rights in urban society; and he recognized the contribution of the high school inspector, John Seath, for his advocacy of technical programmes and vocational curricula.

Stamp's best known contribution to the history of education, The Schools of Ontario, 1876-1976 (1982), took his commitment to progressive educational reform further. The benign title of this volume concealed Stamp's particular historical agenda. His concern was not to reveal the commonplace condition of education during the century after Ryerson, but to follow the momentum for change -- not the form of schooling, but its reform.

Stamp at one time argued that for about thirty years after 1876, genuine educational reform in Ontario was a dead letter, primarily due to the smug attitudes of Ontario  

educational leaders after their fine showing at the Philadelphia Centennial Exposition. Yet, in *The Schools of Ontario*, his discussion of this thirty-year period was oriented around the ideas and activities of progressive school reformers attempting to advance their programmes. In fact, throughout this book, each period in school development, from the origins of the New Education in the 1880s to the Hall-Dennis Report in 1968, would be assessed according to the reform spirit that animated it. This tendency to reform clearly distanced Stamp's moderate revisionism from, say, Katz's radical revisionism. Stamp's concern with progressive ideas and best intentions did not square with Katz's scrutiny of motivations and results.

**Crosslinks: Perspectives from Labour and Working-Class History**

Theoretical perspectives on the relationship between schooling and work in Canadian educational history have been slower to develop than have studies concerning the relationship between education and social structure. Work, like education, may be conceptually linked to social structure analysis. However, revisionist historians of education in the 1970s often neglected issues concerning the vocational and preparatory nature of schooling, while still recognizing that public schooling was a socially constructed institution. Of course there were exceptions. Several of the participants in the Hamilton Social History Project found that their particular studies, based on social structural data,

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26 Stamp, "Ontario at Philadelphia," in *Egerton Ryerson and His Times*. 
could be as easily applied to labour issues as to educational issues. Harvey Graff's (1976 and 1979) studies of literacy, for instance, scrutinized popular assumptions about the demand for literacy as a skill in mid-nineteenth century labour markets. Social Geographer Michael Doucet (1976), another Katz collaborator, turned his attention to the study of working-class housing patterns. Ian Davey (1975 and 1978) explored the tensions between popular schooling and nineteenth-century rural work culture. Still, for the most part, the worlds of learning and labour remained apart in histories of education. While the working-class response to education was considered extensively in the revisionist literature of the 1970s, the relationship between the classroom and the workshop was not.

Perhaps there are some lessons to be drawn from the research of labour and working-class historians from which educational historians could profit. Of course, a thorough and detailed analysis of labour historiography is well beyond the scope of the present discussion. Nevertheless, there are some valuable parallels that may be drawn between developments in contemporary labour history and revisionist educational history.

The explosion of interest in labour history in the late 1960s and 1970s, like the growth of the new history of education, was one of the most exciting developments of modern social history. Prior to the mid-1960s, few historians showed much interest in the history of labour in Canada. What was written tended to be institutionally oriented, focusing almost exclusively on the activities of labour leaders, unions, congresses, and left-wing political parties such as the C.C.F. Contributions by such scholars and students of labour as John Saywell (1951), Douglas Kennedy (1956), Bernard Ostry (1960), and Eugene Forsey
(1965) evinced a view of the labour past that was essentially political and oriented towards the great developments and events of the labour past. The traditional concerns of the 'old' labour history with politics, organization, and significant events, of course, did not vanish in the mid-1960s. These themes continued to provide the backdrop for tired rehashes and fresh perspectives alike. Some of the best examples include Martin Robin's *Radical Politics and Canadian Labour* (1968), Irving Abella's *Nationalism, Communism and Canadian Labour* (1973), Robert Babcock's *Gompers in Canada* (1974), and David Bercuson's *Confrontation at Winnipeg* (1974). In books such as these, themes like the role of labour in politics and the influence of international unions dominated the discourse, as did cathartic labour events like strikes and other forms of organized protest. By lending a new critical dimension to old concerns, these scholars became the new moderate revisionists of labour history in the 1960s and 1970s.

The most strident reappraisals of Canada's labour past, however, were provided by young scholars and graduate students who vigorously reinvented the field, anointing themselves as labour history's radical revisionists. Like the radical revisionists in educational history, the new labour historians rejected a preoccupation with the old themes of labour history, particularly the focus on institutions and politics. These themes did as much to skew as to inform our view of the historical experience of labour. Instead, the new labour history reflected the new social consciousness of its practitioners, who armed themselves with critical questions about social structure, inequality, the nature of capitalism, and the nature of power relations in society. Beneath the layers of institutional development
themselves with critical questions about social structure, inequality, the nature of capitalism, and the nature of power relations in society. Beneath the layers of institutional development and political action, and beneath the rhetoric and exploits of labour leaders that had heretofore dominated studies of the Canadian labour movement, lay the historical experiences of the real agents of that movement -- the rank-and-file workers themselves. The experiences and the behaviour of ordinary workers would replace the activites of unions as the primary focus of analysis, and so an entirely new sub-field (working-class history) was forged.27

Like the 'new' history of education, the 'new' labour history was intensely political. The development of working-class history introduced new perspectives and new themes to the study of the labour past. But the differences between working-class history and the more conventional labour history went far beyond differences in focus. The widening gulf between the two signified sharp ideological and methodological differences as well.

Conventional labour histories sometimes demonstrated a profound sensitivity to worker struggles and political action, and situated these struggles in a historical perspective which validated the emergence and development of social democratic politics in Canada. The early practitioners of working-class history in the 1970s, on the other hand, demonstrated little patience with social democratic politics and began to immerse themselves (and their research) in the current debates of neo-Marxism. They developed not

only fresh perspectives on the history of Canadian labour, but decidedly radical perspectives. Their histories transcended empirical investigations of the working experience under industrial capitalism and became allegorical critiques of the development of capitalism itself. They brought to their work a sense of commitment that the development of a 'labour movement' was best understood not simply in the context of the narrow range of parochial issues between bosses and workers, but in the context of worker resistance to the constraints and inequities of the capitalist system.

Pursuing this ambitious agenda, of course, often required borrowing liberally from the well-spring of Marxist and neo-Marxist idiom. Perhaps, overt references to industrial workers as 'wage slaves' were rare. Unionization, however, became a convenient proxy for 'collective action.' Grievances and labour disputes offered evidence of worker dissatisfaction and 'alienation.' Strikes (particularly those with mass community support) represented the moral equivalent of inchoate 'class struggle.' 28 Of course, evoking a radical idiom, Marxian or otherwise, was seldom out of place in studies of the ethos of nineteenth-century labour, springing as it so often did from the very pens and lips of contemporary labour spokesmen and leaders of the radical 'brains trust' whose words filled the pages of labour and working-class newspapers in the late-nineteenth century.

The main object of the 'new' working-class history, as Gregory S. Kealey and

Peter Warrian noted in their introduction to *Essays in Canadian Working-Class History* (1976) involved the re-integration of labour experiences into the general history of society -- the study of working people in all of their complexities both inside and outside the workplace. Class analysis provided a vehicle for accomplishing this integration. By understanding working people as a social class, by recognizing that classes did not constitute monolithic, amorphous, and unvariegated groups, and by treating social relations in society in terms of class interaction, the working-class historians could justly maintain that their project was one of conceptual integration.

Like the 'new' historians of education, working-class historians invited a cross-fertilization of ideas from other disciplines, notably sociology and anthropology. Sociology lent theoretical reinforcement to their explorations of social class analysis. Anthropology particularly influenced the adoption and critical treatment of the concept of 'culture' by some working-class historians. Beyond the categories of social structure used by Katz and others as proxies for social rank, 'class' might better be understood in theoretical terms. Working-class historians defined class not only by functionalist and structural categories, but by working people's shared experiences and by their common relationship to the means of production. Class culture, therefore, became a central theme in delineating social class boundaries.

Working-class historians devoted much attention to the study of the contingent features of a distinctive working-class culture, in order to determine how that culture might help to explain class interaction, resistance, and conflict both inside and outside of
the workplace. In *Toronto Workers Respond to Industrial Capitalism* (1980), for instance, Gregory S. Kealey explored first how the culture of craftsmanship was affected by industrialization, and second how that cultural inheritance explained the working-class response. In *A Culture in Conflict* (1979), Bryan D. Palmer moved the concept of a working-class culture beyond the limits of shop-floor interaction to include the features of a working-class community culture, through which class cohesion and a general resistance to certain capitalist norms among communities of skilled workers was forged. Through the historical conception of working-class culture, after all, resonated the revolutionary potential of the working class in history.

During the 1980s, working-class studies proved to be a dynamic and growing field attracting historians and sociologists alike to the study of the lives of working people and their relationships with the social forces of capital. The journal *Labour/Le Travail[leur]*, first published in the fall of 1976, provided a lively forum for article-length studies, research updates, and debates over theory and method. Submissions were not restricted exclusively to historical studies, but also included contributions from sociologists, anthropologists and political scientists, wherever their disciplines hinged on labour-oriented questions. Labour and working-class studies was multi-disciplinary and inter-disciplinary from the beginning, welcoming the hybrid analysis that might blossom from theoretical and methodological cross-fertilization.

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The 'culturalist' approach to working-class and labour history had won a number of staunch adherents in Canada, but it was not without its critics either. On the one hand, some critics on the left in the late-1970s, notably Michael Katz, took some exception to the use of (primarily) British models of working-class culture and class structure to analyse the Canadian working class in formation.\textsuperscript{30} Others, like David Bercuson, took exception to the idea of a 'dominant' working-class culture. Bercuson argued instead that other cultural affiliations and affinities were likely more relevant to workers' community lives. In particular, he suggested that key cultural variables, like ethnicity and religion, confounded any attempt to locate a distinctive working-class culture in nineteenth-century Canada.\textsuperscript{31} Still other critics, anti-Marxists such as Terry Morley, attacked the 'culturalist' neo-Marxists on the grounds that they were overly romanticizing the world of the pre-industrial craft culture in order to set it apart from the abysmal circumstances of industrial working life. The anti-Marxist and non-Marxist critiques also typically objected to the alleged portrayal of industrial promoters as straw men to be knocked down by the historical revisionists, and accused the neo-Marxists of non-objectivity in


their depiction of workers' struggles against capital as heroic.\textsuperscript{32}

By the 1980s, the agenda of working-class studies had broadened significantly. The initial concern with the culture of work expanded to include a concern with workers' families and neighbourhoods. Definitions of work expanded to include non-paid labour as well as waged labour. Special attention was accorded to the role of women in working-class culture in general and in the labour movement in particular. Researchers began to turn their attention to a more comprehensive theory of the labour process.\textsuperscript{33} By the 1980s, an opportunity to evolve a synthesis of working-class history also emerged. Bryan Palmer took up the challenge with the publication of \textit{Working-Class Experience} (1983), a thematic synthesis of the main themes that emerged in working-class history in the 1970s and early 1980s. Desmond Morton crafted his synthesis from a different angle in \textit{Working People} (1980), a survey of the history of Canadian labour from a political standpoint. Craig Heron also contributed a brief discursive survey of Canadian labour history, \textit{The Canadian Labour Movement: A Short History} (1989), which focused on changes over time to the labour process, and the resulting union responses and worker resistance to these changes. The creation of synthetic surveys of labour and working-class history was ultimately made possible by over a decade's worth of specialized


research that was particular, regionally based and industry-specific. The wealth of research that had accumulated since the early 1970s, and the movement towards historical synthesis, prompted the American labour historian David Montgomery to comment in a 1987 review article that the "past ten years have been the harvest time for historians of the working class in North America."34

The critical focus on culture in working-class history appeared to open a window of opportunity for historians to discover the common ground between the histories of labour and learning. The exploration of this common ground could only deepen our understanding of the role of the school in modern society. It might help to demonstrate the ways in which schools in the past responded to changes in the broader society; or perhaps it could illustrate some of the ways in which the culture of schooling was shaped by the same sorts of forces that transformed the culture of work. Yet, as much as educational historians in the 1970s and early 1980s neglected to draw many of the links between labour and educational history, labour and working-class historians were remiss in exploring schooling as a cultural experience in their own studies.35

What were the possible reasons for this neglect? Perhaps the priorities of labour historians were more oriented towards topics directly related to the conditions of work and the elaboration of work process. Perhaps studies of working-class culture

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presupposed a bias towards aspects of cultural autonomy and resistance which did not readily appear to jibe with the educational experience of working-class youth. Perhaps schooling implied a social force that countered or suppressed expressions of working-class culture. Yet, if this latter reason were indeed true, it would seem to be a compelling topic for working-class historians to study and scrutinize. More likely, the main thrust of radical revisionism in educational history did not jibe, methodologically or theoretically, with the main thrust of radical working-class history. Bryan Palmer's attacks on Michael Katz's Hamilton Social History Project between 1975 and 1983 reveal a compelling disjunction between the social structural analysis of some OISE revisionists and the cultural critique of working-class historians. At the root of this debate were the differing approaches to the concept of social class and the disparate theories of social change that drove the respective histories.\(^{36}\)

The apparent methodological gulf separating the two 'radical' camps might be seen theoretically as symptomatic of the general split between structural Marxism on the one hand and empirical Marxism on the other. Still this split in no way precluded the possibility of forging links between educational and labour history, and some attempts were in fact made in the 1980s to begin to bridge the gulf. Alison Prentice and Marta Danylewycz (1986), for instance, offered some insights into how general theories of the

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work process borrowed from labour historians might be applied to educational history to elaborate the idea of the school as a workplace.

**Schooling and Work: The Sociological Critique of Human Capital**

Radical sociologists of education, particularly those working in the United States, have tended to be more directly concerned with the links between schooling and work than have revisionist historians. In fact, if American educational historians have been more aggressive at pursuing the links between educational and labour history, this is largely a result of their having gleaned the insights of educational sociologists who did much of the initial theoretical groundwork. During the 1970s and 1980s, educational scholars wielded the tools of sociological analysis to study themes such as the social organization of schooling, the social construction of school knowledge, the links between classrooms and labour markets, and the relationship between schooling and social structure.

In the 1970s and 1980s, several 'radical' sociologists launched forceful rebuttals to the neo-classical economists of the 1960s and 1970s who insisted that schooling was best understood in terms of investments in human capital. Economists like Theodore W. Schultz (1959 and 1961), Fritz Machlup (1970) and Gary S. Becker (1975) advanced the

37See, for instance, Harvey Kantor and David B. Tyack, eds., *Work, Youth, and Schooling: Historical Perspectives on Vocationalism in American Education* (Stanford, Ca.: Stanford University Press, 1982).
argument that the acquisition of schooling was directly transferable to the labour market as human capital. According to the human capital thesis, an individual's educational attainment, measured in years of formal schooling and diplomas earned, was an accurate predictor of occupational placement, earning potential, and career tracking. Improving one's knowledge and skills, according to this logic, was regarded as an investment in human capital which could be expected yield dividends in the labour market.

According to sociological critics, the neo-classical model of human capital was deficient. It relied heavily on a suspension of disbelief suggested in the standard disclaimer of textbook economic theory: 'all other things being equal.' In reality, all other things were seldom equal. The human capital thesis seemed to rest on the premise of a perfect liberal equilibrium, whereby merit alone determined the distribution of economic rewards in society. It assumed that there would be equal access to educational opportunities. It assumed a fixed relationship between the status of educational achievement and the status of occupational attainment. It assumed, moreover, that the value of educational achievement was quantifiable. Yet, the human capital thesis failed to differentiate theoretically between quantity of schooling and quality of education. Furthermore, the hidden intangibles of economic and social placement -- social class background, racial origin, ethnicity, gender, and disability -- did not emerge as variables in the neo-classical model.

Randall Collins took direct aim at the contention that educational acquisition had any direct bearing on occupational attainment. In *The Credential Society* (1979) he
argued that the triumph of technocratic and bureaucratic forms in industrial society brought with it a reorientation of the purpose of schooling: credentials replaced knowledge and skills as the primary products of schooling, a triumph of form over substance. Yet instead of a fixed relationship between credentials and occupational categories, a variable relationship developed, one in which the occupational status of particular credentials appeared to be inversely proportional to the numbers of people possessing the credentials. Collins proffered the concept of educational inflation to denote what happened when distribution of previously exclusive credentials expanded but occupational opportunities did not.

Probably the strongest attack on the neo-classical interpretation, however, came from Samuel Bowles and Herbert Gintis in their provocative book, Schooling in Capitalist America (1976). Bowles and Gintis contested the human capital thesis on two of its guiding assumptions: that access to educational opportunities was equitable in the liberal state, and that schools were institutions that promoted social mobility. Instead Bowles and Gintis argued that schools in the capitalist state were institutions not of democratic levelling but of social reproduction. Throughout their argument, they stressed the inherent contradictions in the mandate of popular schooling -- particularly those between capitalism and democracy. While the rigours of modern capitalism demanded that the schools continue to reproduce the constituent features of the existing class structure, the ethics of democracy demanded that the schools foster egalitarianism and provide a mechanism for social mobility.
These two goals invariably collided. To Bowles and Gintis, the rigours of capitalism clearly dominated, resulting in the development of a school system that performed both implicitly and explicitly as a handmaiden to the capitalist enterprise. To establish their case, the authors suggested that educational researchers look at the social relationships of schooling in the same way that labour researchers look at the social relations of production -- by focusing on the 'sites and practices' through which social relations are played out and power hierarchies consolidated. A critical focus on the sites and practices of schooling in advanced capitalism led these authors to develop what they called the 'correspondence principle,' denoting a paradigm of schooling in which close structural and functional links existed between the respective hierarchies of work and schooling. According to Bowles and Gintis, each level of schooling directly corresponded to different occupational destinies and was designed consciously to socialize students for different occupational outcomes. In short, noted the authors in 1981, "education in advanced capitalism actually reproduced social inequality rather than attenuating it, and acted rather more as a force for repressing personal development than fostering it."38

Bowles and Gintis were influential in directing scholarly attention to the relationship between schooling and labour markets and, at the very least, helped to provoke a vigorous academic debate among educational specialists. Their focus on

structural contradictions in the educational process continued to inspire speculation and
debate among educational sociologists and historians well into the 1980s and 1990s.\textsuperscript{39} Their contribution of the 'sites and practices' approach presaged a host of ethnographic research directed by scholars such as the anthropologist Paul Willis (\textit{Learning to Labor}, 1976) and the sociologist Michael Apple (\textit{Education and Power}, 1982). Despite their contributions to new directions in research, however, their application of the correspondence principle excited considerable critical scrutiny. The verdict of critics, particularly of the left, appeared to be that the correspondence principle was far too rigid, mechanistic and deterministic. It went well beyond the realm of explanation and ventured dangerously into the frontier of prediction. If schools were locked into a structural correspondence with the labour market, could individual schools not deviate from this pattern and behave as the semi-autonomous institutions that they often were? If the correspondence was consciously imposed, who imposed it? Was there no room for teachers to affect changes in the classroom that deviated from the correspondence with the labour market? What was the relationship between what was taught and what was learned? Were schools entirely responsible for reproducing social inequality, or did other institutions contribute (i.e., the family, the church, the neighbourhood)?

The sociologists Martin Carnoy and Henry Levin added a much needed counterweight to the Bowles and Gintis hypothesis. In \textit{Schooling and Work in the

\textsuperscript{39}In 1991, 'Conflict and Contradiction in the History of Education' was the proposed theme of the Biennial Conference of the Canadian History of Education Association.
Democratic State (1985), Carnoy and Levin agreed that schools were institutions that served to reproduce the prevailing social structure, but insisted that they performed this role only imperfectly. For Carnoy and Levin, like Bowles and Gintis, schooling was rife with contradictions between its respective capitalistic and democratic mandates, and between the interests of individuals and those of communities. However, unlike Bowles and Gintis, Carnoy and Levin took the democratic character of schooling more seriously, insisting that schools were also institutions of the state in which social goals and individual/family aspirations coincided and competed. Educational change came about not simply through external imposition, but more subtly through a process of institutional contact and conflict. Similarly, Michael Apple in Education and Power (1982), focused on this process of institutional conflict between individual and community goals and standards as key to understanding the process of educational change and overcoming the latent contradictions within school systems. Apple's attempts to reconcile the findings of social class theory with those of ethnographic research signalled an attempt to push the boundaries of sociological (and educational) research into new frontiers of speculation.

The attention given by sociologists of education to the relationship between education and labour markets provides a theoretical backdrop to this problem against which historians of education could profitably measure their own speculations. During the 1980s, the findings of educational sociologists and labour historians excited some interest among American historians of education who began to explore some of the tentative historical links between labour and learning, as the recent work of David Hogan
and others attests. Theoretical issues raised by sociologists like Bowles and Gintis, Carnoy and Levin, and Apple, as well as anthropologists like Paul Willis, have compelled historians of education to confront difficult theoretical issues in their own work, and address themselves to a cross-disciplinary debate. This cross-fertilization of ideas and concepts is likely to continue to guide the agenda of educational history. The final point to consider in this chapter, then, is what influence these speculations and theoretical revelations may have had on the current exploration of Canadian educational history.

'Back to School': Reflections on the OISE Legacy

When Harvey Graff reflected upon the state of educational scholarship in his address to the Canadian History of Education Association in 1991, he found cause to lament what he perceived to be the unfulfilled legacy of the revisionism of 'the OISE era.' "Not since the early to mid-1970s," Graff chided, "has the history of education been a leading sector in historical or educational scholarship." Instead, it seemed that the

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40 Consider, again, the articles included in Work, Youth, and Schooling, Kantor and Tyack, eds.

41 During the early 1990s, an historical/sociological research project focusing on the experiences of students and teachers at the London Technical School was undertaken at the University of Western Ontario led by sociologist Ivor Goodson, and assisted by historians Christopher Anstead and (in the early stages) Ian Dowbiggin. See, for instance, Ivor F. Goodson and Christopher J. Anstead, Through the Schoolhouse Door: Working Papers (Garamond Press, 1993).

history of education had splintered into its own variegated subsets. Rather than establishing its own coherent agenda, and rather than developing a revisionist synthesis, the history of education seemed to become subordinated to other particular agendas. It was a vehicle to explore women's history and develop a feminist critique. It was an avenue to explore the reproduction of social inequality in society. Historians of education seemed to specialize in particular 'topics' of educational history. Others pined for a return to 'narrative' history.\footnote{Lawrence Stone, ed., \textit{Schooling and Society} (London, 1976).}

Furthermore, by the 1980s some radical revisionists of educational history began to retreat from the social control camp. Ian Davey, an early Katz collaborator, remarked in 1980 that social control and class domination theories were, in fact, "too simplistic" to accurately account for class relations in history. This did not mean a general retreat from 'radical' revisionism, but a reassessment of one of its grounding concepts. As Davey noted: "Social control, in essence, remains a functionalist concept and downplays the struggle and negotiation within and between classes which is at the centre of the historical determination of institutionalized schooling in the nineteenth century."\footnote{Quoted in J. Donald Wilson, "Some Observations on Recent Trends ...," 225-226.} The "struggle and negotiation" that characterized class relations suggested one possibility for a revised agenda.

Certainly J. Donald Wilson, himself a fellow traveller of the 'moderate' revisionist camp, thought so when he lauded the development of a new approach to educational
history which he described as "family strategies." The notion of family strategies suggested that historians place more emphasis on the behaviour, compliance, resistance, and basic motivations of the clients of school systems, in order to understand the dynamics of the interaction between communities and their schools, and between social groups within the schools. Rather than "struggle and negotiation," however (which still implied class antagonism, divergent class interests, and possibly conflict), Wilson advanced his notion of "family strategies" rooted more in the language of liberal economics. He suggested that historians begin to consider the "ways in which parents and groups of parents looked on schooling in their own self-interest or in terms of basic material calculations." \(^{46}\)

Wilson's approach to "family strategies" appeared to hinge on the idea that the interaction between the individual and the school was 'market-driven.' This approach assumed that ordinary people and school officials alike acted according to rational calculation in their educational choices. Schoolmen on the one hand sought to realize certain social goals and maximize the efficiency of schools; families on the other hand sought to exploit education to realize private goals such as generational social mobility.

However, the concept of "family strategies" need not imply a rational individualist approach to schooling. If it were understood also as "group strategies," then ample room remained for a critical analysis of social structure, class interaction and cultural contact.

\(^{45}\)Ibid., 226.

\(^{46}\)Ibid., 227-228.
without necessarily resting on rigid and deterministic models of social control and cultural domination. Chad Gaffield explored this possibility in his book, *Language, Schooling, and Cultural Conflict* (1987). In this study of the local politics of French-language schooling in Prescott County, Gaffield explored the tensions that were played out between the official policy of Ontario's educational establishment and the cultural goals and expectations of Prescott's francophone population. Particularly important to Gaffield was how this "cultural conflict" not only affected the institutional development of local schools, but more importantly how the "webs of relationships" that the study revealed represented one of the historical processes that helped to create a sense of *la mentalité franco-ontarienne*, an ethnic identity that helped to consolidate a sense of community.

While Wilson may have overstated the potential of a "family strategies" approach to define a new direction for Canadian educational history, the sense of individual and group action in the shaping of public institutions did lend an important dimension to the re-evaluation of educational history that took place during the 1980s. In fact, as the above example of Gaffield's work indicates, a sensitivity to the historical process of class and group interaction informed some of the very best offerings of educational historians during the decade. This sensitivity was also evident in the more recent endeavours to point the way towards a historical synthesis in the history of education.

Three major works published between 1988 and 1990 -- two of them by veteran historians of the 'revisionist decade' -- have demonstrated very clearly the importance of
the historical process of class interaction in delineating the relationship between education and social change. The ongoing concern with this relationship is probably the most enduring legacy of the 'OISE era.' While these works do not pretend to forge a scholarly consensus (indeed such a thing is anathema to the sensibilities of revisionist scholarship), they do present important paradigms for a broadly-based synthesis of research and a fresh re-examination of the educational past.\(^7\)

Susan Houston and Alison Prentice, in *Schooling and Scholars in Nineteenth-Century Ontario* (1988), present a compelling synthesis of their research since the late-1970s. But more than that, *Schooling and Scholars* presents a clear model for conceptualizing class interaction as a vehicle for institutional development and social change. Rather than presenting a chronological treatise on Ontario's educational history in the nineteenth century, Houston and Prentice have organized their book thematically, in a sense pointing the way to discovering the elusive middle ground between "family strategies" and "social control" in the educational past. Their section on pioneer schooling clearly emphasizes the role of family in both the formal and informal education of the young, and deals with differing contemporary conceptions of the meaning of 'education' in Upper Canadian pioneering society. Yet, their section on the school reformers clearly harkens back to revisionist conceptions of authority and social control. The resolution occurs in the third section in which they attempt to reconstruct the world.

inside the classroom -- a sort of historical ethnography, defying Michael Apple's reservations about the scholar's ability to get inside the elusive 'black box' of the classroom experience. In this concluding section, Houston and Prentice explore the process of interaction (including both conflict and the intersection of goals and values) as a central historical process affecting the world of education.

Robert Gidney and Winnifred Millar's book, Inventing Secondary Education (1990) similarly explores this process in the context of the invention of new institutional mechanisms designed to respond to social change and modernization during the nineteenth century. Their thesis -- that the development of secondary schooling in Ontario owed as much to Egerton Ryerson's defeats in the educational battles of the age as it did to his successes -- underscores the role that community politics might play in limiting the executive authority of the state and its minions. Throughout their narrative, Gidney and Millar explore the politics of education (both high politics and low) and attempt to delve into the public and private worlds of schooling to determine both the interior structure of those worlds and their influences on the outcome.

Probably the most innovative and speculative recent contributions have been made by the historical sociologist Bruce Curtis. In Building the Educational State (1988), Curtis launches a radical critique of the educational past, steeped in the current fashions and fancies of modern discourse theory and deconstructionism. While the previous generation of radical revisionists had looked to the Marxist critical tradition for their theoretical inspiration, Curtis chose instead to build his analysis on a foundation of
Gramsci and Foucault. Curtis contends that educational development in nineteenth-century Upper Canada was an essential component to state formation. The educational project aimed at the creation of productive citizens (or 'subjectivities' in Curtis' Foucaultesque terminology). Curtis refined his theories considerably in his follow-up study, *True Government by Choice Men?*, a study of the educational inspectorate during the formative period of common schools in Upper Canada.

The blend of Gramsci with Foucault in Curtis' work is both its greatest asset and its greatest defect. Foucault's morphology of discipline, punishment and prisons (particularly Foucault's analysis of 'panopticism') explicitly influenced Curtis' own characterization of school discipline and authority in the classroom in terms of monitoring and 'surveillance.' While this preoccupation might have led Curtis back to social control, the Gramscian side of his model sharpened his focus instead on the interaction of individuals and communities as mediated through schools. Thus, the schools could be portrayed throughout as institutions of local hegemony, the Office of Public Instruction as an agency of state hegemony, and individuals as active agents in the process. In this blended model, social control attitudes and behaviour could be explained at the same time as resistance and alternatives to this control were explored. On the other hand, the heavy reliance on Foucault's discourse occasionally led Curtis to place theory

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ahead of textual evidence and sometimes to ascribe motivations to educational promoters in the past that they themselves may not have recognized.

In light of current developments in Canada and elsewhere, Harvey Graff's concerns about the retreat of the history of education from the limelight of scholarly innovation may be a little premature. Clearly, historians of education have not abandoned their critical traditions. And despite an apparent tendency towards fragmentation and particularism, rich and varied synthetic studies have emerged to embrace the wealth of research in the field and to point towards new directions. While some of the original revisionists have partially retreated from their former positions, they have also refined their perspectives, joined analysis with lucid narrative, and created histories that are compelling and sometimes provocative. Moreover, the contributions from the social sciences, far from usurping the role of historians in educational studies, has helped to reinvigorate the field by developing empirical and theoretical models of education and social interaction. Ultimately, among radical revisionists particularly, social control has given way to class interaction; the school may now be viewed historically as a site of conflict and contradiction, a locus of competing aspirations and goals. The potential of this approach would appear to validate Chad Gaffield's prescription in 1986 that historians of education 'go back to school.'
Chapter Two

'Culture and Modern Utilitarianism' Revisited:

School Reform and Social Change

in Late-Nineteenth-Century Ontario

Truly our age is a marvellously rapid one, and not without some show of justice do we claim to be the initiators and leaders of the times...; but, with ever increasing speed as the age unfolds itself, we rush along barely pausing to take breath or ask ourselves the question: "Whither does it all tend?" or "What is to be the ultimate outcome of this giddy race we are all running so eagerly?" And whenever the question is put the answer rings forth from a thousand lips: National progression, advancement, utility? and away we go again, satisfied with our answer and our aim. And thus the stream of our life sweeps on, for who would attempt to stem the tide of national progress, advancement and utility, or what higher, nobler aim could there possibly be than this?

Charles Hill Trout

Charles Hill Trout, the principal of the Junior Collegiate School in Toronto, was one of many career educators who felt compelled in the 1880s to engage in educational debate and social criticism. During the decade, principals and school inspectors regularly spoke at meetings of teachers' associations, or contributed articles to professional and

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popular journals. Graeme Mercer Adam's *Canada Educational Monthly*, founded in 1879, provided one of the popular forums for educational debate in the late-nineteenth century, regularly receiving submissions from head masters, principals, inspectors, and ordinary teachers.

In a discursive essay entitled "Culture and Modern Utilitarianism" (1885) -- a title which encapsulated the characteristic dual orientation of modern educational criticism -- Trout reflected upon the grand achievements of his age, a period of seemingly untrammelled intellectual and material progress.² Throughout his essay, Trout defined culture broadly as the culmination of inherited tradition, the refinement of individual character, and the guiding force of civilization. Modern utilitarianism, on the other hand, denoted what Thomas Carlyle referred to as a "cunning mechanizing of self-interests":³ the contemporary ethic by which all things were judged according to their direct usefulness and material application. While the former at least superficially rested in the domain of tradition and effete philosophy, the latter was grounded firmly in practical

²Ibid.

³The phrase is from Carlyle's essay "Signs of the Times" (1829), quoted in Christopher Lasch, *The True and Only Heaven: Progress and Its Critics* (New York and London: W.W. Norton and Co., 1991), 237. Trout did not treat utilitarianism in the purely Benthamite sense. However, the perceptive reader will no doubt recognize that in a liberal framework, this "mechanizing of self-interests" might be reconciled with "the greatest good for the greatest number" through a recourse to the Lockean idea of "enlightened self-interest." While this idea implicitly tied self-interest to the overall progress of the community, it ultimately failed to bridge the widening gap between liberal individualism and republican communitarianism. Nevertheless, it is unlikely that Carlyle, an avid critic of the ideology of progress and no friend of unrestrained commercialism and acquisitive individualism, would have approved of this sort of sophistry.
science and commerce. If culture was recognized as the glue that bound a society together and gave it a sense of purpose, then science was the motor that pushed it forward. However, since philosophy and science traditionally complemented one another, it was certainly troubling for schoolmen such as Trout to conceive that the two might now stand in opposition.

In the sense employed here, both culture and utilitarianism were products of the late-nineteenth-century ideology of progress. Both were conceived out of scientific rationality and both testified to the linear advancement of civilization which confirmed the superiority of the age. Modern spectators, like Trout, were often ambivalent about progress, lauding its social benefits while despairing its concomitant social costs. Others were more confident in their impressions and beliefs, maintaining either an abiding faith in the liberating potential of technology or a nagging suspicion of technology's alienating effects. Still proponents and critics alike seemed to share a common teleological outlook, a cartography of progress that allowed them to chart the linear path of civilization through the ages. Where they differed was on the question of whether this line of progress was bent towards heaven or Armageddon.

Like many of his contemporaries, Trout was greatly impressed by the much lauded feats of science which had left their mark on most aspects of modern life, rural and urban alike. Surely there were many who shared his faith that the achievements of the age all pointed to "national progression, advancement, [and] utility," and away from economic provincialism and intellectual abstraction. Yet as much as the idea of progress
engendered enthusiasm, and inspired a surfeit of giddy speculation about future potentialities, it also proved to be somewhat disconcerting as it imposed new patterns and rhythms of life on old ones. Revelations of progress and social change gave rise to concurrent expressions of enthusiasm and anxiety which quickly came to define the parameters of opinion, thus establishing one of the main paradoxes of late-nineteenth-century social thought.

The looming query for Trout was how to reconcile the competing claims of social stability and material progress. How could educators come to terms with this conflation of oppositional attitudes and instincts? Was it, in fact, the object of modern schooling both to promote the spirit of progress and resolve the sources of anxiety? In posing the question, "Whither does it all tend?" the Toronto Junior School principal lamented the tendency of those who would enthusiastically push society headlong into the machine age while disregarding important considerations of social equilibrium.⁴

Apprenticeship, Craft Culture and Industrialization

No sooner had Ontario's education department begun to implement its policy of universal free access to public schools in 1871 then the province's leading educators began to reassess the appropriateness, and even the relevance, of the tuition offered within these schools. The remarkable rate of urban growth in certain regions of the

⁴Trout, "Culture and Modern Utilitarianism," 377-78.
province between 1870 and 1900, coupled with the increasing importance of industrial production in these regions, fundamentally altered the context in which schooling was carried out, and spawned growing demands for the schools to confront the challenges posed by their changing environment. As business and community leaders increasingly demanded an educational response to changing social and economic circumstances, school reformers became alerted to the discrepancies between the shifting mandate of education and its traditional form. For some reformers, this discrepancy could only be addressed by making schooling itself more practical for pupils and more relevant to modern concerns. This demand for relevance was manifested, on the one hand, in appeals for more science instruction in the public school curriculum and, on the other hand, in pleas for adequate technical education for mechanics and artisans.

Demands for relevance stemmed from another source as well -- the perception not only of what was gained but of what was lost through modernization. The demand for practical and relevant instruction in the schools may have been primarily a response to rising enrolments of the children of mechanics and labourers in the public schools after 1871. However, overt calls for practical subjects, and especially for technical education, were a more direct response to a widely held perception in the 1870s and 1880s that formal systems of apprenticeship were disappearing.\(^5\) The decline of apprenticeship signalled more than just the disappearance of a critical source of available job training for

working-class youth. For mechanics, it signalled the loss of a crucial cultural link with the traditions of handicraft labour, the loss of a skilled heritage. For some employers, it signalled the demise of a valuable system of workshop preparation, the loss of a system of skills development. Yet while employers, educators and politicians worried about the consequences of the decline of apprenticeship in the 1880s, the system had actually begun to wane in many trades and many regions as early as the 1850s.

The idea of apprenticeship had an enduring legacy in the popular imagination in the nineteenth century. It was not actually a concept unique to the manual trades, although it is most commonly associated with handicraft tradition. In fact, a term of apprenticeship was a common feature to most trades whether manual, commercial or professional. In a cultural sense, it was a virtual rite of passage for young men entering an occupation to learn their skills, habits, and practices by serving an accomplished practitioner. In this manner, they learned their occupations in a very practical way from the bottom up. Remnants of this tradition still exist in several of the learned professions and trades: lawyers are expected to 'article' with a firm before being called to the bar; physicians normally undergo an 'internship' in a hospital; and in the building and electrical trades, young entrants are still expected to earn their 'apprenticeship papers' as a condition of union membership.

The defining features of the traditional workshop apprenticeship largely persisted in Upper Canada throughout the first half of the nineteenth century. By mid-century, artisan production still predominated. The majority of craft production took place in a
rural, rather than an urban, milieu, and most work was performed in a traditional manner: by hand, tool and skill. The use of machines and inanimate power sources was still quite uncommon to most enterprises. Artisan production and agriculture worked in symbiosis, each reinforcing the other. In this setting, artisan craftsmen shared with farmers what William N.T. Wylie has called a "general agrarian small proprietor viewpoint." Proprietorship was the essential ingredient in the artisan's claim to social respectability in nineteenth-century society. The promise of eventual proprietorship was the lofty dream bred into aspiring journeymen and apprentices -- that they too would develop valuable and unique skills and would use these skills to acquire independence and respectability.

Prior to 1850, apprenticeship was an index of the individualistic and agrarian ethos of Upper Canadian society. It was an arrangement consistent with the culture of small-scale production and local markets which signified the bucolic nature of most communities in the province. While apprenticeship indentures were frequently very formal and contractual, the social alignments that they represented were very private and personal. An agreement to apprentice was an agreement between families, an agreement which gave the intended master the power to act in loco parentis in most matters pertaining to his ward's upbringing and well-being. This was a power that was forfeited for the most part by the natural father of the apprentice for the term of the indenture. In the case of abandoned children or orphans, the town wardens would usually assume the

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responsibility for arranging an apprenticeship and negotiating its terms.

For artisans, apprenticeship offered an alternative to employing paid journeymen as shop assistants. In the first half of the nineteenth century, most artisans in Upper Canada laboured in small towns as independent proprietors of small shops. As agricultural settlement intensified between the 1820s and the 1850s, these artisans, many of them recent immigrants from Britain and Ireland, provided products and services to developing local markets. They established enterprises as blacksmiths, wheelwrights, coopers, printers, cobblers, tanners, and a variety of other trades. Owing to the nature of rural markets, in which many of the articles for use on the farms were made on the farms, the work of small town smiths and artisans was often less specialized than it was diversified. Their work often revolved more around repairs than original production. Such was the case particularly for trades like blacksmithing. Shopkeepers located mostly in townships and villages were seldom in a position to hire journeyman assistants. If possible, they impressed the help of members of their own families. Otherwise, they turned to apprentices. Apprentices were not normally paid a wage, but were merely provided with upkeep and instruction. There was, therefore, a significant economic motivation for perpetuating this customary arrangement.

In larger urban centres, some apprentices were likely the children of other skilled tradesmen. However, in smaller centres they were just as likely (and probably more so) to be the children of unskilled labourers or farmhands attempting to eke out a living for

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7Ibid, 7-9.
their families while subjected to the dispassionate cruelties of a seasonal labour market. Seasonal cycles of unemployment, which were a common feature of early-nineteenth century life, meant a perpetual struggle on the part of many workingmen to provide the necessaries of life for their families, particularly in the winters. The possibility of apprenticing a son to a craftsman, under such circumstances, was a conscious family strategy. Not only would this arrangement relieve the family of the responsibility for the child's support, but it would also offer the child a rare opportunity to learn a trade. Some families might even have regarded this arrangement as a strategy for generational social mobility. Sadly in other cases, it is reasonable to speculate that an arrangement of apprenticeship might also have been a form of child abandonment.

Written apprenticeship indentures were legal documents, binding and enforceable. They commonly bore the signatures or marks of the master, the apprentice's father or guardian, and two notarized witnesses, before being filed with the town or county clerk. They provided the legal context of an otherwise paternalistic social practice -- the public expression of a private and personal arrangement in a quasi-familial estate. The paternalism that characterized the social relations of workshop life, between masters and apprentices particularly, revealed itself as a regime of subordination, personal

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9Michael Katz, The People of Hamilton, however, calls into question the reality of generational social mobility for many families, suggesting instead that families were more likely to be geographically mobile in the mid-nineteenth century than to remain in areas where they experienced few stable opportunities for economic success.
supervision, simple control, and direct discipline.\textsuperscript{10} While the paternalism of workshop life might be regarded as a comfortable system of bringing about consensual work relations, it was just as much a locus for dissent and conflict, although rarely for collective action.\textsuperscript{11} Certainly, as Craig Heron has noted, not all masters were 'fatherly, benevolent, and judicious; and the occasional reports of apprentices actually running away from their masters suggests that not all apprentices found their situations to be entirely tolerable. In the event of such an occurrence, the weight of law fell on the side of the master. In Upper Canada, the Masters and Servants Act of 1847 provided for the legal enforcement of apprenticeship contracts and the return of delinquent apprentices to their sometimes harsh or abusive masters.\textsuperscript{12}

The terms laid out in apprenticeship contracts seemed to follow a predictable pattern based on eighteenth-century British custom,\textsuperscript{13} although there was always room for local variation or individual prerogative. Formal indentures explicitly bound both master and apprentice into a relationship that stressed a crude reciprocity of duties and obligations between the two parties -- the essence of the paternalistic relationship. These


\textsuperscript{11}Bryan D. Palmer, Working-Class Experience, 14.

\textsuperscript{12}Ibid., 28; also, Craig Heron, The Canadian Labour Movement: A Short History, 4.

\textsuperscript{13}British secondary sources offer an opportunity for a quick comparison of traditional British forms of apprenticeship to those that were later transplanted in Upper Canada. See, for instance, Peter Laslett, The World We Have Lost (London: Methuen & Co., 1979; originally published, 1968), esp. ch.1.
contracts usually spoke, first and foremost, to a master's concern that the lad be of good character. The basic premises of good character were consistent, although the specific enumeration of details might vary according to the particular trade in question.

Typically, the master insisted on obedient service. As in the case of Edward Davis, an abandoned youth apprenticed to a Wilmot Township farmer in 1839, an apprentice was normally expected to serve his master faithfully and to behave cordially and respectfully towards the rest of the family. In the case of John Blake, apprenticed to David Thorburn, a Queenston merchant, in 1828, the inventory of regulations bearing upon the apprentice's good character was much more specific. Master Blake was bound to keep his employer's secrets and to obey gladly his "lawful commands." In addition, he agreed "not to waste or embezzle [his] master's goods, or lend them without consent," and "not to depart without permission at any time." In some instances, depending on the moral propriety of the master, an apprentice might also be expressly forbidden from engaging in such unseemly activities as fornicating, drinking, smoking and gambling while in the master's charge.\(^4\)

The strict rules of conduct that many apprentices were bound to observe were not merely intended to control their behaviour and ensure their submission to the master's

authority. They were also intended to instill appropriate habits and values in young apprentices. Apprenticeship, after all, was a period during which a young ward was gradually initiated into a trade, and assumed responsibility for the perpetuation of its customs and traditions. Tradesmen, whether professionals, merchants, or artisans, staked a claim to social respectability. Good character, therefore, might be regarded as one crucial objective of apprenticeship, by which obedience and discipline at the outset might be transformed into integrity and self-control in adulthood.

In return for obedient and faithful service, the master also owed the apprentice a sort of 'dutiful' service. Over the life of an indenture, which could last several years, the master was assumed ideally to act as a surrogate parent, employer, and mentor in the trade. Since the apprentice commonly became a member of the master's household, the master agreed to provide the apprentice with sufficient food, clothing and shelter. At the same time, the master assumed the powers and responsibilities of guardianship. He had the right to discipline the apprentice in the manner of a parent. The contract might also include a promise to provide the youth with nominal access to common schooling, perhaps up to three years. In the case of abandoned or orphaned children, this condition would likely be insisted upon by the town wardens as a condition of indenture. In addition, the master promised to instruct the apprentice in the knowledge, skills and secrets of the craft or trade, to prepare the apprentice for productive labour at the end of the term of indenture.

15"Apprenticeship of Edward Davis ....," 81.
The duration of an apprenticeship was always specified in written indentures. The arrangement usually terminated when the apprentice had reached adulthood, commonly recognized as age twenty-one. At that time, the master might furnish him with the tools of the trade in order to bridge the transition between apprenticeship and journeyman labour; or in lieu of that, a nominal payment. The particulars, of course, were determined by the nature of the apprenticeship, by the specifics of the trade, and by the generosity of the master. A farming indenture, like that of Edward Davis, might specify a nominal parting gift of "one yoke of oxen, one chain, one ax [sic], [and] one good freedom suit."\textsuperscript{16} An apprentice to a skilled artisan, on the other hand, might expect to receive the primary tools of his trade upon completion of the indenture.

All told, the system of pre-industrial apprenticeship that persisted in the towns, villages and countryside of Upper Canada in one form or other prior to 1850 performed an auxiliary educational function entirely appropriate to the society that cradled it. Prior to 1850, limited formal schooling was the norm for most children of farmers and labourers. Enrolment in common schools was at times sporadic, particularly among children whose contribution to the family economy was considered necessary. Moreover, as Ian Davey has pointed out, school attendance in 1850 was also irregular among those who were enrolled, with as much as 57 per cent of students enrolled in common schools

\textsuperscript{16}Ibid.
attending fewer than one hundred days of school per year in the mid-1850s.¹⁷ Those who were apprenticed, however, were sometimes promised at least a limited opportunity for common schooling that they might not otherwise have enjoyed.

Still more fundamental, however, was the manner in which the apprenticeship system itself played an educational role that either complemented or competed with the agenda of common schooling. By instilling in a young lad respect for the dignity and value of manual work, and the pride of craftsmanship, such an arrangement reinforced the integrity of artisan life. The paternalistic discipline of workshop life also taught lessons in obedience, respect and self-control. But, most importantly, a good apprenticeship prepared a youth for productive labour.

From his earliest exposure to a master's trade, a young apprentice served as a shop hand, performing essentially menial chores and mundane tasks. Over time, however, through observation and instruction when the pace of work was more relaxed, he would learn the rudiments of tool work and the secrets of the trade. Instruction in the trade was most certainly individualized. In the workshop environment, each apprentice necessarily acquired the knowledge and skills of the trade at his own rate and according to his own individual proclivities. The learning of skills was task-oriented and cumulative, directed by both the needs of the artisan and the inclinations and abilities of the apprentice. In the process, the apprentice was socialized gradually to the habits and practices of the

workshop world. Nary a skilled tradesman or farmer would have denied that their tuition was far more relevant than any that the common schools could offer.

Much like common schooling was intended to be, apprenticeship was also an avenue of social integration. It was a multi-faceted arrangement which, in custom, encompassed a combination of skills training, life lessons, and the development of social identities. An apprentice who learned the trade of his master might eventually become a practicing journeyman, and either continue to work in his master's shop (this time for remuneration) or seek a situation elsewhere. As a journeyman in the craft, he also became part of a community of skilled tradesmen, often tied to a proud craft tradition. This bond of tradition became an important touchstone of craft cohesion. In several of the towns and cities of the province, the celebration of this tradition underscored the foundation of journeymen's associations, which began to thrive in several trades particularly after 1850. These associations of fellow craft workers initially acted as mutual aid and benevolent societies, but eventually developed into organizations for the protection of journeymen's interests against the encroachments of their artisanal and industrial employers. Young journeymen inducted into these associations, as several labour historians have shown, were often initiated into a world of symbols, rituals, oaths and secrets -- the contemporary legacy of an ancient craft culture.\(^\text{18}\) They were introduced to the elusive mysteries of the trade, and were taught to revere the mystical

link between the tools of their trade and the products of their labour. This link would be
celebrated periodically in ceremonies, parades and picnics in the community -- events
that were intended to arouse a collective sense of community, of social integration, of
fraternal bonding among journeymen sharing the same skills and traditions.¹⁹ The
traditional pattern of apprenticeship was a process that yielded both cultural and
utilitarian outcomes.

Yet in many trades before the 1850s, as Bryan Palmer notes, a transformation was
already underway in which apprenticeship "became less craft training supplemented by
moral and educational supervision and more a form of bound labour."²⁰ Between the
1850s and the 1870s, the traditional customs of apprenticeship, as practiced in Upper
Canada during the province's development, all but disappeared from most regions. This
traditional arrangement began to buckle under the strains of several related forces. The
1850s witnessed a frenzy of speculation in railway construction, as provincial cities
competed with one another for regional dominance and for commercial control over
hinterland resources and agricultural trade. The spread of railways ushered in a veritable
transportation revolution in the province, facilitating the distribution of manufactured
products and agricultural produce among various commercial markets using overland
routes, while also facilitating the easier movement of people between population centres.
Both of these effects encouraged the growth of cities, which soon developed into

¹⁹Heron, The Canadian Labour Movement, 3.

²⁰Palmer, Working-Class Experience, 29.
commercial entrepots and manufacturing centres. The development of inter-urban market forces coincided with the application of steam power to manufacturing enterprises, which helped to greatly increase productive efficiency and output. Greater profits accrued to those urban producers whose ability to attract investment and whose access to credit best suited them to take advantage of new technical improvements, thus favouring the growth of urban manufactories employing larger numbers of employees than the traditional artisan shops. The accelerating development of new production machinery in 1860s and 1870s affected many traditional trades, from shoemakers to tailors, coopers to printers. This was the dawn of industrial capitalism in Ontario.\textsuperscript{21} Increasingly, thousands of skilled journeymen and unskilled labourers alike were drawn into the province's cities and large towns seeking employment in the growing manufacturing labour market.

The emergence of urban manufactories did not immediately signal the declining demand for skilled labour. Much of the productive machinery and technology that was pressed into the service of industry was intended to replace muscle power rather than skill. Furthermore, in the 1860s and 1870s, some urban manufactories continued to be places where unskilled 'apprentices' were sometimes assigned as 'helpers' to skilled journeymen. In some cases, they were also places where the owners -- often themselves artisans -- worked alongside their employees, as was the case initially at the Knechtel

\textsuperscript{21}Kealey, \textit{Toronto Workers Respond to Industrial Capitalism}, esp. ch.2.
Furniture factory in Hanover, Ontario, according to Joy Parr's study. However, as factories and machine works grew larger during the early industrial period, foremen could be assigned arbitrary powers to impose a strict factory discipline, in a manner reminiscent of the worst abuses of the paternalist authority exercised in the past by harsh masters towards recalcitrant apprentices. In short, some of the best and worst features of the social relations of production that were forged through the customs and practices of craft work and apprenticeship were evident in early industrial production as well.

However, modernization also bore some inevitable costs for the skilled journeyman in particular and for traditional systems of apprenticeship in general. The development of industrial production, and the emergence of the factory system in towns and cities alike, promised a more stable employment market and even higher average earnings for industrial workers but, as H. Clare Pentland notes, "employers no longer had to make long-term commitments to particular workmen, and individual security was less." With the sporadic and gradual modernization of industrial enterprises across the province after 1850, itinerant journeymen who came into cities and towns in search of employment and opportunity were drawn into a labour market increasingly characterized by waged labour and piece rates. Over time, the expanding scale of operations of established manufacturing enterprises in such trades as shoemaking, tailoring, and the

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metal trades rendered it increasingly unlikely that urban journeymen would ever realise their own traditional proprietary ambitions. Waged labour for most workers was becoming a more or less permanent condition, forcing many skilled workers to reassess their goals and realign their interests.

This situation was only compounded by the tendency of more profit-motivated employers to reduce wages by reshaping the production process through the introduction of batch production and the implementation of a detailed division of labour. Characteristically, this implementation involved the breaking down of some diversified skilled processes into more specialized component tasks. In response to these changes, journeymen in various trades in the 1850s and 1860s gradually found themselves compelled to trade in the mutual assistance of journeymen's associations for the protective impulse of craft unions. Still, in most towns and cities at least, the normalization of waged work and the division of labour increasingly threatened the traditional social world of apprenticeship with obsolescence.

It would be mistaken to suggest that the development of new production machinery and the division of labour signified a universal 'de-skilling' of journeyman occupations or a general displacement of handicraft production. For as much as journeymen resisted their loss of autonomy, their impressment into a waged-labour regime, and the threat of competition by cheaper unskilled labour, their resistance was often as much a defense against loss of dignity and respectability as it was a defense of traditional work habits and practices. Of course, some skills did become redundant and
some trades became obsolete and disappeared from the urban industrial landscape. From these trades came some of the most strident and vigilant protests in the early industrial period.\textsuperscript{24} Yet, many urban industries between the 1860s and the 1880s (as industrialists themselves were quick to point out) still appeared to rely heavily on the work of skilled hands.

Machine production often depended upon traditional skills and know-how being adapted to new production environments, and also created a demand for new kinds of skills\textsuperscript{25} -- skills that in some cases were more technical and mechanical than creative and constructive. An article in the Ontario Workman in 1873 observed that blacksmithing was already becoming unfashionable among young men entering the trades; tool makers and machinists were now in vogue. In fact, the writer conceded, "the occupation of

\textsuperscript{24}Kealey, Toronto Workers Respond to Industrial Capitalism contains several examples of traditional trades that were deskilled or that became obsolete as a result of conscious industrial employment strategies or as a result of new machine technologies that diluted or marginalized skills. The cooper, shoemakers, metal-trades workers, and printers are his examples. He pays particular attention to the resistance that swelled among the skilled workers in these trades, and argues that in their defense of craft tradition, and in their strident campaigns for shop-floor control, they were also asserting an abiding faith in craft pride -- in other words, the dignity and respectability that should rightfully accrue to men of skill.

\textsuperscript{25}Craig Heron, Working in Steel: The Early Years in Canada, 1883-1935 (Toronto: McClelland & Stewart, 1988), 53-54. Heron briefly surveys the main arguments concerning the status of skill during industrialization, from Braverman to Katherine Stone, and calls for a deeper approach to understanding skill in industrial society. Skill, Heron feels, should be considered carefully from the standpoint of the effects of different machines in different industries during different periods, and how the labour process is thus affected by the management decisions that accompany new machinery. Skill, after all, is not only mechanically derived, but socially constructed and socially sanctioned.
machinists is at the present day the foundation of most all other trades."\textsuperscript{26} Skilled machinists were increasingly in demand in the urban-industrial labour market of the 1870s and 1880s in cities like Toronto and Hamilton. Their expertise lay in their understanding of mechanical operations and in their ability to design tools and execute mechanical improvements.\textsuperscript{27}

\textbf{Industrialism and School Reform}

The transition that took place between the 1850s and the 1870s from commercial to industrial capitalism demanded an educational response. Over time, changes in economic and social organization altered the roles of public institutions, which increasingly had to adapt to new social realities. When it became apparent that the traditional paternalistic bond of the old apprenticeship system had been thoroughly undermined in most industries, to be replaced by relationships of bound labour, some commentators raised concerns about the loss of a crucial system of education and training for young workers. The concern was exacerbated by the claim that the mechanical complexities of modern industry seemed to demand workers with more refined technical

\textsuperscript{26}"Machinists and Blacksmiths," in \textit{The Ontario Workman}, 17 April, 1873.

\textsuperscript{27}A modern ethnography of the machinists' work, with intriguing insights into the sometimes precarious relationship between skill, know-how, and machinery is Tom Juravich's \textit{Chaos on the Shop Floor: A Worker's View of Quality, Productivity, and Management} (Philadelphia: Temple University Press, 1985).
competence and more precise mechanical technical skills than before. If there was an apparent deficiency in the early education of young workers, it was now incumbent upon the school systems of the province to respond. The challenge was two-fold. Common schools would have to become more accessible, and common schooling would have to become more practical.28

The problem was more easily identified than solved. The traditional disparities in schooling among social groups persisted well into the industrial period. In the 1850s and 1860s, exposure to regular schooling was consistently lowest among the children of manual workers, small farmers, labourers and the poor. These children characteristically attended school less frequently and for fewer years than did the children of the emerging middle class of merchants, manufacturers and professionals. This discrepancy did vary significantly between urban and rural communities. As the populations of cities and towns grew in the middle decades of the nineteenth century, urban common schools were often ill-prepared for a large influx of new pupils. The numbers of children and youth frequently outstripped the availability of spaces in common schools.29 Still, high rates of transiency and the prevalence of casual or seasonal labour militated against regular schooling for many children, in a sense easing the burden on common school facilities, but creating a dilemma for school promoters who worried about the social consequences


of illiteracy and ignorance.

Urban schools were sometimes slow to respond to the physical expansion of cities and towns. The historical geographer Haley P. Bamman has observed that in Toronto during the 1860s, as the city expanded westward and northward, and settlement followed industry, adequate schooling facilities were generally slow to follow settlement. As a result, Bamman concluded, "large numbers of children were in effect being discriminated against educationally."\(^{30}\) However, as Michael Katz and others have observed, some of the disparities in schooling were to a large extent bridged for the children of certain groups of traditional skilled workers. Tinsmiths, for instance, who tended to be among the wealthiest and most successful urban tradesmen in the 1860s, as well as carpenters and cabinetmakers, whose trades most directly relied on a knowledge of advanced school subjects such as arithmetic and geometry, tended to favour more schooling for their children.\(^{31}\)

The defining features of modernization -- the growth of urban centres, the changing structure of industry, and the disappearance of traditional opportunities for apprenticeship -- affected the ways in which people framed their expectations of schooling. For educators and administrators particularly, there was a discernable shift in


the role that schools were expected to play in the education and training of the young.

The mandate of common schools since the School Act of 1841 had been mental training and moral regulation, a general refinement of the habits of mind and body. This mandate would be accomplished through judicious school management and curriculum design. Between 1841 and 1851, the Council of Public Instruction strongly encouraged the introduction of practical instruction and "useful knowledge" into the common school curriculum. The concern with moral regulation continued after the School Act of 1850, as did the growing emphasis on practical instruction. One important difference was a new emphasis on the inclusion of 'science' in the common school curriculum and a greater degree of direct intervention on the part of the central education office in defining local educational goals.

The increasing centralization of the province's educational machinery under Ryerson provided the backdrop for an emerging campaign to make common schooling compulsory. However, the idea of compulsory schooling was problematic. The basic premise of common schooling was that it brought together children from different community backgrounds and exposed them to a common curriculum and a common culture. School promoters considered this premise to be essentially democratic. Officials in the 1850s and 1860s, as Susan Houston has shown, were more and more concerned with reaching the children of the working poor. They were determined to extend the civilizing influences and moral economy of a common school education to the lower

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levels of (particularly) urban society. Beyond the watchful eyes of teachers and school officials, children were likely to be exposed to all sorts of corrupting influences in the community at large. Compulsory schooling, therefore, emerged as a social reform strategy, as well as "a practical gesture to efficiency and economy." But did the concept of compulsory schooling call into question the legitimacy of a growing democratic consensus in society, or was it a necessary expedient to allow the democratic consensus to flourish through the common schools?

Most troubling, perhaps, was that compulsory schooling implied the use of legal coercion on the part of the state in order to realize its own public policy goals. Surely such coercive intervention represented an unprecedented incursion of the state into the private affairs of individuals and the private choices of families. In theory, compulsory education did not jibe with the laissez-faire ideal of an emerging middle class asserting its dominance in the developing industrial and commercial marketplace of the 1860s. Yet by analogy, it seemed to differ little from the reasonable demands of employers that their workers attend work regularly and punctually. Compulsory attendance legislation was potentially a valuable instrument of habit formation that would suitably complement a youth's socialization into the urban-industrial ethos. Furthermore, it could be defended on the grounds of philanthropy, in so far as the benefits of a common education would accrue ostensibly to all families, by imposition if necessary, whether they understood its

benefits or not.

Compulsory education was formally introduced in 1871 as a complementary measure to the new Public School Act. Principle and practice converged as the concept of compulsory schooling combined an ideology of social consensus with the persuasive power of legal coercion. Since schooling was increasingly regarded uncritically as a key criterion for success in adult vocations -- a view no doubt legitimized by the impressive educational attainments of those at the top of the social structure\(^{34}\) -- this reform might have benefitted the working classes by providing them with greater access to educational opportunity and social mobility,\(^{35}\) while applying legal penalties to the delinquent parents of habitually truant children.

The compulsory attendance regulations in 1871 stipulated that all pupils between the ages of seven and twelve years be required to attend at least one hundred days of school per year. While these regulations did not meet with immediate universal compliance across the province, the available evidence suggests that the rates of school registration during and after the common school era far outstripped the corresponding increase in the numbers of school-aged children during the same period. While the school-aged population more than doubled between 1846 and 1876, according to Alison Prentice's calculations in *The School Promoters*, the overall enrolment figures for

\[^{34}\text{CEM} 8\ (May\ 1886):\ 181;\ J.M.\ Harper,\ "Civilization\ and\ Education:\ Their Relationship Enunciated,"\ \textit{CEM} 8\ (April\ 1886):\ 124.\]

\[^{35}\text{J.H.}\ Smith,\ "Our Educational System: An Historical Sketch,"\ \textit{Journals and Proceedings of the Hamilton Association} [hereafter JPHA] 12, 7\ (May\ 1896):\ 19.\]
common/public schools increased roughly fourfold over the same period.36 These same calculations indicate that enrolment in common schools was just shy of fifty per cent of school-aged children in 1846, but climbed to over ninety-two per cent in 1876. It is difficult to judge how much of the increase was due to compulsory attendance, or to changing popular attitudes towards education. For one thing, the low rates of participation recorded for 1846 are somewhat misleading since the original calculations included only those pupils registered in common schools and did not include those registered in grammar schools or private-venture schools.37 Furthermore, as Prentice warns, the official statistics of 'school-aged' children collected by the education office only included those between the ages of five and sixteen, and therefore did not include those younger than five or (more commonly) older than sixteen who also attended common schools, particularly before the introduction of age-graded schools.36

Nevertheless, a discernable increase in school enrolment did appear to accompany the transition from common schools to public schools and the introduction of compulsory schooling legislation. Records for the 1880s confirm greater rates of participation in both public schools and secondary schools, particularly in the urban centres. However, as Houston and Prentice have more recently suggested in Schooling and Scholars in

36 Alison Prentice, The School Promoters, 19 (Table 1).

37 On rates of registration in grammar schools, and on the persistence of private-venture schools and private academies, see Gidney and Millar, Inventing Secondary Education, 333-337.

Nineteenth-Century Ontario, these increases in total enrolment may have had less to do with the regulations and more to do with declining opportunities for children outside the educational mainstream. The demise of traditional apprenticeship opportunities and the disappearance of many alternative private-venture schools/tutors figure prominently here.

On the other hand, even if the implementation of compulsory schooling legislation seemed to coincide with increasing enrolments by the 1880s, it did not necessarily affect patterns of average attendance. Educators continued to express grave concern at the persistence of chronic truancy among certain classes of school children. Benign causes of school absence, such as inclement weather or illness, could not account for the rates of non-attendance that were consistently observed. After all, making school attendance legally mandatory did not erase the causes of irregular attendance -- causes that were as much the by-products of modernization as was the school legislation itself. Many working families continued to endure underemployment or seasonal employment in the 1870s and 1880s. As a result of employment insecurity, both mobility and transiency still figured prominently as features of late-nineteenth century urban society. The working poor and small farmers continued to require their children's wages or labour

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39 Houston and Prentice, Schooling and Scholars, 332-333.

40 While enrolments in public schools and high schools did increase significantly in the 1880s, it is unclear what effect the actual compulsory school laws had on this development, since population increases and child labour laws may have had more impact on school enrolment figures. See Prentice, "From Household to Schoolhouse," 21; also Gidney and Millar, Inventing Secondary Education, 274. George Ross, however, did point with pride at the improving statistics of average attendance. See G.W. Ross, "The Progress of Our Schools, Text Books, and Religious Instruction," 3.
for the survival of the domestic economy. In large cities like Toronto, destitute children continued to haunt the streets rather than the classroom.\textsuperscript{41} The persistence of such problems in industrial cities in the 1880s perplexed school officials, who responded by enforcing tighter regulations in subsequent school acts.\textsuperscript{42}

Perhaps unable to explain the problems of a modernizing urban-industrial society, schoolmen instead tried to explain them away by employing a peculiar circular logic. Irregular attendance was most endemic among children from poor families, and thus was associated with poverty, and poverty with crime. Poverty, however, was also the natural result of ignorance and illiteracy. Truancy, therefore, was indirectly attributable to lack of education. Regular schooling, in fact, was treated as an antidote to a variety of social problems, from habitual vices to criminal tendencies.\textsuperscript{43}

Educators continued to express concerns about the persistence of irregular


\textsuperscript{42}For a summary of school legislation in the province during this period, see \textit{Abstract of the Proceedings of the Department of Education, 1877-1928} (Toronto, 1929).

attendance and truancy throughout the 1880s, complaining that casual attendance
hindered the efficiency of classroom management and made it very difficult to monitor
the progress of a class of students and to regulate the school programme. Some
educators also worried about the social costs of chronic truancy, and about the fate of the
children beyond their reach. In spite of compulsory schooling, conceded W.S. Ellis, the
public school was still unable to cast a net wide enough to catch those children on the
margins of the society -- the poorest children of unskilled working-class, and often
immigrant, parentage. Instead, Ellis lamented, "the ragamuffin still sports in the gutter,
and the 'arab' is getting his peculiar learning in a way that has little to do with virtue."  

However, for others, such as Robert Torrence, the public school inspector for
Guelph, it was too dismissive to attribute chronic truancy and irregular attendance to the
children growing up with economic hardship -- the children of the working poor, the
underemployed and the destitute alone. Instead Torrence placed the problem at the
doorstep of delinquent parents. Such parents, he implied, either resisted compliance with
the School Acts, failed to supervise their children, did not themselves pass educational
values on to their children, or neglected to discipline their children. Torrence was
particularly concerned about the average attendance records for Guelph in 1882 which
demonstrated that while about 59 percent of pupils enrolled attended between 100 and 211

44Extract of report of J.S. Deacon, Public School Inspector, County of Halton, in Annual Report of the Minister of Education (Ontario) for the Year, 1887 [hereafter AR], 120-121.

45W.S. Ellis, "The Need of the Useful in Education," 287.
days, slightly more than 40 percent attended fewer than 100 days, with fully 104 pupils
attending fewer than twenty days.\textsuperscript{46} It would have been preposterous to concede that over
40 percent of school-aged children in Guelph lived in poverty in the early 1880s.

Reports from public school inspectors elsewhere reinforced Torrence's alarm.

Consequently, concerns about irregular attendance and compulsory schooling were
brought before the Ontario Teachers' Association throughout the 1880s. In his keynote
address as president of the OTA in 1886, Samuel McAllister voiced his concern over the
persistent problem of truancy. McAllister did not perceive any contradiction between the
democratic character of public education and the compulsory character of mandatory
attendance. Public schools were democratic in the philanthropic sense that they
ostensibly afforded equal opportunities to all children regardless of social background.
They were not democratic in the sense of permitting freedom of choice, either to
ratepayers or parents. McAllister put the matter succinctly: "In a country like ours where
the support of public schools is made compulsory upon the inhabitants, it is right to
suppose that the attendance of children should also be made compulsory."\textsuperscript{47}

The persistence of irregular attendance was very disconcerting. Still, McAllister
remained unwilling to concede that the problem was structural, and instead placed the
blame back in the laps of local administrators and civic politicians. To him, irregular
attendance meant "defective education." For one thing, urban schools were often

\textsuperscript{46} Inspector's Annual Report of the Public Schools of Guelph for the Year, 1882, 3.

\textsuperscript{47} Samuel McAllister, "Presidential Address," Ontario Teachers' Association [hereafter
OTA] Minutes, 1886: 35.
overcrowded, due largely to the tight-fisted control exercised by municipal councils over the erection of new school buildings. Secondly, school trustees were too often unwilling to enforce the compulsory schooling law and levy fines against negligent parents as prescribed by the law. McAllister advised his teaching audience of the many positive benefits to public education that would certainly result if "a penalty of some kind were imposed upon negligent trustees, as well as upon negligent parents." A committee of teachers formed to discuss the ongoing causes of irregular attendance corroborated McAllister's complaint, likewise concluding that low average attendance figures could be explained by "an aversion on the part of trustees to compel their neighbors' children to attend schools." 

There was, however, a third explanation, which also suggested 'defective education.' Social change demanded educational change. If large numbers of children were irregularly attending public school, it was incumbent upon the schools to win them back. If working-class parents did not immediately see the value of schooling (although this was debatable), then it was incumbent upon the schools to demonstrate the appropriateness of schooling as preparation for life and work. In short, the perceived crisis over compulsory schooling sparked both external and internal demands that schooling itself be made more practical and relevant. If the school system was being

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48McAllister, "Address to the Ontario Teachers' Association," CEM 8 (October 1886): 300-301.

49McAllister, "Presidential Address," OTA Minutes, 1886: 35-37; the committee's report can also be found in OTA Minutes 1886, 7 and 13.
reformed to account for shifting social realities, the internal workings of schools and the processes of pedagogy should be likewise amended. Social change and school reform necessarily went hand in hand.

The Standard of Relevance: Science, Rational Education and the Ideology of Progress

Popular education in Ontario in the 1880s was thus in the midst of a paradigm shift. Social change, material progress and industrial dislocation together transpired to alter the environment in which schools operated. The creation of public schools, the implementation of compulsory attendance, and even the gradual development of age-graded schools and the conception of a 'ladder' system of multi-tiered schooling after 1871\(^5\) were all institutional responses to the changing social environment. Changing attitudes about education and shifting conceptions of the role of the school in modern society were also impelled by the pressing realities of inter-urban and international competition. The movement towards practical education and new standards of relevance represented a more intensive response to the advancing urban-industrial ethos.

In 1876, the city of Philadelphia hosted the world's fair to celebrate the centennial year of the American republic. The Philadelphia Centennial Exposition was, above all, a tribute to the virtues of progress, innovation and invention -- a show-case of Yankee

ingenuity and the industrial spirit that sprang forth from the wake of America's protracted market revolution. The exposition afforded the nations of the world another opportunity to exhibit their grand achievements in agriculture, mineral resources, arts and manufactures, machine technology, and industrial processes -- in short, the constituent elements of economic development. Machinery Hall stood as a veritable shrine to the ascendancy of science in late-nineteenth century industrial culture. Looms, lathes, sewing machines, mechanical clocks, locomotives, hydraulic tanks, and much more, testified to the ingenious mechanical applications of basic chemical properties to physical laws. A 1,400 horse-power Corliss engine, purported to have been the world's largest steam engine, provided the power for the displays. New inventions, such as Alexander Graham Bell's telephone, Christopher Schole's typewriter, and Thomas Edison's multiplex telegraph were publicly exhibited for the first time, and testified to the dawn of a revolution in communications.\textsuperscript{51} The exposition, through its impressive displays of motive power and largesse, unabashedly celebrated the mechanical and commercial spirit of the age.

In the Main Hall of the Exposition, visitors viewed exhibits of international educational systems. Ontario's Department of Education took great pains in assembling

its display, and won both domestic and international acclaim for its efforts and achievements. The Ontario exhibit included samples of student work, textbooks, models of school buildings, diagrams and photographs, as well as an impressive array of visual aids and other appliances designed to enhance the learning process.\textsuperscript{52} The exhibit was praised in the press, and received a number of awards and medals in which Ontario's representatives took much pride. Dr. S.P. May, who at this time headed the government's book depository, went so far as to boast that "the present condition of Ontario points to a glorious future, a national greatness of no ordinary magnitude."\textsuperscript{53}

John George Hodgins, Ontario's Deputy Minister of Education, however, was slightly more cautious and less salutary than his colleague. Like his contemporaries, Hodgins was greatly encouraged by Ontario's favourable showing, remarking that the province had "achieved a position from which [it] should never recede." However, he cautioned against becoming too complacent, arguing instead that it was imperative that the country prepare for the challenges that would be posed by future progress and technological innovations.\textsuperscript{54} Hodgins thought that important lessons were to be drawn on political economy


\textsuperscript{54}J. George Hodgins, \textit{Special Report to the Honourable the Minister of Education on the Ontario Education Exhibit, and the Educational Features of the International Exhibition, at Philadelphia, 1876} (Toronto: Hunter, Rose & Co., 1877), 239.
ought to be derived from the experience at Philadelphia, and he endeavoured to bring
these to the attention of Ontario's educational community. He stressed first the need for
an educational system that promoted the values of individual self-reliance and collective
(or national) self-respect. A nation striving for economic maturity, and hoping to
maintain a competitive position in the world, required a labour pool that was competent,
adaptable and inventive, composed of workers who were capable of transcending their
own parochial interests and committing wholly to the enrichment of the national
commonweal. He urged also that Ontario education be pledged to progress, by extolling
the material improvements of the age, and he recommended that the school system
courage the development of "industrial art and invention."\textsuperscript{55}

In these areas, Ontario's system trailed behind other jurisdictions in the world,
with potentially serious consequences. The systems of technical instruction and manual
training in Germany and Russia impressed Hodgins, who linked the industrial progress of
these countries to their systems of primary and advanced technical instruction. In
contrast, he noted that the products of Canadian manufacturing exhibited in Machinery
Hall were merely "striking adaptations of what already existed" but did not represent
"careful elaborations of scientific principles [nor] indications of enlightened forethought
and skill." In this area, he lamented, Canadians were "woefully deficient," and were

\textsuperscript{55}J. George Hodgins, "Lessons for Canadians, Chiefly Educational, Derived from the
Centennial Exhibition of 1876," in \textit{Documentary History of Education in the Province of
Ontario} [hereafter DHE] 28 (1876), 219-221; also, Hodgins \textit{Special Report ... on the Ontario
Educational Exhibit} ..., 238-39.
"doing very little to ensure progress or practical excellence in the future." Hodgins came away from Philadelphia with the sense that Ontario's system of public education would either have to make room for more practical and scientific instruction or the province would have to prepare itself for a sharp decline in the competitiveness of its manufactures both at home and abroad.  

At least one historian has suggested that the favourable showing of Ontario's education department at the exposition, rather than stimulating any further improvement of the system, instead created a climate of complacency that "retarded" the cause of educational reform in Ontario. George Grant, the Principal of Queen's University, for one, derided the tendency of some officials "to fancy that the whole world is looking with admiration on our system." However, Philadelphia's legacy was not simply a smug complacency among senior Ontario educators which inhibited the cause of educational

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56 Hodgins, "Lessons for Canadians, Chiefly Educational ....," DHE 28 (1876), 219. This idea was on the minds of a number of educators and school promoters in the late 1870s and early 1880s, both as it pertained to public schools and to technical training. See, for instance, A.P. Coleman, "A Plea for More Science," CEM 2 (March 1880): 146-148.

57 Stamp, "Ontario at Philadelphia: The Central Exposition of 1876," in Egerton Ryerson and His Times, McDonald and Chaiton, eds., 310. In 1870, Hodgins and Dr. A.T. McHattie had been commissioned to investigate technical and science schools and colleges in the United States "as to their buildings, departments of study and general appliances." In their report, they recommended the necessity of similar measures being taken in Ontario. In 1872 the School of Technology was founded in Toronto. Renamed the School of Practical Science, this institute was affiliated with the University of Toronto, and was intended to be a practical college for the training of engineers. In the early 1880s, evening classes for artisans were also held in connection with this school. See, AR, 1881, 38.


reform but, just as important, a climate of opinion that endowed schools with an economic purpose and bestowed upon them a share of the responsibility for the future material development of a modern urban-industrial society. In the decades that followed, school reformers frequently showed a tendency to apply educational measures to economic problems. The world’s fair had succeeded in placing educational progress firmly in the context of industrial progress, and reinforced the intellectual integration of the two concepts.

In the 1880s concerns about international competitiveness reinforced concerns about social reform, and encouraged a reassessment of the relevance of traditional education to the world of work and competitiveness. Through this reassessment, both the curriculum (what was to be taught) and the pedagogy (how it was to be taught) of conventional schooling came under vigorous scrutiny, particularly from educators who were committed to making the content of education more directly relevant to the lives and ambitions of the majority of pupils.

Herbert Spencer’s ideas on rational education were widely circulated for more than two decades after they were first compiled into a single volume for American distribution in 1860.60 But it was not until the late 1870s that Spencer’s writings really

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60Spencer’s four essays on education, written and published separately as journal articles in the 1850s, reached a wider audience -- particularly in North America -- only after they were compiled and published in a single volume. See Education: Intellectual, Moral, Physical (Totawa, N.J.: Littlefield, Adams & Co., 1963; originally published by D. Appleton & Co., 1860). See also, Richard Hofstadter, Social Darwinism in American Thought (Boston: Beacon Press, 1955; originally published in 1944), ch.2: "The Vogue of Spencer."
began to stir the reform imagination of Canadian educators who were just beginning to confront the apparent lack of relevance in their own classrooms. The Canada Educational Monthly regularly published letters and articles that contributed to the debate on Spencer's ideas, while Spencer's most controversial (and influential) essay on education, entitled "What Education is of Most Worth," written in 1854, was serialized in The Journal of Commerce in 1879.\(^{61}\)

The modern appeal of science was manifold. Throughout the latter half of the nineteenth century, science fuelled the engine of progress. Whether progress was measured strictly in terms of material advancement, or more esoterically in terms of intellectual culture, the influence of science was unmistakable. Science was both a practical and theoretical discipline, in which the competing claims of mental culture and applied utilitarianism were not only reconciled but interwoven. As a practical discipline, science inspired the invention of new machine technologies that fed the process of industrialization. It was the foundation of new inventions and mechanical innovations, which were seen as the bedrock of economic growth and prosperity. As a theoretical discipline, science also inspired new conceptions of human progress and social organization, crystallized formally in the development of modern social sciences such as sociology, anthropology and psychology, which had a profound impact on new directions

taken in social reform and social engineering.\textsuperscript{62}

A growing chorus of educators, echoing Herbert Spencer, regarded science as the key to unlock the gate separating school curriculum from real life. The link between scientific knowledge and one's adaptability to the modern workplace in the late nineteenth century was implicit, whether one envisioned work in a machine shop or a factory, as Thorstein Veblen once remarked, because of the "peculiarly close relation [of the material sciences] to the technological side of industry."\textsuperscript{63} And certainly experience dictated, as the \textit{Toronto Daily Mail} acknowledged, that "the bulk of those who attend the public schools are destined to devote their lives to industrial pursuits."\textsuperscript{64}

That being the case, it seemed only sensible to challenge the relevance of the traditional curriculum and insist on a greater emphasis not only on literacy and numeracy but on practical scientific instruction that might prove more relevant to pupils destined to earn their living in industry. As A.P. Coleman, the science master from the Collegiate Institute in Cobourg attested, since people working in manual occupations "must always form the majority," then in the absence of apprenticeship, the schools must assume the responsibility of providing them with a practical preparation for their future

\textsuperscript{62}See, Ramsay Cook, \textit{The Regenerators: Social Criticism in Late-Victorian English Canada} (Toronto: University of Toronto Press, 1985), esp. chs.4-10; A.B. McKillop, \textit{Contours of Canadian Thought} (Toronto: University of Toronto Press, 1987), esp. chs.3-5.

\textsuperscript{63}Thorstein Veblen, \textit{The Instinct of Workmanship and the State of the Industrial Arts} (New York: B.W. Hueback, 1919; originally published by Macmillan Co., 1914), 322.

occupations. Similarly, the *Palladium of Labor* pilloried conventional schooling as defective because of the "absence of practical usefulness necessary to fit pupils for the exacting conditions ... of modern life. Its whole tendency," argued the writer, "is to sacrifice the fundamental for the superficial, the useful for the ornate." Or, as another critic put it in 1899:

> The competition is too keen now-a-days to waste the time of boys in learning Classics and Modern languages to develop their intellects and cultivate their aesthetic sentiments, while there are so many things to be learned which have a plain relation to the business in which they are to earn their bread and butter.\(^6^7\)

Following Spencer's lead, advocates of a practical and relevant curriculum pointed above all to sciences and maths to pull public education into closer correspondence with the real world. Other critics of conventional schooling, however, took aim more directly at the process of schooling.

In an address to the Ontario Teachers' Association in 1886, J.E. Wetherell articulated the guiding principles of what came to be known as the New Education Movement in Ontario. Following a clever line of rhetoric, Wetherell placed the refreshing, liberal ideas of the New Education in diametric opposition to the stale, conservative practices of the 'old education.'

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\(^{66}\) *Palladium of Labor*, 8 December, 1883.

The old approach to classroom management, he complained, was rigid, authoritarian, and punitive. This environment predictably set the stage for a curriculum that was too abstract, bookish, and largely irrelevant, driven by a pedagogy that was lifeless and mechanical. In place of the old order, Wetherell proposed an educational standard that fostered freedom, inquisitiveness, investigation and discovery, with a curriculum that was above all child-centred and relevant to modern life. In trumpeting the arrival of the New Education, Wetherell challenged other educators to join him in erecting just such an educational regime, as he defiantly hailed the end of "the rule of rod and rote."\textsuperscript{68}

It might be more useful to view Wetherell's rant against the 'old education' less as a frontal attack on the inveterate and stubborn inertia of certain school masters clinging vainly to past practices and principles than as an irreverent eulogy to an educational regime that was thought to be in decline. It is true that some teachers continued to rely on such practices as verbal drills and seemed to place a premium on the short-term retention of facts rather than the long-term cultivation of reason. However, as inspector's reports and the testimony and complaints of educators sometimes revealed, the tide of opinion was clearly moving in the direction of reform.\textsuperscript{69} Indeed the principles of the New

\textsuperscript{68}J.E. Wetherell, "Conservatism and Reform in Educational Methods," OTA Minutes, 1886. This, of course, was not the first time that the Ontario Teachers' Association had been treated to an address on this theme. See, Colonel, F.W. Parker, "The Conflict of the Two Ideals," OTA Minutes, 1884.

\textsuperscript{69}For example, see "Reports of High School Inspectors: James A. McLellan (1880)," in AR, 1880 and 1881; W.S. Ellis,"The Need of the Useful in Education," 501-502; Viola Elizabeth Parvin, The Authorization of Textbooks for the Schools of Ontario, 1846-1950
Education, inspired mainly by the theories of practices of the German school reformer Freidrich Froebel and the Swiss educationist Johanne Pestalozzi, had already attracted a number of devoted, energetic, and influential converts, among them the Toronto school inspector James L. Hughes, the archeologist and museum curator David Boyle, and the secretary of the Toronto Industrial School Association W.H. Huston.  

Critics like Wetherell, Hughes, Boyle and Huston challenged the primacy of an educational model that was curriculum-driven, rather than pupil-driven. Curriculum-driven schooling presupposed that there was a core of subject matter that pupils had to learn and a pre-ordained sequence by which they had to learn it. Yet, the core subject matter seldom bore directly on the lives and experiences of the pupils and sequential instruction inhibited natural inquiry and investigation. Real education was not served by such methods. Instead, they advised, instruction should become more individualistic and schools should become more oriented towards the natural proclivities and inclinations of the pupils themselves. Their approach placed pedagogy before curriculum -- more of a conscious adaptation of the child-centred ideas of Froebel than a resurrection of the

(Toronto: University of Toronto Press, 1965), 74; Stamp, The Schools of Ontario, ch.3; George S. Tomkins, A Common Countenance: Stability and Change in the Canadian Curriculum (Scarborough: Prentice-Hall, 1986), 64-65.

'educational' model of apprenticeship. Ideally, the teacher should become a guide, not a 'task master.'

The current emphasis on science in schools aimed at modernizing the curriculum, and making school knowledge conform to the requirements of modern industry. However, to Wetherell, it was not enough to adopt a practical or relevant curriculum if the methods of teaching were not reformed. J.C. Glashan, the public school inspector for Ottawa agreed. In a lecture to the Ottawa Teachers' Association entitled, "A Plea for More Science," Glashan lashed out at the bookishness of traditional pedagogy, arguing that teaching exclusively through textbooks offered pupils little more than a dull litany of facts and second-hand explanations. The child taught in this way "looks at things through other men's spectacles, without knowing whether those spectacles magnify, minify, colour or distort." Teaching pupils how to learn was far more important than showing children what to learn. The science master at the Ottawa Collegiate Institute concurred with the local school inspector. Book learning, thought Mr. A. McGill, discouraged children's "natural inquisitiveness" through monotony, and was detrimental to the fostering of a spirit of discovery and invention in students in the higher grades. McGill in fact recommended that traditional science be replaced with nature study, which would allow pupils to learn through their own carefully directed investigation of nature itself.\textsuperscript{72} David Boyle had been advocating a similar approach to science teaching since the late

\textsuperscript{71}J.C. Glashan, "School Culture of the Observing Faculties," 465.

1870s, an approach which aimed at "cultivating the whole mind, at giving scope to all the faculties, [and] at really and truly opening [pupils'] eyes...."\textsuperscript{73} Clearly, even the most progressive changes to curriculum would produce only meagre results if not accompanied by equally progressive changes to pedagogy. Of course Wetherell noted that the reverse was equally true: "Rational methods of study will have a career of struggle if they are divorced from rational courses of study."\textsuperscript{74} The automatic association of 'rational courses of study' with sciences in the 1880s was no doubt aided by the popularization of Herbert Spencer's educational ideas.

Advocates of the 'rational' curriculum and of child-centred pedagogy sometimes borrowed liberally from the lexicon of science to explain and promote their reforms. For them, science denoted speculation, investigation, discovery and invention -- the tools by which men harnessed the power of nature for beneficial ends. "As we conquer nature and teach nature," posited A.H. Morrison, a teacher at the Brantford Collegiate Institute, "so we conquer man and instruct him. ... To conquer the child, we must study the child and make him our friend before we can hope to become his guide."\textsuperscript{75} Used in this way, the linguistic allusion to scientific discovery as "conquest" lent an air of masculine adventure

\textsuperscript{73}David Boyle, "The Natural Sciences in the Public Schools," OTA [at this time it was still called the Ontario Society for the Advancement of Education] \textit{Minutes}, 1880: 37 [emphasis in original]. In order to make a programme of nature study more meaningful to pupils, Boyle advocated the establishment of school museums, which might consist of specimens collected by the children themselves and placed in glass display cases for observation and study. See Boyle, "School Museums," \textit{CEM} 1 (February 1879): 83-86.

\textsuperscript{74}Wetherell, "Conservatism and Reform ...", 89.

\textsuperscript{75}A.H. Morrison, "Echoes From the Classroom," \textit{CEM} 7 (March 1885): 102.
to the progress of educational reform.

But to others, science also denoted precision, and was used to lend authority to their positions. In this way, the language of science was sometimes also invoked by those whose vision of schooling placed order above volition and discipline ahead of indulgence. Educators were not universally convinced of the wisdom of the New Education in the 1880s, and preferred to contemplate more moderate reforms within the established structures of schooling. More traditionally inclined teachers and administrators balked at the naivety of a child-centred pedagogy.\textsuperscript{76} Order, discipline and structure were essential in the formation of proper habits and refinements of character. Classroom management continued to be a preoccupation for teachers and school inspectors, leading Robert Wormell to devise a system of classroom management and etiquette which he promoted as the 'science of conduct.' Through this system he prescribed such tenets of behaviour as work and industry, charity and benevolence, economy and thrift, obedience, and respect for the rule of law. As Wormell predicted, "not only every society as a whole, but also each individual in it, will prosper in proportion as these rules are generally understood and obeyed."\textsuperscript{77}

Wormell considered the 'scientific' moulding of proper habits and attitudes as necessary for the maintenance of social harmony in society. For those who believed that

\textsuperscript{76}Stamp, \textit{The Schools of Ontario}, esp. ch.2.

social harmony was undermined by rapid urbanization and industrialization, Wormell's use of 'scientific rationalism' as a model for socialisation was no doubt a welcomed contribution to the debate over the school's proper role in modern society. More than that, however, it hinted at the depth of the school's responsibility to the changing social environment of work. The really important thing to be learned in school for the majority of pupils who would one day enter industry, according to Professor MacVicar of McMaster Hall, was not abstract knowledge but proper habits of body and mind. Such habits of hard work, dedication, punctuality, and obedience, as well as habits of conscience, self-reflection, deference to authority, and respect for one's superiors were not simply attributes that schools would consider desirable in their students, but they were also attributes that industrial employers would consider desirable in their employees.

Many of the proposed reforms to the structure, curriculum and pedagogy of public education occurred slowly and unevenly across the province. The concept of an 'educational ladder' was much more appropriate in the larger urban centres where students lived in closer proximity to a greater variety of educational institutions. A greater emphasis on science teaching was sometimes hampered by the inadequate methods employed by teachers. Attempts to implement the kinds of pupil-centred innovations advanced by New Eductionists proved difficult to implement in large graded schools

79 This complaint was made, for instance, by the high school inspector James A. McLellan in his report for 1880, AR, 1880-81, 21-22.
where a greater degree of uniformity was often demanded. Furthermore, despite the implicit vocational biases of high schools and collegiate institutes, school administrators were sometimes hostile to the idea of including preparatory programmes for students bound for manual trades. This latter point significantly impeded the promotion of technical education programmes in the mainstream of public education.

**Systemic Inertia: Industrial Education and the Limits of School Reform**

The Spencerian proposition that the public schools ultimately bore the responsibility for preparing students for their roles in 'after life' became a popular precept of social engineering in the second half of the nineteenth century. This argument rested on the premise that schools reflected the values and modes of living which were prevalent within society. Their mandate was to equip pupils with 'useful knowledge,' and to instill in them the proper habits and values necessary to live both productive economic lives and peaceful civic lives.

Preparation for 'after life' denoted the essence of the role of schooling in political economy. Still, educators and school reformers lacked any profound consensus about the nature of this role. In the school-reform idiom, 'after life' was the common euphemism for 'the outside world,' which existed somewhere beyond the classroom and the school yard. The idiom, however, had contradictory nuances. Was the 'after life' located in the

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social and economic realities of the present or in the promise and potential of the future? Was it the school's proper role to follow or to lead social change? If the 'after life' was rooted in the contemporary social structure and modes of production, then the mandate of schooling was to prepare students to accept their roles within that system.\textsuperscript{81} If, however, it was rooted in the promise of greater individual autonomy and the possibility of social mobility, then the mandate of schooling was to provide an egalitarian learning environment designed to instill in pupils the democratic values that would inspire them to enrich their own potential as individuals, and to foster in pupils the creative skills and love of learning that would allow them to make innovative contributions to the society as a whole.\textsuperscript{82} Both of these perspectives represented different (and competing) shades of nineteenth-century liberalism, the one emphasizing the natural stratification of labour in a market economy and the other emphasizing equality of opportunity and competitive individualism.

Clearly during the 1880s, more students were enrolling in school for longer periods of time than had been the case two decades earlier, leading some critics to question whether in fact current educational policies might be incompatible with the current social and economic realities. The conception of the public school system as an educational ladder made clear the educational pathways associated with occupational and

\textsuperscript{81}See, for instance, Annual Report of the Board of Education of the City of London, 1887, 7; Farewell, "Paper on Technical Education," 2.

\textsuperscript{82}See, for instance, "Inaugural Address of the President, Rev. C.H. Mockridge, D.D.,” JPHA 3 (1885): 35.
social mobility. But if the children of mechanics and tradesmen were encouraged to pursue educational opportunities and to aspire to advanced levels of schooling, then a tremendous pressure would be placed on the collegiate institutes and the high schools to accommodate a greater influx of students. Furthermore, if these students were taught to aspire to 'higher' stations than those of their parents, they might no longer be content to settle for manual occupations. "All our boys want to be 'clerks,' so it is said;" complained a writer in the Canadian Manufacturer, "they despise the work of the mechanic, and want to stand behind the counter, or get into something which is dignified with the name of a 'situation.'" The underlying message seemed clear: in the same measure that apprenticeship succeeded in dignifying manual labour in the minds of the young, compulsory schooling and modern public education apparently did not.

The urban economy of the 1880s was not equipped to absorb more than a small percentage of the total population into the professional, mercantile, and clerical ranks. When commentators spoke of 'the majority of pupils being destined to work in industry and manual occupations,' they were not disparaging the potential accomplishments of working-class children so much as they were remarking on a current economic reality.

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85 The Canadian Manufacturer and Industrial World, 9 June, 1892.
When James Hughes, for instance, advocated 'industrial education' in the public schools to make schooling a better preparation for 'after life,' he was not strictly advocating the sorting of students according to pre-ordained social class destinies; to a large extent this was accomplished outside of the school. He was recommending that schools better prepare students to adapt to the realities of the labour market, and to excel in their future occupations. The movement to make popular education more practical and relevant carried with it a more subtle appeal to make labour "respectable in the eyes of the young."

Statistics and testimony gathered by the Bureau of Industries between 1884 and 1888 suggested that the standards of living and the living conditions of the urban working class, particularly in Toronto, had risen since the early 1870s. The benefits, however, were unequally distributed. For instance, in 1884 the Bureau determined that workingmen over the age of sixteen years, with or without dependents, on average earned an income somewhat in excess of what the Bureau determined to be the cost of necessories, such as food, fuel and shelter. However, both males and females under sixteen years, and women over sixteen with dependents, were found on average to earn

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less than the average cost of necessities. This latter result was attributed to factors such as low wages, seasonal occupations and irregular work, and was attributed to poor education and a lack of usable skills. Predictably, the youngest workers with the least education were the most vulnerable to layoffs and low wages. Lacking developed industrial skills, younger workers were more expendable in times of slow production.

Furthermore, testimony gathered by the Royal Commission on the Relations of Labour and Capital in 1887-88 revealed what most informed people already suspected: that alarming numbers of working children, who could neither read nor write, were toiling in factories. These children possessed no technical skills, nor were they likely ever to acquire any. This alarming fact not only reinforced the need for stronger child labour laws, but also educational improvements including the establishment of comprehensive programmes of technical education. Since apprenticeship opportunities for young workers in the 1880s were found to be rare, there were few opportunities for young workers to receive any sort of skills training before entering the labour market.

Industrial employers also complained to the commission about the difficulty of finding suitably skilled workers for their enterprises and warned that they would surely have to import skilled workers in order to remain competitive in foreign markets. A letter to the Montreal Witness summed up this sentiment ably: "What use is it though we

88"Labour and Wages ...," ARBO, 1884: 14.
90Ibid., 16, 57.
have a high protective duty if we have not the industrial ability and knowledge upon which so many of our population must necessarily depend to compete with foreign and more experienced workers?\textsuperscript{91} The Canadian Manufacturer, for its part, regularly printed articles on technical education in England submitted by its Manchester correspondent; partly for information's sake, partly as a reminder of how far the British had advanced in this field ahead of Canada. The promotion of technical education was fed by this ongoing concern for economic prosperity and the competitive position of domestic manufactures, the very things that J.G. Hodgins worried about in the wake of the Philadelphia Exposition.

The question was not whether the government should be involved in technical education and skills training as part of its educational mandate. The question was really what form government involvement should take and to what extent. Education officials drew a sharp line between a general education (which implied the nurturing of the physical, mental, and spiritual faculties) and skills development (which implied training for trades and manual occupations). Daniel Wilson, professor of ethnology and Chairman of the School of Practical Science,\textsuperscript{92} put the case most succinctly. Wilson suggested that there was a structural pattern to scientific and technical education -- a linear hierarchy of

\textsuperscript{91}Reprinted in Canadian Manufacturer, 31 March, 1882.

\textsuperscript{92}Daniel Wilson was an extremely well-respected academic whose opinions held considerable weight in educational circles. In addition to his stewardship of the School of Practical Science, he was also a professor of ethnology at the University of Toronto, and served as president of the Council of University College.
knowledge that extended from the mere 'usable' knowledge of the mechanic to the theoretical scientific knowledge of the engineer. In much the same way that the public school system of the 1880s signified an 'educational ladder' leading from the public school to the high school to the university, technical education could also be conceived in this manner, with its own primary, secondary and advanced stages. The primary stage encompassed elementary tool work; the secondary stage, more entrenched industrial skills; and the advanced stage, enriched knowledge of the practical applications of scientific principles. The highest level in Wilson's model represented the School of Practical Science, which provided advanced training for engineers and architects. The intermediate level, Wilson conceded, was accounted for only in an auxiliary way, mostly through local initiatives such as mechanic's institutes. The primary stage, however, was provided not at all.\footnote{Annual Report of the School of Practical Science, 1887 in AR, 1887, 246-47. In 1891, Wilson made essentially the same point in the Report to the Minister of Education, but modified his analogy slightly. Instead of a strictly hierarchical model of the sequential stages of technical education, Wilson invoked a polar duality, suggesting that there were in fact "two broad divisions, manual training and theoretical training." See Annual Report of the School of Practical Science, 1891, in AR 1891, 289.}

According to Wilson, technical education at the advanced stage could lay a claim to public funding because the preparation of competent engineers and architects was clearly in the public interest and would promote the general welfare and prosperity. Furthermore, although engineering studies were practical in nature, they were also theoretical and speculative, and therefore consistent with even the most conservative
notions of mental culture. Undoubtedly, professional scientific and technical training was most deserving of government funding and support. The critical question was whether it was really appropriate for the state to undertake the practical training of mechanics at the primary and intermediate stages.

As R.D. Gidney and W.P.J. Millar have pointed out, the conventional wisdom among education officials in the 1880s held that "the acquisition of marketable skills, divorced from mental culture, was not education but training, and belonged elsewhere."94 While the public school and high school curricula had incorporated a number of key changes and adaptations during the decade, their stewards for the most part were not yet prepared to stretch their conception of mental culture far enough to accept that any form of elementary shopwork was ultimately educational. Rather, they clung to a leitmotif of natural oppositions -- manual/mental, physical/intellectual, material/abstract, vocational/academic, technical/professional -- which distinguished in relative terms between high and low mental culture, between which course was more deserving, and which was less deserving, of full public sponsorship.95 This body of distinctions reflected a prevailing status hierarchy of knowledge, one firmly implanted in the late-nineteenth-century social structure.

Supporters of this position could maintain, in the words of the noted English


95Ibid., 290. Gidney and Millar refer to these dualities as "modern dichotomies" and stress such dualities as "pure and applied, professional and technical, theoretical and manual."
scientist Thomas Huxley, that "the workshop is the only real school for a handicraft," and that the legitimate role of public schooling in preparation for industrial occupations ended with the providing of a practical tuition in the properties of science as would benefit the young mechanic upon entering industry. This line of reasoning, however, was not without its critics. J.B. Boyle, the public school inspector for London, took umbrage with the idea that the training of engineers and architects was implicitly more worthwhile, and constituted a greater public good, than the training of skilled mechanics and draughtsmen. In fact, Boyle disputed the notion that public funding for the education of professionals could really be justified in the public interest at all. To Boyle, it was "exceedingly doubtful whether the cost of such an education should be made a charge upon all, not for the benefit of all, but only for the benefit of a few."  

Not surprisingly, the Palladium of Labor repeated a similar complaint throughout the mid-1880s about the latent tendency of public education to respond to middle-class needs, values and aspirations, yet insulate itself from the social realities and educational needs and values of the working-class majority. The assumed hierarchy of knowledge, which placed abstract reasoning and theoretical knowledge on a higher plane than practical knowledge and mechanical skill, was manifested in the structure of the educational ladder which reserved the highest plateau -- the university -- for the education

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of professionals in the lofty principles of their trades. To the Palladium of Labor this represented a great defect in the system, since it devalued the nobility of manual trades by neglecting to respect the practical knowledge of those trades. Public education subordinated practical knowledge; it "sacrifice[d] the fundamental for the superficial [and] the useful for the ornate."98

W.H. Huston, who served for four years on the staff of the Victoria Industrial School for Boys at Mimico, regarded the distinction between the professions (which were unquestionably deserving of public support) and the trades (which were not) to be an artificial one, concocted possibly out of the self-serving motives of the professional class, with no real foundation in logic. Unlike Daniel Wilson, Huston perceived no fundamental difference between schools for professional training and schools for trades training, since both were in fact vocational institutions. Why then, he challenged (echoing J.B. Boyle), was there no question about the government's commitment to the training of lawyers, architects, and engineers,99 when there was a latent hesitancy to commit adequate public funds to the training of carpenters, printers, and machinists? Surely, the practical professions, like the manual trades, were essentially technical in

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98 The Palladium of Labor, 8 December, 1883. This paper frequently complained of the great discrepancies between government grants to mechanics' institutes and art schools and government funding of Toronto University. This seemed to represent a distinct bias against the continuing education of working people on the part of the government. Worker education was a goal to which the Knights of Labor organization was committed.

99 The University of Toronto had just opened a new Department of Law in 1890. Architects and Engineers were educated and trained at the School for Practical Science and through the University's Department of Science.
nature, and objectively no more important to the general prosperity.\textsuperscript{100} The difference, therefore, had to have been based upon a subjective evaluation of the relative status of occupations. Such an evaluation was clearly borne out of an implicit class bias, resulting in an official policy orientation which favoured the children of privilege over the children of toil.

Huston's experiences in the industrial school at Mimico convinced him not simply of the economic benefits but also of the educational benefits to be derived from introducing a rudimentary training in manual occupations in the schools. Manual training in the industrial school was used to correct the delinquent and criminal tendencies of wayward city youth and provide them with a sense of self-worth, an educative training of the hand and eye, and a useful acquaintance with tool work by which they might hope to earn a living in the future. By neglecting this side of educational work, and thus by failing to make the public school curriculum relevant and applicable to the lives of the majority of pupils, perhaps the school system was itself contributing indirectly to the problem of delinquency. It failed to provide a useful and relevant curriculum that might inspire greater interest among pupils and be more effective at instilling in them proper habits and attitudes. If this was the case, noted Huston, then the system was responsible for "a sin of omission and not of commission."\textsuperscript{101} Huston himself attempted to overcome


the latent systemic biases against the encouragement of manual education by establishing an experimental manual training course at Woodstock College in 1889, ten years before the education department launched its own experiment on a provincial scale.¹⁰²

No doubt Huston was able to draw much of his inspiration from the energetic activities of the Toronto public school inspector James L. Hughes, who came out early in favour of the concept of 'industrial education.' By this term, Hughes meant the training of the hand and eye as a means to refining the culture of the mind. An 'industrial' component to the curriculum, which might include basic drawing, modelling and tool work, would both enhance the relevance of other courses on the curriculum, by drawing explicit linkages between theory and practice, and it would also stand in closer relation to the world of work that the majority of pupils would inhabit.¹⁰³ While he resisted any suggestion that his programme reflected a strictly utilitarian view of education, Hughes, like Huston, remarked that it "nearly amount[ed] to criminal negligence to allow our pupils to pass through their school life without giving them some definite industrial training."¹⁰⁴


¹⁰³Hughes, "Industrial Education," 48-49.

¹⁰⁴Ibid., 49. Ontario was by no means the only province in which industrial training was advocated. See also, a call for annual occupations in school by a principal from Fredericton, New Brunswick: Principal Crockett, "The Importance of Method in Teaching," CEM 5 (April 1883): 159.
Towards Apprenticeship's Ironic Legacy

The failure of the provincial system of public and high schools to embrace industrial training and technical education pointed to the limits of educational reform during this period. The basic systemic inertia, which militated against extending the mandate of public education, had effectively determined the course that technical education would follow by default. In principle, technical education had enough adherents, and had won enough converts, throughout the industrial period, to ensure its development. Technical education in Ontario developed, therefore, as an auxiliary educational channel, removed from the mainstream of public schooling for most of the nineteenth century. Yet, its course was charted in large part by the same debate over progress and 'modernization' that coloured the discourse of school reform generally. At the same time, technical schooling offered a new ideological front where the contemporary battles over the social and political goals of education might be fought.

For close to four decades, from the 1860s to 1900, technical schooling developed in fits and starts and in piecemeal fashion, appealing to a mostly adult clientele, before it eventually began to develop a niche within the mainstream of public education.

As it developed, the idea of technical education, in the late-nineteenth and early-twentieth centuries, became apprenticeship's ironic legacy. Throughout its development, of course, many industrial workers still acquired much of their technical knowledge and many of their specialized skills on the job by observing more senior skilled workers, in a
pattern that harkened back to the bygone artisanal era.\textsuperscript{105} However, as a consequence of various civic voluntarist activities, mechanics and artisans were presented with some formal alternatives to on-the-job training. Three such alternative venues for technical education that played a principle role in this development during the late-nineteenth century were the mechanics' institutes between the 1860s and the 1880s, schools of art and design in the 1880s, and the Toronto Technical School in the 1890s. Each of these institutions, in varying degrees, provided a formal technical instruction in the types of knowledge, skills, and habits that were considered appropriate to the workshops, manufactories and factories during specific stages of industrial development. And in turn, each of these institutions became a locus for the evolving contest between the culture of skilled labour and the economism of educational reform. The next three chapters will explore the development of adult technical education through these institutions, in light of an evolving dialectic between the educational ideas of culture and modern utilitarianism.

\textsuperscript{105}For instance, Craig Heron, \textit{Working in Steel}, 98-99. The growth of formal technical education, of course, never undermined this pattern entirely. In fact, as Heron notes, it was built into the structure of internal "job ladders" which allowed unskilled workers to advance gradually to higher-skilled jobs within the same industrial complex. Perhaps, however, a formal technical instruction could have been regarded as an advantage within this structural context.
Chapter Three

Culture, Labour and Learning:

Social and Educational Goals in Mechanics' Institutes, 1860-1880

The means of acquiring knowledge are but sparcely scattered over the Province. Few can avail themselves of the advantages which our Universities supply. Information on all matters not embraced in the limited curriculum of a common school education, must be brought home to the doors of the people at large, if there is to be any increase looked for in their intellectual stature.

Streetsville Mechanics' Institute, 1858

The results that follow the scientific training of the working classes in Mechanics' Institutes, are sources of profit to property owners and others. If mechanics become skilled workmen there is a likelihood of an extension of manufactories and the establishment of new enterprises; besides, there will be a more perfect security of property and person.

Dr. Samuel P. May. 2

From the 1850s through the 1870s, a variety of social forces conspired to alter fundamentally the fabric and texture of Upper Canadian society. The impact of new

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1Quoted from the mission statement in the Constitution and General Laws of the Farmers' and Mechanics' Institute of Streetsville (1858), 1.

production and transportation technologies on the economic and social life of large and small communities alike marked these decades as a period of acute transition. Enhanced production and distribution profoundly affected the material culture of Canadian society, and influenced people's own material aspirations and expectations. Greater ease of travel and mobility, coupled with accelerated urbanization in some regions, significantly changed the ways in which people interacted economically and socially. New relationships forged between communities and the state, between workers and employers, and between individuals and public institutions, sometimes devolved into contests between the exercise of power and the struggle for empowerment. Alterations in the material circumstances of society also underscored another significant social development of the period -- the gradual formation of social class identities, the ramifications of which were felt most keenly in the cities and larger towns. At the same time that the expansion of the waged-labour system contributed to the making of an urban working class, the expansion of mercantile and entrepreneurial activity likewise contributed to the formation of a vaguely defined urban middle class.

The changes wrought during this period also ushered in significant changes in the realm of schooling and education. Between the School Acts of 1850 and 1871, the mission of common schools became much more clearly articulated. Evolving debates over compulsory schooling for the working class aside, common schools were now invested more than ever before with both a moral and political mission. Schools promoted literacy and numeracy, of course. Yet, at the same time, they were increasingly
called upon to mediate social interaction, to nurture productive habits, and to impart civic values. As instruments of both the community and the state, schools assimilated the social goals of various segments of the society.

*Education*, however, remained very much a sovereign concept, promoted by formal schooling but by no means confined to it. Less a social goal than an individual attribute, education denoted a mark of character and distinction. In the world outside of the common school, education (not just years of formal schooling) signified cultural enrichment, respectability, a commitment to self-improvement and to societal progress. This evolving concept of education lay at the core of the mechanics' institutes movement.

Mechanics' institutes originated in Britain in the early nineteenth century, and were soon established in British North America by immigrant artisans, merchants and farmers around the 1820s. Institutes opened in Montreal in 1828 and in Toronto in 1831. During the 1830s and 1840s, institutes took root in several towns and cities across Upper Canada, but owing to the irregularity of government grants, their programmes developed inconsistently from place to place. Prior to the late 1850s very few mechanics' institutes

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3H. Clare Pentland, *Labour and Capital in Canada*, 182-183. Pentland's assertion that mechanics did not "appear to have patronized the institutes or profited by them" is a premature conclusion given that his study concludes in 1860. It is also a reflection of the traditional view of mechanics' institutes as organizations by and for the middle class. Yet, it is still debatable whether there actually was a *bona fide* middle class, with its own distinct middle-class value system and class cohesion, in Canada before the 1860s, since much of the actual process of class formation and class consolidation in Canada took place after 1860, and was a direct result of industrialization, urbanization, and the social relations they engendered. By 'middle class' (before 1860), does Pentland refer only to the educated elite? Or might it also include *petit-bourgeois* artisans and farmers?
in the province remained consistently active.

From the late 1860s onward, the popularity of mechanics' institutes increased significantly across the province. Cities, towns, villages and townships alike established institutes in impressive numbers. In fact, the growth in the number of active institutes during this period was matched only by the burgeoning growth in the number of members that they attracted throughout the province. While membership in the large cities clearly

Table 1

Membership in Mechanics' Institutes

in Ontario, 1870-1880

<table>
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<tr>
<th>Population in 1880</th>
<th>1870</th>
<th>1872</th>
<th>1874</th>
<th>1876</th>
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Sources: Special Report of the Minister of Education on the Mechanics' Institutes, 1881, Abstract Table B; and Census of Canada, 1880-81, vol.1 (Ottawa, 1882).
dominated throughout this period, the most impressive overall rates of growth occurred in both in the largest towns and in the smaller villages and townships. In the case of the larger cities, growth occurred largely within the membership of well-established institutes; whereas in the case of the towns and villages, the over-all growth in membership could best be explained by the regular establishment of new institutes.

Between 1861 and 1868, the Board of Arts and Manufactures supervised and publicized the activities of the province's mechanics' institutes. Its journal, distributed to all institutes under its supervision, provided information on new patents, mechanical innovations to farm equipment, and new developments in machine technology. In 1868, the Board was replaced by the Association of Mechanics' Institutes, a co-operative, self-regulating body composed of representatives from local institutes across the province. Eventually, the education department assumed responsibility for mechanics' institutes in 1880, signifying an acute recognition of their developing role in the broader project of the province's education policy.

Like the modern school system, the proliferation of mechanics' institutes after 1860 coincided with the historical transition from commercial to industrial capitalism in Ontario. During this transition, mechanics' institutes aptly reflected the ongoing tensions between competing social forces. They embodied the strains between provincial policy and local autonomy; they reflected both the cultural values of an emerging middle class and the parochial sensibilities of petit-bourgeois shopkeepers and craftsmen; they bore witness to the progressive forces of industry and to the recasting of the small-town
commercial world; they celebrated the knowledge and skills of the new era and eulogized the traditional skilled culture of the old.

Social Order, Class Culture, and the Participation of Workers in Institute Life

Promoters of mechanics' institutes in the mid-nineteenth century regarded their own commitment to benevolent philanthropy, cultural enrichment, material progress and social reform as unquestionably laudatory. The revisionist recounting during the 1960s and 1970s, however, typically drew a different picture, one that sometimes depicted social reform as social control, and 'benevolent philanthropy' as crass paternalism. In 1960, H. Clare Pentland even called into question whether these institutes had much to do with 'mechanics' at all. Pentland described the promoters and directors of local institutes as "the leading citizens," and dismissed their motives as essentially self-serving. Mechanics' institutes provided, in his words, "a means for the local upper classes to conduct a rather dilettantish investigation of the new intellectual atmosphere."4

Based entirely on evidence drawn from the period prior to 1860, Pentland's assertion did not take into account the considerable body of evidence after 1860 that suggested a significant "working-class" involvement in mechanics' institutes, if not necessarily a "working-class" leadership. In the 1960s and 1970s, radical and moderate critics alike began to regard mechanics' institutes more as representations of the

4Ibid., 183.
prevailing social structure. These organizations usually comprised an "élite" leadership that lorded it over a largely 'petit-bourgeois' and 'working-class' constituency. Given the apparently bourgeois character of mechanics' institutes, this body of criticism depicted these institutes essentially as agencies of 'middle-class' hegemony.\(^5\) Mechanics' institutes were established and controlled by local groups of prominent merchants and professionals who exercised a tight reign over the content of their programmes and the types of people who would participate in them. These institutions became the bulwarks of Victorian middle-class values and mores which their organizers and leaders tried to impress upon working-class members.\(^6\)

The "leading citizens" in the mechanics' institute movement were very often those who were most likely concerned with the habits and attitudes of young mechanics. Manufacturers, merchants and professionals figured prominently in their ranks, and many of them were also involved in other sorts of philanthropic, educational and social reform


activities in their communities. However, the term "leading citizens" can be misleading, as it tends to conjure up images of a class apart, mostly wealthy professionals born to privilege and refinement, whose backgrounds were somehow removed from the mainstream of the community life. This view obscures not only the possibilities of class interaction but the prospects for class fluidity as well. In the mid-nineteenth century, the classic archetype of "leading citizens" perhaps belonged more to the cultured elites of cities and industrial towns than it did to the denizens of small towns and villages.

In most smaller communities, the "leading citizens" were more likely to be drawn from the class of independent merchants and proprietors who had risen from more modest artisanal or agricultural origins, and who were often no strangers to the handicrafts and skilled trades. Like their city counterparts, these people frequently took an active interest in community affairs, from modest philanthropy to civic administration. If many independent proprietors could no longer be deemed 'mechanics' as such in the 1860s and 1870s, they were not necessarily that far removed from the workaday world of skilled manual labour. Attainment, not ascription, often distinguished the "leading citizens" from the ranks of the 'common man.' Social rank could be claimed through economic success and independent proprietorship.

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7Bryan D. Palmer, A Culture in Conflict, 50. Palmer identifies men like William Craigie (a prominent surgeon), Archibald Macallum (a reformist principal) and Sir Allan MacNab (prominent in local speculation and railway promotion) as figures instrumental in the development of the Hamilton Institute.

Still, during this period, the operation of some mechanics' institutes revealed a widening gulf between the objectives of local proprietors and those of local tradesmen. Consider, for instance, the constitution of the London Mechanics' Institute which specified that the twelve seats on the management board had to be reserved for "working mechanics." In 1873, when members of the London institute gathered to elect a new board, the chairman ruled that the constitution of the institute must be observed to the letter. This ruling affronted some of the local businessmen and proprietors present at the meeting who, according to the Minutes, "came fully prepared to run the institute, all alleging that they were mechanics some time of their lives and lawyer-like wanted to drive a coach and six thru [sic] said constitution." The institute's members eventually arrived at a compromise whereby the definition of "working mechanic" would be stretched to include some merchants and artisanal proprietors, as well as journeyman mechanics. The newly elected board included two tailors, a carpenter, a builder, a shoemaker, an oil refiner, a confectioner and a merchant, but excluded industrialists, financiers and professionals. Most other institutes observed no specific rules concerning the election of mechanics to management board seats, but, like Port Hope in 1879, occasionally declared it "very desirable that mechanics should be well represented,

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9Ibid., 65-71 and 76.
and ... hoped that the elections would be attended with that result."\textsuperscript{11}

It was very desirable, at least, if the mechanics were first judged to be of reputable character. Good character, after all, signified not only one of the goals of institute membership, but also one of its pre-conditions. Institutes in Niagara, Oakville, Sarnia, Scarborough, and most other communities besides, laid down policies concerning the 'good and moral character' of anyone petitioning for membership. In Oakville and Sarnia, for instance, prospective members applied in writing, and were only considered if recommended by two members who would vouch for the applicant's character. A majority vote then determined a candidate's admission. The Sarnia Institute further provided for the expulsion of members who were "found guilty of disreputable conduct, calculated to injure or dishonor the Institute." In the Scarborough Institute expulsion might also follow a breach of the institute's rules of decorum -- "for introducing political or sectarian discussions," for instance.\textsuperscript{12}

One way of ensuring and regulating the 'good character' of new members was to insist that they be nominated or sponsored by another member, in much the same way as a secret society or fraternal lodge would invite new members. This provision particularly controlled the conditions whereby the family members or apprentices of standing

\textsuperscript{11}AO, MU 2019, Mechanics' Institutes (various), quoted from a clipping of the \textit{Port Hope Times}, Nov.2, 1879.

\textsuperscript{12}Constitution and Regulations of the Oakville Mechanics' Institute, 1854, 4-5; Constitution and By-Laws of the Sarnia Mechanics' Institute, 1875, 6; Constitution, By-Laws, and Rules and Regulations of the Scarborough Mechanics' Institute, 1879, 11.
members might be welcomed to participate in an institute's activities. The Hamilton and Gore Mechanics' Institute in the 1850s admitted "junior members" (apprentices or "parties under eighteen years of age") for a membership fee of seven shillings six pence annually. Junior members could maintain their standing in the institute only so long as their sponsoring member remained active, and provided that they abided by all the institute rules. It is revealing to note, however, that the assumption in this institute (and others besides) was that membership was a male privilege. The Hamilton and Gore Institute's by-laws stipulated that "Females in all cases shall be junior members."\textsuperscript{13} Moreover, as in the case of the Cobourg Mechanics' Institute, sponsoring members could be held responsible for their "junior" members' behaviour. To this effect, the Cobourg Institute provided that the "parents of minors and masters of apprentices will be held responsible ... for books not returned or damaged by said apprentices or minors."\textsuperscript{14}

Nevertheless, there is no reason to doubt the sincerity of promoters who sought to attract mechanics to join their local institutes, even if they might sometimes have appeared less than sincere in welcoming these mechanics to participate fully in institute management, or in granting them full privileges of individual membership. The establishment of evening classes, undertaken by some (although not all) institutes, specifically targeted young working mechanics. Evening classes provided young

\textsuperscript{13}By-Laws of the Hamilton and Gore Mechanics' Institute, 1858.

\textsuperscript{14}Constitution and By-Laws of the Cobourg Mechanics' Institute and Library Association, (Cobourg: Clench and Floyd, 1857), 13.
mechanics with the opportunity to hone their skills in the industrial arts or improve their acquaintance with grammar and arithmetic. There is little doubt that, wherever evening classes were established, they were welcomed by the local manufacturing interests. Organized classes of instruction, after all, complemented the work of the workshop.

The directors of the London Mechanics' Institute recognized this advantage when they decided to advertise the benefits of institute membership to local mechanics by posting notices in workshops throughout the city, as did the directors of the Hamilton and Gore Mechanics' Institute. In Toronto, the institute directors appealed to the employers of the city directly to recommend to their apprentices and other employees that they take advantage of the educational opportunities afforded by the evening classes. These links between institutes and local manufactories and workshops are instructive. Through the civilizing influences of the mechanics' institute, and the educative influences of evening classes, young workmen might refine not only their skills, but their work habits and attitudes as well.

In some ways, of course, mechanics' institutes did reflect a certain dilettantish nature, as Pentland and others have implied. In other ways, however, these organizations provided to members of an emerging middle class a vehicle for the fulfilment of their quest for cultural refinement. Most local promoters saw the establishment of libraries

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15 London Mechanics' Institute, Minutes, 8 May, 1876, 37; Thirty-Third Annual Report of the Hamilton and Gore Mechanics' Institute, 1872, 8.

16 Annual Report of the Toronto Mechanics' Institute, 10 May, 1869, 7.
(not the provision of evening classes) as the pinnacle achievement, even the raison d'être, of their institutes. Until the late 1870s, library books could be procured at a discount from the education department's book depository. Consistent with Lord Brougham's original intention of promoting and disseminating "useful knowledge," these libraries stocked books on science, technology, religion, history and travel. "Useful knowledge," of course, meant practical knowledge and intellectual stimulation. All other forms of stimulation that might be proffered through reading were to be officially eschewed, particularly sensate stimulation. Institute leaders usually tried to discourage members from consuming books that were vacuous, sensational or morally questionable. The Oakville Mechanics' Institute, for instance, vowed to "admit no book which may tend, directly or indirectly, to immorality of conduct or loose habits of life."17

Libraries and reading rooms aimed at refining the intellectual and technical culture of all classes of citizens, and at providing people with an opportunity for private study, reflection and self-improvement. While all members might profit from the resources of an institute's library, working mechanics in particular were encouraged to use their leisure time in the evenings improving their knowledge of modern science, technology and philosophy. Access to a library implied access to knowledge. But, it also implied an antidote to ignorance, considered to be the bane of social order and respectability in a modern society. As John Wood, the secretary of the Montréal Mechanics' Institute, recorded in 1859, "no apology or excuse can suffice for any one

17 Constitution and Regulations of the Oakville Mechanics' Institute, 1854, 8.
remaining in ignorance." Intellectual culture and moral propriety were inextricably linked. Of course, intellectual culture also reinforced political economy. Well-read and informed mechanics likely became more competent and efficient as workmen, and more responsible and dutiful as citizens.

Public lectures frequently reinforced the educational role of institute libraries. Sometimes, of course, lecture topics cascaded into the arena of sensationalism and pseudo-science ('spiritual phenomena,' or 'electrotherapy' or 'phrenology,' for instance). However, more often they were arranged around technical themes to highlight new advances in science and to laud new mechanical achievements in industry. Occasionally, public lectures even took the form of social sermons, intended to celebrate the virtues of the emerging Victorian middle-class creed. Popular fare included topics such as "self-improvement," "success in life," "the power of individual effort," and "pleasantries of public life." In 1851 Walter Eales, a Toronto painter, extolled both the moral and civic virtues realized through the refining influence of mechanics' institutes. The institute, Eales raved, "favours the cultivation of natural affection, it secures family fellowship, and

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18 Montreal Mechanics' Institute, General Meeting, 1859, 16.

19 In the 1850s, the London Institute attempted to work out a cost sharing arrangement with fellow institutes in Brantford, Woodstock, Hamilton, Toronto, Kingston, and Montréal to invite Ralph Waldo Emerson and other American lecturers to conduct a speaking tour of Canadian cities. See London Mechanics' Institute, Minutes, 3 January, 1853; 14 November, 1853; and 12 December, 1853. Similarly, also see AO, R.G.2, Series R, Box 1, File 1.13, "Elora Mechanics' Institute Report for 1875;" and File 1.42, "Report of the Streetsville Mechanics' Institute for 1875."
it generates and fosters domestic piety,\textsuperscript{20} -- all outcomes consistent with the goals of aesthetic refinement, moral elevation and public order.

In addition to libraries and lectures, many mechanics' institutes arranged regular programmes of entertainment for their members. Musical recitals, spelling bees, scientific demonstrations, poetry readings and field trips were all typical fare, revealing some of the fads and fancies of middle-class recreational and entertainment culture.\textsuperscript{21} Of course, compared to the otherwise serious work of the institutes, these sorts of diversionary amusements were cultural windowdressing -- activities that were often more appropriate for the parlour than the lecture room. It is impossible to determine the extent to which these wholesome pastimes appealed to mechanics at all (or were even intended to appeal to them). However, it is reasonable to speculate that such recreations held little allure for most apprentices after long hours in the workshop.

Perhaps in recognition of this fact, the mechanics' institute in Toronto opened a recreation room in 1876, and furnished it with eleven billiard tables. This facility was opened "with a view to affording the young men of the city an innocent and healthful place of amusement," a wholesome alternative to public billiard halls and taverns. The directors hoped that the recreation room would induce young mechanics to become

\textsuperscript{20}AO, MU 2020, Walter Eales, "A Lecture on the Benefits to be Derived from Mechanics' Institutes," delivered in the Toronto Mechanics' Institute, 5 February, 1851: 8-9.

\textsuperscript{21}For instance, see AO, R.G.2, Series R. Box 1, File 1.6, "Bradford Mechanics' Institute Report for 1875;" File 1.11, "Collingwood Mechanics' Institute Report for 1875;" and File 1.16, "Garden Island Mechanics' Institute Report for 1875."
acquainted with the institute, and encourage them to engage in some of the other activities offered. According to the directors in 1879, the programme was effective. As many as 1,580 "strangers" had visited the room, many of whom reportedly became members.\footnote{Report of the Toronto Mechanics' Institute, 1879, 12-13; 1880, 11; and 1881, 7. In 1881, however, the directors lamented: "It is a matter of regret that this Department, established to afford facilities for innocent amusement and relaxation, apart from all evil associations, has not been more largely appreciated by the younger portion of the community."} Shortly after the Toronto Institute opened its recreation room, a number of other institutes, including the one at Galt, followed suit and opened similar facilities.

A growing concern for moral integrity lay behind these sorts of recreational and educational programmes. Perhaps nowhere was this concern rendered more articulately than in the constitution of the Streetsville Farmers' and Mechanics' Institute in 1858:

... to popularize knowledge is the special mission of the Mechanics' Institute, and that work it is well fitted to carry out. By securing the establishment of judiciously selected libraries -- by procuring the services of distinguished lecturers on literature, science and art -- and by encouraging the interchange of ideas amongst parties desirous of improving their mental facilities, such associations have a necessary tendency to elevate the moral condition of society.\footnote{Constitution and General Laws of the Farmers' and Mechanics' Institute of Streetsville, 1858, 1-2.}

Promotion rhetoric of this sort depicted moral elevation as the primary mission of mechanics' institutes.\footnote{James A. Eadie, "The Napanee Mechanics' Institute ...," Ontario History (1976), 210.} A diversified institute, equipped with a reading room, a library, and courses of evening instruction offered to young mechanics a wide range of leisure-
time alternatives to the saloon, the billiard hall, and the gaming table. Instead of the idle hours wasted (and the pernicious influences encountered) in such establishments, the mechanics' institute substituted 'stimulating' entertainments, intellectual growth and moral fellowship. An evening spent improving the mind at a public lecture, a library, a reading room, or a classroom, seemed infinitely more profitable than an evening discarded in a squalid tavern, where the young mechanic might fall prey to all manner of vice and corrupting influences.

Behind the rhetoric concerning the moral mission of mechanics' institutes often lurked a less than charitable view of the moral condition of manual workers. This view held that those who were engaged by day in manual occupations, particularly those beyond the civilizing reach of mechanics' institutes, were most prone by night to succumb to bad influences and illicit behaviour. This prognosis could be reversed simply through the substitution of "rational recreation" in place of idle or subversive leisure.\(^25\) As one newspaper editorial suggested in 1873: "[a] machinist would be none the worse if he had more of an acquaintance with Euclid, and less with lager beer,"\(^26\) a condescension strangely evocative of Aristotle's fatalistic remark in *The Politics* that it was "quite impossible, while living the life of [a] mechanic or hireling, to occupy oneself as virtue


\(^26\) *IEdPO* 1 (January, 1873), 8.
demands.\textsuperscript{27} Moral philanthropy, being at heart paternalistic, signalled a vain attempt to safeguard the public order by initiating young mechanics into the realm of refined pastimes.\textsuperscript{28}

Yet this generous invitation into the realm of 'rational recreation' in no way implied that those young, wage-earning mechanics who darkened the doors of mechanics' institutes would necessarily be elevated in public esteem or social status owing to their newly acquired tastes; nor did it imply that they would necessarily be rubbing elbows socially with their professional and business-class neighbours. The programmes at mechanics' institutes to a large extent aimed at producing refined and respectable mechanics -- but mechanics nevertheless (Aristotle's point notwithstanding).

Most mechanics, after all, might only aspire to affect the trappings of gentility, without legitimately claiming its distinction. Yet, was the same not also true of most patrons and promoters of Ontario's mechanics' institutes? In his book, Democratic Eloquence (1990), Kenneth Cmiel notes that during the 1860s, the term 'gentility' actually devolved into a pejorative label in American social criticism. Whereas the term formally denoted the manners and habits akin to social superiority and an elevated station, it had


\textsuperscript{28}Much work remains to be done on the dynamics of middle-class formation and the characteristics and mores of middle-class culture. See Stuart M. Blumin, "The Hypothesis of Middle-Class Formation in America: A Critique and Some Proposals," American Historical Review 90 (April, 1985): 299-358. Also, John F. Kasson, Rudeness and Civility: Manners in Nineteenth-Century Urban America (New York: Hill and Wang, 1990), esp. chs.3-5.
become co-opted as a term of mock stature denoting only a person's assumption of the
trappings of culture and grace. Genteel airs, Cmiel suggests, "referred to false and
pretentious efforts at refinement, or attempts of 'low' people to affect cultivation."29 All
too often, a person's 'genteel' airs and feigned social graces signified a clumsy attempt to
appear polished in manner, language and deportment without the corresponding claims to
background and breeding. Mock gentility championed style over substance; but plebeian
idiosyncracies invariably betrayed patrician affectations. If this same current of criticism
were transplanted in Ontario, it would have wrought a levelling social indictment of the
'middle-class' social goals of mechanics' institutes, particularly since many of the
promoters and members were likely themselves nouveau gentile at best. Yet, the stated
objective of mechanics' institutes was not refinement for appearance's sake, but
refinement for the sake of personal dignity and moral probity. Refinement and
respectability were personal attributes, but through the mechanics' institutes movement
they became elevated to social goals.

However tempting it might be to characterize the leaders of the mechanics'
institutes as being possessed by an evangelizing zeal to spread the Victorian code of
civility and respectability to the working classes through the encouragement of pleasant
and practical pastimes, this interpretation overstates the case. When viewed in a broader
historical context (one that tries to account for social, political, economic and ideological

29Kenneth Cmiel, Democratic Eloquence: The Fight Over Popular Speech in
changes over time), the thesis of middle-class hegemony begins to appear somewhat
dismissive and reductionist, if not ahistorical in its assumption of static class definitions.

In most Ontario communities between 1850 and 1880, social attitudes developed
not in the context of a fully consolidated and stratified social structure, but through the
process of social stratification and class formation. The social role of mechanics'
institutes might be viewed more correctly as a variant form of the social relations that
were familiar to small-town community life in the mid-nineteenth century. Mechanics'
institutes aimed at the cultivation of refinement, taste, proper attitudes and habits of
productive behaviour, attending to the formation of good character in the individual and
moral grounding in the community. Those paternalistic aspects that may be read into the
mechanics' institutes' social mandate, in fact, bore a striking similarity to the social
relations that grew out of the pre-industrial producer ideology, mediating the
relationships between artisans and their shop hands.

In all respects, mechanics' institutes reflected the social and political cleavages of
the period in which they developed. The transition between commercial and industrial
capitalism; the formation and consolidation of class identities; evolving conceptions of
moral and political economy; all contributed to the development of these social
institutions. One aspect, however, that is most often overlooked is the manner in which
the promotion of mechanics' institutes reflected an ongoing contest between the
centripetal and centrifugal forces of control and authority in society -- the contest between
statecraft and localism. This contest revealed itself most clearly in the discrepancy
between provincial designs and community compliance.

The Centre or the Periphery: Who Would Control the Institute Agenda?

Commenting on the patterns of administrative control in mid-nineteenth century Ontario, Douglas Lawr and Robert Gidney cited the problem of the ongoing tension between provincial policy and local prerogative. "A perspective that focuses primarily upon the centre or the top command," they cautioned, ... incorporates its own bias, for it treats goals articulated or policy initiated by leading public figures as policy implemented or goals achieved throughout the system." Instead, the analysis should focus on the interchange between provincial designs and local circumstances. While Lawr and Gidney were writing about the administration of common schools in the mid-nineteenth century, their observation might apply with equal weight to mechanics' institutes during the same period. A re-examination of mechanics' institutes along these lines must, however, acknowledge a considerable debt to the influence of two leading public figures, Adam Crooks and Samuel P. May, whose conscientious collection and compilation of data has provided an indispensable resource for historians of the movement.

Between 1872 and 1876, Adam Crooks served as provincial Treasurer in Oliver Mowat's Liberal cabinet. During this time, he spearheaded a number of initiatives

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designed to improve government efficiency, and engineered the gradual centralization of provincial programmes and institutions. In this regard, Crooks was perhaps best known as the architect of the Municipal Loan Fund Act, through which the provincial government usurped local authority over the granting of tavern licenses in all municipalities and rationalized their distribution.\(^{31}\) In 1876, when education came under ministerial control, Crooks became the province's first Minister of Education, an appointment that bespoke Mowat's intention to fill the position with a high-profile minister in order to lend the appropriate authority and credibility to the new Cabinet department.\(^{32}\) As education minister, Crooks tried to apply the same standards of efficiency and rationality to the administration of the province's education system: he had to the provincial treasury.

By the time the education department was established, Dr. Samuel P. May was already a seasoned bureaucrat. His work in educational administration began in the old Council of Public Instruction under the stewardship of Egerton Ryerson. For several years, Dr. May served as director of the government's book depository until that office was disbanded in 1877. In the summer of 1876, he went to Philadelphia as a representative of the education department to report on the province's educational exhibit displayed at the Centennial Exposition. When the education department undertook direct


control over mechanics' institutes, Adam Crooks appointed Dr. May as director of technical education and assigned to him all duties pertaining to the monitoring and inspection of these institutes.

In 1880, Crooks instructed May to make a detailed study of mechanics' institutes across the province to determine the extent to which they satisfied their social mandate. Tabled in 1881, the Special Report of the Minister of Education on the Mechanics' Institutes read like an indictment of a system that had failed to realize its true potential. In his report to the Minister, Dr. May pointed to a number of deficiencies in the organization of local institutes which appeared to undermine their progress. Several institutes were routinely lax in the preparation of their annual reports; institute libraries issued altogether too much light fiction at the expense of serious and practical literature; and evening classes, when they were offered at all, tended to be poorly organized and inefficient, concentrating more on elementary than on technical instruction.\(^{33}\)

Furthermore, during the 1870s, no fewer than twenty-two institutes actually experienced a significant decline in membership, and scaled down their activities accordingly during the 1870s.\(^{34}\) Could it have been possible that popular enthusiasm for the mechanics' institutes was beginning to wane? Or, did the economic slump of the mid-1870s affect


\(^{34}\)Ibid., 41. On average, these twenty-two institutes saw a drop in membership of about 35 per cent. Approximately twenty-eight other institutes became defunct during the same period. "This is not a good proof of their prosperity," concluded Crooks.
the ability of local institutes to attract new members and generate funds?

In light of this report, Adam Crooks became particularly concerned that institute directors did not entirely share his vision, nor did mechanics seem to share his enthusiasm, for the potential of the institute movement. Crooks drew his conclusions on a broad canvas, always with his mind's eye fixed on the grand design. In towns and cities across the province, mechanics' institutes served a cultural function as centres of fellowship and "rational recreation," their avowed purpose being the moral elevation of the community. To Crooks, however, the grand design had to do more with the potential role of mechanics' institutes as agencies of the government's utilitarian agenda.

The modern utilitarian mandate of education, in fact, was one of the legacies of the Philadelphia Centennial Exposition in 1876. Throughout the late-nineteenth and early-twentieth centuries, advocates of technical education tried to build on the premise that there existed a verifiable relationship between schooling and skills development. An improved quality of schooling would most certainly be revealed in the improved quality of manufactures. "A nation which cultivates the intelligence of its people," asserted Dr. May in 1884, "will always command the highest prices for its goods."\(^{35}\) Indeed, those nations that seemed to show the greatest proclivity for material advancement and for attaining competitive advantage in trade were precisely those nations that led the way in establishing technical training to their mechanics' and artisans. (The German and Russian systems of technical instruction, in particular, left quite an impression on May.)

\(^{35}\text{AR. 1884, 207.}\)
However, the exhibits housed in Machinery Hall arguably may have left an even bigger impression. A host of new mechanical inventions and industrial innovations all promised to revolutionize manufacturing processes and accelerate the pace of industrial competition. Like many of his colleagues and contemporaries, May was impressed by the possibilities of replacing muscle power with machine power, and rule of thumb with practical knowledge. However, more complex forms of labour-saving industrial machinery also afforded manufacturers an added dimension of control over labour processes, in effect reducing some of their reliance on skilled labour. This too presented intriguing possibilities to Dr. May. "Industry has developed and improved our position in relation to labour," he observed, "we can now substitute the direction of labour for its actual performance."  

Yet, far from merely diluting existing trades and uniformly depleting the demand for skilled labour, new industrial machinery also appeared to require a new breed of mechanically adroit and literate workers who would be equipped to handle more complex production machinery. One industrial trade journal noted that while certain labour-intensive trades, such as blacksmithing, might be in decline in urban centres, mechanized industries still required a steady supply of skilled labour, in trades requiring less brawn but more mechanical know-how.  


37"Machinists and Blacksmiths," from Manufacturer and Builder, reprinted in Ontario Workman, 17 April 1873: 3.
the modern system of doing everything by mechanism spares human muscles, it makes a larger demand than before on human brains. In the climate of industrialization, the training of workmen became the main focus of the utilitarian vision of education.

As such, May remained adamant that "the chief purpose for which Mechanics' Institutes were established was for imparting technical education to the working classes." It was, after all, the quality of the labour acting upon the raw materials that added value to manufactured articles and contributed to the creation of wealth and prosperity. By disseminating practical knowledge for the manufacturing trades, mechanics' institutes complemented the acquisition of craft skills and the refinement of trade knowledge developed on the job.

May believed that technical instruction in mechanics' institutes created "an elevated taste" and inspired a spirit of competition among workers, which would result in the production of goods of superior quality and craftsmanship. A healthy competition among workers to improve upon their own skills and efficiency would surely enhance the competitiveness of local industries by ensuring a high demand for domestic manufactures in external markets. "If mechanics are educated," May suggested, "... they will not only


39 Special Report, 66 [emphasis in original].

40 Ibid., 39.

have a more thorough knowledge of their business, but they will acquire a greater degree of skill, and be qualified to make improvements, and even new inventions, in the manufactures in which they are respectively engaged." Also, by encouraging the cultivation of skills and pride of workmanship, technical instruction would help to advance the interests of local industries; which in turn would stimulate the growth of towns and cities, and promote the prosperity of the various regions of the province.

Despite the preoccupation with manufacturing interests, May's vision of technical education was not exclusively urban. He stressed also the benefits that might accrue to agricultural communities if technical evening classes were instituted and patronized by rural tradesmen and the sons of farmers. The vast majority of people in Ontario, after all, lived in rural areas, and agriculture remained still the largest single sector of the economy, affecting the labour market both directly through farm labour and indirectly through the complementary trades. According to calculations by Elizabeth and Gerald Bloomfield, only about 21 percent of employed people in 1871 actually toiled in industrial occupations. In fact, by the 1870s, as John McCallum has pointed out, much of the commercial and industrial development in Ontario's towns and cities still depended to a large extent on agricultural development. Some urban industries, such as flour and grist mills, tanneries, food processors, and brewers and distillers, relied directly on the

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42Special Report,..., 2.

43Elizabeth and G.T. Bloomfield, Patterns of Development (University of Guelph: Canadian Industry in 1871 Project, Research Report No.12), Table 2, 20.
products of local agriculture. Other operations, such as blacksmithing, saddle making, carriage construction, and the manufacturing of farm implements existed to service the needs of agricultural production. Moreover, the growing demand of farmers for modern agricultural machinery, such as reapers, mowers, threshers and seeders, was being met increasingly by home production.

Educational leaders in Ontario had for a long time adhered to the importance of rural education. Egerton Ryerson suggested as early as 1847 that education, by promoting the enjoyment and fulfilment of a literate culture, could help to make agricultural life more acceptable to farmer's sons, and thus help to restrain their gradual exodus to the towns and cities. During the 1870s, the enhanced mechanization of agriculture and the explosion of formal knowledge about soil properties, horticulture and husbandry led May to recommend strongly that rural tradesmen and farmers avail themselves of the same opportunities for technical instruction that were being made available to mechanics and urban artisans, and for precisely the same reasons. Farmers equipped with modern machinery, and skilled in basic mechanics and in the modern

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45 A grass seeder with turnip drill, for instance, was manufactured by J.W. Mann & Co. in Toronto. Reputedly, it could sow up to twenty acres per day, and up to thirty pounds of seed per acre. For other examples, see Report of the Commissioner of Agriculture..., 1876.

46 Egerton Ryerson, "The Importance of Education to an Agricultural People," in DHE 7 (1847): 143-44.
techniques of planting and crop rotation, would be more efficient, more productive and more competitive. The result would be a greater general prosperity and a stimulus for the development of manufacturing in rural areas.47 Here again was a tacit expression of Dr. May's utilitarian vision of education: the attachment of regional development and general economic goals to educational means.

Reflecting upon the progress of the province's mechanics' institutes from this perspective, Adam Crooks and S.P. May were bound to be disappointed with what they discovered. As Table 2 indicates, almost all of the province's institutes in 1880 boasted a library, and most also maintained a reading room stocked with current newspapers and periodicals. Yet, relatively few institutes reported having a programme of evening classes. In fact, the likelihood that an institute would conduct evening classes was directly related to the size of the community in which it was situated. Of the five major cities in which active institutes were located in 1880, four reported evening classes in operation. Institutes located in smaller cities and large towns were about half as likely to hold classes. Institutes located in small towns, villages and townships, however, were relatively unlikely to conduct classes, least of all technical classes.

Where evening classes were in evidence, Crooks distinguished clearly between those that he considered to be elementary classes and those he considered technical. Elementary classes were those that overlapped the subjects taught in public schools. Technical classes referred exclusively to ornamental drawing, architectural and

47Special Report..., 63.
Table 2

Services Offered at Ontario's Mechanics' Institutes
by Population of Cities, Towns and Villages, 1880

<table>
<thead>
<tr>
<th>Population in 1880</th>
<th>No. of Institutes</th>
<th>Libraries</th>
<th>Reading Rooms</th>
<th>Evening Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 10,000</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5,000-10,000</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>2,000-5,000</td>
<td>37</td>
<td>36</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Under 2,000</td>
<td>71</td>
<td>69</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>121</td>
<td>35</td>
<td>29</td>
</tr>
</tbody>
</table>

Sources: Census of Canada, 1881, Table 1, 60-93; and Special Report of the Minister of Education on the Mechanics' Institutes, 1881 (Toronto: C. Blackett Robinson, 1881).

mechanical drawing, and classes in natural philosophy (chemistry) and in mutual instruction (object lessons and demonstrations of 'artifacts' donated to institute museums by local manufacturers). Of the two types of classes taught in mechanics' institutes, Crooks clearly preferred that the technical be emphasized over the elementary. The statistics, however, were not encouraging. In 1880, only fourteen of the twenty-nine institutes that reported evening classes taught any classes in technical subjects. Yet, institute reports for the years between 1870 and 1880 indicate that as many as forty institutes taught at least one technical subject in at least one year. Of these forty institutes, however, twenty-two offered technical courses no more than once. Only
five institutes offered technical subjects for five years or more, and only the Toronto Institute reported technical classes in operation in each of these years.

What Crooks and May perhaps failed to appreciate fully in the report of 1881 was the particular nature of these organizations -- their regional contexts, their social and civic functions, the particular motives of their sponsors, and the aspirations and needs of their members. Ontario's mechanics' institutes were essentially local bodies, and it is difficult to account for their development without first recognizing this fact. In 1880, the 124 active institutes which filed reports with the education department were scattered throughout thirty-seven counties, the greatest concentration being in central and southwestern Ontario. Nearly half of these institutes were concentrated in just ten counties situated in the Great Lakes basin southwest of the Niagara escarpment, the region which experienced some of the most intensive population growth and industrial development during this period.

Between the 1850s and the 1870s, the development of commercial transportation networks, most significantly railroads, joined regional clusters of cities, towns, villages and townships into county commercial systems. The emerging patterns of urban settlement and growth revealed the interdependent relationships that were developing.

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49Excluding cities, the counties in which the greatest concentrations of mechanics' institutes developed were Huron (9), York (7), Simcoe (7), Wellington (7), Lambton (6), Ontario (5), Waterloo (5), Middlesex (5), Bruce (5), and Halton (4).
between certain commercial entrepôts and their agricultural and resource-rich hinterlands, often tying smaller towns and villages to the fortunes of industrial and commercial cities. Furthermore, enhanced trade links and population mobility likely helped to establish cultural communication links within these county systems.\textsuperscript{50}

For one thing, improvements in roads and rails better facilitated the traffic in books and newspapers to smaller communities. Reasonably well-stocked libraries became not only highly desirable but also much more feasible. While approximately one out of every four institutes by 1880 reported evening classes, almost all of them maintained a library (and the three that did not at least claimed to have a reading room open). For many smaller communities, a library was a mark of cultural enrichment. It conferred respectability upon a community and signified progress and local pride. A well-stocked library betrayed a desire among the citizens of many towns and villages to elevate the moral and intellectual fibre of their neighbours, and also to elevate their community above the ignoble rank of a cultural backwater.

The mission statements of mechanics' institutes often bore out the pride of place

\textsuperscript{50}The notion of a relationship of interdependency between cities and their hinterlands poses a challenge to any strict application of the metropolitan thesis or the Laurentian thesis. Rather than a unidirectional and linear approach, which assigns roles of domination and dependency to certain regions based on their relative positions in the production hierarchy (and based on the activities of their business élites), an interdependency approach stresses the relative impact that certain economic sectors and certain productive regions had upon the commercial and industrial fortunes of other towns, cities or regions within the same commercial system. See, Donald E. Davis, "The 'Metropolitan Thesis' and the Writing of Canadian Urban History," \textit{Urban History Review} 14, 2 (October, 1985): 95-113; and William Diamond, "The Dangers of an Urban Interpretation of History," in Alexander Callow, ed., \textit{American Urban History} (Oxford: Oxford University Press, 1969): 609-631.
that libraries held in the minds of their promoters. The directors of the Bracebridge Mechanics' Institute in 1875, for instance, considered it "prudent to centre their efforts on the formation of a good standard library composed for the most part of such works as would have a permanent value." The Berlin Daily News trumpeted in 1881 that there was "nothing so well calculated to impart intelligence to a community as a good public library." The directors of the Oakville Mechanics' Institute in 1879, aspired first and foremost to provide "a library which will be a credit to the town." Libraries, not evening classes, usually defined the raison d'être of local institutes.

No doubt, the prospect of offering the full range of services, including evening classes, would have stretched the resources of most institutes. Provincial grants-in-aid were intended to alleviate some of the expense. However, official priorities were written directly into the structure of provincial subsidies. After 1868, the Association of Mechanics' Institutes offered to match any funds raised from local subscriptions up to a maximum of two hundred dollars, provided that the funds were used for the purposes of establishing a technical library and organizing evening classes for mechanics. In 1871, the maximum contribution was raised to four hundred dollars. As noted in the


52Special Report ..., 38. When the maximum grant was raised to four hundred dollars, this was based on an increased in the provincial pledge from one dollar to two dollars for each dollar raised from local sources. See also, James A. Eadie, "The Napanee Mechanics' Institute ...," 215.
Association's report for 1869: "The example of the Government ... cannot fail to give a new impulse to Adult and Technical Education, and gives to the Evening Classes a powerful claim on the sympathies and liberality of all who are interested in the Commercial and Manufacturing prosperity of the Province." To further encourage local participation in the project of establishing technical evening classes, the provincial association in 1874 passed a resolution to provide additional grants based on the numbers of students enroled in authorized classes.

After 1880, Adam Crooks reformed the system of allocating grants, in order to offer stronger incentives to local institutes to establish programmes of technical evening classes. Despite the generous funding that had been provided through the Association of Mechanics' Institutes, it appeared that a large number of local institutes were not using the funds for the purposes intended. Some institutes, for instance, preferred to concentrate on collecting impressive inventories of books, journals and newspapers for their libraries and reading rooms, or diverted these grants to other purposes such as their

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54 Wm. Edwards (Secretary of the Association of Mechanics' Institutes) to Hon. Archibald McKellam (Commissioner of Agriculture and Arts for Ontario), 23 October, 1874, in AO, MU 280, Board of Arts and Manufactures 4, Letterbook, 1867-80, 69. According to the resolution, an additional fifty dollars would be granted for every fifty students enroled "over and above the first two hundred."

55 According to the schedule of grants, institutes were permitted to spend no more than one fourth of their total budgets on their reading rooms, though the evidence suggests that a number of them exceeded this amount, while others were suspected of duplicating their claims by claiming both library and reading room expenses while providing only one of
annual programmes of lectures and entertainments. Of the 124 institutes that filed reports in 1880, only seventy-four received government grants. In order to provide a greater inducement for the establishment of technical evening classes, Crooks introduced a two-tiered system of grants. Under his new formula, grants were to be partially tied to enrolments in evening classes; however, considerably more money would be granted on a 'per student' basis for technical classes than for elementary or 'ornamental' classes.\(^{56}\)

In addition to changes in the structure of provincial funding, Crooks also called upon municipal councils to support the activities of their local institutes. As his director of technical education noted, the municipalities benefitted most directly from the work done in mechanics' institutes. S.P. May even suggested that many local officials could be found who actually favoured the idea of direct municipal assistance to mechanics' institutes, but that the realities of local politics often prevented them from enacting it. According to him, some town councillors, perhaps concerned about justifying expenses to these services. See, for instance, AO, MU 280, Board of Arts and Manufactures 4, Letterbook, 1867-80, Wm Edwards to H.L. Jercue, M.D. (President of the Mechanics' Institute, Seaforth), 5 April, 1879.

\(^{56}\)Special Report\(^{\_\_\_\_}\), 66-67. To be eligible for these grants, an institute had to offer classes on twenty-five separate teaching nights. For elementary subjects, such as writing and bookkeeping, grammar or arithmetic, grants would be assessed as follows: from 6 to 12 pupils, $2.00 per pupil; from 12 to 20 pupils, $1.50 for each additional pupil; between 20 and 40 pupils, $1.00 for each additional pupil; so that an institute enrolling forty pupils in elementary instruction would receive additional grants in the amount of $56.00. For technical subjects, such as chemistry, mechanical drawing, or statics and dynamics, grants would be assessed as follows: from 5 to 10 pupils, $4.00 per pupil; between 10 and 20 pupils, $2.00 for each additional pupil; between 20 and 40 pupils, $1.00 for each additional pupil; so that an institute enrolling forty students in evening technical classes would receive $80.00 in additional grants.
ratepayers, even expressed the wish that the provincial government might compel them to assist their local institutes through an amendment to the Municipalities Act.\footnote{AR. 1884, 210-11.}

**Evening Classes and the Importance of Education for Working Mechanics**

From the perspective of education department officials in 1880, local voluntarism in mechanics' institutes had failed to realize all of the desired public policy goals attached to the movement. Provincial support, through authorized grants-in-aid, had proven to be an inefficient model for the administration of the province's network of institutes. Perhaps Adam Crooks and S.P. May might have found some solace in John Stuart Mill's *Principles of Political Economy* (1848), revised and reissued in 1865. While Mill rejected the direct interference of government in most arenas of human endeavour, he regarded education as an exception to this principle. Education, thought Mill, was one commodity in which the consumer was an incompetent judge of quality and worth.\footnote{John Stuart Mill, *Principles of Political Economy, Books IV and V* (New York: Penguin Classics, 1985; originally published in London in 1848, and revised in 1865), 317-21.} For education department officials, this exception amounted to a tacit defense of public schools and compulsory attendance after 1871. Might it also have applied, even partially, to greater government involvement in the rational disposition of mechanics' institutes?

J.S. Mill, in fact, was a strong proponent of education for the working classes.
However, he conceded that the means of education need not necessarily be formal. The reading of newspapers and access to good libraries, Mill believed, did much to advance the objects of literacy and mental cultivation among workers, and to inform their judgements on important social and political questions. The strength of the commonweal in the modern nation depended upon education and mental cultivation which provided the "means of the justice and self-government ... of the individual citizens."59 Intelligent and mentally refined workers were likely more politically astute, and were able to judge for themselves how best to align politically. An educated class of workers was far less likely to be duped by rogue politicians seeking to curry its favour, and far more likely to exercise good judgement, restraint and moral probity in daily civic affairs. Of course, the cost for this extension of educated refinement necessarily included the decline of arbitrary habits of social deference in society.

The conservative labour press in Ontario during the 1870s surely agreed with this assessment. Writers in working-class newspapers frequently cited the importance of education to the political development of working mechanics. The Ontario Workman urged mechanics to seek out the opportunities for education and mental refinement available to them, so that they could develop their political sensibilities. The paper also called upon communities to make these opportunities as accessible as possible in the interests of the national commonweal. As one writer noted in 1873: "Without a serious desire for the public good, of what use is liberty? Of what use is the franchise and

59Ibid., 123.
freeman's vote in the hands of those who will not use the right earnestly and
intelligently."⁶⁰ Workers possessed of good judgement, respectability and self-
government through the refining influences of education, another writer suggested, would
form a "bulwark against monopolies and corrupt politicians, and save the country." If,
however, workers were ignorant and not disposed to education, "they would soon be
converted into the mere tools of a few rich and artful men, who ... would use them as
passive instruments for promoting their own ambitious objects..."⁶¹

Other writers focused on the respectability that education afforded, citing this
aspect as the primary reason for workers to seek education. While Crooks and May, and
other protagonists of the mechanics' institute movement, stressed the need for technical
education as it pertained to the enhancement of mechanics' skills, some working-class
writers rejected the strict instrumentality suggested by this reasoning. In the Ontario
Workman, another writer reflected upon the inherent distinctions between the motives of
instrumentality and those of respectability:

That the knowledge and information thus gained would materially assist
the skilled workmen in their various occupations, none can deny; but the
utilization of knowledge in the every day business of life should not be the
only consideration to prompt its acquisition. We do not altogether insist
upon the workman knowing geometry and mechanics, merely because he
has to build houses, construct pumps or make steam-engines. We hold
there is something above and beyond all that. Men are to be educated, not
because they have to work -- but because they are men, and the reason for
their education is to be found in that deep spiritual nature which God has


⁶¹"Mechanics," The Ontario Workman, 27 November, 1873, 6.
given them, and not in the work that other men have given them to do.\textsuperscript{62} Education went hand-in-hand with enlightenment, spiritual as well as political.

The obvious disjunction between the instrumental attitudes of technical education protagonists and the 'radical' humanist attitudes of labour spokesmen suggests the limits of social control in the operation of mechanics' institute programmes that were targeted at working mechanics by proprietary directors. In this respect, James Eadie's dismissive comment that "evening classes also mirrored the institutes' middle class outlook."\textsuperscript{63} strikes a particularly condescending chord, as it denies mechanics their own agency in the process. If, as J.F.C. Harrison suggests, mechanics' institutes "represented adult education for the working class rather than by them,"\textsuperscript{64} then the propensity for local institutes to broach social control through hegemonic means was necessarily limited by the fact that the participation of mechanics in institute life was purely voluntary.

Like their counterparts in Britain, critics in Ontario complained that mechanics' institutes failed to attract real working mechanics to their organizations in sufficient numbers to warrant their self-described mandate. Certainly the membership statistics of many local institutes do not suggest a large following among the manual workforce. Yet, in a sense, this criticism misses the point. Most mechanics' institutes never really aspired

\textsuperscript{62} Technical Education," The Ontario Workman, 8 May, 1873, 4.

\textsuperscript{63} James A. Eadie, "The Napanee Mechanics' Institute ...," 218.

\textsuperscript{64} J.F.C. Harrison, The Common People: A History From the Norman Conquest to the Present (London: Fontana, 1984), 293.
to embrace all of the ranks of the manual workers in their midst. Victorian society in the third quarter of the nineteenth century, after all, was becoming a more segmented society, and Victorian people became more keenly aware of the picayune distinctions that differentiated social rank between (and within) social classes.

Victorian social critics always spoke, for instance, of "the working classes" in the plural. That is, within the ranks of manual workers, clear distinctions might be drawn between common labourers, skilled journeymen and proprietary artisans. Most of all, these distinctions revealed themselves not only materially in terms of incomes and standards of living, but also normatively in terms of attitudes, habits and behaviours. The association between social status and respectability was borne out of this conceptual conflation of material and normative attributes. Moreover, these rank distinctions may have been as closely guarded by skilled workers and aspiring mechanics themselves (some of whom certainly fit comfortably into the category of 'labour aristocracy') as they were threatened by the emerging class of industrial entrepreneurs. These were the 'mechanics' most clearly targeted by the mechanics' institutes.

In spite of the many conflicts and tensions that surfaced during the 1870s between the capitalistic interests of industrial promoters or successful proprietary artisans and the workplace interests of skilled journeymen, members of this latter group were likely to

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share some of the same social values, attitudes and aspirations as their proprietary, middle-class neighbours; indeed some of the very values that defined the mechanics' institute movement. Some journeymen prized temperance; others cherished self-improvement and self-education; most of them probably guarded their craft integrity and aspired to respectability, dignity, refinement and a modicum of status. No doubt, many skilled journeymen were, as Bryan Palmer dubbed them, "most uncommon common men."67

Yet, these same attitudes and instincts of journeymen mechanics also revealed themselves during the 1870s precisely through these conflicts. The short-lived but celebrated Nine-Hours movement, for instance, was hatched originally by skilled workers at a well-attended meeting in the Hamilton Mechanics' Institute in 1872. The movement's objective was to win a general concession from industries employing skilled workers to shorten the length of the average working day. Quickly the movement spread across the province, largely owing to the involvement of skilled mechanics working in railway shops. Organized Nine-Hours Leagues soon became established in several communities. The movement stressed that a shorter working day would allow workingmen more time to devote to family life and rational recreation -- or as the machinist James Ryan put it, it would allow workmen the opportunity to "cultivate social and moral virtues."68 In other


words, while the movement's methods antagonized industrial and business interests, the movement's message buttressed the Victorian social creed and coalesced with the social goals that were written into the mechanics' institute movement. The material concerns of one group collided with the normative goals of another.

If mechanics' institutes sometimes did have trouble attracting large numbers of mechanics and other manual workers into their folds, this might have been a reflection of the fact that a sometimes formidable competition existed for the working man's attention. In a cultural sense, the goals and travail of mechanics' institutes help to illustrate just how much the concept of recreation and the use of leisure time had become contested by the 1870s. The sense of fellowship offered by a mechanics' institute might sometimes have been hard pressed to compete with the conviviality of a friendly tavern.

Programmes of lectures and 'genteel' entertainments were clearly no match for the spectacles of the circuses and travelling road shows which occasionally drifted among communities throughout this period. The demands of family life should not be discounted as an important determining factor in the mechanic's occupation of leisure time and choice of recreation. Furthermore, it is important to consider competition posed by those complementary programmes and services that were sometimes provided through craft societies and unions: services that included small libraries and reading rooms.

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70 Edward Royle, "Mechanics' Institutes and the Working Classes, 1840-1860," 305-7. Also, the Bureau of Industries in Ontario between 1883 and 1888 studied the conditions of
Perhaps evening classes constituted the only programme in mechanics' institutes for which, in most locations, there was no alternative or complementary programme made available through a competing social agency or institution. Evening classes effectively established an institute's utilitarian significance and, through the reinforcement of appropriate social norms, complemented its main goal of moral elevation. Among all of the services that institutes might have provided, evening classes were clearly the one service aimed primarily and most directly at working mechanics.

The extent to which mechanics responded in kind and enrolled in evening classes varied among communities during the 1870s. These programmes proved to be more successful in some communities than others. Yet, the success of an individual institute's classes seemed to have little to do with a community's population, the size of its mechanic class, or its level of industrialization. While Toronto's institute ran the most consistent and well-attended programme of evening classes in the province during this decade, the next four in order of consistency appear to have been Clinton (nine years), London (eight years), Galt (five years) and Peterborough (five years).

The available statistical evidence from the 1870s is unfortunately sketchy and sporadic with respect to the types of students who enrolled in evening classes. Textual evidence often attests to the involvement of mechanics in these programmes. However, a valuable insight may be gleaned from the summary student statistics reported by the

the working class, and made a number of valuable observations on the libraries and reading rooms established in trade organizations and union halls, although it commented that these services were not all as well patronized as one would have hoped.
Toronto Mechanics' Institute in the late 1870s. According to these rare data, evening classes in the institute primarily attracted adolescents and young adults. Between 1877 and 1879, students aged between fourteen and twenty-one years accounted for between 74 percent and 83 percent of those enrolled in the Toronto Institute's classes. Most of the remaining students were between twenty-two and forty years of age, although a handful were also under the age of fourteen.\textsuperscript{71} Like the public schools, the Toronto Mechanics' Institute insisted upon the regular and prompt attendance in their classes, promising that "the strictest discipline will be enforced, and Parents desiring it, and leaving their addresses, will be informed of either the irregular attendance or improper conduct of their sons, should any occur."\textsuperscript{72}

In Table 3, total enrolment figures are broken down according to the different varieties of subjects offered, in order to better illustrate the options made available to students and to suggest their possible motives in enrolling in these types of classes. For the purposes of this illustration, elementary classes include those subjects that overlapped the core curriculum of the public schools: arithmetic, grammar and composition, as well as French and German. Technical classes include those subjects specifically designated as 'technical' by the Minister (ornamental drawing, architectural and mechanical drawing, and chemistry and natural philosophy), in addition to mutual instruction and telegraphy. Bookkeeping and penmanship is classified here as a commercial subject, as is

\textsuperscript{71}From the annual reports of the Toronto Mechanics' Institute from 1877 to 1880.

\textsuperscript{72}AO, MU 2020, "Winter Evening Classes," Mechanics Institute of Toronto (n.d.).
Table 3

Enrolments in Evening Classes in Ontario Mechanics' Institutes, 1870-1880

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Instit's</th>
<th>Elementary Courses</th>
<th>Technical Courses</th>
<th>Commercial Courses*</th>
<th>Refinements/ Accompl.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>9</td>
<td>156</td>
<td>118</td>
<td>259</td>
<td>25</td>
</tr>
<tr>
<td>1871</td>
<td>6</td>
<td>238</td>
<td>178</td>
<td>107</td>
<td>72</td>
</tr>
<tr>
<td>1872</td>
<td>11</td>
<td>257</td>
<td>296</td>
<td>274</td>
<td>137</td>
</tr>
<tr>
<td>1873</td>
<td>14</td>
<td>472</td>
<td>467</td>
<td>421</td>
<td>128</td>
</tr>
<tr>
<td>1874</td>
<td>16</td>
<td>629</td>
<td>475</td>
<td>450</td>
<td>183</td>
</tr>
<tr>
<td>1875</td>
<td>23</td>
<td>856</td>
<td>327</td>
<td>584</td>
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<tr>
<td>1876</td>
<td>24</td>
<td>695</td>
<td>503</td>
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<td>1877</td>
<td>21</td>
<td>546</td>
<td>299</td>
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</tr>
<tr>
<td>1878</td>
<td>25</td>
<td>783</td>
<td>319</td>
<td>439</td>
<td>41</td>
</tr>
<tr>
<td>1879</td>
<td>20</td>
<td>576</td>
<td>206</td>
<td>324</td>
<td>116</td>
</tr>
<tr>
<td>1880</td>
<td>29</td>
<td>952</td>
<td>331</td>
<td>531</td>
<td>405</td>
</tr>
<tr>
<td>1881</td>
<td>26</td>
<td>487</td>
<td>471</td>
<td>439</td>
<td>45</td>
</tr>
<tr>
<td>1882</td>
<td>37</td>
<td>926</td>
<td>652</td>
<td>965</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Compiled from data summarized in Special Report of the Minister of Education on the Mechanics' Institutes, 1881. *While the Minister distinguishes between technical and elementary courses in his remarks, this distinction does not adequately address those courses that were more appropriately commercial in nature and also those that were, more or less, hobbies and special interests. I have elected, therefore, to introduce these two categories to better explain the kinds of options that were open to prospective students and the functional nature of the choices they subsequently made.
phonography; and elocution, music, hygiene and wax flower classes are grouped together as refinements and accomplishments. As this table indicates, the steady growth in enrolment in elementary classes between 1870 and 1880 tended to outstrip significantly the growth in enrolment in technical arts classes, which also lagged steadily behind enrolments in commercially oriented classes.

Elementary classes in arithmetic, or in grammar and composition, would appear to have borne little direct relation to the working world of modern mechanics unless one accepted the common assumption that industrialization made increasingly pressing claims on the literacy and numeracy skills of workers.73 "The students whose aspirations for improvement it is the design of this institution to aid," observed Richard Lewis, the English teacher at the Toronto Mechanics' Institute as early as 1862,

... are supposed to be the children of toil -- their days are spent in arduous labour at the bench of the workshop, in the merchant's office or the store. Before they sit down to the studies of the evening classes, their energies, physical and mental, have been heavily taxed in the struggle for existence.74

That such students enroled at all, in fact, testified to their characters, their perseverance and their drive for self-improvement. What the elementary classes had to offer them, they probably could have received in public school but, for whatever reason, they did not.

73Harvey J. Graff, The Literacy Myth: Literacy and Social Structure in the Nineteenth-Century City (New York: Academic PRess, 1979), 197. Graff goes to great lengths to demonstrate the "complex and often contradictory" relationship between literacy skills and labour market demands.

74IBAM, November 1862, 337-43, Richard Lewis' address at the opening of evening classes at the Toronto Mechanics' Institute.
These classes primarily offered instruction in rudimentary arithmetic and grammar skills which, as their society became increasingly complex, were likely becoming more important as basic coping skills in the workshop, in the store, and in society at large.

Enrolment in technical classes might also be seen as an expression of the desire for self-improvement, or it might even be viewed as a hedge against employment insecurity or against the depletion of traditional skills, given the growing complexity of machine technology and the changing character of industrial workshop technique.

Certainly technical classes, particularly at the Toronto Institute, had not only the support of the education department but also some measure of support from the manufacturing and industrial communities, as did the commercial courses. During the 1860s, the directors of the Northern Railway pledged to offer one apprenticeship annually to any student nominated by the Toronto Mechanics' Institute who had passed satisfactorily an examination and was able to present "sufficient testimony of moral character."75 Both the bookkeeping and penmanship classes and the phonography classes in the early 1870s were taught by the principal of Bryant & Stratton's Commercial College in Toronto, a private-venture business school. In 1876, the Dominion Telegraph Company donated the instruments and apparatus necessary for the institute to conduct a class in telegraphy. Finally, the institute relied upon the donations of manufacturing apparatus, specimens of raw materials, industrial tools, and occasionally manufactured articles, in order to stock

its museum and conduct its mutual instruction classes.\textsuperscript{76}

In the absence of more concrete manuscript evidence, it is reasonable to speculate that students who attended technical classes at the institutes did so for reasons that were perhaps more inclined to instrumentalism than moral elevation. The kinds of training that were offered as technical instruction -- training in drawing and chemistry particularly -- appeared to be consistent with the current direction that industrial workshop production was taking during the 1870s. In the age of steam-powered manufacturing, knowledge of chemistry, and of the interaction of the natural elements, seemed increasingly to make good sense. So too did industrial drawing. Drawing taught proportion and enhanced one's sensitivity to the interrelation of the various parts to the whole. Ornamental drawing, in particular, refined the worker's decorative finishing skills, while architectural and mechanical drawing applied more to drafting and following formal design plans. No longer did most workers, as the \textit{Ontario Workman} noted, "judge by the eye alone, quite correct, if an angle is right, a circle round ...."\textsuperscript{77} In this sense, those mechanics' institutes that offered one or more technical courses filled a void in the formal education of some young mechanics -- a void created by the decline of traditional apprenticeships.

\textsuperscript{76}\textit{Annual Report of the Toronto Mechanics' Institute}, 22 May, 1876; \textit{Special Report} \textsuperscript{72}.

\textsuperscript{77}\textit{The Ontario Workman}, 17 April, 1873.
Mechanics' Institutes and the Transition of Societal Values

The goals of the mechanics' institute movement, for promoters, members and clients alike, were primarily educational, if this term is applied broadly enough to encompass all of its contemporary shades of meaning. At once, these organizations reflected the cultural goals of moral economy while providing a vehicle for the expression of a developing political economy of education. Mechanics' institutes, above all, were organizations avowedly dedicated to refinement -- cultural, educational, social and political. The values promoted through these institutes were the values of an evolving educational and cultural orthodoxy: the nurturing of character and the separation of the respectable from the vulgar. But they were also drawn from the well-spring of traditional social values that defined cohesive community life and transcended vague social class ascriptions. Certainly these values spoke volumes not only to the movement's protagonists, but also to those respectable journeymen mechanics who had been culturally conditioned to aspire to eventual proprietorship and independence at a time when this aspiration still denoted more than a flight of fancy. In most communities in the Ontario of the 1870s, after all, industrialism and the division of labour may not yet have fully dwarfed such ambitions.

However, during the 1860s and 1870s, the mechanics' institute movement in Ontario also became a barometer of changes in the social, economic, and intellectual climate of the province. The development and spread of local institutes across the
province coincided with several significant historical transitions: the transformation of traditional apprenticeship arrangements; the advancement of the market system on the heels of new production and transportation technologies; the expansion of the waged-labour system; and the consolidation of the provincial educational system. All together, these changes altered the fabric of social relations in the province, enhancing opportunities for some, while constraining the traditional aspirations of others. For some, mechanics' institutes were a signal of progress; for others, a hedge against the consequences of progress.
Chapter Four

'Looking Backward':

The Craftsman Ideal and Industrial Art Education, 1876-1899

Skilled labor in every department of mechanical industry is absolutely necessary in order that success may be attained, and though improved machinery be used, yet the hand of the skilled artizan is required, so that the work turned out may meet the requirements of the age, both in regard to quality and usefulness.

J.H. Smith, Inspector of Public Schools, Ancaster

[I]t is quite evident that the formation of Classes in Art Schools and Mechanics' Institutes applicable to the manufacturing industries, and the encouragement ... given to teachers by establishing Training Classes for their special benefit must ultimately prove of great commercial value to the mechanics' and manufacturers of this country.

S.P. May

It is no use urging a machine tender to have a handicraftsman's pleasure in his work, or pointing out to the overworked underfed factory slave the superiority of mental culture and artistic pleasure to the allurements of the groggy. Henceforth, the artistic sentiment bids fair to range itself among the progressive forces.

Phillips Thompson

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2AR, 1887, 212.

3Phillips Thompson, "Thoughts and Suggestions on the Social Problem and Things in General" (1888), unpublished manuscript, 59.
By the 1880s, sharp divisions clearly separated the proponents of industrial progress from its critics. Among the enthusiasts, booster tracts became a popular form of urban propaganda in late-nineteenth century Canada. These tracts typically juxtaposed a city's modern features with its pioneer origins, signalling a linear track of cultural progress from the rustic to the refined. Not surprisingly, Toronto figured prominently in this literature. Promotional books, from Henry Scadding's and J.C. Dent's *Toronto Then and Now* (1884) to G. Mercer Adam's *Toronto: Old and New* (1891), chronicled the unhampered progress of the nineteenth century and testified to the achievements of modern culture and civilization. Yet, in spite of the many benefits attributed to urban-industrial progress, few of its propagandists could honestly boast of their cities, as Archibald Bremner did of his London, that there were "no slums nor any specially pretentious districts."

Meanwhile, an alternative ethic animated papers like *The Labor Advocate* to point out with ironic clarity the moral discrepancy between the "great strides made in ... material development and national prosperity," on the one hand, and the spectacle of "chronic pauperism, soup-kitchens, and the bitter cry of the unemployed," on the other.

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5"Destitution in Toronto," *The Labor Advocate*, 30 January, 1891, 68. Of course, chronic pauperism was not a phenomenon exclusive to the industrial cities, but also posed a serious problem in county towns. The Waterloo County House of Industry and Refuge, the first county home for indigents in Ontario, opened as early as 1869 in Berlin. See Wm.
Although guarded expressions of cautious optimism might have better captured the popular response to progress, the idea of modern progress inspired no shortage of vainglorious ardour from one quarter, only to be offset by bleak Dickensian foreboding from another.

Such oscillations between extremes of opinion suggest a society becoming profoundly ambivalent about the nature of its own progress. This ambivalence was bound to be reflected not only in public moods but in public policy as well. In education, it could easily have manifested itself in a perplexing ambiguity of motives and objectives. Yet, in a dialectic sense, educational development actually seemed to be driven by ambivalence. Modern schooling fluctuated between the competing strains of old and new, a continually evolving testament to the accommodation of culture and utility, progress and tradition, theory and practice. In no other field of educational endeavour was this accommodation tested more directly than in the developing field of technical education.

In the late 1870s and early 1880s, most technical education had become associated more with the artistic training of common mechanics than with their scientific enablement. According to the Special Report of the Minister of Education in 1881, technical classes in mechanics' institutes had been composed almost entirely of architectural and mechanical drawing lessons. While this work had shown signs of

waning by the early 1880s, the implicit association between common technical education and artistic training remained paramount. Meanwhile, promoters of industrial art education appeared to embrace modern society's ambivalence towards progress. Like their counterparts in public education, they began to forge new accommodations between competing elements -- between art and industry, between aesthetics and mechanics, and between modernity and nostalgia. Such accommodations might have been recipes for tension and discord, resulting in programmes that were ambiguous, incongruous, and even syncretistic. Instead they struck a delicate balance, if not necessarily an enduring harmony, between divergent paths.

**Arts and Crafts: The Craftsman Ideal of William Morris and the Example of South Kensington**

In Ontario, the decade of the 1880s ultimately signalled the twilight of the age of independent artisan proprietorship in most urban industries, and clearly marked the dawn of the age of factory production. Technical innovations, new machinery and increasingly complex divisions of labour heralded a dramatic change in work styles and a dramatic shift in workplace relations. On the eve of mass production, urban factories housed larger numbers of workers performing increasingly specialized tasks, often toiling for long hours in poor conditions. For skilled journeymen, the dream of independent proprietorship -- long an article of faith in nineteenth-century craft culture -- had all but
faded from view, only to be supplanted by the commodified culture of waged labour.

Those who lamented the displacement of craft culture may have taken some refuge in a curious blend of Radical idealism and nostalgia, associated with the growing appeal of the Arts and Crafts movement. Originating in Britain, the Arts and Crafts movement quickly attracted a significant North American following during the last quarter of the century, particularly in the northern industrial cities of the United States. This movement, inspired by the philanthropy of William Morris and the writings of John Ruskin, appealed particularly to those political Radicals and social idealists who pined for solutions to the modern problems of urban disaffection and industrial alienation. William Morris, a distinguished artist and philanthropic Socialist, believed that the industrial workplace stripped the worker of control over the use of materials, tools and time. As a result, the skilled worker lost that vital connection between the conception of design and the process of creation. By contrast, Morris believed that handmade articles confirmed the joy and pride that artisans took in their work. Morris dedicated himself to recapturing the spirit of personal industry by initiating workshop projects based on traditional handicraft and simple tools.

At the heart of the Arts and Crafts movement lay two defining objectives. The first aimed at restoring the dignity and integrity of skilled labour and craft culture. The second aimed at creating markets for the unique products of hand-and-tool creation by elevating public tastes. Both of these goals declared an educational mandate. If workers learned the fine arts of creative labour and rediscovered the joys of craftwork, they might
recapture some of their pride and integrity as autonomous artisan producers. If
consumers learned to recognize handmade quality, and to appreciate the aesthetics and
uniqueness of hand-crafted goods, they would certainly reject the vulgar duplication of
cheaply made, mass produced articles.⁶ Presumably, the result would be a resurrection of
the artisan ethic and a flourishing market to sustain it.

The kind of renaissance in craft labour and artistic sensibilities that Morris hoped
to summon may have proven elusive in mainstream industry. Yet, the sentiments that he
inspired succeeded in exciting the passions of some social reformers, settlement workers,
artists and educators throughout Britain and North America. In Ontario, at least a hint of
Morris' initial inspiration influenced the charter of an inchoate artists' collective based in
Toronto. The Ontario Society of Artists (OSA), founded in 1872, brought together a
corps of professional artists dedicated to the promotion of original Canadian art, and to
the fostering of a public awareness and appreciation for art and aesthetic design.⁷ Its
main objectives included the creation of a provincial art gallery and library, the holding
of annual art exhibitions, and the establishment of a school of art for mechanics and
amateur artists. The OSA accomplished the latter of these objectives in 1876 with the
opening of the Ontario School of Art and Design. The provincial education department,

⁶Eileen Boris, Art and Labor: Ruskin, Morris and the Craftsman Ideal in America

⁷Department of Public Records and Archives, "Inventory of the Ontario Society of
which took an active interest in the OSA's progress, assisted the new art school with a nominal grant-in-aid.

Like the Arts and Crafts movement, the OSA approached the training of artistic talent, both latent and technical, as but a means to a loftier end -- the elevation of public tastes. In addition to the art and drawing classes specifically intended for students from professional and mechanical trades, the school also held classes for talented amateurs and novices. However, unlike William Morris' brainchild, the OSA consciously eschewed the aims of political radicalism and industrial criticism in favour of a more socially conservative approach to the relationship between art and industrial culture. In short, the OSA looked less to the idealistic tenor of Morris' movement than to the more tangible goals and methods of England's South Kensington Institute to locate its own paradigm of working-class industrial art education.

In a sense, South Kensington seemed to presage the Arts and Crafts Movement, although each grew out of a different set of cultural and political imperatives. South Kensington's mandate to embed the ideals of art and craftsmanship into Britain's industrial culture at mid-century ironically coincided with Morris' later initiatives. However, unlike Morris' subsequent experiment, South Kensington evoked no Radical critique of industrial alienation; only a Liberal apprehension about an impending industrial decline. Following London's Great Exhibition in 1851, British politicians and industrial promoters had become concerned that home manufactures were in danger of losing their pride of place in international markets to the French and the Germans.
Responding to this perceived crisis, parliament established the Department of Science and Art in 1852 to encourage the development of craftsmanship and industrial skills. The programme at South Kensington helped foster an awareness that artistic sensibilities need not be the exclusive province of effete culture. However, the programme also proclaimed a strong utilitarian faith — that the artistic skills of common workers would improve the quality of British manufactures.³ Morris' Arts and Crafts Movement of the 1870s and 1880s chided the alleged failure of that endeavour. Preferring humanism to economism, the Arts and Crafts Movement stressed the therapeutic value of artistic training to improve not only the quality of output but also the quality of life for common workers. While individual members of the Ontario Society of Artists may have shared some aspects of Morris' infectious humanism, the OSA nevertheless favored the practicality of the South Kensington model the more appealing example to emulate. By linking artistic training to public policy, South Kensington seemed to provide the best available object lesson in the promotion of technical art education in a modern industrial society.

Coincidentally, the experience of South Kensington also suggested important lessons from afar for Ontario's education department. The British government, after all, clearly favoured local initiatives over centralized sponsorship, and encouraged communities to assume the responsibility for establishing art training facilities of their own volition, thereby ensuring that the facilities would be suitable and responsive to local

needs. The government offered to subsidize local efforts, on the basis of 'payment by results,' but still left the onus upon local communities.\textsuperscript{9} In Ontario, local option and 'payment by results' would likewise figure prominently in the provincial government's approach to technical education until the end of the century.

\textbf{The Ontario School of Art and Design}

In spite of the OSA's and the education department's shared enthusiasm for practical art education, the Ontario School of Art recorded a rather inauspicious debut in the autumn of 1876. Its mandate to teach art and drawing to mechanics, trades people and talented amateurs placed it in direct competition with the programme at the Toronto Mechanics' Institute. Although its curriculum appeared more focused (and its goals less ambiguous) than the Toronto institute, the Ontario School of Art and Design enjoyed only a meagre initial enrolment. In the school's first session, only twenty-five students enrolled -- eighteen in the day classes and seven in the evening class.\textsuperscript{10} The school did, however, attract the notice of the Governor-General, who donated two medals to be awarded as prizes to the best students.\textsuperscript{11}

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\textsuperscript{9}Ibid., 62.\\
\textsuperscript{10}AO, MU 2256, Ontario Society of Artists Papers, Series III, Ontario School of Art, \textit{Minute and Letterbook}, 1877-1882, "Report of the Ontario School of Art," January, 1877 (insert).\\
\textsuperscript{11}Ibid.
\end{flushright}
The OSA oversaw the administration and curriculum of the new art school. From amongst their ranks, the members appointed a Council to direct the school's programme. Consistent with the OSA's interests in maintaining an inclusive school dedicated to the artistic training of mechanics, professionals and aspiring artists, the Society's by-laws stipulated that the Council should be composed of three members -- an architect, an engraver and a painter -- representing each of these target groups. This arrangement made explicit the OSA's desire that the school facilitate the development of pure and refined art alongside practical and applied art. The roster of the school's courses made the case even clearer. In addition to courses in machine design, drafting, and architectural and mechanical drawing, the school also boasted classes in ornamental drawing, oil painting, sketching and clay modelling. While the School of Art showed particular interest in the instruction of working mechanics (for whom class fees were waived), these students appeared to be conspicuously under-represented, as suggested by the low evening class enrolment in the first session.

Between 1876-1881, however, both day and evening class enrolments increased rapidly. By 1881, 226 students were enroled in the School of Art, suggesting an average annual increase in enrolment of 40 students and a 140 percent rate of growth. since the school opened. On the surface, it would appear that the day classes continued to demonstrate the most progress, with a mean annual increase in enrolment of 24 students, as compared to almost 15 students in the evening classes. However, by 1881 the evening classes showed a much more impressive rate of growth of 160 percent since 1876, as
opposed to 129 percent for the day classes.\textsuperscript{12} The early record of the Ontario School of Art proved sufficient to impress like-minded benefactors of industrial art education in the cities of London and Ottawa to establish similar schools in 1878 and 1879 respectively.\textsuperscript{13}

The rate of growth enjoyed by the OSA, however impressive, should not obscure one other significant aspect of the art school’s enrolment pattern -- its gender composition. The early statistics collected by the Ontario School of Art reveal that its technical and artistic classes appealed broadly to both men and women alike. In fact, the 1881 figures indicate that the women actually outnumbered the men, 132 to 94. When the enrolment distribution between day and evening classes is considered a distinct pattern may be observed. Women clearly predominated among day students, accounting for 114 out of 145 students enrolled (about 79 percent of the total). However, in the evening classes this ratio became inverted. Here the men predominated, accounting for 63 out of 81 students enrolled (or 78 percent of the total).\textsuperscript{14} Both the Western Ontario School of Art and Design in London and the Art Association in Ottawa reported a similarly gendered profile of student enrolment patterns.\textsuperscript{15}

\textsuperscript{12}In 1881, total enrolment in technical and elementary classes at the School of Art reached 226, of which the day classes attracted 140 and the evening classes attracted 81.

\textsuperscript{13}Special Report..., 1881, 128; Minutes of the London Mechanics' Institute, 8 January, 1878; 12 February, 1878; 5 March, 1878. AO, MU 2254, Ontario Society of Artists, Minutes, 3 June, 1879: 66.

\textsuperscript{14}The enrolment data for the Ontario School of Art are included in AR, 1881, Part II.

The explanations for this pattern of gender distribution are not difficult to discern. For the majority of working men, whether in the trades or in the low-level professions, their jobs occupied their day-time hours, leaving only the evenings for discretionary study and leisure activities. Generally, only casual workers, students and unemployed men could conceivably have enrolled in (and attended) day-time classes at the art school. In the case of the women, an additional social reality intervened. Most working-class and petit-bourgeois women would have been unable to attend classes in the evenings, owing to the demands of domestic chores, home life and family. Furthermore, social propriety dictated that for a woman to be out alone in the city after dark would neither be proper nor safe. This left the mornings and afternoons, during which at least some urban women might have found the time to attend a class -- indeed, enough women to justify holding day-time sessions at all. Working women with families -- especially those women whose daytime hours were devoted to paid labour -- made the most unlikely candidates for enrolment in art classes.

Perhaps such a squarely gendered student profile was not what the founders of the School of Art had envisioned when they proposed to teach mechanical drawing to tradesmen. On the other hand, this gendered mix was not anathema to the OSA's agenda. Surely women's work, whether paid or unpaid, could benefit measurably from an artistically trained hand and an aesthetically trained eye? If artistic refinement found its way into the stitchshop (via women's handwork), into the home (via women's housework), and into the public view (via women's gardenwork), then the workplace, the
household and the city were that much richer for it. Were these same women to pass on their refined aesthetic appreciation and design talents to their children, then they undoubtedly enhanced their educative roles as mothers, and stood boldly in the vanguard of the OSA’s campaign to elevate public taste. If anything, the School of Art readily embraced the enrolment of so many women into its courses, leading its directors to examine seriously how art and design might be proffered in the public schools via the technical training of female teachers.

In 1879, two members of the council of the Ontario School of Art (L.R. O’Brien and James Smith) returned from an information gathering tour in Boston. In their report to the Council of the School of Art, O’Brien and Smith heaped praise upon the organization of art education in Massachusetts. They were particularly impressed with the way in which Massachusetts had begun to integrate drawing instruction into the core curriculum of the grammar schools. This revelation suggested strongly the need for the OSA to modify its own educational objectives in Toronto, particularly its singular focus on industrial art for trades people. While mechanics and tradespeople made up a significant segment of the School of Art’s enrolment, they did not account for the majority of its students. Why did such workers not account for a larger share of the student enrolment? O’Brien and Smith conceded that most mechanics and industrial tradespeople might not have the time or inclination at the end of a day’s work to take up evening study. In fact, an art programme aimed solely at adult workers could hope to reach only a small minority of the working population. Yet, if artistic talents were
nurtured and design skills acquired in an educational atmosphere prior to a mechanic's 
initiation into industrial life, then surely fewer mechanics in the future would be found to 
lack these skills. O'Brien and Smith recommended, therefore, that the educational vision 
of the OSA be broadened to include not just adult education but ultimately primary 
education as well. The cultivation of artistic habits, tastes and skills in adulthood 
presupposed that the seeds were sown through primary drawing instruction.

Art advocates enthusiastically endorsed drawing as both educative and practical -- 
a reconciliation of culture and utility. Drawing, after all, was a natural educational tool. 
It helped to stimulate children's intellectual growth and complemented nicely the other 
branches of study in the curriculum.\textsuperscript{16} Far from being a mere 'accomplishment' for 
dilettantes, O'Brien and Smith insisted that drawing would help to prepare pupils for their 
future occupations "at the forge, at the bench, in the workshop, or in the field."\textsuperscript{17} A 
knowledge of drawing and art certainly augmented the pleasure and enjoyment of daily 
life; but, in so far as it specifically trained the faculties of observation, judgement, 
precision and imagination, it also augmented the mental skills that carried over into most 
mechanical occupations.\textsuperscript{18} As the Toronto public school inspector James L. Hughes

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\textsuperscript{16}AO, MU 2256, Ontario School of Art, Minute and Letterbook, Special Meeting, 1 March, 1879, "Massachusetts Report, 42-46.

\textsuperscript{17}Ibid., 43-44.

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would muse in 1899, drawing practice emphasized the link between manual skill and the mental faculties, and succeeded in exercising both. The School of Art should therefore dedicate itself not only to the instruction of tradespeople, but also to the training of art teachers. The large numbers of women enroled in the classes indicated that this was both a desirable and a workable goal, which might better serve the needs of the art students and the objectives of the OSA.

In the early 1880s, the education department's commitment to introduce elementary drawing into the public schools reinforced this shift in focus, as did the appointment of L.R. O'Brien as Superintendent of Art Education in the public schools of Toronto. In fact, O'Brien's views on elementary art instruction, which he detailed in a letter to James Hughes, merged quite comfortably with the views of some of the most prominent school reformers of the day. Educators and school reform advocates, like Hughes, suggested that elementary schooling should become more practical and relevant to the lives of the majority of pupils -- those who were least likely to partake of the higher branches of study. Echoing these sentiments, O'Brien likewise urged that public schooling become more responsive to certain social realities, not the least among them being that the majority of children were likely to leave school at a relatively early age and were going to have to earn their living in some form of industry. Without neglecting all of its other educational merits, drawing instruction would have to be fundamentally

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practical and relevant to industry and handicraft. This view did not necessarily imply, however, that drawing be completely subsumed as the handmaiden of industrial pursuits. For while it certainly would enhance the development of industrial skill in the working world, it would also enrich a young worker's perceptions and tastes, thus enhancing a worker's experience of the world at large. Artistic accomplishment could be prized both for its intrinsic use value to the citizen in daily life and its inherent exchange value to the worker in the labour market.

The expansion of the school's training mandate to include teacher training may also have arisen partly in response to the school's precarious financial status, and might have been viewed by some as a way of attracting a greater share of the government grant. By 1880, the rising enrolment figures helped to dispel any concerns that the directors of the OSA might have had about their school's potential for success. However, the increasing enrolments also entailed a greater strain on the school's limited resources. In January, 1880, L. R. O'Brien, urgently communicated the dilemma to Adam Crooks. O'Brien complained to the education minister that the annual government grants to the school, which had been reduced the previous year from $2,100 to $1,100, were grossly

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20 O'Brien's letter to Hughes was published in the popular press. See "Education Notes: Art Education," The Toronto Daily Mail, 10 January, 1884.


22 Ibid., preamble of petition "To the Honourable Lieut-Governor of the Province of Ontario, in Council," February, 1880.
insufficient to meet the school's rising expenses, and that the revenue deficiencies were
being met by the members of the OSA themselves. "We have seriously considered the
question of increasing our revenue to meet the deficiency," noted O'Brien. However,

[This could only be done by an increase of the pupils' fees. Such an
increase would drive away the workers, whom it is of importance to
instruct, and leave the institution merely a drawing School for the rich, in
which case it would cease to be an object of interest either to its promoters
or to the Country.]

Later in the year, O'Brien himself proposed to the council of the school of art that student
fees for all classes, except elementary classes, be raised to $8 per session for the day
classes and $5 for the evening classes. The proposal aimed at increasing revenue while
penalizing as little as possible those students who were working mechanics. The school
council later rejected a fee increase as being contrary to the public interest. By situating
the art school as a complement to the Normal School, O'Brien and Smith ostensibly
found a way to attract a broader range of potential students and to attract a larger portion
of the provincial grant.

**Provincial Designs on Art Education**

Yet, while inviting the education department to pay the piper, the OSA may not
have anticipated Crooks' and May's intention to call the tune. The value of art instruction

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23 Ibid., O'Brien to Crooks, 5 January, 1880: 57.

24 Ibid., 22 April, 1880: 64-66.
for working mechanics was never in doubt, neither on the part of the artistic community nor on the part of the education department. The main point of contention between the two parties became the contiguous relationship between financial responsibility and administrative control. The OSA jealously guarded its rein over school administration. However, it was anxious to share financial liability with the education department since, as L.R. O'Brien communicated to Crooks, the work of the art school was in the public interest, and it was only reasonable that debts "incurred for the public benefit should be met from the public purse."

While the absolute amount of government assistance to the school had steadily increased between 1876 and 1881, these grants as a proportion of the school's total revenue had been steadily declining. As a result of the high costs associated with art instruction -- particularly the salaries of teachers, the equipping of the building, and the costs of models and casts -- the school appeared to become less financially viable the more successful it became educationally. Faced with this dilemma, the OSA presented the education department with an ultimatum in April, 1881. Either the government increase its grant to the Ontario School of Art, or the society would be forced to close the school. George W. Allen and W.H. Howland were sent to negotiate a new arrangement with Crooks, with the stipulation that the school could not operate with a grant of less than $3,000. In addition, Allen and Howland were instructed to try to make arrangements with the education department to move the school to the Normal School building "or

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elsewhere as will guard [the OSA] against loss," but "to secure for [the] Society the control of the School as it at present exists."26

In response, Crooks appointed S.P. May to study the feasibility of moving the school to the Normal School building or some other facilities of the education department. Dr. May was quick to endorse the idea, and he hastened to suggest that the classes could be conducted in rooms made vacant by the closing of the department's book depository in 1878. At least $1,000 of the provincial grant might then be saved in rent, taxes and fuel. As for the administration and management of the school, Dr. May recommended that it be left with the Society of Artists, but that it also be "subject to such control of [the Education] Department as could be mutually arranged upon" in order to enhance the return on the provincial investment and ensure the efficiency of the instruction given.27 This last stipulation caused some concern among the directors of the school, who insisted that they had "no wish to carry on a School of any other character than formerly with or without Government aid."28 However, having been assured of their continued autonomy in running the school, the OSA agreed to move the art school to the Normal School building.29 Classes commenced in the new facilities in the autumn


27 AR, 1881 (and recounted in AR, 1883, 175).

28 Ontario Society of Artists, Minute Book, "Special Meeting to Consider the Sense of a Letter Received by the Secretary from the Honourable the Minister of Education Respecting the Affairs of the Art School," 6 September, 1881: 21.

29 Ibid., Special Meeting to Consider Art School Matters, 19 September, 1881.
session of 1882. On account of the new arrangement with the province, the council of the school grew to ten members, which included one representative of the education department, seven members of the OSA, and the president and vice president of the society who would act as *ex officio* members. Adam Crooks sealed the bargain by appointing Dr. May as superintendent of the Ontario School of Art, the government's representative on the council.\(^\text{30}\) While the education department assumed responsibility for the accommodation, furniture, materiais, prizes, and one-half of the teachers' salaries, the Society of Artists maintained control of the curriculum, the appointment of teachers, and the management and administration of the school.\(^\text{31}\)

Within eighteen months of the education department's direct involvement in the Ontario School of Art and Design, the OSA's managerial control over the school seemed gradually to erode. The OSA found its administrative autonomy increasingly compromised owing to the education department's insistence on efficiency, usefulness and economy. Adam Crooks, for instance, decided to discontinue classes in oil painting citing the high cost of materials, in spite of the protests of the school's council that instruction in oil painting was integral to their programme and that the fees for this course were sufficient to offset the costs involved. Under the influence of the education department, art classes would now be divided into primary and advanced grades. Crooks

\(^{30}\)Ibid., Special Meeting, 9 November, 1881: 43-44.

and May also initiated a new regimen of examinations to allow for the "classification of candidates according to their capacity." In the place of classes in fine arts for 'dilettantes', Crooks substituted classes aimed principally at Normal School students, to certify them to teach drawing in the public schools. In order to link the Ontario School of Art and Design more closely to the department's Normal School, a system of entrance and promotion examinations seemed appropriate, as did the awarding of proficiency certificates at the end of the programme. While the institution of formal examinations was initially at odds with past practices in the school, the artists were nevertheless pleased to have a formal connection with the Normal School, since this promised to afford them a role in the expansion of art and drawing instruction on a province-wide scale through the public school system. It also promised to validate the credentials of the school and its programme objectives.

Despite these apparent intrusions of the education department into matters of school organization and curriculum content, the secretary treasurer of the Ontario School of Art and Design, E.B. Shuttleworth, was pleased to report in May, 1883, that the "relations of the School to the Government have been throughout of the most pleasant


33Ontario School of Art, Minute and Letterbook, 19 September, 1882 and 26 September, 1882: 194 and 106-107. Also, Ontario Society of Artists, Minutebook, "Copy of a Report by Dr. May, Superintendent of the Ontario School of Art," 29 May, 1883: 122.
character." However, during the next season, the cordial relations between the education department and the council of the School of Art became strained when Lucius R. O'Brien, consistently one of the OSA's most ardent promoters of art education, resigned from the council of the art school citing the increasing encroachments of the education department upon the autonomy of the school and upon the conduct of the classes. "The teachers are hampered [and] the efficiency of the teaching impaired by injudicious arrangements [and] restrictions, [and I am] finding every attempt at improvement thwarted by the representative of the Government on the board, or through his influence," O'Brien complained.

Following O'Brien's resignation, the OSA appointed a committee to report on the operation of the art school with particular attention to the allegations raised by O'Brien. The committee's report corroborated O'Brien's complaints. The committee found that while the school was supposed to be controlled by the Society, effective control rested in the hands of Dr. May representing the education department. Moreover, the system of entrance and promotion examinations, as well as the implementation of a systematized programme of study and the adoption of an internal ladder of progression from elementary levels to advanced levels, ran counter to the artists' goals of individualized instruction coupled with individual pacing and promotion. Finally, the committee found

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34 Ontario Society of Artists, Minutes, "Report of E.B. Shuttleworth, Secretary Treasurer of the School of Art," May 1883: 125-125.

that many of the difficulties arose from a poor channel of communication between the department and the council. In essence, the committee challenged Dr. May's credentials in the field of art education and his ability to act as a liaison between the education department and the School of Art. "Had the representative of the Government possessed such knowledge of Art and Art Education as to qualify him for the control of the School," the committee concluded,

could he have been trusted fairly to represent the views of the Minister to the Council or the views of the Council to the Minister this arrangement might not have been prejudicial and the representatives of the Society of Artists might have continued to be of use, even in an advisory capacity.36

Citing its lack of confidence in Dr. May, the committee recommended that the OSA sever its connection with the school. The report was adopted by a vote of 9 to 2, one of the dissenters being E.B. Shuttleworth, the school's secretary treasurer who the previous year had reported on the favourable relations between the department and the council. Upon receiving a copy of this resolution, George Ross, the new Minister of Education, agreed to relieve the OSA from its obligations to the management of the school.37 The education department now assumed complete control over the Ontario School of Art, a control it held for only two more years, after which the responsibility for managing an art school in Toronto was passed back into private hands with the opening of the Toronto Art School


37Ibid., George Ross to G.W. Allan, 12 June, 1884: 170-171.
in 1886. Nevertheless, the episode served to highlight a critical tension in the development of technical art education -- between the cultural use value of artistic knowledge and the utilitarian exchange value of artistic skills. When art education was joined to utilitarianism, would it continue to be valued for its own sake alone?

May's Utilitarian Agenda for Art Education

Once the provincial education department had assumed control of the Ontario School of Art and Design, S.P. May immediately recognized the potential of coordinating the activities of the province's art schools and mechanics' institutes. Under the authority of the new Minister of Education George Ross in 1883, May began to refashion the art schools and mechanics' institutes into a comprehensive network. Even when the education department relinquished direct control of the art school in Toronto, it continued to monitor and coordinate programmes throughout this network. By 1888, six branch art schools operated in Toronto, London, Ottawa, Brockville, Kingston, and St. Thomas. In addition, as many as 175 mechanics' institutes located in satellite communities offered approved evening classes in mechanical and industrial drawing for art school credit.

By removing the Ontario School of Art and Design to the provincial Normal School, the education department greatly facilitated and encouraged the technical

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38 The education department ran the Ontario School of Art and Design for the next three years, until 1887 when the school was closed and the Toronto School of Art was incorporated in its place. See AR, 1887, 211.
education of women. "It is considered that this will afford honourable and useful employment to women," May noted, "and that many will avail themselves of these advantages, and particularly those to whom self-support may be necessary." 59 Other than this brief acknowledgement, however, May appeared to have little to add on the important question of women's place in technical education. Instead, his advocacy centred almost exclusively on the material advantages to be derived from the training of (presumably male) mechanics.

In fact, May's approach to art education evoked the same themes of liberal utilitarianism that he had previously applied to mechanics' institutes in his 1881 report. His approach to the question typified what the American historian Lawrence Cremin depicted as the "effort to use education as an instrument to achieve economic competitiveness." 40 In the same way that the commercial competition between cities often fuelled initiatives by local politicians and business élites to improve their competitiveness and commercial advantage, so too did the spectre of international and jurisdictional competition shape the thought and behaviour of more than a few provincial politicians and educational administrators.

The fear of economic decline often correlated directly with the spirit of progress. Throughout the 1880s, manufacturers quite commonly blamed their own competitive


difficulties on an apparent shortage of skilled labour. If others judged their products to be
derivative or lacking in quality, this judgement reflected badly upon the quality of the
workers and designers. If more highly skilled industrial workers could not be found at
home they would have to be recruited from abroad. This sentiment gave rise in the 1880s
to a vigorous trans-Atlantic skilled labour market, through which industrial employers
tried to recruit workers possessing modern mechanical and industrial design skills from
the industrial regions of Northern Europe and Britain, as well as the United States. More
than once, Dr. May alluded to the trans-Atlantic skilled labour market by relating this
phenomenon analogously to the province's balance of trade. According to him, industrial
products in the marketplace were being judged not only by their quality and utility but
also by their beauty and design. Ontario manufacturers who were forced to recruit abroad
for their skilled workmen, were ill-prepared to compete internationally.41 "In my
opinion," he offered, "the only true remedy ... is to train and educate the rising generation
so that they can compete in excellence of workmanship with the workmen of other
countries."42

Indeed, the experience of other nations was instructive. J.G. Hodgins, for
instance, remarked at Philadelphia in 1876 that technical art training was indeed a
necessary precondition to the cultivation of the 'inventive spirit' that seemed to flourish in

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41 AR, 1884, 207; also AR, 1887, 106.

42 AR, 1891, 241.
the workshops of other industrial countries.[^43] Subsequent world fairs, such as the International Exhibition at Paris in 1878 and the Colonial and Indian Exhibition in 1886, only reinforced this perspective. S.P. May shared Hodgins' impressions on the importance of art education in political economy. In May's view, the international evidence was impressive. Art training in Germany had "converted the nation into practical workers who ... added to the resources of the country." Similarly in England, instruction in practical arts comprised an essential ingredient in that country's resurrected industrial "pre-eminence over other manufacturing nations." And in the United States, schools of art helped to reduce America's reliance on imported skilled labour. The state of Massachusetts, May noted, actually had legislation requiring all cities with populations over ten thousand "to provide free instruction for adults in evening classes in the subject of industrial drawing." The province of Quebec also preceded Ontario in the provision of free art instruction for workers.[^44] Certainly Ontario would have been well advised to take its cue from the experience of other industrial economies -- to cultivate the 'inventive spirit' of its workers -- if the province hoped to become more competitive in international trade and domestic markets alike.

Cultivating the inventive spirit, however, involved more than practical


[^44]: *AR*, 1883, Part IV, 173.
considerations of the material applications of art. It also involved considerations of the culture and refinement that artistic training lent to those who undertook it. Artistic skills needed to be combined with artistic sensibilities. Artistic skills endowed workmen with the ability to apply precision, detail and form to their labours. Artistic sensibilities, comprising the attributes associated with beauty and design, lent substance to creative labour.

Both artistic skills and artistic sensibilities could be cultivated for a fundamental commercial advantage. While art training augmented mechanical skill, noted May, it simultaneously "exercise[d] an influence for culture and refinement, and when applied to the commonest product of labor, it increase[d] its value."\textsuperscript{45} Moreover, those workers who were able to add the greatest value to raw materials in the manufacturing process were said to contribute greatly to the general wealth and prosperity of the society.\textsuperscript{46}

Beyond simply increasing the value of output, the inventive spirit also showed itself in enhanced productive efficiency. While artistic training might contribute to higher commercial values and thus higher profits for industry, it might also lead to the more economical and efficient use of materials and help to lower the costs of production.\textsuperscript{47} Calling upon the testimony of unnamed 'experts,' May estimated that in

\textsuperscript{45}AR, 1884, 232-233.

\textsuperscript{46}Ontario, Department of Education, School Art Leagues: Compiled by the Advisory Board of Toronto School Art Leagues (Toronto: Warwick Bros. & Rutter, 1899), 4.

\textsuperscript{47}AR, 1898, 159. In Dr. May's words: "There is no trade nor profession in which drawing is not useful. To mechanics of all trades it is valuable; it not only makes them more
certain trades, productivity "would be increased at least thirty-three per cent. if every mechanic could understand working drawings so as to work by them." Such workers, having procured the benefits of artistic refinement, would be responsible enough to work more independently, skilled enough to perform work with more precision and attention to detail, and creative enough to maximize the efficient use of materials.

May had little patience, however, for impractical or frivolous uses of art education. Art, when studied merely as an "accomplishment" by dilettantes constituted a waste of time and resources. Lofty dilettantism could not easily be reconciled with the calculated objectives of technical art education. Nor could it really be reconciled with the evolving work values of modern industrial society, in which specialization and expertise became paramount and perseverance was encouraged. The very presence of the dilettante seemed to threaten the integrity of this emerging industrial ethos, almost like the presence of Free Thinkers and Radical Non-Conformists challenged the conservative values of respectable Victorian society.

Government investments in art education required that it be practical and useful, and that it show tangible material dividends. May, therefore, dismissed amateur lessons in art as a misuse of the current facilities and resources. Regional art schools sometimes reported declining attendance figures, as less serious students withdrew either by choice

skilled and artistic workmen, but it enables them to economise material. At a meeting of manufacturers held in the United States recently, it was stated that if every person employed in a manufactory understood drawing it would save one third of the labour."

48AR, 1887, 186.
or by attrition. In the mid-1880s, the Hamilton Art School attributed its interim drop-out rate to a large number of prospective students with a lack of perseverance who enrolled in classes out of curiosity. In the mid-1890s, the directors of the Brockville Art School likewise reported the tendency of some students towards dilettantism, and affirmed that "this being a manufacturing town, ... it [is] of greater importance to encourage mechanics to study the necessary subjects applicable to their trades and manufactures, than to devote the time of their teachers in giving instruction in so called accomplishments in fine arts to young ladies." May's vision of art education left no room for dabblers, dalliers, dilettantes or flibbertigibbets from the chattering classes, when the serious business of professional and mechanical refinement beckoned. Instead, he expressed concern that classes intended for young mechanics might become "overcrowded with young persons who might take lessons merely for amusement or an accomplishment." The provincial regulations concerning grants to art schools ought to have been sufficient to discourage the 'misuse' of art school facilities and resources by mere hobbyists, and to dissuade schools from appealing to students who might be attracted to the study of art solely for interest or for personal development. In order to receive provincial grants in the 1880s, art schools had to maintain a registered attendance of at least fifty pupils and have sufficient accommodations to offer all elementary and


51AR, 1887, 210-211.
advanced courses of instruction. All equipment had to meet provincial standards and teachers had to have recognised qualifications. In order to ensure that the classes were geared to aspiring professionals and working mechanics, pupils under fifteen years of age did not qualify in determining the grant. Such pupils still fell under the jurisdiction of the public schools.\textsuperscript{52}

Lastly, Dr. May used the introduction of formal examinations specifically to discourage the attendance of those who merely wished to 'dabble' in art. Students wishing to enrol in advanced classes now had to pass preliminary examinations in the relevant elementary subjects.\textsuperscript{53} Moreover, programmes at both the elementary and advanced stages became more systematized, allowing for very little variation in studies among pupils. In the advanced classes, students were steered into either a programme of artistic drawing or decorative design, and "no change [was] allowed during the session so that steady progress may be secured."\textsuperscript{54} By the end of 1882, the Minister of Education, Adam Crooks, had approved the implementation of a uniform system of examinations for all art schools and mechanics' institutes.\textsuperscript{55}

The regimen of examinations, aside from discouraging the enrolment of students for frivolous reasons, also served a significant purpose in the organization and  

\textsuperscript{52}Ibid., 213-214.

\textsuperscript{53}AR, 1882, Part IV, 11; and AR, 1887, 210-211.

\textsuperscript{54}Ontario School of Art, Minute and Letterbook, Meeting, 27 September, 1882, 108-109.

\textsuperscript{55}Ibid., Monthly Meeting, 5 December 1882, 101-103.
administration of adult art education. Testing would be regularly scheduled, systematic, and centrally planned. The education department reserved the right to set the standards by which students were tested. Students in the branch art schools of the mechanics' institutes were evaluated according to the same criteria laid down for students in the regional art schools, thus allowing the education department to regulate the art curriculum and monitor the efficiency of instruction across the province.\textsuperscript{56}

Also, examinations became the basis upon which proficiency certificates were awarded to successful students. Under the education department's supervision, proficiency certificates were awarded in all subject areas within the primary, advanced and mechanical courses of study, and were treated in much the same light as diplomas in the public schools. They were official documents which testified that students had satisfactorily completed a prescribed course of training and had demonstrated sufficient competence. An art school's reputation could be established on the basis of what proportion of its students earned proficiency certificates; and the promoters of this plan, particularly S.P. May, earnestly hoped that employers would recognize the value of these certificates and respect the credentials of those who earned them. Provincial grants-in-aid were quickly tied to the numbers of certificates that were awarded in any given art school and mechanics' institute.\textsuperscript{57}

\textsuperscript{56} AR, 1882, Part IV; also AR, 1883, 168.

\textsuperscript{57} One dollar would be granted to a school for each student awarded a proficiency certificate. Two dollars would be granted for each student obtaining two or more proficiency certificates in drawing courses. And five dollars would be granted for each certificate awarded in the advanced and mechanical departments. See AR, 1887, 184.
However, May brooked no illusion that these certificates would be accepted readily as objective indices of a workers' skills, abilities and talents. On the advice of "competent" authorities, he suggested that one of the greatest obstacles to the full participation (and regular attendance) of workers in art classes stemmed from the negative attitudes of shop foremen towards the technical training of their subordinates. Shop foremen, "fearing that ordinary workmen may thus become equal or superior to themselves," showed signs of jealousy towards those workers who availed themselves of the opportunities to enrich their skills.\(^{58}\) This alleged jealousy, and the workplace disharmony it may have proffered, could have acted as a disincentive for some workers to continue their evening classes. May appealed to the shop owners -- "the masters themselves" -- to "encourage all their employes [sic] to avail themselves of these advantages, which must be of mutual benefit to all parties concerned."\(^{59}\) Foremen and mechanics alike ought to be encouraged to pursue advanced artistic and technical training.

This is not to suggest that those workers who had earned a proficiency certificate were necessarily the most talented or highly skilled mechanics available. Proficiency certificates indicated as much, if not more, about an applicant's character and habits as they did about any applicable shop skills that a worker might possess. May fully endorsed the view of the department's certificates as "a proof of industry and

\(^{58}\)Ibid., 212.

\(^{59}\)Ibid.
perseverance" and a testament "that these young men have employed their spare time to obtaining practical information which must prove of great value to their employers." In other words, while a proficiency certificate indicated a satisfactory mastering of certain basic skills, it also suggested that a worker possessed such laudable habits as thrift, diligence, commitment, ingenuity and ambition. However, proficiency certificates served a more significant purpose within the education department itself. Most certificates awarded in the 1880s, after all, were awarded to Normal School students and teachers, and, to the satisfaction of the education department, certified their fitness to teach drawing classes in the public schools.

It is difficult to determine to what extent the students who attended art classes (either regularly or sporadically) did so either out of instrumental or esoteric motivations. Economistic abstractions such as balance of trade, international competitiveness, human capital, or even the "inventive spirit" probably meant little to most prospective students. However, there is some vague anecdotal evidence to suggest that the value of an art school certificate was more than just theoretical. Branch art schools occasionally reported in passing on the employment of exceptional students, in order to draw attention to the success of their programmes and the value of their certificates. In 1898, the Brockville Art School received an application from a former student, Mr. Storey, for duplicate certificates -- "to replace the originals, which were destroyed by fire." The school's report went on to boast that "after leaving Brockville[,] Mr. Storey secured a

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60Ibid., 187.
position in one of the largest daily newspapers in Chicago, and has recently been sent by
the proprietors to Central America to contribute illustrated letters on that Country. He
has on many occasions in his letters testified to the value of the certificates.”
Unfortunately, reports of past students were not entirely encouraging. The Brockville Art
School also reported on a past student, Miss Stewart, who, after finishing the course at
Brockville and attending the Philadelphia Women's School of Design, failed to secure
work as a designer and returned to Brockville seeking work as an art instructor. The
school further reported that some of its former students had

found some occupation in Canada and the United States drawing and
designing for periodicals and private employers, but we can only regret
that the manufacturers in our own vicinity do not deem it expedient to
employ designers for the goods they manufacture, but borrow designs of
foreign origin.62

For a good number of prospective students, some expectation of employment benefit
underscored the decision to pursue technical art classes, and branch art schools proved
eager to encourage this expectation.

These schools characteristically placed less emphasis on the ornamental than on
the practical applications of design skills and geometric knowledge, as in textile fabrics,
carpet making and paper hanging.63 In its report of 1886, the Art Association of Ottawa
lauded its school's machine drawing course "which has proved to be of high practical

62Ibid., 1886, 337.
63AR, 1891, 240.
service to intending engineers, and has attracted to it several employees of the machine
shops of the city."64 The Toronto West End School of Art, in 1887, proclaimed its aim as
"being to make this purely a mechanics' school for practical drawing and applied design."
This branch school encouraged its students to develop "practical working drawings (such
as could be used direct from the school to the shop) in the construction of machinery" and
which "might be immediately used in the carpenter or cabinetmakers' shop, or in the
construction of their own homes."65 The programme at the Hamilton Art School in 1891
even included eight lectures delivered by the Principal on the "Technicalities of Design,"
with a special emphasis on local manufacturing in the city's metal trades.66 Meanwhile,
the London Art School confirmed that its students tended to opt for those courses "most
suitable to their respective trades and professions, instead of taking lessons for pastime."67

Canadian sociologist James Richardson observed this theme in contemporary
adult education. "Even a brief encounter with part-time education," he argued, "suggests
that its aims are principally instrumental; the concern is with upgrading of people already
employed. It is providing, therefore, what education is manifestly about, but it is
seriously circumscribed in its ability to convey the latent or hidden curriculum."68

65 "Report of the Toronto West End School of Art, 1887," AR, 1887, 232.
68 C. James Richardson, "Education and Social Mobility: Changing Conceptions of
the Role of Educational Systems," Canadian Journal of Sociology/Cahiers canadiens des
report of the Hamilton Art School for 1893 affirmed the instrumentality of students' objectives: "Nearly every student who entered did so with a specific object in mind, either to qualify to teach or to use drawing, designing, modelling, etc., in some business enterprise." Yet, as we have already noted, branch art schools also seemed to attract students with less tangible objectives, much to the chagrin of S.P. May. In the early 1880s, the Ontario School of Art and Design collected summary data on its students' daytime occupations and their reasons for enrolling in art classes. These data, although somewhat sketchy, testify to the involvement in the school of students -- both male and female -- from a variety of occupational backgrounds, who came to the school for a variety of different reasons, ranging from professional development to technical education to teaching to "indefinite." Among the men enrolled in these years, the occupations varied widely among the artistic trades and professions (architects' clerks, lithographic artists, engravers, glass stainers, sign painters, photographers, and wood carvers), the industrial and building trades (tinsmiths, carpenters, machinists, box makers, and foremen), the proprietary and middle-level administrative trades (bookkeepers, stationers, bank clerks, government clerks, a tailor and a jeweller), and the preparatory occupations (art students, college and divinity students, and "school boys"). Among the women, the range of occupations narrowed, and was dominated by school teachers, art teachers, Normal School students, and art students, as well as the occasional designer and

sociologie 2 (4) 1977: 429.

photographer. Among those students engaged in teaching, the artistic trades and the industrial trades, regardless of gender, professional development and technical education appeared as the most common purposes for their enrolment. Some of those who listed their occupation as "student" cited a desire to train as professional artists. Most of the students and administrative workers, however, were listed as "indefinite."

The large numbers of students from various occupational backgrounds listing professional development and technical education as their reasons for study would appear to have satisfied the objectives laid out by S.P. May. Particularly in the evening classes, in which the student profile was predominantly male, an instrumental orientation to art classes appeared to be the rule. However, in the day classes, in which the student profile was predominantly female, a different picture emerged. While teachers and students figured most prominently among women's occupational categories, the vast majority of women enrolled in 1881 were listed as having no occupation. (The various fields of unpaid domestic labour and volunteer work did not figure as relevant.) This category comprised those art students pejoratively dismissed by May as dilettantes and hobbyists, who approached art education merely as an 'accomplishment,' and lacked the seriousness of purpose of their employed and wage-earning classmates. The day-class enrolment in 1881 included 80 women and six men (75.4% of the total enrolment) with "no occupation" and an "indefinite" purpose of study. The following year, women in the day

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classes tended most often to list themselves as students rather than as having "no occupation." Still, out of a total of 81 students, 30 women as opposed to only four men indicated their purpose of study as either "improvement" or "indefinite," thus cutting the percentage from the previous year in half. The proportions remained fairly stable in 1883, with 51 women and five men (out of a total enrolment of 133 in both day sessions) indicating their purpose of study as being "improvement" or "indefinite."  

These "indefinite" and "improvement"-driven women became the primary target of S.P. May's tirades against dilettantism in art schools, precisely because they attended for intrinsic or ambiguous reasons. Their very presence threatened to undermine the calculated instrumentality of the project as prescribed by May's own version of the economic imperatives of art education. In fact, rather than explaining the presence of so many students with "indefinite" goals, the report of the Ontario School of Art and Design in 1882 attempted to appease the education department by explaining the matter away. Ignoring the defining issue of gender, the report suggested that over one-third of the students with no occupation were younger than sixteen years of age and "no doubt many of them, as well as those who are older will turn the knowledge acquired at the school into Professional or technical channels connected with art."  

In truth, the overwhelming presence of students, with or without paid occupations, who indicated that their purpose

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71. AR, 1882, 13-14; AR, 1883, 183 and 186.

72. Ontario School of Art, Minute and Letter Book, Copy of a Report Furnished to the Minister of Education, 10 January, 1882, 91.
was "indefinite," reveals the extent to which students themselves, as clients within the evolving framework of technical education, freely made choices based on their own goals and aspirations, irrespective of the intentions of the school promoters and policy-makers.

The Factory Beautiful and the Urban Aesthetic: Art in Everyday Life

Dr. May's agenda for art education may have held sway in public policy. It may even have reflected quite accurately the attitudes and aspirations of some branch art school operators who shared his faith in progress and his disdain for dilettantism. However, more than a few artists, social critics and philosophical Radicals clearly found May's brand of economic reductionism either unconvincing or unsatisfying. Although organizations like the Ontario Society of Artists were also enthusiastic about the potential of art instruction for trades people, their artistic vision of technical education was quite distinct from that espoused by S.P. May and somewhat closer to that of William Morris and John Ruskin. Far from simply promoting art education for industrial purposes, members of the province's artistic community hoped to advance what might be called, in the terminology of sociologist Joan Davies, a "technical culture" of art.\(^{73}\) The promotion of 'technical culture' involved the dissemination of the symbols, traditions, techniques, perspectives, and aesthetic vision of the artist in modern society. This orientation was

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described succinctly by one contemporary artist and writer as "the grammar of ornament," providing a framework for enhanced communication and cultural enrichment through the application and appreciation of art in daily life. Beyond its apparent extrinsic worth in industrial design and workshop production, art was to be valued equally for its own intrinsic worth.

Clearly artists and art educators, like their provincial patrons, were enthusiastic about the beneficial effects that such training might have upon workers and industry. However, most spokesmen for the artistic community appeared somewhat less concerned about the limited environment of work than about the workers' whole environment. Aside from the frequently extolled virtues of artistic training in the enhancement of workplace skills, which most commentators agreed was vitally important to political economy, the reformist vision of art education pointed also to its therapeutic benefits both for workers and the society in which they toiled and lived. In its most elementary form, this vision implied that art training might furnish workers with the tools needed to achieve creative satisfaction, job enrichment, and even occupational mobility. In its most ambitious form, this vision saw art as an antidote to industrial and social alienation -- a medium to regulate the tempo of urban life, civilize urban social relations, and soften the hard edges of the urban-industrial landscape.

For social critics this vision was seductive. Artistic training held tremendous

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promise for social liberation in industrial society. It offered a legitimate outlet for creative energy, and inspired inventiveness and ingenuity in those who learned its principles. It promised, moreover, to reassert the dignity and worth of the human contribution to an increasingly mechanical production process. "As the people become educated to recognize true artistic merit from the shoddy caricatures that are largely the results of the attempts at decoration of the articles in common use at the present time," said a report of the Education Committee of the Trades and Labour Council in 1891, "it will remove the articles in demand farther from the domain of machine-made sameness and poorly-paid labor, giving more work and better remuneration to the masses." This report went on the suggest, as William Morris had done, that "the demand for truly artistic work in decorating articles of every day use will increase and produce a larger market for the educated talent and trained skill necessary to produce such work." 75

Artistic training presented to working people an opportunity to elevate their tastes and attitudes, and thus to rise above the limitations imposed by their daily experiences with the social relations of production.

This vision of art education also triggered the imagination of the journalist and labour reformer Phillips Thompson, whose talent and energy in the 1880s had been turned to promoting the goals of the Knights of Labor. Thompson saw artistic training less as a means of integrating workers into the industrial milieu than as a avenue for the validation of working-class aesthetic forms and subtle cultural resistance. Reflecting

75 The Labor Advocate, 27 March, 1891.
upon the subject in the late 1880s, he mused optimistically that the "esthetic or artistic movement appears to dovetail into Socialism ... the revolt against the Philistinism of commerce as viewed purely from the artistic standpoint." Continuing on this theme, Thompson speculated:

> What began as a purely esthetic movement, appealing to the individual intellect or conscience, is broadening into a crusade against the despotism of competition monopoly for the overthrow of debasing conditions which while they exist negative [sic] all attempts to raise a higher standard of life [and] culture among the mass.76

To Thompson, a "higher standard of life" implied more than just a higher "material" standard. It implied a liberation of the senses, and such a liberation was a co-requisite to the development of independent thought and intelligent political action.

Of course, Thompson's fleeting thoughts on the use of art as a vehicle for social change, while based on the cultural model of artistic training, would not have jibed with the intentions of very many artists and art school promoters. Certainly many members of the province's artistic community concurred with the official view of the economic benefits to be derived from art education, and frequently portrayed their project in an essentially commercial light. The promise of commercial application, no doubt, lent credibility to the promotion of artistic training for mechanics. Enthusiasts were never hesitant to compare their programme favourably with England's South Kensington Institute, which had been accredited (through various hyperbolic claims) with

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resurrecting England's industrial position in the commercial competition of nations.\textsuperscript{77} Likewise, art classes in Ontario were deemed to be of benefit to all workers involved in the various ornamental trades including, for instance, wrought iron workers, stone cutters, wood carvers, engravers, and builders.\textsuperscript{78}

However, from an artistic standpoint, the mandate of art instruction for working mechanics was also intended to transcend the strictly mechanical contours of most industrial and commercial trades training, and provide an education of the senses leading to the elevation of tastes and the enrichment of experiences both inside and outside the workshop. Workers so trained would not just be capable of lending beautiful and tasteful design to their own work. They would also be able to judge the value of others' work, distinguishing tasteful from crude designs in the workshop, in the marketplace, and in society at large.\textsuperscript{79} Improving the beauty and design of manufactures, while certainly a worthy objective, was advocated not as an end in itself, but as a necessary precondition to elevating public tastes generally. Artistic sensibility, after all, was not a product that could be procured but an ongoing process, the object of which was the enrichment of experience and the refinement of life.

This object seemed all the more urgent as an antidote to some of the more


\textsuperscript{78} \textit{Ibid.}, 19-20.

\textsuperscript{79} \textit{Ibid.}
unseemly aspects of modern society. For some critics of late-nineteenth century civic life, the progress associated with urbanization entailed nothing short of the sacrifice of Arcadian beauty and pastoral serenity. In larger cities, such as Toronto and Hamilton, endemic problems such as overcrowding, the class-bound segregation of neighbourhoods, and the creation of working-class slums were rationalized as the trade-offs for industrial progress. New inventions and innovations certainly altered the context of production and changed the face of the city, but not entirely for the better. For just as surely as the high priests of technology preached a teleological sermon of pre-ordained progress, and offered a benediction of material reward, their material blessings concealed the inevitable costs to the more intangible sense of the urban aesthetic. By the early 1890s in Toronto, for instance, the arrival of electric street cars bridged the distance between different neighbourhoods, and helped to accelerate the physical separation of home from work; but in the process it shrouded the streetscape in a grid of black wires. In the grimmest sense, industrial alienation (a 'malady' associated with the disempowerment and isolation of the worker in industry) might be compounded by a broader societal alienation, the result of brandishing the practical at the expense of the ornamental, and the sublime at the expense of the sacred, in the physical forms of urban culture. The cumulative effect of unadorned progress -- of practical utility without regard for environment or ornament -- could only lead to a spiritual dislocation among urban inhabitants. Although urban-industrial society seemed to enjoy a strong heartbeat, in other words, it was precariously in danger of losing its soul.
The aesthetic integrity of civic form demanded a concerted action and commitment from practitioners of the artistic trades, whose roles in the urban mosaic would have to be enlarged from narrow functionalism in order that they might realize a more noble calling. An uplifting of civic form required nothing short of a communion of trades such as carpentry, moulding, engraving, carving and sculpting. In this light, artists and architects, such as Hamilton MacCarthy, appealed to the higher calling of urban designers to elevate the senses and liberate the human spirit through beauty of design and quality of craftsmanship. "In the conception of a noble edifice," MacCarthy intoned, "the architect has crossed the borderline of a mere building -- i.e., a huge cube with holes to admit light and entrance, and entered the domain of the painter and sculptor." 80 Buildings, according to MacCarthy, were more than just functional structures on the urban streetscape. At their best, they were representations of modern culture and civic identity -- landmarks in time, linking the accomplishments of a city's noble past with the promise of an exhilarating future. 81 MacCarthy also urged that cities sponsor local sculptors to erect

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81 One modern urban planner has referred to this process in a much broader context as "the Cartesian logic" of urban development. In this view, cities are organic and evolving; their identities are at once constant and constantly adapting. Urban culture and civic identity are the products of the relationship among past forms, present accommodations, and aspirations for the future. See Hans Blumenfeld, "Continuity and Change in Urban Form," Journal of Urban History 1 (February 1975). For a similar, albeit less philosophical, spin on architecture and urban form, with particular reference to Toronto, see Allan Gowans, "The Evolution of Architectural Styles in Toronto," in Gilbert Stelter and Allan F.J. Artibise, eds., The Canadian City: Essays in Urban and Social History (Ottawa: Carleton University Press,
statuary to adorn public boulevards and civic buildings. Such statuary might impress
upon the public a consciousness of the splendour of artistic expression, while at the same
time paying tribute to past accomplishments. "The pediment of sculpture expresses at
once grandeur, power and life ...," he said, "especially in connection with public buildings
and monuments, in which the nation's history should be indelibly written."\(^{82}\)

By the 1890s, local civic guilds of artists, architects, engineers and planners held
up the standard of what came to be known as the "city beautiful" movement. As Walter
Van Nus has noted, subscribers to this movement were driven by the conviction that "an
ugly environment did psychological damage to all who beheld it."\(^{83}\) This sentiment was a
reaffirmation of the idea that the unchecked encroachments of modernization upon urban
space and social life led inexorably to the pathology of social alienation. In various
Canadian cities, contests for public space -- often class-bound and parochial -- ranged
from campaigns to reserve certain parcels of land for public parks and commons\(^{84}\) to

\(^{82}\)MacCarthy, "The Aesthetic Unity of the Fine Arts...," 3.

\(^{83}\)Walter Van Nus, "The Fate of City Beautiful Thought in Canada, 1893-1930," in
Stelter and Artibise, eds., The Canadian City: 167-186.

\(^{84}\)Elizabeth Bloomfield, "Reshaping the Urban Landscape: Town Planning Efforts in
Kitchener/Waterloo, 1912-1926," and also Paul-André Linteau, "The Development and
Beautification of an Industrial City: Maisonneuve, 1883-1918," both in Stelter and Artibise,
eds., Shaping the Urban Landscape: Aspects of the Canadian City Building Process (Ottawa:
Carleton University Press, 1982): 256-320. See also, R.A.J. Macdonald, "'Holy Retreat' or
'Practical Breathing Spot'?: Changing Perceptions of Stanley Park, 1883-1913," Canadian
Historical Review 65 (June 1884).
campaigns for the adornment of public buildings.\textsuperscript{86} In Toronto, G.A. Reid of the OSA, along with other local artists, helped to inaugurate the Toronto Guild of Civic Art, dedicated to the adornment of public buildings, such as Union Station, City Hall and the provincial parliament, with murals and paintings (although Hamilton MacCarthy did urge that the organization not "lose sight of sculpture as a decoration for public buildings").\textsuperscript{86} The Ontario Society of Artists wasted little time in endorsing the aims of the Toronto Guild of Civic Art, for as G.A. Reid noted: "our influence should always be given in aid of every project to beautify the city."\textsuperscript{87}

If the therapeutic benefits of artistic consciousness were to be realized through the aesthetic conditioning of the urban environment, the workshop, the commercial marketplace, and even the home, then similar benefits might accrue from beautifying the environment in which children learned. Throughout the late-nineteenth century, much attention was given to questions of the environment of education. Indeed, childhood was the stage of life when the bleakness of the surroundings militated most against positive learning and sewed the seeds of social alienation. It was also the time of life when the


\textsuperscript{87}Ontario Society of Artists, \textit{Minute Book}, 25 March, 1897, 233-234.

\textsuperscript{87}AO, MU 2257, Ontario Society of Artists, Series IV-I, Presidents Annual Report, 1901 (G.A. Reid, President).
restorative influences of art could have their greatest influence upon the development of creative powers and healthy social attitudes. In the late 1890s, therefore, members of the OSA, along with the Toronto Guild of Civic Art and the Women's Art Association, spearheaded the formation of school art leagues, starting in Toronto in 1896.\textsuperscript{88} The purpose of these art leagues was modest: to encourage the artistic design and decoration of classrooms and school yards. The expectations, however, were ambitious -- although no less ambitious than the expectations of promoters of art education generally: that an aesthetic environment would help to foster the development of a public artistic consciousness and an elevation of public tastes. By 1900, there were twenty branches established across various school sections in the city, all monitored by a central body ("organized to carry out a uniform plan")\textsuperscript{89} under the direction of the Toronto public school inspector James L. Hughes. The central advisory board, in an effort to encourage the widespread adoption of idea of school art leagues across the province, published a pamphlet detailing the aims of the movement. The pamphlet, published by the education department, was distributed to school districts across the province.

Thus artists and art promoters, through their membership in organized professional bodies, as well as through their public art exhibitions and their involvement in movements such as the civic guilds, attempted to raise the level of artistic

\textsuperscript{88}Ibid., "The President's 27th Annual Report, 1899, (G.A. Reid, President)," 4. The first school art league was formed in the Rosedale School in Toronto.

\textsuperscript{89}Ibid., "President's Annual Report, 1900 (G.A. Reid, President)," 4-5.
consciousness in society by bringing art before the public in a concrete way. Such activities were admittedly self-promoting. But their initiatives were also inherently educational in scope, and served to place the project of evening technical art classes in much broader context, while ascribing to it a higher sense of purpose. Instructing the working mechanic in the practical application of artistic principles seemed to have as much to do with restoring the primacy of craftsmanship and autonomous creativity to industrial trades, and raising the public's expectation and appreciation of fine workmanship, as it had to do with basic industrial skills training and improving commercial competitiveness. In fact, promoters of evening art classes fully expected that the latter might be realized as a matter of course if the former were pursued genuinely and sincerely.

**The Resilience of the Craftsman Ideal**

Although the focus on either the workplace or societal benefits of art education may have appeared out of step with the scientific ethos of current educational discourse, it proved to have an enduring appeal in the late-nineteenth century. Despite the developing mechanization of modern industry, industrial art promoters could confidently assert the continued 'exchange value' of art in modern industry and commerce. On the other hand, social reformers could just as confidently defend the 'use value' of artistic training (as being intrinsically worthwhile to those whom it reached), while they used
artistic consciousness as a foundation for social criticism. In spite of the efforts of Dr. May and others to integrate industrial art into a general utilitarian framework of technical education, art also provided a venue to critique the concept of utilitarianism itself. Indeed, this critique spanned the spectrum from the liberal humanism of L.R. O'Brien or Hamilton MacCarthy to the non-conformist radicalism of Phillips Thompson or even John Ruskin.

For many art enthusiasts of the 1880s, the promotion of workers' art education drew its energy from an abiding faith that the artistic tradition of craftsmanship was not extinct, but merely dormant. In truth, it was not entirely dormant either. Industrialization proceeded apace during the late-nineteenth century; but it also proceeded unevenly; and where it made its biggest impact, its results were far from uniform. While some trades became segmented and 'deskilled,' others were transformed. Blacksmiths -- with brawny arms and flaming forge -- might have been symbolic of a bygone pre-industrial ethos; but, the blacksmith's skills found lingering applications in the new work environments of the machine-driven factory. While industrialization built upon the persistent legacy of many artisan's skills, its cold mechanization invited the romanticization of the artistic, autonomous craftsman.

Indeed, there remained much to celebrate in the artisan tradition. The handicrafts ideal acclaimed the fusion of form and function in manufactures -- the blending of art and utility. Craftsmanship lent dignity to labour, value to manufactures, and credence to the work ethic. It enhanced the quality of products and elevated the tastes of the consumer.
It offered a respite from the vulgar ‘sameness’ of factory-made manufactures. By attempting to resurrect the spirit of craftsmanship, promoters of art education did more than simply recoil from the industrial present. With a gaze fixed firmly on the future, many of them tried to temper the uncertainty of change with the stability of tradition. Reviving the link between art and industry suggested an imperative that transcended the bounds of narrow economism and cascaded into the realm of social ethics. Taking a cue from the Arts and Crafts movement, some enthusiasts of art education shared in the vision of a trail to social redemption blazed through the furrow of an idealized past.
Chapter Five

Training for the Industrial Age:

The Toronto Technical School, 1889-1902

This distinctive character of our own times lies in the vast and constantly increasing part which is played by natural knowledge. Not only is our daily life shaped by it; not only does the prosperity of millions of men depend upon it, but our whole theory of life has long been influenced, consciously or unconsciously, by the general conceptions of the universe, which have been forced upon us by physical science.

Thomas Henry Huxley

The difference between a scientifically educated workman and one who is totally ignorant of science is as great as that which divides a blind man from one who can see. The one goes about his work in a "rule of thumb" manner, having, it is true, the teaching of experience as to the various phenomena he comes across in the course of his trade, but knowing nothing of the theory which weaves those phenomena into a complete system, and which will enable him to make fresh progress.

Sub-Committee on Technical Education
Toronto City Council, July, 1890
Alderman Gillespie, Chairman

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The gradual displacement of craft culture by industrial culture found a suitable parallel in the apparent displacement of art by science as the grounding discipline of technical education. By the late 1880s, the province's scattered network of mechanics' institutes and art schools began to show signs of waning. Critics were quick to point out how the forces of industrialization had begun to erode the mandate of these centres, while enrolments in the mechanical art and design classes started to decline in some centres. To some discriminating observers, these centres no longer represented paragons of utility. Instead, they seemed to cling quixotically to the fading culture of bygone industry. Their programmes remained stuck in the mire of a passing technique; their gaze remained fixed on the exigencies of a passing era; their ideals remained rooted in a passing archetype. The craftsman ideal, albeit a romantic image, lost much of its classical charm in the din of the new-style urban factory.

Yet, while the sharpened blade of utility whittled down the romantic totem of handicraft tradition, the apparent demise of formal apprenticeship (so much a part of this tradition) raised the hackles of critics who feared that a valuable social institution of skills training and workshop preparation was disappearing. In the modern age, the industrial trades continued to demand some form of skills training and workshop socialization. Yet, for all intents and purposes, industrial employers had all but abdicated any responsibility for the long-term, formal training of their apprentice mechanics. During the 1890s, the Toronto Technical School attempted to fill the void by adapting some of the traditional educational goals of apprenticeship to the exigencies of the modern urban-industrial
environment. In the process, it signalled a further step in the direction of public responsibility for skills development.

The Royal Commission on the Relations of Labor and Capital

Debates over educational reform and technical education aroused acute interest in the ranks of both industry and labour. By the end of the 1880s, the urgent need for technical education programmes may have been one of the few things that capital and labour could agree upon, albeit for markedly different reasons. The hearings conducted by the Royal Commission on the Relations of Labor and Capital in 1887-88 revealed not only the extent to which the interests of labour and capital diverged, but also the points at which they intersected. On the matter of technical education, employers' anxieties about competitiveness and progress, and workers' apprehensions about incomes, skills depletion and job security coalesced in a general appeal for government involvement in the development of more useful programmes in the industrial arts.

In the wake of the Royal Commission's hearings, two reports were tabled. The minority report, tabled by the chairman, A.T. Freed of Hamilton in February, 1889, bore the signatures of five commissioners collectively dismissed as "the capitalist group" by their critics.³ This report roundly endorsed the efficiency of Canadian public schools, and

³Gregory S. Kealey, ed., Canada Investigates Industrialism: The Royal Commission on the Relations of Labor and Capital, 1889 (Toronto: University of Toronto Press, 1973), xi-xii, xiv-xv. In addition to Chairman Freed, this report was signed by Jules Helbronner (a
proudly boasted that "the youth of Canada have educational advantages not surpassed in the world." Still, the problems of industrial competitiveness suggested the need to rethink part of the mandate of public schooling. The Freed report recommended that some priority be given to engrafting technical schools for mechanics onto the mainstream educational programme. While the School of Practical Science in Toronto offered scientific instruction for engineers and the School of Mining in Kingston offered training in geology and metallurgy, little actually existed in the way of scientific technical training for mechanics. Meanwhile, manufacturers' complaints to the Royal Commission about the chronic shortage of skilled labour in Canada were not adequately being addressed.

The eight remaining commissioners, led by the Toronto printer and labour leader John Armstrong, appended their signatures to the majority report. On the matter of education, the Armstrong Report differed from the Freed Report in one important respect. While the Freed Report recommended the advancement of "technical knowledge" as a

journalist from Montreal), James Clark (a builder), Michael Walsh (a Halifax master carpenter), and Guillaume Boivin (a Quebec City manufacturer).


Ibid., x-xii, xv, and 40. Kealey notes that in the second round of appointments to the Labor Commission, "an effort was made to recruit more workers -- Tory workers of course" (p.xii). The so-named 'labour group' which signed the Armstrong report comprised the following: John Kelly (Maritimes), S.R. Heakes (Toronto carpenter), Hugh A. Maclean (London Knights of Labor -- nominated by John Carling, Minister of Agriculture), Urias Carson (formerly of the Workingmen's Liberal Conservative Association), John Armstrong (Toronto printer and labour leader), William Hagerty (Maritimes), William A. Gibson (Workingmen's Liberal Conservative Association), and Patrick Kerwin (Quebec Ship Labourers' Benevolent Society).
means of addressing industry's need for competent workers, the Armstrong Report 
recommended comprehensive reforms to the educational system, including the 
advancement of technical instruction, to render the curriculum more practical, more 
relevant, and more flexible. Armstrong did not appear to share his business colleagues' 
enthusiasm for the thoroughness and quality of the public schools. On the contrary, he 
alluded to evidence concerning the persistent (and related) problems of truancy and child 
labour -- of children toiling in workshops who were unable to read or write. Armstrong 
cited truancy and child labour, however, not as examples of the social costs of poverty, 
but as evidence that schooling was still being rejected by working families as 
impractical.⁶ Like the Freed report, the Armstrong Report also recommended the opening 
of more evening technical classes to permit working adults to sharpen their skills and to 
acquaint themselves with the rudiments of machine technology, in order that they might 
become better equipped to secure their jobs against foreign competition.⁷

Just two months prior to the release of the minority report of the Labor 
Commission, Ontario education minister George Ross met with a deputation of Toronto 
manufacturers and artisans to solicit their views on the matter of educational reform and 
industrial requirements. Much of the testimony presented at this meeting presaged the 
recommendations of the Labor Commissioners. The consensus among this delegation 
was that a new and vigorous approach to the planning and delivery of technical education 


⁷Ibid., 57-58.
was required in order to accommodate the new realities of industrial production and
competition. The system of mechanics' institutes and art centres was roundly discounted
as an increasingly inefficient and impractical means of disseminating the particular
knowledge and skills demanded of workers in modern trades and industries. These
institutes, suffering mostly from inflated expectations and an ambiguous mandate, were
expected to do too much with too little. Their resources were thinly stretched; their
services were over-extended; and their programmes were underutilized.⁸

The advice that Ross received from this delegation was unambiguous. Almost
uniformly, artisans and manufacturers petitioned the education minister to undertake
radical steps both to concentrate his efforts in the direction technical education and to
integrate preliminary technical work into the public school curriculum. Technical
education, they urged, should be of a practical and scientific bent, with certain schools
and other training facilities being well equipped with the tools of modern industry.⁹

⁸Ontario, Legislative Assembly, Report of the Minister of Education on the Subject
of Technical Education (Toronto: Warwick & Sons, 1889). See particularly the opinions
expressed by Mr. Polson (the president of Polson Iron Works in Toronto), Mr. Thomas
Moore (a Toronto carpenter), and the Rev. Dr. Wild. George Ross himself pointed out at this
meeting that in 1887 there were 186 mechanics' institutes in Ontario, but their classes were
attended by only about 2,000 students (between 10 to 11 students per institute, on average).

⁹Ibid., 167. F.B. Polson, the president of Polson Iron Works in Toronto, recommended that early technical instruction be offered in the public schools, that night
schools be opened for instruction in industrial handicraft, and that all facilities be equipped
with tools and machinery to acquaint pupils with the workings of modern industry. The
carpenter, Thomas Moore, suggested that the province be 'dotted' with technical education
centres which, he was confident, mechanics and artisans would "take full advantage of ...
gladly." In particular, Moore stressed the importance of geometry instruction to practitioners
of his own trade.
However, rather than implementing the sorts of comprehensive measures increasingly favoured by manufacturers and trades groups alike, Ross chose to encourage reform at the community level through the existing machinery. The Minister sponsored a bill (54 Vic. Ont., Cap.42, Sec.19), amending section 495 of the Municipalities Act, which gave the legislative authority to city councils to enact by-laws to establish technical education schools, and to place the organization of classes under the jurisdiction of the Free Library Boards.\(^{10}\) Local option remained the guiding principle behind technical education, perhaps owing to the continued reluctance of the education department to graft technical education onto the public school programme. Toronto, being not only the largest but also the most industrialized and commercially diversified city in the province, became the first city to respond to Ross's amendment.

**Civic Boosterism and Technical Education: The Case of the Toronto City Council**

In October, 1889, John Galt addressed the Free Library Board in Toronto to present a detailed proposal for an Industrial College in the city. Parroting a familiar refrain of modern political economy, Galt suggested that a well-equipped technical school would "tend to preserve and secure a skilful and intelligent artisan class," while "assist[ing] the more talented and aspiring to improve not only their own condition and

chances but that of their fellow men." Galt proposed that the school be equipped with both an industrial science department and an industrial arts department, thus "combining in a harmonious whole, all the interests concerned" in the project of technical education. Students might be able to study ornamental drawing and industrial design, as well as algebra, Euclid, geometric drafting, mechanics and chemistry. Galt stressed that the instruction given should be specific to no trade, but should instead be general and widely applicable. While specific trades might have required on-the-job specialization, the fates of the industrial labour market favoured favourably upon workers who were more flexible and adaptable to different tasks, new technologies, and changing work processes.

The civic boosterism of Galt's technical school promotion was unmistakable. Galt expressed confidence that his proposal "would place the city of Toronto on a footing equal, if not superior, to any large city on the continent, at a small annual expenditure of money, out of all proportion to the great benefit to be derived." Surely, the greatest benefit would be derived if technical classes were located in close proximity to working-class neighbourhoods and industrial establishments, thus making them most accessible to

11AO, MU 2121, "Report of John Galt to the Free Library Board, Toronto, on Industrial Science and Art Education, 30 October, 1889."

12Ibid. William Revell and a small delegation from the Ontario Society of Artists attended this meeting and "offered the services of the Society should they be required in the formation of, and carrying on the Industrial Schools about to be started." In the discussions that would ensue in City Council, however, the proposal to use the Art School facilities offered by the Society was rejected. See Ontario Society of Artists Papers, Series III, Minute Book, Monthly Meeting, 12 November, 1889, 275.

13Ibid.
the mechanics of the city. The initial deliberations on the matter in city council, therefore, led to a general agreement that perhaps "four or five schools should be opened in different parts of the city," suggesting the broad support for technical education among local politicians, both of business and labour stripes. The Public Library Board, however, declined to accept this new responsibility, regarding it as being beyond the board's legitimate sphere of operation and competence. Some councillors also expressed their concern that a technical school operating under the Library Board might become little more than a glorified mechanics' institute. Next, the city council debated the feasibility of "establishing public schools for imparting scientific instruction to the working classes ... under the Public School Board." However, this course of action would have required another legislative amendment which the education department appeared unwilling to entertain at this time.

The ball was clearly in the city council's court. Alderman Gillespie emerged as one of the staunchest advocates of a civic technical school. In June, 1890, Gillespie presided over the executive committee's newly formed Sub-Committee on Technical Education, which quickly tabled an earnest report. "Not only is Toronto behind other


16Toronto City Council Proceedings, 17 February, 1890, in Ibid., 28. This motion was put forward by Alderman Bell and seconded by Alderman Bailey.
cities of equal size in this respect," the report warned:

but we have reason to suppose that our industrial progress will suffer in the future unless provision be made whereby our workers may become as intelligent and well informed as those of other cities. ...This is no untried field of labor. There are plenty of examples to learn from both on this continent and in Europe, all of them showing that if we are to keep our position in these competitive days, we must educate our artisan population.17

Indeed this was "no untried field of labor." Russian, German, American and even British cities had all made significant advances in providing scientific and artistic technical education to working mechanics and artisans. For Toronto the message seemed clear: competitiveness began in the classroom, not in the workshop or factory.

If Toronto was at a disadvantage for having fallen behind other industrial centres, it now enjoyed the convenience of having several international models to study before establishing its own programme. The pressure of foreign competition, as P.W. Musgrave has observed, tends to be a major stimulus to the promotion of technical education.18 Certainly, the well-equipped technical training institutes of Boston, New York and Philadelphia provided one model; the polytechnical institutes of Germany another. While the former model aimed at reaching the industrial rank and file, the latter targeted the managers, foremen, and industrial engineers. The preference of the Gillespie sub-


committee leaned heavily towards the former model. Technical education should be aimed at enhancing the labour power of working mechanics, rather than the supervisory capabilities of the directors of labour. The report, therefore, recommended that a well-equipped central school (and no fewer than three branch schools) be established in the city, to make evening classes as accessible as possible to working people.

Alternatively, of course, some critics insisted that more attention should indeed be given to enriching the skills of the organizers and planners of the work process. Among these critics, as J. Rodney Millard has shown, many of the spokesmen of the engineering profession could be counted.\textsuperscript{19} From the engineering perspective, the technical knowledge and organizational skills required of machine designers and managers of modern work processes might well have been considered most vital to the efficiency of the modern urban-industrial workplace. Technical education might be better allocated to "the direction of labour rather than its actual performance (to echo a phrase once used by S.P. May). "This is what Germany is doing," noted Bernard McEnvoey in 1902, "and Germany is continually being held up to us, not without reason, as an example to follow."\textsuperscript{20}

On the other hand, spokesmen for the labour movement, whether liberal or radical in orientation, had long maintained that workers themselves would benefit immensely

\textsuperscript{19}J. Rodney Millard, \textit{The Master Spirit of the Age: Canadian Engineers and the Politics of Professionalism, 1887-1922} (Toronto: University of Toronto Press, 1988).

from technical education. The *Ontario Workman* in 1873 remarked that mechanics with technical training were best able to assert their dignity and respectability, and defend their status as skilled workers in the industrial order.\textsuperscript{21} The *Palladium of Labor* in 1884 insisted upon a balance to the classical and theoretical instruction which saturated public education, and called for a public commitment to technical instruction "to stimulate [the] latent inventive genius" of working people.\textsuperscript{22} And the Educational Committee of the Toronto Trades and Labor Council in 1891 declared that technical education should result in a better quality of production and higher wages for workers.\textsuperscript{23} Significantly, the cross currents of cultural refinement and practical utility that ran through so much of the public debate over educational reform were equally in evidence in the perspectives of organized labour on technical education.

Yet in the dialogue of labour spokesmen, these two orientations were fused into one general appeal that technical education, whether practical or theoretical, had to be directed towards the producing classes. The Toronto Trades and Labor Council was quick, therefore, to show its appreciation for Alderman Gillespie's position.\textsuperscript{24} When


\textsuperscript{22}*Palladium of Labor* 23 February, 1884, 188.


\textsuperscript{24}*Labor Advocate*, 27 March, 1891. The T.L.C., in fact, endorsed Alderman Gillespie's candidacy in the 1891 municipal election, and expressed unqualified satisfaction at his victory declaring: "The report of the Education Committee was presented and it congratulated the Council on ... the return at the head of the poll of Ald. Gillespie, who made such strenuous efforts to obtain technical classes for artizans. See the *Labor Advocate*, 23
Gillespie's principal recommendations that technical classes be established in several locations around the city, and that $8,000 be earmarked for the purpose, were rejected by the city council because of budgetary constraints.\textsuperscript{25} the Education Committee of the Toronto T.L.C. reacted with disappointment. "Organized labor can make up its mind," noted the Committee's report,

that technical schools in Toronto for some time to come are snowed under, after being led to believe for a long time that those schools, so much needed in our midst, were to be put in operation. The action taken on the matter... proves how much those figureheads of our city care for the interests of the working classes or how densely ignorant they are of the necessities of the occasion.\textsuperscript{26}

Despite labour's initial disaffection, this vote signalled only a momentary set-back rather than an abandonment of policy. The city council still proved eager to accommodate the demands for technical instruction, and continued to consider alternative means of delivering it.

In October, 1891, the city council voted to allocate the smaller sum of $6,000 to establishment of technical schools in the city by transferring funds from the expected operating surplus of the street railway.\textsuperscript{27} After much deliberation, city councillors opted for a single, centrally-located technical school, instead of a small network of ward-based

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January, 1891, 62.

\textsuperscript{25}Ibid., 12 June, 1891, 219.

\textsuperscript{26}Ibid.

\textsuperscript{27}Toronto City Council Proceedings, 12 October, 1891, in Annual Report of the Bureau of Industries, Part IV, 1893, 32.
technical training centres, thus avoiding a costly duplication of services and equipment. The arrival of the electric streetcar to Toronto in 1891 might even have rendered the central school more accessible for prospective students. In December, 1891, the council passed a by-law establishing a technical school in the city, to be located in the St. Lawrence Hall.

The Toronto Technical School was established with municipal funding under the auspices of the city council. For the purposes of school management and administration, council appointed a board to direct the curriculum and control the on-going operation and activities of the school. Following the recommendations of the Gillespie sub-committee, this board included representatives from the city council as well as "prominent manufacturers and other employers of labor, educationists, and a fair representation of the working-classes." Gillespie suggested that this board be called the Workman's Technical Education Board. However, by the time this supervisory board was established, it was given a less parochial, more class-neutral title: the Toronto Technical School Board. Seventeen members composed the Board, comprising five from the city

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29 Toronto City Council, A By-Law to Establish a School for the Training of Artisans, Mechanics and Workingmen, in such subjects as may promote a knowledge of mechanical and manufacturing arts, passed Toronto, 7 December, 1891; reprinted in Annual Report of the Bureau of Industries, Part IV, 1893, 34-35.

council (the Mayor and the Chairman of the Executive Committee included), five from the Toronto Trades and Labor Council, two from the Association of Stationary Engineers, two from the Architectural Guild, two educationists and one manufacturer.\textsuperscript{31}

Members sympathetic to the needs of labour were well represented in the original Technical School Board. Of the five representatives of city council on the board, three of them (J. Hallam, Dr. J.O. Orr, and Mayor E.F. Clarke) had cast the only votes earlier that year in favour of an $8,000 municipal subscription to the school. In fact, the Mayor himself was originally a printer by trade, and had been active in working-class politics in the city for several years.\textsuperscript{32} In addition to the aldermanic representatives, the original appointments included some of the leading lights of the local labour movement. Among the five representatives of the Toronto T.L.C. in 1891 were John Armstrong (the Toronto printer who had recently distinguished himself in the Royal Commission on the Relations of Labour and Capital), Fred C. Cribben (who also served as chairman of the Education

\textsuperscript{31}Each of the bodies from which members were drawn was entitled to nominate its own representatives, the only exceptions being the two educationists and the lone manufacturer, who were appointed by the city council. Toronto City Council Proceedings, "Report No.36 of the Executive Committee," submitted 21 November, 1891, reprinted in Annual Report of the Bureau of Industries, Part IV, 1893: 32. By 1902, the Board had been expanded to comprise twenty-three members, with the addition of 4 representatives from the Canadian Manufacturers' Association, 2 from the Federated Building Trades Council, 2 from the Federated Metal Trades Council, 1 from the Toronto Board of Trade, 1 from the Toronto Builders' Exchange, and 1 from the Allied Printing Trades Council. See "Prospectus of the Toronto Technical School, Session 1902-03," AO Pamphlet, 1902, no.59.

\textsuperscript{32}See the Labor Advocate, 12 June, 1891, 219. For biographical information of E.F. Clarke and his labour activities, see Kealey, Toronto Workers Respond to Industrial Capitalism, 223-224.
Committee of the Toronto T.L.C. in the early 1890s, Daniel J. O'Donoghue (a printer and Knights of Labor District Assembly leader), and Robert Glockling (former president of both the Bookbinders' Benevolent Society and the T.T.L.C.).\textsuperscript{33} Future appointments from the T.T.L.C. during the 1890s would also include such distinguished company as Charles March, John Tweed, A.W. Holmes, and James (Jimmy) Simpson.\textsuperscript{34} Other notable appointees, such as Professor John Galbraith from the School of Practical Science and the University of Toronto, and the appliance manufacturer John Inglis, rounded out the list.

**The Technical School and the Exigencies of the Urban-Industrial Labour Market**

In the discussions surrounding the establishment of a civic technical school, much was made of the benefits that this institution might have in fostering the city's industrial goals. However, to focus merely upon the school's appropriateness to the economic landscape of the new industrial city is to see only half the picture. For as much as this


school tried to respond to the changing economic environment of industry and commerce. it also reflected the many changes wrought in the urban labour market by the 1890s.

Throughout the 1890s, the school administration actively tried to demonstrate its support and its sympathy for the needs of working people. In 1895, as a means of demonstrating its affinity with workers and labour culture, the board took out a full-page advertisement in the annual Labour Day Souvenir. In 1897, the board accepted an invitation from Robert Glockling (who was serving as Secretary of the Labour Day Demonstration Committee) "to participate with the Labour and Social Reform Organization and City Council in the annual demonstration" in September. The programmes and benefits of the school were also made known to workers through published pamphlets. In 1900, the school management committee even advised that the board employ the services of a paid agent who would distribute these pamphlets to workshops and factories and address the workers on the advantages of technical education.

The school's attempts to respond to the new realities of the urban labour market became evident from the earliest stages of planning. In 1891, following discussions with

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35Ibid., 8 August, 1895, 183. If the identities of the Board members is any indication, then this motion was endorsed equally by partisans of labour and capital. The idea of reaching workers by advertising in the Labor Day Souvenir was suggested by the printer John Armstrong (of the Royal Labor Commission) and F.B. Polson, the president of Polson Iron Works.

36Ibid., 24 August, 1897, 318.

various representatives from the School of Practical Science, the Association of Stationary Engineers, and the local Trades and Labor Council, the Executive Committee of the city council echoed the advice of the Gillespie sub-committee's report and recommended that schools be opened in four locations around the city: one in the downtown core, one in Parkdale, one in St. Matthew's Ward and one in St. Paul's Ward. While this advice was not heeded by the city council, the choice of accommodations for a single school was influenced not only by the availability of a site but also by the site's proximity to streetcar routes.

It was understood that those mechanics and trades people who might attend the technical classes would most probably arrive at the school from their places of work in the early evenings and return home afterwards. If the school were to fulfil its mandate, then it had to be as accessible as possible for its prospective students. Naturally, the school site needed to accommodate both students and equipment. But it also had to accommodate the rhythms and patterns of daily work schedules, industrial location and urban living space.

Based on this yardstick of accessibility, concerns soon arose that the central school did not measure up to its mandate. In November, 1894, E.B. Merrill, having only recently been appointed as principal, raised the discouraging fact that with 593 students currently enroled in the school, the average nightly attendance was only 288 (about 49

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per cent). Merrill attributed this daily short-fall to the inaccessibility of the school for many students. Referring to "a map of the city showing the distribution of places of residence of students," Merrill demonstrated that while the school was centrally-located, many of the students lived well-outside of the downtown core -- a possible consequence of industries locating closer to the margins of the city during the 1880s.\(^{39}\)

Taking this theme a bit further, if the school were compelled to respond to the realities of the modern urban labour market, these realities were not limited to the particular constraints of time and distance imposed upon working mechanics and trades people. Chronic underemployment for many workers was just as surely a reality of the modern urban labour market. This situation was likely exacerbated by the manufacturing crisis of the mid-1890s, the blame for which the Toronto Ratepayers' Association left squarely in the lap of the labour movement.\(^{40}\) Statistics collected by the Bureau of Industries in the mid-1880s testified to the manner in which seasonal work and job instability only served to compound the problems associated with soaring rents and housing costs in the city.\(^{41}\) (D.J. O'Donoghue, who had been appointed to the Bureau of


\(^{41}\) Greg Kealey, "Working-Class Toronto at the Turn of the Century," (unpublished paper, 1973), AO Pamphlet, 1973, no.20. In 1901, George Ross also itemized the increases in the cost of living for working people between 1880 and 1900. His itemized lists depicts a 40% increase in house rents, a 20% increase in fuel, a 50% increase in eggs, a 40% increase in vegetables, an 80% increase in small fruits, and a 35% increase in butter, among a host of
Industries in the mid-1880s, was no doubt well acquainted with these data.) To what extent would the technical school attempt to accommodate the particular needs of the unemployed and casual workforce as well as working mechanics?

Since evening classes were intended to accommodate the routines of mechanics employed by day, the school was generally closed during the very hours that would have been most appropriate for providing instruction and practical training to the unemployed. In 1894, a number of students signed a petition to the principal requesting that the drafting room be opened during the afternoons.\textsuperscript{42} However, two years passed before the chairman of the technical school board recommended that school facilities be made available in the afternoons during the winter, under the supervision of an instructor. "Many of our mechanics who are out of work during that part of the year," said A.M. Wickens, "would no doubt avail themselves of such an opportunity."\textsuperscript{43}

This recommendation was followed almost a year later with another petition signed by 57 students, many of whom were said to be unemployed, asking that afternoon classes be established. The School Management Committee, acting on the advice of a new principal, Dr. McMaster, nevertheless recommended in February, 1897, that the other important staple items in the average working-class household budget. See R.G.3, Box 1, George Ross, General Office Files, "Cost of Living in Toronto, 1901."

\textsuperscript{42}T.B.E. (Hist. Coll.) Technical School Board Minutes I (5 February, 1894), 107.

\textsuperscript{43}Ibid, 25 February, 1896, 230.
petition of the students "be not entertained."

This decision was primarily borne out of sense of budgetary constraint. However, it also reflected a suspicion that day classes might attract youngsters away from public school, and that they might be disrupted by the unruly behaviour of truants and loiterers. Initially, the Board's mandate to accommodate the exigencies of the new industrial labour market did not appear to extend to the margins of that labour market, to fully accommodate the needs of labour's "reserve army."

Plagued with problems of space and accommodation throughout the 1890s, the Toronto Technical School experienced significant difficulties accommodating its main clientele of working mechanics, and its directors showed little inclination to stretch their resources further by extending them to the working poor and the chronic unemployed in the city. In the second year of operation, the school's enrolment had almost doubled, resulting in an average ratio of one teacher for every 109 students registered. The municipal grant, however, remained about the same, having been calculated from enrolment estimates based on the previous session. The original facilities at the St. Lawrence Hall soon proved inadequate and the school was moved to the old Wycliffe Hall, at the corner of College and McCaul Streets -- a location at once adjacent to the

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45One could only speculate on how this increase in enrolment (which peaked in 1896) was affected by the stipulation in the province's truancy legislation requiring all children between 14 and 16 years of age who had not passed the high school entrance examination "to attend a night school for at least three months each year." The depressed manufacturing condition in the city during the 1890s might also provide a clue to this escalating enrolment. See the Labor Advocate, 8 May, 1891, 179.
University of Toronto campus. It was also situated on the northern extremity of "the Ward," a large downtown neighbourhood that was fast becoming known as Toronto's infamous slum district.  

46 This site, despite its central location, would prove to be constraining,  

47 as the ratios of instructors to students consistently hovered well above 70. In 1898, the school's principal expressed some concern "that class rooms which only accommodated 72 students were nightly occupied by 110 to 120."  

48 [The data in Table 4 suggests in more detail the level of the apparent overcrowding throughout the 1890s, and the extent to which the school's resources were overtaxed, as grants failed to keep pace with costs.]

As the data in Table 4 indicate, the ratio of teachers to students widened significantly in the first four years of the school's operation. This ratio peaked in 1896, when the number of students enrolled more than doubled, while the corresponding increase in faculty increased by less than half. With the addition of a few more teachers by 1900, and a marked decline in enrolment (about 33 per cent), the ratio of students to teachers began to level off. Yet, at almost 80 to 1 in 1900, this ratio still suggested that the resources of the school were being significantly taxed.


Table 4

Ratios of Teachers, Students and Expenditure,

Toronto Technical School, 1892-1901

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Teachers</th>
<th>Pupils On Roll</th>
<th>Pupils/Teacher</th>
<th>Operating Grant</th>
<th>Cost/ Pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1892</td>
<td>5</td>
<td>231</td>
<td>46.2</td>
<td>$7,570</td>
<td>32.77</td>
</tr>
<tr>
<td>1893</td>
<td>5</td>
<td>546</td>
<td>109.2</td>
<td>7,000</td>
<td>12.42</td>
</tr>
<tr>
<td>1894</td>
<td>7</td>
<td>631</td>
<td>90.1</td>
<td>6,998</td>
<td>11.09</td>
</tr>
<tr>
<td>1895</td>
<td>7</td>
<td>759</td>
<td>108.4</td>
<td>9,323</td>
<td>12.28</td>
</tr>
<tr>
<td>1896</td>
<td>12</td>
<td>1511</td>
<td>125.9</td>
<td>9,995</td>
<td>6.61</td>
</tr>
<tr>
<td>1897</td>
<td>14</td>
<td>1077</td>
<td>76.9</td>
<td>11,465</td>
<td>10.65</td>
</tr>
<tr>
<td>1898</td>
<td>14</td>
<td>1134</td>
<td>81.0</td>
<td>12,098</td>
<td>10.67</td>
</tr>
<tr>
<td>1899</td>
<td>14</td>
<td>1056</td>
<td>75.4</td>
<td>12,294</td>
<td>11.64</td>
</tr>
<tr>
<td>1900</td>
<td>15</td>
<td>1194</td>
<td>79.6</td>
<td>12,861</td>
<td>10.77</td>
</tr>
<tr>
<td>1901</td>
<td>15</td>
<td>1710</td>
<td>114.0</td>
<td>15,337</td>
<td>8.97</td>
</tr>
</tbody>
</table>

Source: Calculated from data provided in Annual Report(s) of the Toronto Technical School Board, 1883-1902.

The quest for suitable permanent accommodations continued throughout the 1890s. On a number of occasions, the board petitioned both the city council and the provincial education department to provide funds for a permanent building that would be adequate for the school's needs. This appeal, however, was unsuccessful. On the one
hand, the city council proved reluctant in the mid-1890s to allocate the funds necessary to purchase and equip a permanent building during a manufacturing depression. On the other hand, the education minister, although favourably disposed to the work of the school, preferred to point to the example of European cities where technical schools were provided entirely by municipalities.\textsuperscript{49} By the late 1890s, however, George Ross was persuaded to promise an operating grant on the condition that the city provide the school with permanent accommodations.\textsuperscript{50} In 1900, the city finally agreed to purchase a permanent site for the technical school, adjacent to the University of Toronto, at a cost of $59,000 plus an additional $18,000 for remodelling and equipment.\textsuperscript{51}

The Technical Curriculum: Forging a Correspondence

Between the Classroom and the Workshop

The Board's efforts to forge links between the civic technical school and the city's labour market were reinforced by its conscious efforts to establish a continuity between

\textsuperscript{49}Ibid., 7 March, 1892, 18; 24 October, 1893, 86; 7 November, 1893, 89-90; 18 November, 1894, 142-43; 27 November, 1894, 139; 25 February, 1896, 230; 27 October, 1896, 272.

\textsuperscript{50}Ibid. vol.I, 17 February, 1898, 353; and vol.II, 6 February, 1899, 3; 16 March, 1899, 9-10; 21 August, 1899, 19-20. After 1900, the operating grant would be contingent upon the report of the province's inspector of technical education, Albert H. Leake. See AO, R.G.2, D-7, Box 12, A.G. Horwood (Secretary, Toronto Technical School Board) to Richard Harcourt (Minister of Education), 25 September, 1902.

the classroom and the workshop. In an address to the staff and students at the opening of
the second session in October, 1892, principal John A. Duff insisted that a technical
curriculum could be delivered successfully only if channelled through a technical
pedagogy. Duff recognized the importance of teaching the new kinds of industrial
knowledge that were being developed; but he also understood that this teaching had to
reflect the ways in which industrial knowledge was now being organized and processed
in the modern workplace. To reach its intended student clientele, the new technical
curriculum had to remain accessible to a wide audience of trade labourers. It had to gel
with the realities of their working lives and resonate with their working experiences. It
had to be, in short, practical. But to be worthy of the name 'technical education' this
curriculum also had to transcend the merely functional level. Principal Duff, therefore,
tried to place scientific technical instruction on a higher rhetorical plane -- a distinctly
educational plane. Its status must not be diminished simply because it was offered to
working mechanics.

Like the noted British scientist Thomas Huxley, Duff insisted that scientific and
technical education, properly disseminated, could be as sure a route to mental culture as
could classical teaching -- a concept that still did not convince many conservative
educators. Echoing the tone of Huxley's famous address to the South London Working
Men's College (1868), 52 John Duff proudly proclaimed that the school's mandate was no

less than "to become a great power for the dissemination of scientific knowledge and habits of correct thought."\textsuperscript{53} Science laid the foundations for the rules of industry; but it also laid the foundations for the rules of life and nature. Good judgement, in labour as in life, rested on a scientific premise.

Still, in the workaday/learnaday culture of the technical school, the basic dissemination of practical scientific knowledge superseded any lofty notions of the cultivation of mental culture. Board members and teachers alike remained acutely aware of the ascendancy of advanced science in modern industry, and its relevance to the students who registered for their classes. They attempted to map a programme that was at once mentally accessible to mechanics and appropriate to current industrial practices. The chief lesson of the modern age was that technology was the engine that drove economic progress, and it was incumbent upon a technical school to acquaint its students with the rudiments of modern technology. Hence in practice, arcane speculations were spurned in favour of attainable practical knowledge. Technological rather than academic priorities informed the curriculum.

While the school's prospectus listed a variety of practical subjects, the report of the board's executive committee in 1890 frankly conceded that "probably one or two [courses] would be as much as most of those attending would find leisure to undertake

\textsuperscript{53}"Abstract of an Address Delivered by Mr. John A. Duff, Principal of the Toronto Technical School, at the Opening of the Second Term, on October 3, 1892," in \textit{Twelfth Annual Report of the Bureau of Industries}, Part VI, 1893: 42.
thoroughly. "54 The courses, therefore, were intended not only to have a cumulative and combined benefit, but also to stand essentially on their own. In the school's inaugural session, courses in mathematics, chemistry, geometry, mechanics, physics, and drawing composed the basic curricular choices. 55 If a day labourer enrolled in only one or two courses in a session, then those classes surely had to satisfy the worker's objectives with respect to his or her labours.

Mathematics assumed a place of honour in the technical school curriculum on a par with the sciences. If science was to be the bedrock of modern technical education, mathematics constituted the symbolic language of all scientific knowledge "without which little or no progress can be made" (in Duff's words). Mathematics became prerequisites for virtually all of the advanced courses in science and mechanics. Like the sciences, however, mathematics would not be treated as primarily academic courses, but as subjects bearing a practical application to daily working life. Far from comprising purely theoretical exercises rooted in philosophical speculations, the maths were pressed into the service of the applied sciences, to offer more complete and practical programmes in technology and mechanics. Duff made the case squarely in his address in 1892:

In Science and Engineering theories are of little value unless they are exact and definite, and we cannot have the exactness without Mathematics. A knowledge of Mathematics is not necessary in order to understand the

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55 Prospectus of the Toronto Technical School, 1892.
general laws of nature, but it is necessary in order to state those laws with exactness or make any practical application of them. 56

Mathematics, in other words, taught the discipline of accuracy and the logic of employing precise procedures to achieve valid and verifiable results. Algebra, Duff added specifically, was fundamental to the study of physics and chemistry; without it, "a knowledge of Mechanics must always prove to be incomplete and unproductive." 57

And if the maths were pressed into the service of the sciences, so too were sciences (via mechanics and technology) pressed into the service of industry. Chemistry classes placed particular emphasis on those chemical processes that were of "technical significance." Physics likewise provided "special instruction" in the machinery used in the production and distribution of power. Taken together, noted Duff, physics and chemistry enabled the school "to provide a tolerably complete course in Electricity -- that mysterious element which seems destined to usher in a new era of civilization." 58 In short, the maths and sciences curriculum attempted to forge the conceptual links between the learning culture of the technical school and the technical culture of industry.

One need not read too deeply between the lines of Principal Duff's assertions (or even those of most other technical school boosters) to recognize this technical culture of industry as a decidedly masculine construct. Clearly on the top of his mind and at the tip of his lips was the importance of maths and sciences in the primarily male domain of the

56"Abstract of an Address Delivered by Mr. John A. Duff," 43.

57Ibid.

58Ibid., 42; Prospectus of the Toronto Technical School, 1892, 39-40; and 1902, 12.
manufactory. Many working women, of course, also toiled in manufactory settings, but their principle occupations in these settings were often sequestered from the men's, and their stations in the hierarchy of working-class industrial occupations were likely to remain unaffected by the employment benefits that scientific knowledge and the upgrading of generic mechanical skills might bestow. (Needless to say, this latter point would also be true of most men in the modern factory, as new technologies and techniques of workplace organization made more and more workers essentially interchangeable.)

The sciences and maths, as implied in the above remarks, also seemed to reinforce an essentially male ethos in another critical way, beyond the merely perfunctory consideration of their assumed benefits to the improvement of prospects in essentially male job ladders on the shop floor. Principal Duff explicitly associated a knowledge of the sciences and maths -- especially chemistry, physics and algebra -- with their practical application in the harnessing and distribution of the sources of motive power in industry. This practical association fell somewhat short of the popular nineteenth-century chauvinism of scientific manifest destiny: the assumption that it was the province of the scientific man to assert his dominion over nature -- to conquer nature's matter and to domesticate its energy in the name of industrial progress and civilization. Yet, when Duff stressed the importance of scientific habits of thought, encouraged through a technical pedagogy, such romantic values as discovery and conquest could not have been too far removed from the more quotidian habits of rational observation, accuracy, and attention
to detail in one's work.

Hardly reducible to utilitarian aims exclusively, scientific habits of thought -- more than scientific knowledge alone -- elicited what one essayist dubbed the "relation of science to culture":

Now the contribution which science brings to culture is this:-
1. It imparts actual knowledge of the condition and constitution of the external world.
2. It trains the observing and reasoning faculties.
3. It imparts a knowledge of its own methods, and by so doing gives the mind a new consciousness of its powers; for the methods of science are simply the labour-saving methods of the mind itself. ...

Culture -- intellectual wholeness -- requires that we should see the world as those see it who have studied its phenomena and laws. ... The man of culture must have a consciousness of his own best self, and must have it in his power to live his best habitually, and not be dependent upon critical occasions to reveal what his capacities are. The function of culture is to redeem us from the sway of chance, and make us fully masters of ourselves. 

By co-mingling scientific patterns or habits of thought with a masculine ethos that celebrated both the paternalistic control over the natural world and the autonomous control over the individual self and its destiny, authors such as this one contributed to the encoding of science with meanings guaranteed to resonate in the minds of men in industrial culture who aspired to genuine individualism, self-control and self-reliance. If anything, this aspect of the Victorian cult of science casts the more humble science

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mandate of the Toronto Technical School in an ambiguous light. Its mandate, after all, was to offer instruction in the modern applications of science primarily to male industrial trades workers, in order that they could better prepare or secure their positions in modern industrial establishments -- most likely establishments in which their own sense of individualism, self-control and self-reliance might seldom be validated.

There is little reason to doubt that the directors of the school in the early 1890s anticipated that their classes would be filled primarily by these sorts of male industrial trades workers. The classes, moreover, would surely be staffed by male faculty members -- all specialists in their particular fields -- drawn from a hiring pool that was also essentially male, with one notable exception. On the strength of a nomination by two of the labour members on the board (John Armstrong and Robert Glockling), Edith Curzon was hired as the teacher of Practical Chemistry, winning out over the candidacy of Dr. R.A. Pyne (who twelve years later would become the Conservative Minister of Education).  

By 1895, Curzon ranked among the highest paid teachers at the school, earning a stipend of $500 per annum. While Curzon's status as a chemistry teacher was

61 Technical School Board Minutes, v.1, Report of the School Management Committee, 16 September, 1893, 73. Edith Curzon's appointment did not proceed without a challenge, however, when the law firm of Neville, McWhinney and Ridley sent a letter to the board complaining of "irregularities" in the selection of Curzon over Dr. Pyne for this position. See Technical School Board Minutes, v.1 Special Meeting of the Board ... Regarding the Appointment of Miss Curzon as Teacher of Practical Chemistry, 30 September, 1893, 77-80.

clearly recognized and appreciated by the board until her resignation in 1899, the accommodation of women at the school still appeared to have been treated as an afterthought, as evidenced by the apparent absence in the school building of appropriate lavatory facilities for women.\textsuperscript{63}

In 1896, the Toronto Technical School did open its doors to many female students when, in response to a petition signed by "a large number of Ladies," it introduced a class in domestic science. As the board chairman, A.M. Wickens, conceded: "There is no reason why girls and young women should not be assisted to practical education as well as boys and young men."\textsuperscript{64} The board's plans for domestic science remained modest. It would establish an elementary class in cooking, provided that city council would approve an additional grant of about $300 for this purpose. The board also appointed an advisory committee of women to assist the school management committee in establishing and managing the new class.\textsuperscript{65} In fact, this class proved to be immensely popular, as indicated by the Principal's report in 1897 that there were about 100 applicants for domestic science "for whom no room could be found."\textsuperscript{66} Enrolment levels of women in domestic science classes appeared to match those of the other classes at the school which catered primarily

\textsuperscript{63}Ibid., 28 January, 1896, 214.

\textsuperscript{64}Ibid., Chairman's Address, 25 February, 1896, 230.

\textsuperscript{65}Ibid., Report of the School Management Committee, 11 August, 1896, 249. The board disbanded the women's committee the following year, after reports that some of the members had been interfering with the teacher, Mrs. Joy, during the discharge of her classroom duties.

\textsuperscript{66}Ibid., 21 October, 1897, 332.
to working men.

By the late 1890s, with the addition of a day-school programme, the school's directors expanded their course offerings and reorganized the institution into more specialized scientific and technical departments. This restructuring represented a significant change in mandate, as the Toronto Technical School began to affect some of the early trappings of a technical high school. After 1900, day-school students could opt to specialize by enrolling in one of the Departments of Mathematics, Chemistry, Physics, Mechanics, or (as of 1897) Commerce and Finance, and Domestic Science. Each department established a prescribed programme of courses for its students, which generally included some necessary overlapping with other departments, and each department established its own diploma criteria.\(^6^7\) While the evening classes were still intended to "provide scientific and artistic training for apprentices, journeymen, foremen, and others who are engaged in commercial or industrial pursuits during the daytime," the day classes were designed primarily "for those who desire such a preparatory training in science and art as shall fit them later to fill higher posts in industrial operations." Day classes were also opened to students "who intend to pursue advanced courses of technical instruction in the school of Practical Science."\(^6^8\)

The curriculum of the Toronto Technical School, of course, was in no ways intended to replicate the programme of the School of Practical Science. (That would

\(^6^7\) *Prospectus of the Toronto Technical School*, 1902, 7-20.

\(^6^8\) *Ibid.*, 1892, 3.
have been redundant.) Instead, it was meant to complement this programme, in the same sense that draughtsmanship complemented design. The School of Practical Science had become a professional school for engineers, while the Toronto Technical School was (initially) a night school for workers. Although both schools had scientific orientations, the former stressed the creative applications of scientific principles while the latter stressed the scientific principles underlying practical operations in the workplace.69 The sharp distinction between the two schools' mandates hinted at the increasing social distance that already separated engineering from the mechanical trades. The close proximity of the two schools almost seemed to portend the impending separation of planning from execution in modern factories and other industrial work places. Yet conversely, by equating the cultivation of scientific knowledge with the enhancement of mechanical skill, the programme of the Toronto Technical School also reinforced the importance of mental knowledge and mechanical know-how on the shop floor. Rather than entrenching the diminished status of manual workers, it offered a possibility of empowering them.

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69The School of Technology was originally founded in 1871, and served initially as a night school for artisans. It was renamed the School of Practical Science in 1873 and, owing to the "fruitless attempt to secure the attendance of students as an independent institution doing elementary work," the school was moved to the campus of the University of Toronto in 1877. See Report of the Minister of Education on the Subject of Technical Education, 1889, 151. In 1889, the School of Practical Science officially affiliated with the University and achieved the status of a distinct faculty in 1906. John A. Galbraith, who held a faculty position in the School and served on the Board of the Toronto Technical School "believed strongly in giving students a solid grounding in scientific principles before teaching how to apply them." See J. Rodney Millard, The Master Spirit of the Age, 8.
Client Strategies: Student Composition and Instrumentalist Objectives

The courses and programmes offered through the Toronto Technical School during the 1890s clearly attracted students from a variety of backgrounds. In 1893, as many as 100 different occupations were represented among the students who registered. (Thirty-one registrants reported no occupation.) Perhaps symptomatic of the expanding scale of industrial organization, the largest occupational bloc on the school’s roll was made up of clerks (15%), followed by students (11%), machinists (10%), carpenters (4%), electricians (3%), plumbers (3%), printers (2%), office boys (2%), bricklayers (2%), stationary engineers (2%), and draughtsmen (1%). Other occupations of registered students included artisan crafts (watchmakers, brassworkers, cabinetmakers, jewellers, woodcarvers and a glass beveller), traditional industrial trades (labourers, blacksmiths, tinsmiths, shoe cutters, a sawyer and a wire worker), and modern industrial trades (machine operators, smelters, gasfitters, a die sinker, and an electroplater) -- not to mention a variety of commercial, trade and service oriented occupations.\(^7\) Indeed, the variety of student backgrounds was impressive, and testified to local perceptions of the general utility of the school’s technical programme.

Yet despite their variant backgrounds, many of the students who enroled did appear to share some characteristics in common. Despite the widely dispersed span of

\(^7\)Twelfth Annual Report of the Bureau of Industries, Part VI, 1893, 47. Percentages are rounded off to the nearest whole number.
students' ages between twelve years and fifty-six years, the majority of them were adolescents and young adults in the early stages of their occupational paths. Students between the ages of 14 and 21 accounted for 64% of the total enrolment in 1893, compared to less than 2% for students 12 and 13 years of age, 24% for those between 22 and 31 years, and 9% for those over 31 years. This result suggests that records of students' occupations must be qualified somewhat, since in many cases these occupations were not necessarily indicative of the students' own trade vocations. For many, the technical school may have been a strategy for occupational advancement; but for others, it may also have been a first step in occupational change. Some students likely sought to enrich their scientific and technical knowledge to enhance their skills; others may have taken the opportunity to qualify themselves for better employment; still others may have chosen their programmes with an eye to gaining admission to the School of Practical Science.

In the opening sessions of the School, when students were asked to state their occupations, they were also asked to state their occupational status. In this regard, the school administrators relied on the traditional taxonomy of trade labour: employer (master), journeyman and apprentice [see Table 5]. In the case of those who designated themselves as employers, the only ambiguity would appear to be whether these individuals were self-employed independent shop owners or tradesmen, or whether they were in fact also the employers' of labour. In many cases, of course, both scenarios were
Table 5

Profile of Students at the Toronto Technical School,

Evening Classes: 1892, 1893-4 and 1901-2

<table>
<thead>
<tr>
<th>Occupational Level</th>
<th>1892</th>
<th>1893-4</th>
<th>1901-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employers</td>
<td>3</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>Journeymen</td>
<td>101</td>
<td>230</td>
<td>168</td>
</tr>
<tr>
<td>Apprentices</td>
<td>80</td>
<td>117</td>
<td>311</td>
</tr>
<tr>
<td>Clerks/&quot;Office Boys&quot;</td>
<td>61</td>
<td>107</td>
<td>182</td>
</tr>
<tr>
<td>Students**</td>
<td>35</td>
<td>80</td>
<td>155</td>
</tr>
<tr>
<td>Not Given/Not Applicable</td>
<td>25</td>
<td>92</td>
<td>666</td>
</tr>
<tr>
<td>Totals</td>
<td>305</td>
<td>631</td>
<td>1710</td>
</tr>
</tbody>
</table>

* includes clerks, cashiers, office boys/girls, drug clerks, and messengers.
** includes art students, architectural students, "school boys/girls", etc.

Source: Twelfth Annual Report of the Bureau of Industries,
Part IV, 1893 (Toronto: Warwick Bros. & Rutter, 1894), 46-47.

conceivably true. In the opening two sessions, the group of employers included a plumber, a carpenter, a jeweller, a bricklayer, a stationer, and a florist. A decade later a box maker, a carriage tire maker, a lumber dealer, and a plasterer comprised the employers' ranks. There is probably little need to speculate about the objectives of these employers in undertaking scientific or technical courses at the school. The prevailing ethos of industrial society, that linked scientific knowledge and skill to productivity and
competitiveness, was indeed pervasive. In a few cases, technical school enrolment may well have been a "shop affair," as in the case of the three plasterers enrolled in 1902-03: one employer, one journeyman and one apprentice.\textsuperscript{71}

Slightly more room for speculation is open with respect to those who designated themselves as journeymen and apprentices. In many trades, these designations were still very meaningful in ascribing occupational status and attainment of skill. Even in some of the newer industrial trades, the traditional designations of occupational status borrowed from the artisan tradition still prevailed. Still, in some occupations, where the established pathways between apprentice and journeyman labour were not as clearly drawn, this could signal a highly subjective form of ranking, as in the case of one journeyman paper box maker, or two journeymen machine operators who enrolled in classes in 1893. Furthermore, in the 1902 enrolment lists, the school records recognized as occupational designations both paid and unpaid domestic work, thus giving some due recognition to the traditional occupations of female labour. In that year, the list included 19 domestics, 27 housekeepers, 12 housemaids, and 15 housewives.\textsuperscript{72} A significant number of women engaged in unpaid house work may also still have been included in the 432 students enrolled for whom no occupation was attributed.

What is not in doubt is that by the 1890s the technical world of industry was perceptibly changing, and that workers who hoped to advance or even maintain their

\textsuperscript{71}Prospectus of the Toronto Technical School, 1902-03, 30.

\textsuperscript{72}Ibid., 29-30.
status and positions in the changing technical environment were sometimes inclined to pursue formal classes in scientific technical instruction. For some of them, technical classes probably represented a proactive strategy to 'keep up' with industrial changes and to overcome economic uncertainty during the 1890s. Technical education, situated firmly in the context of an urban-industrial environment, represented for many young workers a hedge against the possible deterioration or devaluing of their skills. It may also have represented a strategy to withstand changes that threatened their own trades with eventual obsolescence.

For these reasons, it would be imprudent to ignore the importance that curricular knowledge and course content had in attracting students to particular classes. Most students naturally expected the scientific content of their courses to be plainly practical, rather than theoretical or abstract, and "practical" meant relevant to modern industry, mechanics, and work processes. Anything failing that basic litmus test would probably have appeared to many worker/students as an inappropriate waste of their time. As the American anthropologist Paul Willis remarked in his contemporary study of education and working-class youth in Britain: "The shop floor abounds with apocryphal stories about the idiocy of purely theoretical knowledge. Practical ability always comes first and is a condition of other kinds of knowledge." Course enrolment may reveal something of the practical needs of the students who enroled. Attendance returns may reveal even

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more about whether those practical needs were actually being satisfied in the courses. Sadly, both sets of records tended to be irregularly kept, and are therefore quite spotty.

Nevertheless, the school's initial appeal might be gauged from the attendance figures that were submitted by the city council in November, 1893. These figures detailed the average attendance in each of the school's courses during the first eighteen months of classes. Not surprisingly, these figures indicate significantly higher rates of attendance (and by implication higher enrolments) in the introductory or junior level courses, and much lower attendance in classes designated as senior. Among the most well attended courses in the autumn session of 1893, arithmetic topped the list with an average nightly attendance of 130 students. Also well attended were the junior level courses in algebra (50), chemistry (75), mechanics (50) and descriptive geometry (65). Those courses that appeared to have a more direct application to modern industrial and trade practice also attracted a strong contingent of students. Junior electricity, having more than doubled its enrolment from the previous session, attracted an average nightly attendance of 100 students in 1893, followed by practical geometry (70) and hydrostatics and heat (50). By comparison, senior courses averaged between fifteen and twenty students per night.\(^74\) Of course, the lower attendance figures for senior courses had to do mostly with the much smaller pool of students qualified to enrol in these courses.

If the course content initially attracted students to a programme of studies, surely the possibility of earning a credential convinced many of them to stick with it.

Throughout the 1890s, those students who successfully completed a single course of studies were awarded with proficiency certificates. By the late 1890s, when the school was reorganized into self-contained scientific and technical departments, students were encouraged to work towards full diplomas, which could be earned after the successful completion of a prescribed programme of studies. Technical diplomas no doubt had a particular importance in the changing labour market of the industrial city. They represented the 'wages' of a technical education, to be traded as currency in the labour market in exchange for jobs, occupational advancement, and security of wages. Like diplomas from the public schools and high schools, technical school diplomas and proficiency certificates represented objective statements of personal worth and achievement. For the prospective employer, they might also have attested to a range of personal qualities that were considered to be valuable work assets. A diploma, particularly if it were earned through a course of evening classes after working hours, signified perseverance, dedication, proper decorum, a commitment to self-improvement, and the cultivation of good work habits. After all, the days had long past when a young apprenticed worker could trade on the reputation of his master in order to secure employment. Workers in the modern city's labour market would have to begin to rely less and less on word-of-mouth opportunities in their efforts to secure employment. The wave of the future clearly was for larger

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73C. James Richardson offers a similar perspective on the trading value of credentials in modern society. See his "Education and Social Mobility ....," 424.
industrial operations to adopt more bureaucratic procedures for hiring. Technical school credentials promised an objective declaration of a young worker's suitability for particular kinds of employment. Technical credentials rendered a worker's skills and knowledge verifiable, which was no doubt also an important consideration for those trade union leaders who endorsed the school.

Not surprisingly, students earned diplomas with far less frequency than proficiency certificates, and only the most persevering evening class students accumulated enough proficiency certificates to merit a diploma. At the conclusion of the 1902 session, only five diplomas were awarded to part-time evening students (one in Physics and Mechanics, and four in Chemistry), while diplomas awarded to full-time/part-time day students numbered twelve in total (seven in Commerce and Finance, and five in Domestic Science). Interestingly, all five evening class diplomas in 1902 were awarded to men, while women accounted for eleven out the twelve diplomas from the day class (including four of the five diplomas in Commerce and Finance). However, with a examination pass grade of 33% in most courses, a proficiency certificate ought to have been relatively easy to earn for most students if they had attended their classes with enough regularity.

There should be no surprise in the conclusion that the students enroled at the Toronto Technical School, like many of those at the schools of art, in all probability

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76Diplomas awarded and the tabulations of examination results for the 1901-02 session appeared in the Prospectus of the Toronto Technical School, 1902, 25-27.
approached technical education with a host of instrumental objectives that appeared to validate the instrumentalism of the school’s promoters. The extrinsic value of this endeavour, after all, had to do with improving their present and future employment prospects. If the value of what they were studying was not immediately apparent, they surely would have opted out in significant numbers; if its relevance was not clear, they might well have demanded that it be made so. This conclusion should not discount, however, the equal probability that many students expected this endeavour to have certain intrinsic values as well. Especially for people whose working lives may have afforded few opportunities for discretion, scientific technical education married practical demonstration with mental exercise. In this sense, so long as the material under study remained accessible to students, it must surely have been empowering in a way more subtle than the instrumentalist argument could ever predict. In its attempts to forge concrete links with the urban industrial labour market of the 1890s, the Toronto Technical School began to implement a new model for technical education in which sciences and maths ruled. Yet the persistent dynamic between culture and utilitarianism continued to animate the exercise. With the disappearance of traditional forms of apprenticeship in many trades, the void was (at least tentatively) filled in a formal way through the activities of this civic institution.
Chapter Six

From Woodshop to Workshop:

The Social and Educational Goals of Manual Training

Science and Art are little by little identifying all Labor with Culture, thereby robbing it of the repetitiveness which it was the chief aim of that arch-snob and Philistine, Satan, to bring about.

Charles G. Leland

Manual Training is not strictly Technical Education, but bears the same relationship to it as the alphabet does to literature. These subjects have a strong utilitarian element yet their distinctive aim is educational and only secondarily utilitarian.

Albert H. Leake

Since the 1850s, technical education had remained on the margins of educational development in the province. For the most part, the provincial government had maintained an arm's length relationship with the various highly localized ventures in technical education. The province provided grants-in-aid and modest direction, but restricted its involvement mostly to benign supervision. The education department's

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1Quoted in Thomas Bengough, Learning How To Do, at the Public School of Art, Philadelphia, PA, and Learning By Doing, at the Hampton Normal and Agricultural Institute, Hampton, VA (Toronto: L.K. Cameron, 1902), cover inscription.

2AR, 1905, 300.
coordination of mechanics' institutes and art schools stopped well short of intrusion or direct control. Even in the case of the Toronto Technical School before 1902, provincial inspection and monitoring implied only interest and not intervention. However much the advocates of the 'New Education' in the 1880s and 1890s raised the issues of relevance and practicality, and encouraged the introduction of 'industrial education' into the public schools, the general conservative bias and systemic inertia of public education posed significant barriers to any integration of technical with general education.

Like the promoters of science education in the 1860s and 1870s, advocates of technical education in the 1880s and 1890s had to fend off claims about the questionable contribution of technical classes to the cultivation of mental culture -- commonly considered the central aim of things educational. By the late 1890s, in a spate of curricular reforms sponsored by Richard Harcourt's education department, reformers began to bridge the gulf between technical skills and mental culture through the aggressive promotion of two new courses: manual training and domestic science.

**Sponsorship and Philanthropy: J.W. Robertson and William Macdonald**

The introduction of manual training into the public school system in Ontario owed its start to the inspiration and philanthropic initiative of two men, James W. Robertson and William Macdonald. In 1875, at the age of eighteen, J.W. Robertson accompanied his family's emigration from Scotland to Canada. Not long after their arrival, the family
settled on a small farm near London, Ontario. James Robertson, who had experience as a clerk in Dunlop, soon found a situation for himself at a cheese factory in nearby Ingersoll. Before long his administrative talents (and the sudden death of his employer) had won him a quick promotion to the position of manager.

Robertson soon made a name for himself among local dairy farmers for his efforts to improve the quality and competitiveness of local cheeses. For Robertson, improving local cheese production constituted more of an educational than a mechanical problem, and began not with the factory but with the farmers themselves. Robertson spoke regularly to groups of farmers, instructing them formally and informally on the importance of temperature, timing and hygiene in the storage and transportation of milk, cream and curd. In the meantime, he had assumed the management of as many as nine small cheese factories in the region of Oxford and Middlesex counties. Before long, he gained modest notoriety for his efforts to improve production through instruction, leading in 1886 to his appointment by the Ontario government to the position of professor of dairy husbandry at the Agricultural College at Guelph. Four years later, Robertson was appointed Dominion Commissioner of Dairying, and by 1895, he became the Dominion Commissioner of Agriculture.3

Robertson's impressive career path had brought him into direct contact with agriculture, industry and education; and he developed rather strong sentiments about all

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3Robertson's biographical sketch is based on information in George Isles, "Dr. Robertson's Work for the Training of Canadian Farmers," The American Review of Books (November 1907): 575-584.
three. By the mid-1890s, there was little doubt left in most enlightened minds that
education had an increasingly crucial role to play in the efficiency and success in most
vocations -- agricultural and industrial alike. Robertson joined a growing chorus of late-
Victorian educational critics in condemning the bookish tendency of public schools. Like
many of his contemporaries, he accepted the benchmark reality of modern society that the
majority of pupils would one day have to earn their living by manual occupations. Above
all, he became convinced of the public school's mandate to prepare pupils for this reality,
preferably by exercising their motor skills and dexterity, and by developing their habits of
attentiveness, precision, care and hygiene.4

Robertson's educational ideas reflected a strong current of modern progressive
thinking, of the sort popularized after 1900 by the prophet of progressive education, John
Dewey. The problem arising from 'bookish' learning, a problem Dewey also addressed,
revealed itself in the tendency of some modern school planners to reify the acquisition of
knowledge as the chief aim of education, and to neglect its practical applications.
Robertson begged to differ. Knowledge and education were certainly linked, but they
were not the same thing. Knowledge began with information; "education begins with the
child's life." Knowledge, therefore, might only be considered the chief purpose of
education if its acquisition were also the "chief end of life." While trying not to disparage
the pursuit of knowledge for its own sake, he insisted that the knowledge applied to life's
circumstances actually constituted the chief object of education. The careful application

4Ibid., 576.
of knowledge "to thought and conduct," Robertson suggested, was essential to the
formation of good character. By the late 1890s, Robertson's educational ideas coalesced
neatly with the sudden notoriety of progressive education and the emerging popularity of
manual training within the educational community.

As a correctional method, the benefits of manual training were already largely
acknowledged by the late 1890s. Documented experiments at the Industrial School for
Boys at Mimico after 1886 attested to its value as an educational therapy in the
rehabilitation of juvenile delinquents and chronic truants. As a proactive educational
strategy, however, the benefits still appeared dubious to many critics and sceptics. Could
manual training make any claims to arrest the problems of chronic truancy and
delinquency in the public schools before they started? Would the school's woodshop
supplant the devil's workshop as the proper venue for the disposition of idle hands? More
importantly, would manual training lend a new dimension of relevance to the curriculum,
and at what cost? Was it really consistent with the broader educational goals of public
schooling? These questions were addressed in part in a manual training pilot programme
initiated in 1889 at Woodstock College which saw the course introduced as an optional
subject. Students opting to take this course paid an additional $9.00 fee, on top of their

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6R.G.2, F-3-H, Box 1, Macdonald Manual Training Fund, Province of Ontario,
Report, 1901, "Report of Dr. J.C. Glashan, Public School Inspector for the City of Ottawa,
1900-1901," 36-37.
regular tuition, to help defray the cost of equipment and materials.\footnote{7John Seath, \textit{Manual Training and High School Courses of Study} (Toronto: L.K. Cameron, 1901), 20.}

Encouraged by the prospects for manual training in modern educational reform, Professor Robertson enlisted the aid of the Montréal industrialist and philanthropist, William C. Macdonald. Macdonald shared Robertson's concern for the practicality of modern public education, and was likewise enthusiastic about the potential of manual training as an educative supplement to the traditional curriculum. Like Robertson, Macdonald feared that public education's bias towards booklearning foretold its failure to prepare most pupils for the 'business of life,' whether that business be industrial or agricultural. Macdonald's record in educational philanthropy was revealed by the numbers of programmes, institutes and sites that would bear his name. His endowments to higher learning, such as the Macdonald Institute at the University of Guelph and the Macdonald Mining and Chemistry Building, the Macdonald Engineering Building and the Macdonald Physics Building at McGill University, testified to his generous and spirited support of educational enrichment in Canada.\footnote{8"Sir W.C. Macdonald: A Public Benefactor," \textit{The Globe and Mail}, 12 June, 1942.}

Macdonald established a three-year endowment for purpose of introducing manual training and domestic science classes in provincial school systems throughout the Dominion. Through his endowment, Macdonald offered to underwrite the cost of establishing classes and the training of teachers for a period of three years (1900-1903).
The Ontario government also made available a special grant of $25,000 to be divided among local schools for the purpose of equipping manual training facilities. This grant, however, soon proved to be inadequate, as the demand for government assistance quickly eroded the available funds.9

**International Contributions to the Theory of Manual Training:**

**The Reports of John Millar, John Seath and Thomas Bengough**

Despite earlier experimental uses of manual training for both educational and correctional purposes, the place of this subject in the province's school system remained tentative throughout the tenure of the Macdonald fund. Manual training was, however, blessed with an influential corps of advocates and spokesmen who, by 1902, were largely successful at winning over a growing list of converts throughout the school system.

Perhaps the chief obstacle to be overcome, aside from the temporary lack of qualified instructors, was the panoply of stubborn objections from conservative critics. After all, when the critics did not specifically deride the education department for conspiring to debase the integrity of the core curriculum with rudimentary workshop practice, they frequently complained that the new course amounted to little more than an unnecessary

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9R.G.2, D-7, Box 8, Albert H. Leake to Richard Harcourt, 17 January, 1903. Stratford alone applied for $10,000 to erect its new manual training annex on the collegiate institute grounds. Brantford applied for a similar construction grant, while London, Belleville and Ottawa expressed similar interest in erecting new facilities.
frill being added willy-nilly to an already overcrowded curriculum. Supporters of curricular reform, eager to dispel such notions in the school community, attempted to demonstrate the real educational and social benefits of manual training. As with other educational ventures, this seemed best accomplished by placing Ontario's situation in a broader context through a study of international systems. Between 1899 and 1902, the education department sponsored three separate reports of manual training abroad to ascertain (or to demonstrate) its usefulness and its appropriateness for Ontario schools. That these reports would endorse the implementation of manual training was a foregone conclusion. However, each report did contribute positively to the debate by bringing to the foreground with surprising clarity the social goals and philosophical underpinnings of the new programme.

The first report was prepared by Harcourt's deputy minister of education, John Millar. Millar's distinguished career in education spanned forty-three years. Born in Ireland in 1842, Millar's family emigrated to Canada West in the 1850s. By 1862, Millar had completed teacher training at the Toronto Normal School. After a few years of teaching in the province's common school system, he enrolled at the University of Toronto and received his bachelor's degree in 1872. Millar returned to teaching and eventually became the headmaster of the collegiate institute in St. Thomas. Between 1884 and 1889, he held a seat on the Senate of the University of Toronto as the representative of Ontario high school teachers. In 1890, he was appointed deputy minister of education under
George Ross, a position he held until his death in 1905.\textsuperscript{10}

During his long tenure as deputy minister, Millar commissioned, and even undertook personally, several studies of international school systems, to keep Ontario schoolmen abreast of progressive developments in curriculum and school management. If Ontario were to follow the lead of any international system, Millar preferred that it be the American rather than the British. The British system, he figured, was still indelibly marked by aristocratic privilege and class inequality, while the American state systems seemed more likely to evince the democratic commitment to universal access and success by merit. As deputy minister, Millar became an active speaker and writer on numerous educational themes; 'education for democracy' quickly emerged as the hallmark of his philosophy. His writing credits included \textit{The Educational System in the Province of Ontario} (1893), \textit{School Management} (1897), \textit{The School System of the State of New York [as viewed by a Canadian]} (1898), \textit{Canadian Citizenship: A Treatise on Civil Government} (1899), \textit{The Educational Demands of Democracy} (1901), and \textit{Education for the Twentieth Century} (1901).

For Millar, the purpose of education was to prepare pupils to assume the mantle of democratic citizenship. Democracy, the most significant political development of the nineteenth century, had turned loyal 'subjects' into sovereign 'citizens,' and in Millar's estimate democracy demanded that these citizens were trained to be both productive in

economic life and moral in civic life. Educating for democracy, therefore, meant striking a balance between utility and culture in the schools. Utility was well attended to so long as school knowledge was practical and useful. But it was the operational culture of schooling that Millar believed required the most immediate attention.

First and foremost, schools themselves could serve as object lessons in democracy, but only if they were recognized for what they were -- reflections of the broader society in microcosm. Millar prized equality of opportunity in schooling as a guiding principle to which the educational system should aspire. In this regard, he opposed the imposition of high school fees as being a hindrance to equal access to secondary education.\(^\text{11}\) Entrance fees and a curriculum geared towards matriculation and university admission conspired to make high schools the harbingers of class privilege, a privilege that Millar considered so distasteful in those societies that still evinced residual aristocratic tendencies. While Canada appeared at a glance to be mercifully free of any class privilege defined by birthright, class privilege associated with wealth no doubt posed a similar threat to the integrity of democratic institutions. "The danger which confronts modern institutions," Millar warned Ontario educators, "is not aristocracy but plutocracy."\(^\text{12}\)

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Equality of opportunity, not equality of condition, became the hallmark of his democratic commitment. While he championed the principles of equal access to education for all classes, he rejected the notion that all children possessed similar abilities and talents, and balked at the ludicrous idea that pupils all arrived at school with equal potentialities. If merit truly determined success and mobility within the system, then the best students (all other things being equal) would distinguish themselves from the rest. The Creator, after all, had endowed people unequally, and thus ordained each person's appropriate station in life. The school was not supposed to mediate this 'natural' inequality, only to ensure that all pupils in fact realized the extent of their natural abilities by helping them to develop their latent talents fully.\textsuperscript{13} In a sense, Millar's arguments suggested an inclination towards what Durkheim later referred to as the 'social division of labour,' an organic model of social cohesion, in which all citizens contributed to the society's commonweal in very specialized roles according to their natural endowments.\textsuperscript{14}

Millar's disdain for autocracy (the exercise of arbitrary authority and the allocation of privilege through ascription) coupled with his pressing concern for democratic institutions, impelled him to disparage coercive and interventionist forms of

\textsuperscript{13}John Millar, \textit{The Educational Demands of Democracy}, 6; \textit{Education for the Twentieth Century}, 3.

\textsuperscript{14}Corrigan, Curtis and Lanning, "The Political Space of Schooling," 33-34. The authors regard this as one of the implicit contradictions in Millar's principles of education -- the coupling of a democratic pedagogy with the goal of reproducing social inequality. It is important to note that Millar was aware of the seeming paradox, but believed that he could reconcile the two aspects. He does not appear to have perceived an actual contradiction in his own thought.
discipline in schooling as in statecraft. Excessively strict and punitive forms of discipline and control were incompatible with the goal of democratic socialization. Instead, Millar thought, schools should turn to the task of habituating pupils to self-control. The development of 'character' assumed primary importance in Millar's educational philosophy.\textsuperscript{15} Ideally, pupils would be adapted to productive democratic citizenship by internalizing the values and habits of moral self-regulation. By orienting the object of schooling towards the 'training of the will,' obedience might be nurtured within pupils and given cheerfully, rather than being imposed from without and given begrudgingly.\textsuperscript{16} Millar even recommended that more weight should be given to a teacher's assessment of a pupil's character, rather than just examination results, in determining a pupil's fitness for promotion.\textsuperscript{17} In the end, the national character could only be improved if more attention were given to the development of individual character in the classroom -- if, in fact, pupils were trained to see their roles in society and community in terms of both self-improvement and civic responsibility.\textsuperscript{18}

In his brief \textit{Report on Technical Education} (1899), as in some of his other

\textsuperscript{15}Millar, \textit{Education for the Twentieth Century}, 1; \textit{The Educational Demands of Democracy}, 6-7; \textit{The School System of the State of New York}, 136.

\textsuperscript{16}Corrigan, Curtis and Lanning, "The Political Space of Schooling," 28.

\textsuperscript{17}Millar, \textit{Education for the Twentieth Century}, 7.

\textsuperscript{18}Millar, \textit{The Educational Demands of Democracy}, 6-7. In Millar's words: "Educational processes encourage individuality; ... Only in community life is the highest type of individual life to be found. Education for the state requires education for the individual."
writings and addresses, Millar focused on the place of manual training in his general scheme of education for democratic citizenship. This report, based on a tour of schools in Massachusetts, concentrated on systems and objectives more than it did on principles and pedagogy. While short on didactic theory, his reflections were long on social goals. Millar agreed with a growing number of educational critics, whose opinions circulated freely in the 1880s and 1890s, that it was mistaken to suppose that a basic elementary education was sufficiently practical or relevant to the lives of the majority of pupils. A practical education, while preparing pupils for their future roles as citizens, should provide instruction consistent with the pupils' realistic expectations in life. 'Knowledge,' a concept that Millar worried was too often confused with 'education,' should at least be 'usable' knowledge, and should never be permitted to undermine the reproductive function of schooling. "The course of study of a school," Millar argued, "is evidently defective if boys and girls receive any training that unfits them for their ordinary occupations." Millar, of course, did not intend that the public school curriculum should provide a specific training for the future occupations of pupils; only that it offer a general preparation for productive work -- an acquaintance with the knowledge, and a training in the habits, necessary for productive labour.

Manual training represented an ideal instrument for linking practical knowledge


20Millar, The School System of the State of New York, 139-140.
with productive habits. Manual training might afford teachers an opportunity to bring the
general educative influences of the handicrafts to bear upon classroom instruction. It
offered pupils an acquaintance with the technical culture of tool work without steering
children toward any particular type of trade. In his report on the school system of New
York State in 1898, Millar observed that "the purpose of Manual Training is not to
prepare persons to become skilled mechanics or artisans, but to receive those educating
influences which will be of service to them in whatever occupation they may follow."\textsuperscript{21}
In a practical way, manual training lent itself to positive instruction in the proper use of
tools and the characteristics of woods and metals used in the workshop, but this was not
its sole (nor even its primary) claim to educational legitimacy in a school curriculum.

In fact, the main benefit of manual training was that it lent itself to the
development of appropriate habits and values consistent with the goal of democratic
citizenship.\textsuperscript{22} It accentuated the training of the will, which Millar underscored as the real
educative mission of the public school. Manual training trained the mind for precision
and the hand for accuracy. It facilitated pupils with elementary workshop skills, and
encouraged them to develop such personal traits as patience, prudence and perseverance,
all virtues associated with the 'work ethic.' And most of all, manual training provided
pupils with a concrete and tangible sense of accomplishment as it developed pride in
workmanship. Pride and accomplishment, moreover, were instrumental in developing

\textsuperscript{21}\textit{Ibid.}, 139.

\textsuperscript{22}\textit{Ibid.}, 139-40.
each individual's sense of self-discipline, self-control and will to succeed -- in short, the formation of character.

Since elementary manual training exercises appeared to comprise the sorts of basic training once associated with a youth's workshop apprenticeship, as well as those skills normally passed on from parents to children in rural townships, Millar stressed the particular importance of this type of course for children growing up in the province's major urban centres. Millar pointed to a state law in Massachusetts which required all cities with populations of 20,000 or more to establish manual training courses at the high school level. This regulation affected twenty-three cities in the state, but with the exception of Boston, "no other city [had even] half the population of Toronto." In the cities, he reasoned, working-class parents had neither the time nor (it appeared) the inclination to teach basic manual skills to their children, whereas on the farm and in the townships children grew up handling tools both practically and recreationally. Without the intervention of the school, urban children might never be exposed to the civilizing tendencies of tool work, and would thus be robbed of that aspect of their cultural inheritance. This possibility did not bode well for the society in general nor for the urban economy in particular. Millar, therefore, proposed that municipalities undertake the necessary expense of equipping their schools with manual training facilities, and establish programmes "of an elementary character" at the earliest stages of the public school

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programme.  

The second major report on manual training was prepared by the high school inspector, John Seath, an accomplished and respected career educator. Born in England in 1844, Seath emigrated to Canada in 1862. After his arrival, he taught school for seven years in Brampton. Between 1869 and 1874, he served as head master at high schools in Oshawa and Dundas respectively, before accepting a position as principal at the St. Catharines Collegiate Institute. Ten years later, in 1884, Seath was appointed to the high school inspectorate, after which he actively began to promote various reforms in pedagogical practice and curriculum design. He also served as Modern Languages editor for the Canada Educational Monthly in the mid-1880s. As early as 1890, Seath began to consider the educational benefits of manual training, linking him to other progressive educators in the inspectorate, most notably Toronto's James L. Hughes, best known for his crusade to introduce the kindergarten into Ontario public schools in the 1870s. Seath's related interest in matters of technical education and vocational preparation during the 1890s prompted the Toronto Technical School Board to recommend that he be appointed as the city's inspector of technical education.

Seath's report, entitled Manual Training and High School Courses of Study

24Ibid., 5.

25R.M. Stamp, "John Seath: Advocate of Vocational Preparation," in Portraits of Canadian Educators, Patterson, Chambers and Friesen, eds.
(1901), detailed the inspector's observations during visits to schools in Chicago and Boston. The report was supplemented by testimony and opinions gleaned from correspondence and interviews with Ontario educators and manufacturers. What Seath found was "a widespread feeling" that the current curricula in both public and high schools was no longer sufficiently practical for the growing numbers of students who relied on these schools for their training. Employers, he noted, frequently expressed concern that the schools were not adequately preparing pupils for the 'business of life' (to use Herbert Spencer's phrase), citing that young workers often lacked sufficient arithmetic, drawing and mechanical skills. In fact, there were very few vocational or mechanical courses of any kind available in the province outside of the mechanically oriented science programmes at the Toronto Technical School and the industrial art classes in the mechanics' institutes. These courses, however, were still primarily aimed at workers already employed, and tended to lack the "vitalizing elements" of manual training programmes.26

The "vitalizing elements" of manual training, after all, were elements not of specialization but of generalization -- not of practical content, per se, but of practical pedagogy. Manual training, as Seath observed it in the United States, was a hybrid of European pedagogical theories and practices in the field. It owed its origins as much to Pestalozzian object teaching as to the Froebellian kindergarten, which Seath admired for

its system of "gifts" and "occupations." Both object teaching and kindergarten "occupations" were by this time long accepted fixtures in Ontario schools, and the educational ideas of both Froebel and Pestalozzi enjoyed a committed following among current Ontario educators, particularly those who were enamoured with the idea of implementing child-centred educational reforms in the late-nineteenth century. Furthermore, the main European models cited by Seath, particularly the Russian and the Swedish systems, provided clear illustrations of the two essential aspects of manual training, the economic and the educational.

Of the two, the Russian system was the more utilitarian one. The Russian system of manual training was first devised and implemented in 1868 by Victor Della Vos at the Imperial Technical Institute in Moscow. This pioneering system was later demonstrated in the Russian educational exhibit at Philadelphia in 1876. Della Vos maintained that workshop practices could be taught formally, like any other school subject, by breaking them down into their component parts and teaching them in sequence. The system was based primarily upon tool work and the construction of joints and mechanisms, to provide pupils with a knowledge of the proper uses of workshop tools for the purpose of shaping, constructing and assembling materials into finished articles.

Della Vos's system of manual training was based on a model of traditional craft practice and workshop organization. Master craftsmen conducted the teaching according to a model that was unabashedly paternalistic. The Russian model was predicated on the

27 Ibid., 6.
related notions that pupils required maximum supervision in the initial stages, that each step had to be mastered before the next step was attempted, and that supervision could be relaxed gradually as the pupil became more proficient. In these ways, it came to resemble an institutionalized workshop apprenticeship. As Charles Bennett, the director of manual training at the Bradley Institute in Peoria, Illinois, and editor of Manual Training Magazine, wrote of the Russian system: "Rules, orders, dictation, and inspection were quite at home in the system."28

The second approach that Seath considered was the Scandinavian system of manual training, popularly known as the sloyd (Swedish for dexterity), which had inspired and attracted many adherents across northern and western Europe. This system had developed a predominantly educational focus, and was therefore likely to be more palatable to North American school reformers. The Swedish sloyd system presumed manual training to be as integral in the development of mental culture as any of the more conventional types of instruction offered in schools. Like the Russian system, the educational sloyd consisted of elementary tool work and simple constructions. But where this system differed was in the values and goals that its advocates attached to it. Educational sloyd was intended to sharpen the child's skills of perception and coordination, and ultimately to draw upon a child's innate powers of creativity to develop

self-confidence and self-reliance. According to John Seath, the tool work might be arranged so as "to stimulate and promote vigorous, intelligent self-activity, which the learner recognizes as good." It would thereby foster "the harmonious development of the pupil during the formative age, giving him by manual exercises and the use of the creative instincts such general training as will fit him ... for any subsequent special training."  

The journal **Hand and Eye**, the organ of the Sloyd Association of Great Britain and Ireland, brought the methods of educational **sloyd** to English-speaking educators. Among its most distinguished contributors in the 1890s was Otto Salomon, the Swedish educationist who had helped to found a manual training Normal and Model School at Nääs, Sweden in 1872. To make his ideas more accessible to teachers, Salomon published a manual, *The Theory of Educational Sloyd* (1896), in which he detailed the methodological and pedagogical principles upon which educational training in elementary tool work ought to be based. For Salomon, all instruction was to be organized sequentially from the simple to the complex, using 'the known' as a springboard to 'the unknown.' Above all, Salomon stressed the importance of individualized instruction over class instruction. Children must be allowed to progress at their own pace, and the

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29 On the rudiments of the Scandinavian sloyd, see Bennett, *History of Technical Education*, 57-94.


teacher must remain cognizant of the fact that all children will not share the same
proclivities and talents for creative tool work. Contrary to the Russian system, the
claims made on behalf of the educational value of sloyd were based on the understanding
that, as the Finnish sloyd master Uno Cygnæus pointed out, manual exercises would be
conducted by the same teachers who instructed the students in the other subjects.

In Salomon's scheme, manual training had both 'formative' and 'utilitarian' aims.
Formative aims included the development of independence and self-reliance; the training
of order, precision and accuracy; the cultivation of appropriate "habits of attention.
industry, perseverance and patience;" and the fostering of "respect for rough, honest.
bodily labor." Utilitarian aims included the development of "dexterity in the use of
tools;" the nurturing of general manual skills; familiarity with the uses of tools and the
characters of woods and metals; and the execution of "exact work." This system found
a receptive audience in Massachusetts, where a Sloyd Training School was established in
Boston. It was here that John Seath encountered the system and observed it first-hand.

Despite his enthusiasm for the subject, Seath doubted that most Ontarians were
prepared to reconcile the practical aims of manual training with the cultural aims of
public education. In fact, he feared that some stubborn school boards might resist any
compulsory imposition of manual training, regarding it as a 'vocational' encroachment

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32 Otto Salomon, The Theory of Educational Sloyd (Boston, 1896), 60-61; also,
Bennett, History of Technical Education, 86.

33 Bennett, History of Technical Education, 67-68.
upon an already full academic curriculum. On the surface, manual training seemed to have little to do with developing the Three Rs or advancing the cause of democratic citizenship, although its ardent supporters certainly believed that it did. In light of this anticipated resistance, Seath recommended that manual training be introduced into the public and high schools as an optional course and be left to the discretion of local school boards. In view of the two European systems that he reviewed, however, he did advise that the soylod would be best implemented in the elementary grades, when young pupils could best benefit from simple hand-to-eye training. Meanwhile a variation on the Russian approach might be more appropriate for the high schools, where certain students were more apt to demand a practical training in workshop skills.\textsuperscript{34}

The third important contribution to the study of American manual training systems was prepared by Thomas Bengough in 1902. Like John Seath, Bengough ventured into the United States, visiting schools in Philadelphia, Pennsylvania and Hampton, Virginia. Since the two schools he targeted for his report were very different in orientation, Bengough saw an opportunity to constructively compare and contrast the operational methods employed.

Bengough’s report was presented in two parts, respectively entitled \textit{Learning How To Do} and \textit{Learning By Doing}. He regarded his report as “a humble but honest effort to

\textsuperscript{34}Seath, \textit{Manual Training and High School Courses of Study}, 7, 33.
reunite Utility with Art. 

When combined, utility and art complemented and reinforced each other; but in isolation they were prone to excesses -- the one to rank philistinism, the other to effete aesthetics. While the unity of utility and art was an essential element of the traditional craftsman ideal, Bengough was concerned that in the modern age the two concepts were indeed becoming sequestered, with potentially hazardous consequences for the modern industrial culture. Using a clumsy anthropomorphic metaphor, in which he personified Utility and Art as Man and Woman, Bengough revealed as much about Victorian middle-class conceptions of gender as he did about the apparent debasement of modern culture. Bengough stated that

in these latter days Utility, with brawny arms, is so busy fighting for bread and butter in the bustling market-place that he has little time or inclination for the cultivation of esthetic taste, and thus he loses the refining influences of Art; while Art, deprived of the sturdy masculine element of Utility, sits dawdling over her dilettante frippery and bric-a-brac.

Bengough saw in manual training an opportunity to reintegrate the practical with the ornamental -- to balance utilitarianism with a cultural counterweight, as well as to direct artistic expression to usable ends. Its claim to educational value stemmed foremost from its combination of art and utility -- a partial restoration of the craftsman ideal.

Yet, if culture and utility were best seen as complementary, rather than competing aims, this did not mean that one or the other should not exert the dominant thrust, where circumstances warranted. Learning By Doing detailed just such a use in which the

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35Thomas Bengough, Learning How To Do ..., and Learning By Doing ...., 3.

36Ibid.
dominant social objectives were best defined as utilitarian. Here Bengough considered the system of manual training practiced at the Normal and Agricultural Institute at Hampton, Virginia, a technical training school for black and native children. At the Hampton school, manual training became an educational tool in the development of productive citizenship. It did not merely comprise a course in marketable workshop skills for black and native children in the American south, although this motivation was not entirely absent. It also encouraged these children to appreciate the dignity and worth of plain labour, that they would undertake it willingly, proudly and enthusiastically in after life.37 A similar use for manual or shop training had already found its way into Ontario’s educational practice in the programmes of some native schools on reserves.

In the other part of his study, Learning How To Do, Bengough dealt with quite a different approach to manual training, one which he admired greatly for its educational value. The Public School of Industrial Art at Philadelphia, founded by Charles G. Leland and under the direction of J. Liberty Tadd, exemplified a system for manual training in which art became the dominant vehicle in the production of normative goals in education. The 'Tadd method' employed in Philadelphia focused on the educative power of freehand drawing and design, as a precursor to tool work. "The first tools to be used and trained," noted Bengough, "are the mind, the eyes, and the hands."38 Tadd stressed that drawing must be freehand in order to train the pupil’s perceptions of form, shape, proportion and

37Ibid., 61-62.

38Ibid, 24.
balance. Pupils were encouraged to reproduce in their drawings what they saw in their mind's eye. Like the sloyd method, drawing started with simple shapes and objects, and moved progressively to more complex diagrams.

However, where the sloyd method was guided by the supposition that pupils would learn the elements of accuracy through rudimentary exercises in tool work, the Tadd method stressed that accuracy had to be nurtured before it could be executed. Pupils were not to be given the tools to perform precise exercises until, as Tadd put it, the hand became accustomed to the pupil's will and the eye became accustomed to denoting accuracy.39 Freehand drawing was seen as a process by which the hand and the eye were trained, and was therefore a natural precursor to tool work. Clearly the Tadd method, like the sloyd, emphasized the importance of accuracy and precision as normative qualities in pupils' work. However, where the sloyd method relied on the active intervention of the teacher, hence the emphasis on inspection and supervision in the early stages of the method, the Tadd method sought to develop a tendency to precision within the pupil through the flexible means of freehand drawing. Accuracy, in the Tadd method, became more a question of fostering self-control and self-discipline than external monitoring and supervision. By attempting to make accuracy and precision 'habitual' in pupils, Tadd's manual training bore a striking relation to the broader goals of public education advanced by John Millar.

According to Bengough's report, the explicit educational value of this approach

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39Ibid., 22.
was what distinguished Tadd's method from other courses in manual training. Following in the theoretical pathways blazed by Pestalozzi and Froebel, this method was deemed to be consistent with the aims of progressive educational thinking commonly grouped under the banner of the 'new' education. Like Froebel, Tadd suggested that drawing could be a precursor to writing. Both drawing and writing involved the sketching of symbols to represent ideas. But in conventional writing practice, Tadd figured, the formation and recognition of letters and words was emphasized at the expense of the ideas themselves. Drawing, however, placed the idea before the symbol, challenging the pupil to employ his powers of perception to express ideas visually.\footnote{40}{Bengough, Learning How To Do, 50-52.}

Upon his return to Ontario, Bengough shared his enthusiasm for the Tadd method with educational officials and teachers through a series of lectures arranged by Richard Harcourt.\footnote{41}{AO, R.G.2, D-7, Box 8, Thomas Bengough to Richard Harcourt, 9 April, 1902 and 14 April, 1902.} Bengough believed that an elementary course in manual training, chiefly comprising drawing and simple modelling, might be implemented fruitfully in the public schools providing a solid educational bridge between the kindergarten "occupations" and the workshop or technical school. Among the sites that Bengough visited was the new manual training facility in Stratford, where he interviewed members of the teaching staff and tried to generate interest among them for implementing the methods set out in
Professor Tadd's manual.\textsuperscript{42}

\textbf{The Practice of Manual Training: The Direction of Albert Leake}

In 1901, Richard Harcourt appointed Albert H. Leake as the province's new inspector of technical education, giving Leake direct supervisory control of the new manual training programme. Leake's credentials for this appointment were impressive. In addition to his certification through the education department as an English master, Leake was also certified as an art instructor under the Department of Science and Art of Great Britain at the City and Guilds Institute in London, where he first encountered the educational principles behind the manual arts. Subsequently, he received a diploma in educational sloyd from Otto Salomon's teacher training programme at Nääs and a certificate from the German manual training centre at Leipzig in cardboard modelling, metal work, wood carving and bookbinding.\textsuperscript{43} In 1900, Professor Robertson selected Leake to administer and direct the Macdonald Manual Training Fund.

Leake's experience with European manual training systems, and particularly his exposure to Salomon's methods at Nääs, influenced the way he approached the subject in Ontario. Leake's philosophy and method, in fact, very closely followed Salomon's

\textsuperscript{42}AO, R.G.2, D-7, Box 8, Thomas Bengough to Richard Harcourt, 25 June, 1902.

\textsuperscript{43}Leake's credentials are outlined in AO, R.G.2, Box 1, Macdonald Manual Training Fund, Province of Ontario --Report Year Ending July 31, 1901, 39.
methodology, although American adaptations of this method, such as Liberty Tadd's variation in Philadelphia, also appear to have had some bearing on his thought. As a guiding principle, Leake suggested that the student must always be the first priority — in his own words, "the producer and not the product." Following Salomon's lead, Leake recommended that the work develop organically from the individuality of both the student and the teacher; respecting Tadd's corollary, he also recommended that priority be given to the working drawing over and above the work itself. While "ornament" would not overshadow "sound construction," Leake stressed the importance of decorating manual training rooms with working drawings and samples of student work.\(^4^4\)

Between 1900 and 1905, Leake used his position as director of the Macdonald Manual Training Fund and as the province's inspector of technical education to build support for the new course in local communities. Leake travelled across the province addressing public meetings, lecturing boards of trustees and ratepayers, and attending openings of new manual training facilities, in an attempt to consolidate support for the introduction of manual training into the public and high school curricula.\(^4^5\) In addition, during his inspection tours, he encouraged local teachers of manual training to invite parents into the shop rooms to observe the method in action and to see exhibits of their children's work. He even fancied the possibility of a "travelling manual training and

\(^{44}\) AR, 1904, 246-47.

household science school [to be] located in a suitable district for say one year and then move to some other locality." as a possible means of "explaining to the parents by striking object lessons the true place and purpose of the subjects." An educated public opinion presented one of the best lines of defense against the objections of the subject's critics and opponents. "The moulding and training of public opinion along right lines in educational matters," he noted in his report in 1905, "is or should be part of the function of any Department of Education."

A public opinion moulded "along right lines" would surely recognize the educational value of the work over and above its obvious technical components. Still, against Leake's objections, technical considerations frequently dominated in both professional and public responses to manual training. This problem became readily apparent as Leake addressed the question of qualified teachers. One current of opinion held that teachers of manual training, particularly at the high school level, should themselves be "expert mechanics." Lieutenant-Colonel Farewell suggested to a meeting of the Ontario Educational Association meeting at Whitby in 1899 that the services of experienced carpenters, wood turners and joiners could be procured by high schools for a couple of hours a day "for a sum very much less than it costs to hire two Masters for

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46 AR. 1905, 299-300.

47 Ibid., 300.

48 AR. 1904, 243.
classics and modern languages ...." \(^{49}\) The idea of engaging skilled mechanics as teachers stemmed from two roots: first, from the Russian model of shop training pioneered by Victor Della Vos which stressed the importance of the craftsman component to manual instruction; and second, from the popular association of manual training with technical education.

This insistence upon "expert" teaching, in fact, represented a confluence of cultural norms, bringing together the old and the new in a Cartesian weave of continuity and change. On the one hand, it hinted at the resiliency of the craftsman mystique and harkened back to the form and function of formalized apprenticeship. On the other hand, it also revealed a hint of the modern progressive preoccupation with expertise, and the corresponding trend towards enhanced specialization in the teaching profession. Specialization and efficiency, being very much the hallmarks of the modern age and the guideposts modern industry, likewise defined the current tendency in educational policy. However, manual training, as Leake envisioned it, would not likely open a new corridor between the halls of 'teaching masters' and the shops of 'master mechanics.'

Albert Leake, after all, adamantly urged against the recruiting of skilled mechanics, and insisted that the manual training instructor should be "a teacher first and a teacher always." \(^{50}\) He even challenged the assumption that manual training teachers

\(^{49}\)Lieut-Col. Farewell, "A Paper on Technical Education" (AO Pamphlet, 1899, no.66), 7.

\(^{50}\)AR, 1904, 243.
really needed any prior experience as mechanics before preparing to take on the new work (although some prior familiarity with tool work would certainly have been an asset). Instead, they needed experience as teachers supplemented by a specialized course of instruction in the objectives and methodology of the new subjects. Expert mechanics, in Leake's view, would not likely make competent teachers because of their general tendency to place the product ahead of the producer. "The trained teacher and the expert mechanic," he explained,

look at things from a different point of view and the difference between them is totally irreconcilable. The mechanic, by his training and his environment, is forced ever to have in mind the quantity of work turned out, and the quality need only be sufficiently good to sell. The exigencies of industrial life, and the keenness of competition have forced him to place the best work in sight, and to think less of the hidden parts. The true teacher will bestow equal care upon all parts of an object whether seen or unseen.  

John Seath likewise rejected the recruitment of expert mechanics. "All our teachers," he insisted, "must be to the manner born."  

As a practical consideration, Leake recommended that a bonus be given to currently trained teachers to encourage them the undertake a training course at the Macdonald Institute or the summer school programme at Ottawa to prepare for the new work.  

Students in these courses practiced the construction of joints and the drafting of

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51 AR, 1904, 243.

52 Seath, Manual Training and High School Courses of Study, 36.

53 AR, 1905, 303.
working drawings, according to the methods employed at Nääs. In addition, they studied pedagogical methods and educational theory as applied to the teaching of manual arts. The required reading list included Otto Salomon’s *The Theory of Educational Sloyd* and John Dewey’s *The School in Society*.54

**Critics and Sceptics: From Educators to Organized Labour**

Opponents of the Richard Harcourt’s curricular reforms sometimes complained of the current overcrowding of the core liberal curriculum.55 Students could not be served by further adding to the glut of courses filling their schooling agendas. For instance, E.W. Hagarty, speaking to the College and High School Department of the Ontario Educational Association, complained that "the evil of our system is over-work and its invariable correlative, lack of thoroughness," which could only be worsened by tacking on new and trendy courses to the current curriculum.56 Similarly another educator, described by John Seath as "one of our ablest and most experienced principles," saw little to applaud in the introduction of either manual training or domestic science on the


55 See, for instance, an address by P.L. Gray to the Dominion Teachers’ Convention at Ottawa, August 1901, in R.G.2, F-3-H, Box 1.

grounds that these courses would only serve to further undermine the ability of teachers to manage their growing list of responsibilities. Instead, this educator wondered why so many things that were formally the responsibility of parents should now become the responsibility of schools. "[I]t does seem to me the world is demanding more and more of the teacher every day," he argued. "Where do the parents come? Have they no responsibilities any more?" 57 For educator such as this one, in loco parentis had reached its outer limits.

To counter these sorts of objections, manual training advocates lashed out at the current orthodoxy of compartmentalizing school knowledge -- an orthodoxy that limited the imaginations of those critics who worried about glutting the overcrowded curriculum with new courses and replacing tried and true models and methods with foreign fads and fancies. Far from exacerbating the problems of an overcrowded curriculum, manual training aimed at reconciling school knowledge with real-life challenges. It provided a means for students to apply knowledge from other school subjects to practical activities. Lessons in geometry might be turned to practical use in the construction of joints. Lessons in Canadian geography might be complemented by acquainting pupils first-hand with the texture and properties of local woods and timber. In short, manual training aimed not at crowding the curriculum, but at integrating it.

Furthermore, manual training presented an opportunity to integrate school studies according to pedagogical methods. As the prospectus of the summer school in manual

57 Quoted in John Seath, Manual Training and High School Courses of Study, 32.
training at Ottawa boasted, the new course allowed a means "to bridge the gap" between the kindergarten and the higher grades "by showing how the principles of Pestalozzi and Froebel may be and ought to be continued throughout school life." Critics, however, remained unimpressed by the prospect of replicating in the higher grades a pedagogical method which was deemed uniquely appropriate for kindergarten.

W.J. Ellis, the principal of the Collegiate Institute in Kingston, emerged as one of the more reasoned sceptics of the manual training programme as it was currently unfolding. Unlike most other critics of curricular expansion, Ellis readily endorsed the concept of a correlated curriculum in principle. However, he charged that the current programme (Leake's pronounced advocacy notwithstanding) was not headed in the right direction. Rather, Ellis found a marked disparity between Leake's enthusiasm for a correlated curriculum and the actual implementation of manual training programmes in local school districts. If the industrial and commercial priorities of education occupied altogether too much attention in the current debate, Ellis noted,

> it is but the legitimate harvest from our own sewing. For fifteen years there has been no lesson so faithfully and so sedulously drilled into the public mind by the whole educational force of the province from the university to the kindergarten as this one that education has a money value.\(^59\)

If manual training offered a solution to the problem of relevance in the public school and

\(^{58}\) AO, R.G.2, F-3-H, Box 1, Macdonald Manual Training Fund ..., 1901, 41.

high school curriculum, this relevance was measured in commercial terms. Utilitarian educationists throughout the late-nineteenth century had encouraged people to view schooling in instrumentalist terms -- as something to be acquired not for its own sake, but for the sake of some other (usually economic) goal.

Richard Harcourt himself proclaimed the utilitarian priorities of manual training as being at least as important as the cultural priorities. Harcourt, like other educationists, viewed the mandate of modern education through a commercial lens, and dwelled upon the new priorities emerging from the modern economy. The mechanization of industry, the increasing complexities of the division of labour, and "the keenness of modern competition," all beckoned an educational response. With the passing of the traditional models of apprenticeship,

Intelligence and good training on the part of workmen are needed as much as ever. Skill must therefore be sought in some way. It would be discreditable for the mechanic to handle every day materials and not to understand their qualities, or to employ tools, machines, and forces of whose character he has made no investigation. Every occupation, however humble, has a science underlying it. The intelligent mechanic is trained to think for himself. The unskilled one becomes a mere machine.\textsuperscript{60}

Among other things, suggested Harcourt, manual training dignified manual work in the eyes of the young, and encouraged youths to remain in school for longer periods.

In fact, as much as critics harangued the programme's sponsors for favouring practical utility over mental culture, others found cause to endorse the programme for precisely the same reason. A common association existed between manual training and

\textsuperscript{60}AR., 1900, xxxv.
basic woodcraft or carpentry instruction. For Leake, however, this association, whether made by friend or foe, represented a dangerous misconception. "There is not a subject in the curriculum," he suggested, "that has suffered more from the intemperate advocacy of its supporters."^^61 This comment applied as much to those who focused narrowly on the utilitarian aspects of manual training as to those who regarded the subject, in Leake's words, "as a universal panacea for all the ills that educational flesh are heir to."^^62 John Seath's report on manual training included a full section of verbatim testimonials from high school principals, all attesting to the worth and value of the new course to local manufacturers. Throughout these testimonials, manual training's use value and exchange value -- its cultural and utilitarian aspects -- co-existed in an awkward tandem.

The complaint that pupils graduated from school without the basic skills and knowledge needed in manufacturing emerged as a common feature of these testimonials. According to manufacturers, too many pupils lacked the basic skills to apply academic knowledge to practical purposes. Too many pupils, it appeared, had difficulty applying arithmetic and scientific principles to industrial practices. Also common to these testimonials was an assertion of the value of manual training in correcting this problem. Manual training offered a means to train pupils, prior to their entry into industry, in the material applications of school knowledge. Pupils might learn the importance of arithmetic precision, the value of drawing skills, the properties of woods and metals, the

^^61Leake in _AR_, 1903, 150.

^^62_Ibid._
proper use of workshop tools, and the correct habits and attitudes that would make them efficient and productive workers.  

While manual training had won some measure of support from the commercial and industrial classes, Leake still faced opposition from various leaders and spokespeople in the labour movement. The Trades and Labour Council, in particular, expressed serious reservations about the introduction of manual training under the Macdonald Fund. Leake, however, quickly dismissed the T.L.C.'s misgivings in characteristic fashion, regarding the labour group's position as "opposition ... clearly based on a misapprehension of the purpose of the work, and ignorance of the methods and conditions under which it is carried on." Leake also suggested that labour's opposition to manual training stemmed from the exclusionary tendencies of unions -- a cynical attempt by representatives of organized labour to "better their own position as craftsmen by keeping other people from learning how to do what they can do."

Yet, the record in Ontario clearly indicated that during the last three decades of the nineteenth century, organized labour in Toronto strongly supported, lobbied for, and even participated in the organization of technical education. Far from balking at the prospect of skilled trade competition that might arise from technical education, organized labour in the city applauded the initiative of those who cultivated new technical skills.

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64Ibid., 57.

65Ibid.
Skilled workers, after all, were organized labour's constituency. Technical education turned out skilled workers with credentials and a claim to respectability, and seemed to offer workers a hedge against the deskilling tendencies of technical change in industry.

Organized labour had staked out its position on manual training as early as the late 1880s, when the subject was first broached by educational reformers and debated within the education department. At a meeting of the Toronto Trades and Labour Council in September, 1887, Robert Glockling and Daniel O'Donoghue steered a motion favouring a "judicious system of technical education," but declaring manual training to be "prejudicial to the interest and welfare of mechanics and wage-earners generally."²⁶⁵ Glockling and O'Donoghue, both of whom played key roles in the administration of the Toronto Technical School during the 1890s, raised the air of suspicion that the Minister (at that time George Ross) was simply trying to direct the occupational destinies of working-class youth away from the commercial and learned professions. According to the motion raised and seconded by the two labour leaders,

The profession of law had a strong union, and so had the medical profession, and they were well protected. These professions now wished to provide machinery to keep off the pressure on their respective professions, and to that extent at least keep their labor market from being flooded.²⁶⁷

In short, organized labour ascribed the same protectionist motives to the professional


²⁶⁷Ibid.
communities in their expected support for manual training that the Minister of Education later ascribed to organized labour leaders in their opposition to it.

The Toiler, a labour newspaper and organ of the Toronto TLC, clarified the official position of organized labour in the city in 1903. The opinion expressed by this paper highlighted a remarkable consistency in labour's posture over the course of fifteen years since Glockling and O'Donoghue first raised the issue. According to the Toiler, there was altogether "too much tendency in official circles to promote manual training to the detriment of technical education," the latter of which the paper considered "essential to the making of a really good workman." The principles of manual training currently being touted by the programme's staunchest allies and promoters no doubt seemed far too esoteric to be of any value later on in the quotidian world of industrial shopwork. Manual training, charged this labour critic, introduced pupils to tools and materials, but did not address the underlying principles or the purposes to which those tools must be put:

Manual training puts a few tools into the hands of the boys, and teaches them their use in an amateur way, outside of those conditions of real dusty work which go to make the efficient mechanic. That is not what is wanted. The boys will learn the use of tools fast enough in the shops.

If, however, manual training were oriented in the high schools more like technical education, on a firm foundation of utilitarian practicality in its methods and its mandate, then it might have better served the interests of the pupils concerned. The paper continued:

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What is wanted is that the knowledge of handling tools should be supplemented by an intelligent understanding of the principles of mechanical construction, as the boy should apply them in the workshops of Toronto in the trade that he is learning.\textsuperscript{69}

The problem was not that manual training was too much like technical education, \textit{per se}, but that it was not enough like technical education. Labour, in fact, worried that the development of technical education would suffer financially if available funds were siphoned off to establish and equip manual training centres and domestic science classes.\textsuperscript{70}

Of course leaders and spokespeople of the T.L.C. were not averse to betraying protectionist motives in their actions and public pronouncements. Their mandate was to protect the interests of skilled workers in affiliated craft unions. The very existence of craft unions represented a collective will to guard against the encroachments of industrial management on the shop floor. Organized labour, during the last quarter of the nineteenth century, found itself voicing protectionist concerns against the erosion of wages, the displacement of skilled workers in redundant trades, labour market competition from 'unskilled' workers, and the flooding of their labour market with foreign contract workers and assisted immigrants. Characteristically, however, organized labour

\textsuperscript{69}Ibid.

\textsuperscript{70}Ibid. In 1902, the provincial grant to the Toronto Technical School for conducting technical classes was $200. By comparison, this same school was granted $822 for its domestic science classes. The newly constructed Manual Training Centre in Stratford received a grant of $1800 ("an amount probably sufficient to carry the entire expenses of the institution"), and the Domestic Science normal and model school in Hamilton received $1500 in that year.
welcomed genuinely skilled workers who wished to ply their trades, provided that those skilled workers were Canadian (or at least British) in origin and training. Technical education was a means of replenishing the supply of skilled workers in the labour market and conferring respectability and legitimacy upon the skills that they possessed. Manual training, at best, would produce only semi-skilled shop hands, possessing only an acquaintance with tools and tool work. What appeared to be a callous disregard of labour's concerns on Leake's part really signalled nothing more (or less) than Leake's failure to comprehend the actual apprehensions, anxieties and real-world concerns of organized labour in the face of modernization.

**Culture and Utility in Manual Training**

Above all the other difficulties encountered, however, the general misunderstanding of the educational and cultural merits of manual training seemed to pose perhaps the most persistent and formidable obstacle to its advancement in the province. Too many critics and enthusiasts alike, Leake reckoned, failed to distinguish between the aims of manual training and those of technical education. In many people's minds, the two were synonymous.\(^1\) Small wonder! After all, both ideas involved instruction in practical tool work and usable workshop skills. Furthermore, both manual

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training and technical education rekindled the imagery (if not the exact form) of traditional apprenticeship and buttressed claims about the dignity of skilled manual labour. At first glance, high school manual training differed from technical education only in its emphasis on process over product, and manual dexterity over specialized skills and knowledge.

There is no reason to doubt Leake's convictions about the educational value of the subject, and his commitment to the ideas of progressive education. However, his ardent dismissal of its utilitarian aspects might have been a bit overzealous. Through his insistence on the educational side of the work, Leake attempted to counter the inert opposition of conservative educationists who denied the mental culture of technical education. Yet, some of the programme's most ardent allies supported the new work precisely because of its direct commercial value and its relevance to manufacturing life.

Among other things, manual training afforded an opportunity for schools to teach useful workshop skills, and an opportunity for pupils to discover their proclivities for tool work before they entered industrial life. A well-established programme, extending from the public school through the high school, also offered an ongoing, rudimentary workshop socialization that promised to help bridge the gap between school life and the manufactory. In the process, pupils might learn to internalize the manly virtues of craft labour, learn to discipline their own work habits, and learn a healthy respect for the dignity of manual work. Proper habits of body and mind were probably every bit as important in the broader scheme as were manual skills and talent in the early
development of a publicly sponsored 'mass apprenticeship system.'
Chapter Seven

Haven in a Heartless School?:

The 'Woman's Place' in Domestic Science

It is a fact that a large majority of the girls working in local factories do not understand the first principle of cookery or housekeeping and many of these girls will be the future wives of workingmen and the mothers of their children.

The Industrial Banner (London), February, 1903

May I venture to suggest the importance of giving special attention to the subject of Domestic Economy, which properly lies at the root of the highest life of every true woman.

H.R.H. the Princess Louise, 1879

Technical education represented probably the most tangible manifestation of industrialism's impact upon modern education. More subtly, however, industrialism also penetrated the educational mind itself, affecting how administrators and teachers conceived of their respective roles in the mission of schooling. In this vein, 'efficiency' became one of the most salient concepts lent to the lexicon of education by modern

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1The Industrial Banner, February, 1903, 1.

2From an address by H.R.H. the Princess Louise to the Ladies' Educational Association of Montréal, excerpted in CEM 1 (February 1879), 97 [emphasis added].
industry. Increasingly during the late-nineteenth and early twentieth centuries, the efficiency ethic determined how school inspectors and educational administrators assessed educational progress and evaluated educational achievement. A teacher's efficiency might be measured according to how her students performed on a matriculation examination; a public school's efficiency might be measured according to how many students graduated and entered high schools or collegiate institutes. Efficiency represented a general benchmark by which to evaluate the progress of the educational system and the appropriateness of the curriculum and teaching methods.

However, it held one more important implication for modern schooling. The efficiency ethic supported the logic of co-education -- teaching the rudiments of the core curriculum concurrently to both boys and girls, young men and young women, in the same classrooms at the same time. Yet, equal treatment at the public school level seldom implied equal opportunities to educational advancement. In the 1880s, although young women did enter high schools and collegiate institutes to continue their studies and accomplishments, the scarce spaces in these institutions were largely occupied by boys drawn from families in the ranks of the professional and commercial classes, or from the skilled trades. Furthermore, while women had won the right to university admission, university enrolment remained mostly a jealously guarded male preserve.

If young women were receiving the same core instruction as young men throughout public school, did it not also follow that at least some of them might begin to aspire to higher levels of learning, and grander occupational or vocational destinies? The
introduction of domestic science alongside manual training held a particular significance in this regard. If public schooling implicitly placed boys and girls on the same educational track from the outset, the new technical classes reinforced the traditional channelling of male and female pathways from their schooling to their occupational destinies. As a National Council of Women discussion paper asserted in 1898: "That women should receive every educational privilege accorded to men is generally conceded, but it does not follow that it should be the same kind of education."

While manual training signified a rudimentary preparation for shopwork and industrial life, domestic science suggested a specific preparation for housework and family life. In as much as both courses mimicked the daily occupations of the adult world, manual training implicitly reinforced the notion of the male as breadwinner, while domestic science tacitly subscribed to the notion of the female as bread baker. In short, manual training emphasized production, whereas domestic science emphasized service. Even with the development of home economics ideas, which placed the accent on the (middle-class) woman as household manager and the working-class woman as possible wage worker, the accent was never absent that this programme constituted training for specifically women's roles in society. In the new 'technical classes,' the implied 'egalitarianism' of co-education gave way to the 'efficiency' of social reproduction.

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Victorian Idealism and the Domestic Creed

The moderate liberal historian of education, Robert Stamp, has suggested that the introduction of domestic science in Ontario's schools signalled an attempt by educators to come to terms with the rise of the new urban woman in modern society. According to this hypothesis, the new urban woman experienced daily life in ways far removed from her mother and grandmother. Hers was a world transformed by the rhythms of urban-industrial life, and she required specific training in the tools and techniques of the modern household. In this view, domestic science is portrayed largely as a progressive initiative. Other historians, exploring the conceptual concerns posed by modern feminism, have challenged this perspective. Changes in technology and in the tempo of modern times did little to alter the fundamental character of women's lives or to hasten women's emancipation from isolated domestic toil. Traditional mores and conceptions, after all, continued to demarcate much of the social space of the new urban woman. T.R. Morrison, for instance, has emphasized how the domestic science crusade of the late 1890s upheld a model of traditional womanhood as an ideal to which young women


ought to aspire.⁶

In essence, the introduction of domestic science in Ontario schools suggests a conscious, if sometimes clumsy, attempt to reconcile the competing themes of continuity and change in the lives of many Ontario women at the turn of the century. Its advocates - male and female - often perceived it as a practical approach to addressing the increasing complexity of women's roles in a modern urban life. Yet, just as often, many of them took solace in its appeal to traditional values in society, and in its affirmation of a woman's proper place. In the ensuing campaign for domestic science, a unique dimension was added to the ongoing contest between cultural and utilitarian values in technical education.

During the second half of the nineteenth century, two related processes firmly established both the scope and the limitations of the woman's place in society. The first process -- industrialization -- altered the fabric of women's material lives and shifted the contours of women's working relationships. The second process -- the development of a Victorian social ethic -- validated psychologically and ideologically the new realities being forged through the first process. The new economic, social and cultural benchmarks of modern Victorian society imposed a heavy burden on the so-called 'weaker vessels.' Many women discovered that just as their social and economic identities were becoming somewhat circumscribed, their traditional responsibilities were

at the same time being redefined and intensified.

The disruption of the traditional household production system constituted one of the major social transformations wrought by industrialization. After the mid-nineteenth century, the gradual centralization of work in larger manufactories, particularly for skilled workers, heralded the decline of an era during which the home served as a locus of productive labour. However, it is all too easy to exaggerate this point and misconstrue its implications. The removal of men's work from the home often meant the isolation of women's work in the home. Productive labour, after all, continued unabated in the household during the onset of industrialization, even if it took place out of sight (and frequently out of mind) of many contemporary North American social commentators. The preparation of meals, the making and mending of clothes, and the acceptance of piece work, all constituted common features of household productive labour on the part of many working-class women. Moreover, the segmenting of men's and women's working worlds packed a powerful social irony. During the same period that male journeymen began to assert their own craft integrity against the encroachments of an increasingly detailed division of labour in the manufactory, they inadvertently helped to consolidate a broader gendered division of labour across the society as a whole. Within


this social context, the home became the primary site associated with women's work.

Victorian idealism elevated a woman's domestic identity to the plateau of a social ideology and thus sanctified the harmonious separation of men's and women's social roles. At the same time, it also cast suspicion upon those women who ventured outside of the home for economic reasons. Victorian Romantics idealized the home as a 'haven in a heartless world,' and viewed women as its gatekeepers. The home signified the soul of the civilization, a pure and uncorrupted space providing the Victorian workingman with a humble respite from his daily ordeals, and his progeny with a healthy environment in which to grow. The Romantic mind enshrined women as the stewards of virtue and civility, the caretakers of domestic probity.9

This Victorian ideology sanctified an abstract image of women as virtuous wives and mothers, or as demure and deferential daughters, allowing little room for anomalous variations in the female character.10 At the same time, Victorian idealism and the cult of domesticity also promulgated and reinforced ideals of male chivalry, in which men became providers and protectors.11 The domestic ideal exalted the moral role of the woman in the home and heaped approval upon women who lived up to the ideal, offering


validation to those women who played their social roles as scripted. Conversely, this same ideal rendered suspect those women for whom wedded bliss and domestic devotion had themselves become anomalous virtues -- those women, particularly, for whom waged work had become not an option but a necessary means to survival. For the women of the industrial working class, the long arm of the domestic social creed undermined their working lives in a variety of ways. It limited the types of jobs that might be deemed suitable for women in the world of paid work, while it served to legitimize the lower wages that they might hope to receive for their labours.\(^{12}\)

Throughout the late-nineteenth and early-twentieth centuries, the domestic sphere of women hovered precariously between image and reality. Necessity and family duty often compelled working-class women in industrial cities to contribute to the family economy in creative ways. These women routinely tried to strike a delicate balance between motherhood and livelihood, between unpaid domestic work and remunerative handiwork, between the ideology of domesticity and the reality of family survival. Bettina Bradbury, in her study of working-class women in the Montréal slums of Ste. Anne and St. Jacques, has documented several common survival strategies, ranging from taking in boarders to tending small gardens to raising sundry livestock.\(^{13}\) Working mothers in the 'auxiliary economy' frequently also took in laundry and stitching work, as


well as piece work from local clothing factories. Yet, as Alison Prentice et al have pointed out in their compelling synthesis of women's history in Canada, the idealization of 'true motherhood' reigned supreme in much of the Victorian social discourse concerning a woman's 'proper sphere,'

whether or not this concept struck an often incongruous chord when played against working-class realities.

'True motherhood' transcended functional descriptions of women plying their trades in the under-recognized and unremunerative tasks of homemaking. It spoke to the nature of a woman's character rather than to the utility of her skills. It exalted a woman's domestic role high above the mundane lot of the 'unpaid domestic servant.' It emphasized nurturing over needlepoint and caretaking over cooking. It combined maudlin sentiment with righteous piety to define the social role of motherhood as a noble vocation -- a 'calling' that was not to be sullied by inappropriate comparisons with the trades and professions.

Yet, however much these Romantic characterizations of 'true motherhood' shrouded the ordinary preoccupations of the workaday world, the implicit parallels between the female sphere of motherhood and the traditionally male sphere of livelihood were striking. Particularly intriguing was the way in which social commentators assumed that young girls were supposed to learn the skills of housework and the virtues of womanhood from their mothers, as male apprentices would learn their trade skills and the

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craft mysteries from their masters. The apprenticeship of young women ostensibly included instruction in useful skills, such as stitching and sewing, knitting, meal preparation, and household decoration. No doubt it also exposed them to an implicit orientation in women's household duties -- everything from table setting, to laundry, to housework, to daily marketing. Without this practical apprenticeship in the 'female arts,' surely the more ephemeral social creed of women's domesticity could not be sustained.

Yet, throughout the industrial period, the sustained apprenticeship of girls and young women into the household arts and mysteries of the kitchen seemed alarmingly fragile. Working mothers, whether they accepted jobs outside of the home or took piece-work into the home, appeared least likely to have either the time or the inclination to instruct their daughters carefully in the skills and responsibilities of domestic life. Instead, girls and young women assumed household and child-care responsibilities from their mothers without adequate supervision, instruction, or training.

Ultimately, this breach of a young woman's formal domestic apprenticeship portended serious consequences, both for the working-class household in particular, and for the whole of modern urban society in general. Civic reformers needed to look no further than the notorious working-class slums in cities like Toronto and Montréal to find evidence of the squalor and dishevelment that testified to the ignorance and neglect of their inhabitants. The Romantic image of the domestic haven simply did not jibe with the bleak reality of the crowded and unkempt hovel. If, in fact, young working-class girls no

\[^{15}\text{AR}, 1898, xxxvi.\]
longer received adequate preparation for their domestic destinies, then perhaps some measure of intervention was necessary. In the modern age, social reform, like charity, began at home, and remained the province of private agencies, evangelical charities, and benevolent individuals.

'Women's Work' and the Condition of the Working-Class Home

Public intervention eventually came in the form of civic inspections of the housing conditions, sanitation, and health in working-class and slum neighbourhoods. In cities like Toronto, Hamilton and Montréal, by-laws empowered inspectors to monitor standards and to order improvements to substandard housing and sanitation conditions. Meanwhile, civic politicians also acted to regulate the economic and social behaviour of the inhabitants of these neighbourhoods, and truancy officers canvassed the streets and conducted inspections of local manufactories in an effort to regulate child labour and to guard against child exploitation (by industrialists and families alike). Many of the economic strategies employed by the poorer urban working class, from the raising of pigs to the reliance on the contribution of children's and women's wages certainly challenged, and may even have threatened, the more comfortable notions of 'hearth and home' in the late Victorian city.

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Surely the conditions of the urban poor were not endemic to the working class as a whole, and of course a large measure of the responsibility for the conditions that did develop in the slums rested on the shoulders of neglectful landlords and the escalating costs of rent and fuel (not to forget the deficiencies and inequities of the industrial wage system). Yet, in the eyes of more than a few observers, the social problems that seemed to plague many urban working-class neighbourhoods, such as poverty, alcoholism, crime, juvenile delinquency, prostitution and family disintegration, may have had something to do with the deficient training of young working-class women to be good wives and mothers. However irrational and unfair this argument might appear, it nevertheless coloured the debate over the education of women with a shadowy and gloomy hue.

If the home constituted the primary moral force in society, and the family the core social institution, then could an efficient and well-kept home, with nutritious meals and decorative warmth, provide a remedy for at least some of the social distemper of the modern city? More than a few public officials, community leaders, social critics and educators seemed to nod in affirmation.

According to Susan Houston and Alison Prentice, the education of young women in mid-nineteenth century colonial Canada may have constituted a "form of dowry."

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17 Between March and April, 1886, the Toronto News ran a sensationalist muckraking series of 'investigative reports' entitled "Toronto By Gaslight," which offered its largely working-class readership a sometimes titillating/sometimes horrifying glimpse into the apparent social degeneration of Toronto's infamous slum neighbourhood, known as "The Ward."

18 Houston and Prentice, Schooling and Scholars in Nineteenth-Century Ontario, 325.
particularly for women seeking to secure their future positions in middle-class marriages. In this sense, their educational accomplishments were seen as social assets to prospective husbands. During the late-nineteenth century, the domestic education of working-class girls seemed to assume a similar cultural connotation. As early as 1873, the Conservative working-class newspaper, *The Ontario Workman*, put the case succinctly:

> Whatever position in society a young lady occupies, she needs a practical knowledge of household duties. ... Economy, taste, skill in cooking, and neatness in the kitchen, have a great deal to do in making life happy and prosperous. ... A dirty kitchen and bad cooking have driven many a man from home to seek comfort and happiness somewhere else. None of our excellent girls are fit to be married until they are thoroughly educated in the deep and profound mysteries of the kitchen.\(^{19}\)

The Reverend C.H. Mockridge echoed a similar sentiment in 1885:

> The economy of a household is quite an art. It should not be left to the innate genius of women (which is often, by the way, somewhat deficient in that direction), but should be made a matter of regular and systematic training among girls.\(^{20}\)

The overt condescension of these remarks should not mask the underlying sense of social urgency that such speakers attached to the condition of working-class households. The same sense of social urgency was echoed in Helen Cameron Parker's remarks in 1893 when she asked: "Would such ignorance be tolerated in any other profession? Is it of no vital importance to the nation that this unfitness of women for their greatest profession produces hovels instead of homes and that each of these hovels is a breed place for


crime?" 21 Apparently, at issue was nothing short of the strength of the family and the security of the community -- the anchors in turbulent times.

In 1881, the Annual Report of the Minister of Education included a study of Schools of Cookery in England and the United States, compiled by Dr. May. As in other questions of technical education that largely concerned men, May discussed domestic arts for women in terms that were entirely consistent with his general approach to the political economy of education. 22 The benefits to be derived from the training of women in the domestic arts extended from the family to the nation. Domestic arts, according to Dr. May, had profound social, moral and economic implications. Potentially, such training would elevate the character of individual women and improve the welfare of society via the institution of the family.

As in other educational matters during the industrial period, efficiency became a standard by which to measure the usefulness, appropriateness and success of domestic arts training. In his report, Dr. May wholeheartedly concurred with Professor Youmans, who wrote in Popular Science Monthly that the nation's kitchens were "the fortified entrenchments of ignorance, prejudice, irrational habits, rule of thumb and mental vacuity." 23 If May is to be taken at his word, food that was "unhealthful, unpalatable and


23 AR, 1881, Part II, 267.
needlessly wasted" was the bane of the working-class household in the late-nineteenth century. Clearly May had little regard for the culinary culture and customs of the Canadian working-class in particular. In a brief report on a proposed School of Cookery for Ontario, he made his case bluntly:

It is probable that no other country suffers more than Canada from imperfect cookery and waste therefrom. Provisions are cheap, and the poorer classes are extravagant and wasteful, and they are untrained and ignorant of everything appertaining to the culinary art, and the consequence is that our food is unhealthful and unpalatable.24

The standard of efficiency, therefore, aimed at improving intelligence and skills in the kitchen and expurgating waste. Waste was the enemy of frugality and thrift. It was a concern that held particular importance in the domestic education of young working-class women who would one day be called upon to provide nutritious meals and keep a tidy home within the limitations of a working-class budget. So important was this concern, noted Dr. May, that the Code of Regulations of the London (England) School Board required that every girls' school employ at least one mistress "competent to teach cookery," with an emphasis on making dishes "of the best materials at moderate cost" and eliminating waste. According to May, the virtues springing from such a programme were axiomatic:

... if working women and others were taught how to prepare simple, wholesome food, and to work in the kitchen with method and cleanliness, it would effect wonderful improvement in the conditions of their homes,

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and go a long way in promoting thrift and temperance.\textsuperscript{25}

'Thrift and temperance ...' -- according to May, these were the essential virtues "on which the prosperity of every community so largely depends."\textsuperscript{26}

Following the British and American leads, small schools of cookery were opened in Ontario during the 1880s, although not under the auspices of the education department. As in other auxiliary educational ventures of the period, local option and private initiative governed the establishment of new experimental programmes. The Y.W.C.A. began its own cooking classes in Toronto, Hamilton and Ottawa. The education department maintained an arm's length interest in the work, and arranged for special examinations in cookery to certify graduates for teaching. According to Dr. May, however, these examinations offered incontrovertible testimony to the unsatisfactory teaching and poor preparation of students aspiring to teach cookery. Above all, the philanthropic efforts of the Y.W.C.A. were grounded in good intentions, but not in sound pedagogical principles.\textsuperscript{27}

In 1894, the province passed an amendment to the School Act giving local school trustees the authority to introduce household science classes. Not surprisingly, school boards frequently seemed reticent about incorporating these classes into the public school programme. In fact, many of the impediments to the introduction of domestic science

\textsuperscript{25} \textit{AR}, 1881, Part II, 266.

\textsuperscript{26} \textit{Ibid}.

\textsuperscript{27} \textit{AR}, 1903, 156.
were the same as those that appeared to hamper the initial progress of manual training. The poor preparation of teachers and students alike topped the list of difficulties encountered in implementing household science into the general school stream. Critics and opponents of the new course also objected to the scarcity of school resources, the absence of accurate data on the course's utility, the potential isolation of household science from other school studies, and the overcrowding of the core school curriculum. Moreover, the recurrent theme that 'technical studies' might demean the integrity of a general education applied similarly to domestic science as it did to manual training. Even potential supporters of household science revealed their own apprehensions that the picayune idea of 'cookery' would likely prevail over the broader pedagogical agenda of 'household science' in the minds of parents and pupils.28

As in the case of manual training, therefore, William Macdonald's philanthropy proved to be critical in launching domestic science in the public schools of Ontario. By helping to defray the cost of equipping domestic science rooms, and by aiding in the development of proper teacher training, the Macdonald Fund directly redressed some of the initial concerns of educators and trustees. By promoting the educational value of the work, the Fund attempted to address some of the remaining apprehensions of those critics who harped upon the programme's suitability for public education. In 1900, with the aid of the Macdonald Fund, the Ontario Normal School of Domestic Science was established in Hamilton.

28AR, 1901, xxx; AR, 1903, 157.
Those boards wishing to establish domestic science classes were also offered limited financial assistance for the purchase of kitchen equipment and appropriate classroom renovations. In larger cities, like Toronto, Hamilton, London and Ottawa, several domestic science rooms were opened in selected schools. Some school boards, like Stratford, included plans for domestic science in the construction of their manual training and technical education facilities attached to the collegiate institute. Just as common, however, were towns like Brantford, in which the Y.W.C.A. continued to conduct the domestic science instruction and applied for provincial funding to expand their facilities. In these cases, the province required that the Y.W.C.A. employ a competent and certified teacher and that the upper forms of all public schools have access to the facilities for one half day each week.  

Provincial funding, however, was very limited, and the Macdonald Fund lasted only until 1902. For those school boards that balked at the extra costs involved in establishing domestic science in addition to manual training, Richard Harcourt tried to emphasize that domestic science work could be conducted relatively cheaply. Public school sewing classes did not require special facilities, nor did cleaning and hygiene instruction. Only the kitchen facilities (albeit the most critical aspect of the work) required a specially-equipped room. Still, Harcourt insisted that a "suitable kitchen"

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29AO, R.G.2, D-7, Box 8, Richard Harcourt to Miss Ina Mackenzie (Secretary, Y.W.C.A., Brantford), 6 June, 1901; C.A. Mayberry (Stratford) to G.G. McPherson (Stratford), 10 December, 1901; Box 10, Dr. McCabe (Principal of Ottawa Normal School) to Richard Harcourt, 9 September, 1901; Harcourt to McCabe, 10 September, 1901.
could be equipped in most schools for only $250 dollars, and a certified teacher could be hired for a salary of $650 dollars, of which the province might help to defray some of the cost. Nevertheless, for some of the smaller cash-poor school boards, even the marginal costs attached to new programmes like domestic science posed significant barriers to their widespread and enthusiastic adoption.

Lobbying for Inclusion:

Adelaide Hoodless and the Domestic Science Agenda

The gradual development of domestic science instruction in Ontario owed much to the considerable efforts of the movement's most dedicated standard-bearer, Adelaide Hoodless. Hoodless represented in many ways an archetypical example of late-Victorian middle-class womanhood. Her husband John, a prominent Hamilton furniture manufacturer and local Conservative party member, provided Adelaide and her four children with a comfortable living, while cementing the family's social standing in the community through his involvement in various civic functions, which included a seat on the Hamilton Board of Education. Like other middle-class matrons of the period, Adelaide Hoodless also became heavily involved in community affairs and local charity work. The community service ethic, in the Hoodless household, patterned a respectable

middle-class lifestyle.

In other ways, however, Adelaide Hoodless seemed very much atypical of middle-class womanhood. At least in the breadth of her activities, Mrs. Hoodless eschewed the parochial limitations of simple community involvement. She expanded her concept of community well beyond the neighbourhood and the city to embrace the vision of a growing community of women spanning the country who, challenged by the transformations of the modern age, were beginning to explore their common concerns and responsibilities as modern women. As part of an expanding network of middle-class women across the country, Adelaide Hoodless participated in the establishment of several organizations during the 1890s that provided a forum for the exchange of women's ideas and gave a voice to the articulation of women's concerns. Prior to the 1890s, the only national network of women's groups was the Women's Christian Temperance Union (W.C.T.U.) During the 1890s, the Young Women's Christian Association (Y.W.C.A.), the Women's Institutes, and the National Council of Women were launched, the latter of these bodies being an umbrella organization of women's groups across the country in which Hoodless served as the first Secretary. These new organizations, which boasted an active membership comprised largely of Canadian middle-class women, seemed to expend much energy addressing the particular problems of working-class women and girls. The Y.W.C.A. provided social, educational and recreational service to urban working-class women that paralleled the work of the Y.M.C.A. for men. Meanwhile, the

Women's Institutes and the National Council of Women provided a forum to debate women's political and social goals, and -- between the 1890s and the 1920s -- adopted and occasionally championed such causes as female suffrage, factory standards, child labour laws, a minimum wage for women, and women's education.32

Adelaide Hoodless was named Honourary President of the first Women's Institute in Stoney Creek, but did not take an active role in its activities, preferring instead to dedicate her energies to the development of domestic science education.33 Hoodless's growing preoccupation with domestic science during the 1890s defined her position in the national women's movement thereafter.34 She was instrumental in the founding of the Canadian Household Science Association, and continued to lend her name to that organization as Honourary Vice President. She promoted the principles and benefits of domestic science through the National Council of Women and the Canadian Household Science Association, and linked up with other North American advocates and practitioners of domestic science education at annual conventions held in Lake Placid, New York.

Hoodless' domestic science advocacy may well have been located squarely within


33Ibid., 183.

34Stamp, "Adelaide Hoodless ...", 213.
the context of what contemporary feminist historians have decried as the patriarchal
construction of separate spheres for men and women. In fact, she did not dispute the
logic of the separate spheres. As T.R. Morrison has suggested, Adelaide Hoodless was
"no radical feminist seeking to free women from the shackles of home life."
Instead, she maintained, the logic of the separate spheres appeared to reside in "natural law."
Anything that threatened to undermine this harmonious equilibrium between men and
women "[could not] fail to have an injurious effect on social conditions, both morally and
physically." For Hoodless, the engagement of women in the realm of factory work and
waged labour clearly numbered among the destructive social forces in industrial society.

In 1899, just prior to the education department's formal adoption of domestic
science, Hoodless submitted a detailed report to the education department outlining the
similar work being carried on in the United States, and included a declaration of specific
objectives and principles. Curiously, Hoodless' arguments employed essentially the same
rhetorical idiom as did the concurrent campaign for manual training -- a basically male-
oriented educational discourse that stressed competence, independence, individuality,
industry and efficiency. Yet the 'male' educational idiom, when applied specifically to
girls' and women's education, acquired some unique nuances. In stressing the importance
of 'order' and 'efficiency,' as they related to the development of work habits, Hoodless

35Morrison, "Their Proper Sphere ...," 67.

36Adelaide Hoodless, "The Labour Question and Women's Work and its Relation to
suggested:

It is desirable that each pupil should have a complete set of working utensils, so as to establish a sense of individual responsibility. The former idea that pupils working in groups has been abandoned in schools where the educational value of the work is considered. 37

The stress on individuality, so much a part of the masculine identity in industrial culture, 38 also depicted accurately the reality of housework for most working-class women. After all, might not the actual isolation of many women's lives have been inadvertently mocked by an emphasis on group work in domestic science classes?

Hoodless' inadvertent use of a 'male' educational idiom in domestic science discourse exposes a troubling irony in her advocacy. Additional watchwords like 'skill,' 'accuracy,' 'precision,' 'technique,' and 'household management,' when applied both to the process and the product of women's domestic education, cemented the conceptual link between the private execution of women's household tasks and the broader world of industrial work. Notions about the regulation of work habits and processes penetrated the barriers between the 'separate spheres,' and complemented new technological advances in housework. Of course, as gendered conceptions of skill were socially constructed, women's skills tended to be channelled in the direction of service rather than


production. Notwithstanding her sincere concerns about the "injurious effect on social conditions" arising from women's participation in industrial work and waged labour. Hoodless' depiction of the principles of domestic science left little doubt about its compatibility with the wider project of technical education. Hoodless consistently reminded her audiences, however, that like manual training, domestic science needed to emphasize educational over strictly technical priorities.

From a decidedly educational perspective, domestic science promised to enhance rather than encumber the effectiveness of the regular curriculum. Hoodless and her peers joined the manual training boosters in promoting the concept of an integrated curriculum. Their programme, far from contributing to the overcrowding of the curriculum, claimed to offer a means of grounding theoretical booklearning in concrete applications, "by enabling head and hand to work together."^{39} Domestic science, Hoodless suggested to the Fredericton Board of Education during a visit to the Maritimes in 1902, allowed for "a practical application of theories, and add[ed] interest to other studies."^{40} With its emphasis on practical and creative handwork, domestic science awakened the interests of "dull pupils" and invariably led to "marked progress in their other school work."^{41}

Still, the educational mandate of domestic science could not be removed from its

^{39} Adelaide Hoodless, Report of Mrs. Hoodless on Domestic Science, including a recent visit to the Schools of Philadelphia and Washington (Toronto: Warwick Bros. & Rutter, 1899) 3.

^{40}"Domestic Science," Daily Gleaner (Fredericton, N.B.), 11 July, 1902.

^{41}Report of Mrs. Hoodless on Domestic Science ..., 6.
technical and its social implications. Hoodless summed up the benefits of domestic science instruction with the following list:

1. It tends to inspire respect for skilled labor, and domestic duties. [My emphasis]
2. It develops self-respect and self-reliance, especially in pupils who dislike books.
3. It develops general intelligence and increases interest in school work.
4. It cultivates habits of neatness, attention, accuracy and industry.
5. It improves the health and strengthens the will power.  

Although she did not explicitly prioritize the various educational benefits associated with domestic science instruction, Hoodless managed to group those items associated with the cultivation of attitudes ahead of those associated with the development of proper habits. If there was a logic to this grouping, it might have rested on the tacit assumption that without proper attitudes, productive and healthy work habits could not be sustained. Only when pupils learned a healthy "respect for skilled labor and domestic work," could they be expected to develop an interest in domestic science work, and thereby realize its other benefits to good habits and good health.

The social implications of Hoodless' programme were never far removed from current conceptions of the mandate of public schooling, and the place of women's education within it. Public education aimed at the creation of a civic culture and a productive citizenry. Through the application of a common curriculum, and the cultivation of proper attitudes and habits, public schools hoped to generate not only

42 Ibid.
cultural reproduction but social cohesion as well. In addition to promoting the mores of
civic and democratic life, modern schooling increasingly paid heed to the norms and
values of industrial culture. When Adelaide Hoodless asserted that "economy,
cleanliness, method, promptness and development of executive ability are the primary
objects [of domestic science work]."\textsuperscript{43} she not only echoed a common refrain of modern
school reform discourse, but also revealed the power of industrial culture to influence the
idiom of educational reform.

Despite the power of the industrial idiom in shaping the ways in which this
programme was conceived, the purpose envisioned for domestic science in the public
schools hinged on the preconceptions and prejudices about the state of homelife in
modern society. In the absence of reliable home instruction, the responsibilities of
equipping young girls with the skills of homemakers or household managers (depending
on their respective social class destinies), and preparing them to assume the mantle of
womanhood fell to the schools. In this sense, the goal of promoting "the dignity of labour
and household duties" loomed even larger as a challenge to overcome the presumably
negative images of housework learned by girls from working-class homes. On this point,
Hoodless echoed a familiar refrain that sounded throughout the discourse over women's
education: "There is no greater factor in promoting the welfare of a nation than its home
life."\textsuperscript{44} In demonstrating useful household skills and procedures -- along with hygiene,

\textsuperscript{43}Ibid., 5.

\textsuperscript{44}Ibid., 5.
nutrition and frugal budgeting -- Hoodless' version of domestic science seemed to imply the reform of working-class motherhood itself.

**Impediments to the Progress of Domestic Science**

The apparent urban centrum of much of the domestic science social agenda, however, may have rendered its appeal highly limited in the hinterlands and rural regions. Solutions to the problems of urban working-class girls rarely excited the reform sensibilities of rural educators. Consequently, the progress of domestic science remained impeded for about two decades. In 1906, fewer than six percent of public school girls in Canada attended formal domestic science classes. Although the participation rate of girls rose to about 70 percent by 1921, the rate for rural public school girls never exceeded seven percent during this period.45 John Seath, in his report *Education for Industrial Purposes* (1911) observed the same pattern developing in Ontario. His report found that only eleven localities in the province offered domestic science in both the public and high schools; four cities (including Toronto) offered it in the public schools only; two localities (including London) offered the course in only one high school apiece; and in just three communities (Berlin, Owen Sound and Stratford) was the course introduced in separate schools as well as public schools and collegiate institutes. Drawing particular attention to the slow and uneven rate at which this programme was adopted, Seath

remarked that "after ten years' time, household science is taken up in only 21 of our 279 urban municipalities and in one of our townships ...." Still the disappointing progress of domestic science went further, according to Seath, because those centres that did adopt the programme were failing to advance the programme's objectives: "... household science in our schools has so far no industrial outlook. ... In a few cases sewing is now being introduced, but the majority of the schools teach cookery alone."46

Assuming Seath's assessment to be just, what might have accounted for the programme's slow development and its apparently incomplete implementation? The shortfall in rural participation might be attributed in part to budget constraints coupled with local resistance to modern educational reform. More significant, however, might have been the perceived irrelevance of domestic science in rural communities. Since the movement clearly targeted the problems of urban working-class girls and their working mothers, its appeal not only failed to resonate with rural educators and school trustees but likely failed to arouse the sentiments of rural parents as well.

At a meeting of the Ontario Educational Association in 1903, Clara Brett Martin, representing the Toronto Public School Board, posed a question for debate: "Should Domestic Science be introduced in all Continuation Classes in Urban and Rural Districts?" While most delegates conceded the value of the subject for urban education, many rural delegates balked at the suggestion of implementing the course universally in

46John Seath, Education for Industrial Purposes (Toronto: L.K. Cameron, 1911), 267 and 268.
Ontario's schools. One delegate said that in most rural regions "the good mothers would laugh to scorn the notion of anybody but themselves teaching their girls to sew or cook." Another delegate concurred, adding that "if you want a good square meal, the country is the place to go to get it." Nevertheless, a deficient training in household arts could impair a young girl's ability to realize happiness and fulfilment upon reaching adult womanhood, as implied by the comment of one (presumably male) delegate that "if old maids would only learn Domestic Science well, they would soon get husbands." The debate ultimately hinged on the regional appropriateness of the programme, and concluded with the resolution that "instruction in Domestic Science is mainly needed in the populous centres." 47

On the other hand, the preoccupation of domestic science advocates with modernism and the 'industrial ethos' of homelife may have inadvertently alienated the sentiments and sympathies of many people in "the populous centres" as well. Albert Leake's joint inspection tours of manual training and domestic science classes testified both to the thrust of official policy and to varying levels of compliance at the local level. In a sense, Leake's reports between 1901 and 1911 appeared to differ somewhat from Seath's conclusion in 1911 that domestic science instruction had "no industrial outlook." Throughout Leake's reports, the imprint of the industrial ethos was stamped most indelibly upon the conduct of domestic instruction. Concepts such as order, regularity,

47 AO, R.G.2, D-7, Box 10, "Proceedings of the Public and High School Trustees' Department, Ontario Educational Association, 11 April, 1903," pp.7-8.
routine, precision, scientific methods, timed processes, predictable outcomes, frugality and hygiene were emphasized in all aspects of the work, but particularly in the teaching of cooking. Equipment was scrutinized not only for its state of repair, but for its appropriateness to modern life and modern home technology. Domestic science kitchens were to be equipped with a wall clock, in order that girls could time their preparation and cooking processes accurately according to preordained recipes. Among the necessary modern kitchen equipment, classrooms were expected to provide thermometers for girls to verify the temperatures of cooked foods, rather than gauging the food's readiness simply by colour, smell and texture the way their mothers did. Sufficient cupboard space also had to be provided, and girls would be evaluated according their orderly storage of kitchen utensils. Teachers, who presumably learned bacteriology at the Ontario Normal School of Domestic Science or the Macdonald Institute, were also expected to stress the importance of hygiene and to insist that all domestic workplaces, and particularly the kitchen, be kept tidy and disinfected.48

Mrs. Bowditch, a domestic science teacher in Renfrew, described her own method of teaching in terms consistent with the provincial policy prescription. According to her, individual work was emphasized and, wherever possible, girls worked in groups of no more than two. Mrs. Bowditch assigned each girl her own desk, a drawer and a lower cupboard, in which saucepans, scrub brushes, soap dishes and utensils were stored. With

48 Albert Leake's inspection reports may be found in AO, R.G.2, F-3-H, Manual Training and Household Science Reports, 1901-1940.
this orderly arrangement, girls would be able "to stay at their desks from [the] beginning of [the] lesson as in any other class-room." Pupils provided their own aprons and caps from home.

Mrs. Bowditch ordered her lessons sequentially in a manner that calls to mind a sort of domestic scientific management. Each class lasted about two hours. During the first half hour, the teacher discussed the recipe and "exact directions [were] copied down" in the girls' notebooks, signifying a separation of design from execution that began to resemble the first principles of Taylorism. Girls then proceeded to work independently from their own notebooks, making sure to follow the recipes as written, and using the exact measurements specified. Cooking times and temperatures would have to be monitored while the girls attended to other tasks. When the food was prepared, Mrs. Bowditch appointed some of the girls as waitresses to pass around samples in tasting cups to the other girls. Finally, the girls would break up into groups of four for dishwashing (presumably one to wash, one to rinse, and two to dry). In addition to cooking, Mrs. Bowditch also claimed to teach sanitation and ventilation, as well as "care of the dining room and kitchen, serving of luncheon, breakfast and dinner, and waiting on table."49

Notwithstanding Mrs. Bowditch's depiction of the work in Renfrew, Albert Leake's inspection tours between 1902 and 1910 also revealed the extent to which official policy and classroom practice diverged. Leake routinely criticized Y.W.C.A. classes for

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their inefficient teaching and poor facilities. Yet, the public schools often fared no better in his reports. Most frequently, Leake's inspections drew attention to the inappropriateness or neglect of classroom accommodations for domestic science work. In some cases, overcrowding was the chief complaint. While provincial regulations allowed for no more than twenty-five girls per class, Leake discovered that it was not uncommon for schools, such as Stratford, to provide tables for as many as twenty-eight or more girls, while leaving the dining room unfurnished. In addition, some facilities failed to include lavatory accommodations, and were judged to have poor heating and ventilation.

Furthermore, whatever the state of the classroom accommodations, Leake frequently found domestic science rooms to be unkempt and dirty, in spite of the emphasis supposedly given to hygiene and cleanliness in the programme. This observation seemed to apply equally to public schools and collegiate institutes. At the Renfrew Collegiate Institute in 1908, Leake found the room to have "a neglected untidy appearance" and the equipment to show a "general air of neglect." More specifically, at the London Collegiate Institute, he advised that "greater attention should be paid to the condition of the towels and dishcloths." Often the unhygienic condition of the floors sparked more pointed rebuffs. Leake scolded the domestic science teacher at Toronto's

50 For example, AO, R.G.2, F-3-H, v.3, Manual Training and Household Science Reports, Brantford [Y.W.C.A.], 1906 and 1907; v.4, Victoria Hall, Brantford, 1910.

51 Ibid., Stratford Public School Board, 1906.

52 Ibid., Hamilton Public Schools and Collegiate Institute, 1908.
Queen Alexandra School with the comment that "the floor of the kitchen requires scrubbing more than 3 times a year." Worse yet, the floor at the Winchester School in Toronto appeared to have been scrubbed only during the Christmas holidays. Perhaps the most telling remark was reserved for the Woodstock Public School's domestic science room in 1906: "It should not be necessary for the teacher to be forced to kill bugs with coal oil."53

Some domestic science kitchens also lacked the prescribed equipment. Others provided equipment in a poor state of repair. While the facility in Brantford in 1909 was found to be well-equipped generally, Leake noticed that it lacked a thermometer for measuring the temperatures of cooked foods. (Many of the girls' own households may also have lacked a thermometer.) In 1907, the domestic science room in Woodstock lacked not only a thermometer but also lockers, a wall clock and serving utensils.54

By far the most important remarks regarding equipment, however, had to do with the condition of the stoves. Here the impact of modern household technology seemed to be felt most keenly. In some centres, priority appeared to have been given to equipping domestic science facilities with gas ranges. However inappropriate these new stoves might have been, particularly in the training of working-class girls, they also appeared to

53Ibid., v.3, Renfrew Collegiate Institute, 1908; London Collegiate Institute, 1906; Toronto Queen Alexandria School, 1907; Toronto Winchester Street School, 1907; Woodstock Public School, 1906.

54Ibid., v.4, Brantford Public Schools, 1909; v.3 Woodstock Public School Board, 1907.
exacerbate existing ventilation problems and posed certain safety hazards if not attended to carefully. Gas leaks were a common complaint in the inspector's reports. Whether schools used a gas range or a coal range (or both), Leake commonly found them to be in a dirty condition. In his report of the Brockville Public School in 1906, Leake noted the unsatisfactory condition of the gas stoves -- "exploding on lighting" -- and warned that the "method of opening the two doors should be attended to." Perhaps aware of the inexperience of many students and even teachers with gas stoves, however, Leake often urged school boards to equip domestic science rooms with coal stoves as well as gas ranges.

Most of the problems that Leake identified centred around the teaching of cookery. This was hardly surprising, given that most domestic science classes appeared to concentrate on little more than cooking instruction. Yet, the list of prescribed subjects for instruction, particularly at the high school level, was quite long. In addition to household cookery and sewing, it included theory, sanitation, hygiene, laundry, invalid cooking, home nursing, pattern and dress making, needlepoint, care of young children, preparation of complete meals, and care of the house. With respect to these auxiliary subjects, the inspector's reports frequently included annotations such as "attention should be paid to these subjects," "should receive attention," "taken incidentally," or simply

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55Ibid., v.2, London Collegiate Institute, 1906; v.3, Woodstock Public School Board, 1907.

56Ibid., v.2, Brockville Public School, 1906; Toronto Winchester School, 1906.
Domestic Science and The Challenge of Home Economics

Neither Adelaide Hoodless nor Albert Leake, however, represented any sort of consensual opinion as to what domestic science instruction should comprise or what its agenda ought to be. As intriguing as the idea might have been -- that the working-class household could be elevated by teaching young girls and women the rudiments of cookery, nutrition and sanitation -- proponents often gravitated to domestic science for reasons unrelated to philanthropic social reform. Some middle-class women saw domestic science (and its pedagogical emphasis on both individual tasks and "cooperative housekeeping" as demonstrated in Mrs. Bowditch's regimented kitchen, for example) as a provisional remedy to what was then euphemistically referred to as "the servant problem."\(^{58}\) For such women, public school domestic science represented an opportunity to train young girls in the arts of housekeeping and cookery, not just so that they could make good homes for their own families, but also so that they could keep good homes for other people's families. Still other women perceived domestic science instruction as a

\(^{57}\)AO, R.G.2, F-3-H, v.2, Manual Training and Domestic Science Reports, 1903-06.

\(^{58}\)See Harvey Levenstein, Revolution at the Table: The Transformation of the American Diet (Toronto, Oxford, New York: Oxford University Press, 1988), 65. As Levenstein cites, the cooperative kitchen was an idea (illustrated by Edward Bellamy) that appeared to arouse some interest among the middle-class readers of Good Housekeeping in 1889.
possible vehicle to enhance the opportunities for young women to acquire useful job
skills, not necessarily restricted to those of the domestic servant. In either case, however,
a tacit assumption seemed to be that domestic science was to accomplish more than
simply to prepare young women to tend to their own homes and families, as the domestic
ideology would have prescribed. It was also to prepare young women for the tasks and
burdens of paid labour. Home economics (or household economy), as a branch of
domestic science, tended to stress that the tasks of organizing and coordinating the
modern home were, in fact, tasks of household management. It also emphasized that the
skills of modern housework were transferable to the labour market in a number of
different occupations that provided employment opportunities for women in industrial
society.

Given that much of this paid employment for working-class girls would be found
in the kitchens of middle-class homes, there may be little wonder about the profound
discrepancy often existed between the prescribed theories and methods of modern home
economics and the practical realities of conventional working-class households. For
many of the girls, the processes and procedures of 'Taylorized' housework bore little
resemblance to the routines practiced by their mothers. The disparities might have been
most obvious for rural girls; but even urban working-class girls could not help but notice
that the latest utensils and equipment available in some domestic science classes did not
appear in their own homes. At the turn of the century, many urban working-class
households were unlikely to be completely equipped with gas ovens, carpet sweepers, and
even wringer washing machines.\textsuperscript{59} Probably the majority of public school girls, particularly those from working-class families, were likely to come from families in which the most basic tasks of household work remained highly labour intensive, often involving the help of the children -- boys and girls alike. Yet, in an ideal, well-equipped domestic science facility (although these were quite rare at the turn of the century), young women might well have encountered some such examples of modern technology. Domestic science classes were intended (ostensibly) to prepare the way for the modern household, far removed from the nagging persistence of 'pioneer' methods of living that still spelled the reality of so many Canadian women's lives. It might be closer to the truth, however, to admit that the mandate of domestic science instruction was just as often to prepare girls for positions in domestic service and cookery.

While domestic science may have been rooted in the belief that working mothers no longer taught household arts sufficiently to their daughters, such classes may have also served to undermine, either formally or implicitly, whatever instruction these mothers did pass on to their daughters. As Albert Leake's inspections revealed, domestic science classes even encouraged the use of manufactured and store-bought items for household use that were formerly themselves articles of household production. This was partly a reflection of the emerging mass production of consumer goods for household use, and partly a response to the heightened awareness of the relationship between germs and disease. In the interests of hygiene, manufactured bar soaps laid a claim to scientific

\textsuperscript{59}Prentice et al., \textit{Canadian Women}, 122-23 and 158.
legitimacy presumably unmatched by the unrefined purity of their home-made equivalents. Other household cleansers and detergents, available through grocers and apothecaries, also surpassed simple vinegar (formerly the catch-all cleaning and dusting agent), as the new chemical arsenal in the modern battle against household germs.

Ideally girls would be taught to approach housework, and particularly house cleaning, with an unrelenting diligence. A clean house was not only a happy house; it was also a healthy house.

For those women who subscribed to the emerging home economics agenda, however, this discrepancy between the training in traditional household arts that girls may have received at home and the instruction in modern household theory and practice that they might receive in domestic science class could actually be construed as one of the best lines of defence for the new programme. Future housewives and mothers, after all, were not the only foreseen outcome of public school domestic science. Since women in the paid labour market also tended to perform jobs that mirrored their various household tasks, domestic science could claim an even broader utilitarian relevance. In 1891, 11.4 per cent of women over the age of ten years worked outside of the home for a wage, and accounted for only 12.6 per cent of Canada's paid labour force.60 By 1901, over 71 per cent of employed women could be found in five basic occupational categories. Domestic servants accounted for almost 36 per cent of the female labour force, while almost 14 per

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cent worked as seamstresses, 13 per cent as school teachers, 5 per cent as office clerks, and about 4 per cent as farmers and stock raisers. For the majority of these women, the sorts of training advanced through domestic science in efficient cooking, cleaning, sewing and table setting would have had direct occupational relevance. Nevertheless, few schools followed the lead of the Guelph Central Public School in arranging visits to carpet factories or other local manufacturing establishments employing women.

For some allies of home economics, who acknowledged the need for working-class women to seek employment outside of their own homes, it became crucial to underscore that domestic science was science and that it did constitute a form of technical education. As much as it reinforced the traditional culture of household relations, it also included a strong utilitarian component. In short, the training proffered through domestic science had potential applications to the kinds of paid work to which a lot of working women would gravitate. Alice Chown, an early twentieth century pioneer of women's rights and a member of the National Household Science Association, recognized this fact when she wrote to Richard Harcourt in 1903 to complain of the perpetual choice of Adelaide Hoodless to represent Ontario's domestic science educators at the annual domestic science conference at Lake Placid. Labelling Hoodless an "embarrassment," Chown drew attention to Hoodless' lack of background in science, and recommended that

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61Canada, Dominion Bureau of Statistics, Occupational Trends in Canada, 1901-1931 (Ottawa, 1939), Table 8.

the Minister consider sending Edith Curzon to the conference in her place. For Chown and others, domestic science needed to become more than just a quaint euphemism for housewife training. Otherwise, it merely contributed to the social undervaluing of women's skills and the depreciation of their worth in the labour market. By emphasizing "science" over "domestic," however, Chown may have hoped that women's particular knowledge and expertise could be rendered more valuable when it was finally validated as genuine school knowledge.

One might have expected this validation to have come from the establishment after 1902 of an undergraduate programme in domestic science at the University of Toronto. The introduction of a degree programme in domestic science certainly signified, in the words of one historian of the movement, "a concession to women's presence on campus." That these women were overwhelmingly middle-class and well-to-do is a point that should not be overlooked. Women in a university domestic science programme were studying advanced sciences in chemistry, physics, and nutrition, while they were acquiring necessary household management and budgeting skills. They were most emphatically not being educated or trained for domestic service. However, outside

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63 R.G.2, D-7, Box 3, Chown to Harcourt, 7 March, 1903. Four years earlier, Edith Curzon had served as a teacher of Practical Chemistry at the Toronto Technical School.

64 R.G.2, D-7, Box 3, Prof. M. Burwash (Victoria College) to Harcourt, 16 December, 1902.

of schools and possibly hospitals, the vocational uses of a Bachelor of Household Science
degree remained ambiguous, at least in the early twentieth-century female labour market.
And if the exchange value of a degree in domestic science appeared ambiguous for young
middle-class women, the degree itself most certainly appeared unattainable for young
working-class women -- that is, for those women who were most specifically targeted by
the programme in the public schools. For them, domestic science in the public school
represented their first (and possibly only) exposure to 'technical' education.

**Domestic Science as Vocational Preparation**

Clearly, the campaign for domestic science, like other ventures in the
development of technical education in Ontario, hinged on the uneasy accommodation of
the cultural mandate of education with the utilitarian goals of training. Far more
conservative than progressive, domestic science education had at least as much to do with
socialization as it did with education. In this respect it is best viewed in juxtaposition to
boys' manual training classes. Taken together, these two programmes provided a novel
object lesson in the "natural law" of separate spheres. While the boys prepared for a life
of production, the girls prepared usually for a life of service. The efficiency and
egalitarianism of co-education would not extend to those practical and technical subjects
that closely depicted the occupational destinies of most pupils.

Even more vividly than in the case of manual training, however, domestic science
signified the willingness of the state, armed with well-meaning intentions and shielded by the principles of social reform, to encroach upon the prerogatives of the family and the community in matters of education and socialization. Like other ventures into technical education, the supposed decline of a form of apprenticeship provided the rationale for intervention. However, unlike the other ventures, the 'erosion' of women's apprenticeships carried not only an economic, but a social and moral punch. Domestic science constituted a separate sphere of technical education, and brought the cult of domesticity to bear once again upon matters of education.
Chapter Eight

Adaptability or Expertise?:

Formalizing Public Technical Education, 1900-1911

The question of a Trade school we may disregard for the present....Every year sees a greater specialization of machinery. Even now a boy can operate a machine which does the work formerly done by over a hundred men; and the artisan of the future will be best equipped if he begins his work after his intelligence has been developed by Manual Training, and above all by the ordinary academic courses. Capability and adaptability will be worth more than the mere skill of an expert.

John Seath¹

The development of any educational system is the work of years. Modifications require to be made from time to time to meet changing conditions and aspirations. The system which would fairly meet the requirements of pioneer life and primitive conditions must be adjusted to conform with the increasing complexity of social and industrial life. Thus increasing complexity rather than simplification of educational ordinances seems to accompany the progress of commercial, industrial and social specialization.

Dr. R.A. Pyne²

By 1900, the debate between the utilitarian and the cultural aims of education had

¹John Seath, Manual Training and High School Courses of Study, 34.
²AR, 1905, xxiv.
been brought into a sharper focus. For decades, educational reformers had slowly chipped away at the paramountcy of the liberal education and had challenged traditional pedagogy's sole proprietorship of the concept of mental culture. Still, some of the province's leading educational administrators at the turn of the century, whether progressive or conservative in orientation, proved unwilling to abandon the ideals of the liberal education. Instead they sought to infuse it with a practical dimension. If in the past technical education had been sequestered from the core liberal curriculum, and pushed to the margins of popular education, the introduction of manual training and domestic science heralded a significant change.

Manual training and domestic science signalled the integration of practical subjects into a core curriculum rather than the supplanting of traditional subjects by new pedagogical fads. The new curriculum was meant to reinforce the old, not to replace it. As such, progressive school reformers had found it necessary to emphasize the pedagogical value of the new practical courses and to underplay their strictly utilitarian aspects. Before long, the new curricular reforms began to set the stage for the introduction of advanced technical education, with a pronounced utilitarian mandate, into the mainstream public school system.

The Thrust for Efficiency and the Politics of Technical Education After 1900

Public education began to enter a new era after 1900. More vigorously than in the
past, the dominant economic and social circumstances of urban society moulded and shaped its contours. If public education were mandated to prepare pupils for 'after life,' it simply would not do if modern conceptions of 'after life' still reflected bygone labour market conditions and realities. The new age of heavy industry and mass production altered labour market conditions as fundamentally as widespread urbanization and immigration altered civic conditions. Both transformations beckoned educational responses.

Changes in civic life lay behind the renewed concerns about the responsibility of public schools to promote common democratic and civic values. Such concerns, however, did not require any reorientation of educational priorities. Rather, they called forth an intensification of existing school goals. Changes in industrial organization and labour markets, on the other hand, summoned a more complex response from schools, and a more profound adaptation. Mass production and industrial consolidation were quickly becoming recognized models of efficiency and economy. As the thrust for efficiency in industry forged the consolidation of industrial activities in central Canada by 1900, so too did the thrust for efficiency in education forge the consolidation of educational activities. In rural Ontario, for instance, the pooling of educational resources among neighbouring townships sparked the formation of consolidation schools. These schools served as comprehensive high schools, shared among smaller townships that could not themselves have sustained proper secondary schools on a par with urban high schools. With respect to urban school systems, the provincial government passed
legislation in 1902 allowing for the consolidation of the various independent school boards into combined boards of education. Instead of a diversification of authority among a public school board, a high school board, and a technical school board, (as was the situation in Toronto), a single school board would be established, with jurisdiction over all of these areas. In the lexicon of industrial efficiency, the province's schools appeared to have embarked on the road to systemic rationalization.

Toronto quickly adhered to the new legislation and consolidated its school boards in 1903. In the civic elections, held on New Year's Day, 1904, Toronto voters cast their ballots on a city-wide basis for candidates to the board of education. Organized labour in the city greeted this development with some trepidation. City-wide elections to the general board of education, as opposed to ward-based elections, threatened to mute the voice of the city's Trades and Labour Council, which had previously enjoyed a guaranteed presence on the Technical School Board.

The campaign for school board became hotly contested. The Trades and Labour Council nominated four candidates for election to the twelve-man board. Two issues

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3The consequences of this legislation, particularly for educational politics in Toronto, were discussed at length by the Toronto District Labour Council, the proceedings of which were reported in The Toiler, 22 May, 1903.

4Ibid.

5The four candidates were William Henderson, Alfred Raynor, Manous Sinclair, and John Tweed. The decision to nominate only four labour candidates had much to do with the peculiar rules governing voting for the School Board. Each voter had twelve crosses to allocate among the candidates to the board, but could place no more than three crosses next to any one candidate's name. As such, if working people voted as a block (as the TLC had
dominated the labour bid for school board. The first issue concerned the proper representation of working-class interests in public schools. In this regard, The Toiler reminded its working-class readership that "the Board ... will have in its care the education of a host of children of the working class, and under ordinary circumstances should be composed of men who understand the practical educational needs of the people."6 The second issue concerned the administration of the Toronto Technical School. Three of the four labour candidates had sat on the Technical School Board, and one of them (John Tweed) had served as its Chairman. On this issue, the TLC took the opportunity to reiterate its position on the whole question of technical education:

The night classes in the Technical School are the vital thing, and must be upheld and extended, otherwise the School will be of little use to Toronto workingmen. The new Board of Education will exercise an important influence over this matter, and the welfare of the Technical School [depends] upon having men on the board who understand its needs, and who will not cater to a system of manual training that leads to bust the apprenticeship system and produces botch mechanics.7

Genuine technical education could flourish only at the hands of those local stewards who understood both the technique and the culture of skills training. It would surely wither if left to those who held no sympathy for labour.

6"The Board of Education," The Toiler, 11 December, 1903, 2.

This reasoning helps to explain the sharp reaction that the TLC and The Toiler exhibited towards the late formation of The Citizens' Committee, an ad hoc group of local merchants and manufacturers who also nominated a slate of candidates to the school board. The Toiler lampooned the field as "the greatest bunch of lawyers, doctors, and professional educationists ever assembled in any one contest," and dismissed the Citizens' Committee as "another evidence of the merchant and manufacturer following in the footsteps of organized labor." According to the labour press, it was the city's commercial élite, not its labour movement, that had turned the civic election, and particularly the school board race, into a contest between social classes.

They seem to have been imbued with the idea that the best class of candidates for the Education Board are men who are occupying the so-called high positions in the business world. They are the class of men who are of the elect, as it were. Unimpeachable characters and all that sort of rot. We have heard it all before, and seen the results of electing such men to positions of trust. "Business is business" with them, and modern business with most of them is a system of legalized robbery. The select committee may have started out with the best of intentions, but unfortunately for the people this well-intentioned move has developed into a purely class-conscious committee, as our Socialist friends would tell us, and the class they belong to is not of the people, for the people, and by the people ....

Nor did this class of candidates, by virtue of their business acumen and academic accomplishments, have a monopoly on administrative efficiency, as the labour veterans

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8The Toiler, 25 December and 4 December, 1903.

9Ibid., 11 December, 1903, 2.
of the Technical School Board were eager to point out.\textsuperscript{10}

Organized labour in Toronto appeared generally pleased with its showing in the 1904 New Year's Day vote. Several labour candidates made respectable showings, and some were elected to civic office. The weakest showing, however, turned out to be in the race for school board. All four of the labour candidates lost. The Toiler cited, as an explanation for this result, the failure of workingmen to identify and rally around their candidates, as well as the presence of alternative choices from the Socialist camp who helped to split the labour vote.\textsuperscript{11}

Although nothing permanent, nor even long-term, could be read into the results of a civic election vote, those labour men who were concerned with the future of technical education and apprenticeship in the city still worried that there might be something portentous about this vote. After all, this election signalled a critical juncture for the Toronto Technical School, and for the direction that technical education would take under the auspices of the new amalgamated Board. With the combining of the city's school boards, and the shutting out of labour representation, technical education might now be subject to the whims and fancies of people with little regard for the importance of this work and even less sympathy for the concerns of the city's labouring population. No longer a separate institution, the Toronto Technical School was folded into the city's public school system and redefined as a technical high school.

\textsuperscript{10}\textit{Ibid.}, 25 December, 1903, 1.

\textsuperscript{11}"Labor Made a Good Showing," \textit{The Toiler}, 8 January, 1904, 1.
At the outset, several questions remained precariously unanswered. Would the technical school continue to provide evening classes for day labourers and trades people? Would technical education be subordinated to, or diluted by, manual training? And, would the technical school continue to consult with labour as well as business groups in the design of its programmes, or would curriculum design now be assigned to professional educators with little experience of trade labour?

While administrative prudence appeared to support the wisdom of continuing the work of the technical school much as before, the circumstances of the day seemed less than encouraging. Firstly, since the Toronto Technical School was now reconstituted as a technical high school, it was logical to assume that admission would require students to pass their public school matriculation examinations. Yet, Toronto schools had previously been criticized for placing too little emphasis on matriculation and treating the public school course as a complete and "rounded" education for the mass of pupils. According to this criticism, recounted by the Toronto Globe in 1901, Toronto public schools passed proportionately too few students through the matriculation examinations and into high school, compared with other Ontario cities. If this criticism held true, it did not bode well for the technical high school's ability to reach most working-class students, other than those brought up in the skilled trades who statistically showed a stronger tendency to

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attend high school.\textsuperscript{13}

Secondly, and of arguably greater concern, was the question of grant allocation. Since the 1880s, labour spokesmen had decried the low levels of support given to technical training programmes, compared to the support given on a per student basis to high schools, collegiate institutes and universities. They had even cited this tentative support as a prime reason for the halted progress of workers' technical training programmes in the province, claiming that the government's commitment to technical education effectively ended with the training of engineers and mineralogists at university.\textsuperscript{14} In 1902, Principal Packenham of the Toronto Technical School complained about the financial disparity between his school and the collegiate institutes in the calculation of the municipal grant. According to Packenham, the collegiate institutes received an operating grant from the city of $45,000 for 1400 students, while the Toronto Technical School received only $10,388 for 1856 students. (He did not cite the proportion of these students who attended only part-time, however.) The disparity ran even deeper when he compared the salaries of teachers. Subject specialists at the technical school received an average salary of about $1200 per annum, while at the

\textsuperscript{13}Michael Katz's statistical demonstration of this tendency has previously been noted. However, it should also be recognized that the Toronto Technical School (as noted in Chapter 5) never really catered to the general unskilled working-class population in the first place. Its records reveal that the majority of its adult students came from the skilled trades, artisan crafts, and clerical occupations.

\textsuperscript{14}For an humanistic argument supporting the need to endorse the values of higher education (be it technical or otherwise) to the working class, see "Higher Education," \textit{The Toiler}, 25 September, 1903.
collegiate institutes, subject specialists earned an average salary of $1700 per annum.\textsuperscript{15} In defense of the school's present mandate, Packenham argued:

The night classes are free to the apprentices of the city and who objects to that? These are the bone and sinew of the city. Their general education has been cut short in their earlier years and they get in these night classes what was denied them by [the] needs of practical life.\textsuperscript{16}

For his sensitivity to the concerns of labour and his commitment to the ideals of working-class education, Packenham won high marks from the city's labour spokesmen.

Albert Leake, however, proved to be a bit stingier in the awarding of marks to Packenham and his school. In 1903, Leake included the Toronto Technical School in his inspection itinerary of manual training and technical training facilities, in anticipation of its adoption by Toronto's public school system. Technical education advocates may have been relieved to find that the staunch manual training booster also valued the importance of encouraging advanced technical instruction through institutions like the Toronto Technical School. They may have been dismayed, however, that Leake gave the school a poor performance review on the basis of this mandate. On the one hand, Leake criticized the school for not being advanced and technical enough -- that is, for not providing enough specialized instruction in trades of local importance, such as the building trades, metal working, tool making, dye sinking, and the textiles trades. Yet, on the other hand, he drew attention to the fact that the school's programme was not sufficiently general or

\textsuperscript{15}"Technical Education," \textit{The Toiler}, 30 May, 1902, 3.

\textsuperscript{16}\textit{Ibid.}
elementary either -- that it was lacking "the installation of typical tools and such simple machines as embody the foundation principles of machines in general ...."\textsuperscript{17} In fact, Leake found that the school placed too much attention on the scientific principles underlying industrial work, and not enough attention on the practical applications of industrial science or the development of mechanical skills. "This provision," he conceded, "was not perhaps so urgently necessary so long as the energies of the school were confined to evening classes whose students might reasonably be expected to have some practical acquaintance with machines and processes, gained during their daily labour, but now ... its inclusion is vitally important."\textsuperscript{18} Leake's report, however, failed to acknowledge that the lack of industrial tools, machines, and shop practice, at least partly stemmed from the school's limited funding and endowment. Nor did he recommend at this time that the funding of the technical school be increased. Instead, he recommended that the school take steps to bridge the gap between enrolment and average attendance.

Still, despite the apparent setbacks experienced in the early 1900s by the labour advocates of technical schooling, the years between 1903 and 1911 also set the stage for some significant progress in the development of technical education. Interest in the advancement of technical education grew steadily among some of the province's leading educationists and manufacturers who, like organized labour, urged the provincial


\textsuperscript{18}ibid.
government to step up its efforts. The Kingston Board of Trade, for instance, adopted a resolution in 1901 affirming that group's support for the formulation of "definite plans with a view to bringing the system [of technical education] out of chaos, and [placing] uniformity of action in place of the present disconnected [sic] and tentative efforts made here and throughout the Province."\(^{19}\) After 1900, the Canadian Manufacturers' Association joined with local boards of trade in lobbying the education minister to promote technical education more vigorously.\(^{20}\) And the Toronto Board of Trade proposed the establishment of a comprehensive system of public technical schools across the province, which would be open specifically to students over the age of 14 who had successfully completed their general public school education.\(^{21}\)

From a trade and productivity standpoint, the value of intermediate and advanced technical education had long been alleged. Yet, unlike their counterparts in organized labour, business groups characteristically concerned themselves less with the potential benefits for working people and more with the presumed benefits for economic development. Business groups continued to view technical education through an ideological prism of progress, productivity and competitiveness. More clearly than

\(^{19}\)R.G.2, D-7, Box 12, "Copy of a Resolution adopted by the Council of the Kingston Board of Trade at a meeting held February 18th, 1901," moved by Mr. John Hewton, seconded by Mr. James Redden.

\(^{20}\)R.G.2, D-7, Box 9, John Millar, Memorandum, 25 September, 1900.

\(^{21}\)Monetary Times, 12 January, 1900. I wish to thank Steve Thorning for furnishing me with this reference.
before, however, they looked to government to develop the kinds of programmes from which they themselves could best benefit.

Richard Harcourt's Defence of the Merits of Manual Training

The era of industrial consolidation and mass production indeed held a mixed message for educators. As industry veered in the direction of specialization, a fundamental shift in course for public education appeared to be warranted. Was it not now contingent upon the school systems to promote more specialized programmes to facilitate the new demands of modern labour markets? The answer was both yes and no. Specialization, after all, meant different things at different levels of the job ladder. For the professions, both learned and technical, specialization meant expertise. For skilled workers, specialization continued to imply highly developed mechanical skills and a practical proficiency with industrial machinery. For the rank-and-file workforce, however, specialization actually meant the atomization of jobs and the declension of skills. Where a detailed division of labour existed, most specialized jobs on the shop floor involved workers less as producers than as components in the production process. Such jobs were 'specialized' only because they had become minimized, routine, fragmented and constricted.

The traditional balance between cultural and utilitarian ideals in education was once again tested in the new debate over the relative merits of a general versus a
specialized technical education. This new debate, like the old, oscillated between two competing conceptions of modern schooling. The one conception held that students' interests were best served in school by accommodating the demands for specialized knowledge and training in the labour market. This view tended to support a radical restructuring and redesign of school curricula. The alternative conception saw public education's proper role as providing all pupils with a common educational foundation before they contemplated more specialized instruction or trades training.

The relative merits of a specialized education versus a general education hinged on the question of expertise versus adaptability in the labour market. In fact, this question began to define for the early twentieth century the public school's vocational mandate. If expertise were to define the proper aim of education, then a greater degree of attention would have to be accorded to the teaching of specialized knowledge, with courses that specifically prepared students for existing jobs in the labour market. However, the problem of rapidly changing industrial technologies and systems of organization implied that labour market requirements would be constantly shifting. Those who wished to design programmes to train students for current labour market conditions might have found that they were trying to hit a moving target. On the other hand, if adaptability were seen as the proper aim, then more attention would have to be paid to the cause of general education.

For their part, education department officials continued to espouse the importance of the general education, even with the inclusion of "practical" subjects. In the main,
however, a consensus eluded the leadership of the province's educational machinery on
the question of the proper meaning of technical education within the generalist paradigm.
Did technical education, apart from basic manual training and domestic science, comprise
a unique problem in education, or could it be evaluated on the same terms as liberal
education generally?

As Minister of Education between 1899 and 1905, Richard Harcourt defended the
inclusion of manual training and domestic science in the public school and high school
programme not simply on the basis of educational equity but on the basis of civic
improvement. In a statement entitled "The Social Danger of One-Sided Education,"
Harcourt appealed for a new articulation of 'society's interests' in modern school reform.
"The masses of the people must necessarily follow the more humble walks of life," he
conceded, echoing a familiar refrain, "but it does not follow that the masses of the people
should be ignorant." Civic life, as John Millar had also insisted, required an educated and
intelligent citizenry; and, above all, public schooling involved the production of a 'civic
public,' in which all individuals contributed to civic life. Modern civic life, in Harcourt's
progressive liberalism, rested on the premise of the interdependence of all individuals in
society, accompanied by a healthy regard for the dignity and worth of all labour. "The
interests of society require that not only should their [sic] be a proper appreciation of
labour," Harcourt concluded, "but that the different classes of society should live together
in peace, esteeming [sic] and respecting the work of one another."22

Although hardly a revolutionary call to arms for educational reformers, Harcourt's liberal idealism did not entirely conceal the apparent urgency of his subtext. The "social danger" to which he alluded was nothing less than the danger of perpetual class antagonism, stemming from the unwitting encouragement through the schools of status consciousness and rank chauvinism. A "one-sided education," rooted in generic literacy skills and liberal arts, gave pride of place to academic pursuits alone. It celebrated mental skills over manual skills. It trained pupils for paper work who were otherwise bound for benchwork, and sent an implicit message to pupils that there was a certain dignity to be located in the office that was not to be found at the forge. To legitimize and venerate the value of book learning alone, by validating its importance in the curriculum to the exclusion of practical studies, was to give it an implicitly higher status.23 From this premise, it would hardly be surprising that students bound for academic study assumed a

22AR, 1901, xxxiii. It is interesting to note the striking similarity between Harcourt's observation here, and the thesis put forth by Emile Durkheim in The Division of Labour in Society that social cohesion in a modern pluralistic society rested on a foundation of labour's specialization and the interdependency of diverse people.

23See, for instance, Basil Bernstein's argument in "On the Classification and Framing of Educational Knowledge," in Knowledge, Education and Cultural Change: Papers in the Sociology of Education, Richard Brown, ed. Bernstein perceives a hierarchy of knowledge in schools that implicitly places theoretical knowledge above technical knowledge, and reserves for the advanced academic student alone "the ultimate mystery of the subject." As Bernstein notes, "only the few experience in their bones the notion that knowledge is permeable, that its orderings are provisional, that the dialectic of knowledge is closure and openness. For the many, socialization into knowledge is socialization into order, into the experience that the world's educational knowledge is impermeable. Do we have another version of alienation?" (p. 375)
higher status for themselves, while simultaneously stigmatizing those bound for technical training as lower in rank and intelligence. For Harcourt, therefore, it appeared critical that all students partake of both the liberal and the practical courses at some point in their schooling, so that they might learn to appreciate and respect the dignity, the value, and the interdependence of both kinds of knowledge. Manual training, like arithmetic and grammar, could form a common educational foundation for all pupils in the public school.

It would be naïve to assume, however, that the lesson taught was necessarily the lesson learned. The public school had a mandate to dispense a common curriculum and a common cultural touchstone for its pupils. The high school and the collegiate institute did not. Instead, many of those students who continued with their studies after public school matriculation might branch off into predominantly academic or technical programmes (where available). To assume that this was a value neutral process for students is to overlook its obvious implications for the reproduction of the class structure outside of the school.

Unlike the courses of the liberal or classical programmes, technical courses in public school and high school unambiguously pointed to a particular type of labour market destiny in the manual trades and industrial occupations. Although the academic stream might shore up parents' and students' expectations of careers in commerce or the professions, it could boast no such clear connection to any particular occupational outcome. Technical courses, although not trade specific, remained trades oriented. Their
diminished status in the schools invariably reflected their humble status in the working world. Status, being a product of perceptions and value judgements, relied more on subjective evaluations of job content and income potential than on objective assessments of job utility and the "interdependence" of occupations. Simply because mechanics were necessary did not mean that a student should necessarily want to become one, nor that parents would desire that trade for their children. No doubt many working-class and immigrant parents in the early twentieth century grappled with paradoxical feelings of class-conscious pride on the one hand, and the quest for generational social mobility on the other -- of nurturing children to follow in their footsteps while desiring for their children a host of opportunities that they had never known.

It is plausible to speculate that the gradual expansion of technical programmes after 1902 helped to reconcile this paradox for some parents and students. High schools in cities like Brantford, Stratford and Berlin equipped their manual training and domestic science facilities to accommodate advanced and intermediate shop practice, and made these facilities available both to day students during regular school hours and to day labourers in evening classes.24 The possibility of advanced technical instruction in no way compromised the possible class-conscious pride of working-class parents. Yet, at the same time, it offered to their children an opportunity for formal training and certification that they themselves might not have enjoyed. Hence, it afforded an opportunity for greater flexibility in the selection of occupations.

Generalism Versus Specialization: John Seath and R.A. Pyne

No spokespersons in the educational establishment actually seemed to question the prevailing wisdom that the majority of these children of the working-class would themselves undertake manual occupations in the growing industrial labour market. This arena of labour, after all, was where most present and future job prospects were known to reside. Nor did they appear to dispute the contention that this fact was both inevitable and desirable. In fact, educational promoters and critics alike acknowledged the folly of a school system that inadvertently taught its pupils to disdain manual labour and held up plumbs of middle-class respectability just out of arm's length of most of them.²⁵ If the dignity and worth of (skilled) manual labour was seldom in doubt during the bygone days of small-town artisanal proprietorship and the apprenticeship system that sustained and perpetuated it, could this same sense of dignity and worth be restored to manual labour in a modern urban-industrial labour market through the development of public technical education?

Richard Harcourt's suggestion that respectability (or status) could be restored to technical knowledge and manual skills by incorporating them into the common curriculum of all public school pupils and high school students was certainly sincere, but (particularly at the higher levels of schooling) impractical. In fact, the key to this

²⁵As we have seen, this objection had been raised by promoters and critics across the political/educational spectrum, including Dr. S.P. May, James L. Hughes, and Phillips Thompson.
question ought to have been implied by the forms and functions of traditional
apprenticeship itself. Artisanal and early industrial apprenticeship constituted a form of
socialization and skills training that was perfectly appropriate for the production
techniques and labour market requirements of the period in which it thrived. Certainly
any modern adaptation of this institution, whether private or public, likewise had to be
appropriate to modern circumstances. Beyond this basic fact, however, traditional
apprenticeship held a mixed message for modern technical educators.

Seen from one vantage point, the traditional apprenticeship involved the learning
of generic tool work and shop skills, and the nurturing of a general mechanical aptitude.
In many contractual apprenticeships, a provision for schooling also ensured that
apprentices would acquire at least basic literacy and numeracy skills. The apprentice
thereby became equipped to ply his/her skills in a flexible manner according to demand,
and was schooled enough to adapt his/her abilities to changing labour market conditions.
From another vantage point, the traditional apprenticeship involved first and foremost the
development of a particular, specialized trade or craft (of which generic tool work, shop
skills and a general mechanical aptitude were but constituent elements). To graduate to
the status of journeyman implied something more than highly developed work skills and
specialized knowledge. It implied expertise.

John Seath's views on technical education and trade training after 1900 illustrated
the case for the development of a modern programme rooted in the premise of generalism
and flexibility. As noted in Chapter Six, Seath's endorsement of the concept of public
technical education, in his 1901 report *Manual Training and High School Courses of Study*, did not compromise his advocacy of the importance of a universally applied core curriculum in the public schools. At its base, Seath argued, public education had to provide all pupils with a common cultural legacy and a common set of generic skills. While generic skills usually referred to literacy and numeracy, Seath included manual dexterity skills. However, he rejected the idea that the more complex and technical trade skills had any place in the public schools. Instead, Seath insisted that the public school programme provide a general education, and that technical studies be reserved for the high school level.

In essence, Seath saw no necessary conflict between cultural and utilitarian goals in education. He merely suggested that these two sets of goals belonged at different levels of the educational system. To illustrate his point, he drew a sharp line between the lower and the higher rungs of the educational ladder. The cultural goals of education should necessarily prevail in the public (elementary) schools, whereas the utilitarian goals could best be advanced in the high schools. This explanation had specific significance for Seath's view of technical education within the public system, and allowed him to distinguish between the goals of manual training and those of technical education:

The object of technical education differs from that of manual training in being an economic one. But technical education, since it involves manual training has also an educational value; and manual training an economic one, especially in the later years of the secondary schools. ... This simply means, of course, that the training of the mind through the hand and eye is valuable for every boy and girl and especially valuable for those who are
to engage in industrial pursuits.\textsuperscript{26} Manual training, as it pertained to the discipline of the hand and eye, contributed to the general education and cultural development of all pupils, and therefore belonged in public schools. Manual training, as it pertained to tool work and shop practice, contributed to the general preparation and practical development of those older students who were most likely bound for manual occupations, and therefore belonged in the high schools.

In either case, however, Seath continued to emphasize the importance of a general training, even if the ultimate goal of technical education (or advanced manual training) was utilitarian. On this basis, Seath rejected the appropriateness of publicly sponsored trade schools that would train apprentices/students in the techniques and skills of particular trades and occupations. He recognized that, with the mechanization of industry, the trades themselves were in flux -- that the training appropriate for the labour market today might not be appropriate tomorrow.\textsuperscript{27} Students undertaking technical education would be poorly served if the techniques and skills that they had acquired proved to be quickly obsolete in modern industry. Alternatively, Seath proposed that a system of technical education ought to stress the general principles of mechanics -- that it ought to develop in students the latent ability to apply their skills broadly, and to adapt their knowledge and skills to a changing work environment. Of course, industrial technology and shop practice not only changed rapidly, but the pace of industrial change

\textsuperscript{26}Seath, Manual Training and High School Courses of Study, 3-4.

\textsuperscript{27}Ibid, 34.
ran unevenly across the province as a whole. Recognizing this fact, Seath also
recommended that the development of technical schools in Ontario adhere to a principle
of flexibility. They should maintain their "adaptability to local needs" and the Toronto
Technical School should not become the model for the province as a whole.

Seath's advocacy of generalism, flexibility and adaptability represented one side
of the modern debate over technical education. Dr. R.A. Pyne, who became Minister of
Education in 1905, illustrated the other side. While Seath reconciled the cultural and
utilitarian goals of education by assigning them to different levels of the educational
ladder, Pyne viewed the competition between culture and utility as a primary source of
ambiguity, conflict and dissatisfaction in education. This ambiguity and conflict resided
in the gulf between the goals of teachers and the aims of parents. Rather than shaping the
process of educational development through an ongoing dialectic, the tension between
culture and utility impeded educational progress. Pyne explained:

The teacher's aim is to utilize subjects for the general development and
discipline of the mind, while the parent seems to require that the pupil
should be trained in those branches which have a direct application to his
future requirements in earning a livelihood. The cultural aim of the
teacher, and the industrial or utilitarian aim of the parent, thus stand in
somewhat sharp contrast. The resulting compromise does not appear to
have been a happy or satisfactory one.

Dr. Pyne's academic background in Practical Chemistry and his prior teaching
experience at Toronto University's affiliated School of Practical Science no doubt

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28Ibid., 15.

29AR, 1905. xxvii.
contributed to his apparent belief in the desirability of practical education and specific skills development over Seath's preferred liberal education and general skills development. Like S.P. May, R.A. Pyne saw manual and technical education -- indeed practical education generally -- through the lens of political economy. A skilled and adroit industrial workforce raised the quality and value of manufactures and ensured a society's prospects for economic strength. Pyne, like others before him, singled out Germany as the example to heed. He was impressed by the record of German technical education offered in trade schools and polytechnical institutes, which contributed to that country's remarkable economic and industrial progress in the late-nineteenth and early-twentieth centuries. The German system of trade training, argued Pyne, had "sent forth a body of young men and women who have created industrial Germany and made it a formidable competitor for the world's commercial supremacy." 30

Pyne understood, however, that the challenge facing Ontario was not simply training skilled labor who would contribute to industrial development and economic progress in the long run, but also fitting young workers to enter the industrial environment that presently existed in the short run. The increasing complexity of industrial operations, and the specialization of trades and occupations within industry, seemed to negate Seath's recommendation that generalism should define the goals of technical education. For Pyne, expertise and specialization, rather than flexibility and adaptability, most appropriately characterized the demands of the industrial labour

30 Ibid., xxxviii.
market. Increasing complexity in manufacturing and specialization in industry, according to Pyne, proclaimed "the necessity for preparing our young men and women for positions in which special knowledge and skill are required." As such, he envisioned the modern role of technical education as being more specifically occupational training: "The days of the apprentice are passing and the school and school work shop must supply their place." 31

**Education and Industrial Citizenship: Albert Leake and Adelaide Hoodless**

The question of adaptability versus expertise also penetrated the campaigns for manual training and domestic science, as the respective promoters of these programmes contemplated the links between their courses and the modern development of public technical education. Both Albert Leake and Adelaide Hoodless began to adjust their positions to fuse the traditional dialectic of culture and utility with the newly emerging discourse of adaptability and expertise. For Leake, the adjustment was modest. His basic inclination was to reconcile modern technical education with the educational aspects of manual training, rather than to subordinate manual training to the service of technical education. Adelaide Hoodless, on the other hand, adapted her views more significantly, as she began to position herself a bit less as a conservative defender of traditional social values and conventional domesticity, and somewhat more as a champion of the rights of

31Ibid.
those young women who were poised to enter the 'forgotten' labour market.

After 1902, Albert Leake's inspection tours of manual training and domestic science facilities began to include intermediate technical education programmes as well. Within his reports, Leake promoted the idea that well-equipped manual training centres could be adapted to provide adolescent and adult technical and trades training, particularly if they introduced evening classes for workers. Although Leake remained one of the most ardent defenders of the educational aspect of manual training, he conceded Seath's argument that manual training necessarily presaged technical education.

However, Leake parted company with those educators (including Seath) who complained of the dearth of proper technical schools in Ontario. Instead, he defended the education department's wisdom in "concentrating its energies upon the foundation before attempting to raise a superstructure," and added that "if technical education is ever to achieve anything worth while, much attention will have to be devoted to adequate preparation in the preliminary stages ...."\(^{32}\) While Leake regarded manual training as a prerequisite to technical education, he found the apparent rigidity of Seath's linear model, which situated manual training and technical education at different rungs on the educational ladder, otherwise unsatisfying. Instead, he envisioned the relationship between the two programmes as being somewhat more organic.

Viewing the question didactically rather than administratively, Leake perceived manual training and technical education as mutually reinforcing -- even interpenetrating -

\(^{32}\)Ibid, 1903, 154.
-programmes. Each was propelled by the momentum of the other. Symbiosis, not linearity, characterized their true pedagogical relationship. In this way, Leake attempted to reconcile his own predisposition towards the cultural and educational aspects of the programme with the obvious utilitarian agendas of manufacturers and other instrumentally inclined parents and students. While Leake continued to define the special aim of manual training as educative and that of technical education as vocational, he allowed for the overlapping of educational and economic values in each respective branch. Like Seath, Leake preferred adaptability to expertise, as the proper goal for public technical schooling.

Between 1900 and 1903, Leake did acknowledge the province's deficiencies in providing facilities for bona fide technical schooling. Yet, rather than explaining the problem, he seemed to explain it away. Given the symbiotic relationship in which he cast manual training and technical education, Leake thought that the latter would mature in due course upon the ground laid by the former. Local needs would dictate the pace and timing of the development of advanced technical schools, and the province would be ill-advised to plunge headlong in that direction without first taking its cue from local conditions. "It is extremely doubtful," he thus reckoned, "whether for many years to come there will be any necessity for an elaborately equipped technical school in any place but Toronto." Yet, this reasoning in no way implied that the promotion of advanced technical education ought to be shelved, even in the short term.

33Ibid., 155.
Before long, however, Leake began to modify his stance. He acknowledged, for instance, the complaint of those critics of the Toronto Technical School who dismissed the institution as poorly equipped and ineffective, and he worried that perhaps the school could not adequately train its students for the technology nor the regimen of the new machine-driven urban factories. In 1904, following yet another fact-finding tour of American technical school facilities, Leake began to make his own comparisons between Ontario's progress in technical schooling and the progress of other 'more advanced' jurisdictions. Like other Ontarians who had reported before him, Leake came back suitably impressed by what he had seen in the United States. Impressed by the ample public and private endowments of American institutions, he remarked on the tendency of some American schools to "spend more than is necessary on elaborate buildings and equipments beyond what is actually required," adding with a chord of irony that this "is a fault with which our severest critics cannot reproach us."

Still, it was the method and the philosophy, not so much the largesse, of American manual training and technical education that left the greatest impression on Leake. In fact, the tour served to reinforce some of his earlier convictions on the subject, and furnished him with a concrete object lesson in how to reconcile the cultural and utilitarian aspects of the work. Leake perceived this reconciliation to occur in the fusion of theory and practice -- a blend of the academic and the practical, the mental and the manual.

\[34\text{Ibid.}, \ 1904, \ 298.\]
thinking and doing. The 'Cartesian riddle' of vocationalism,\textsuperscript{35} apparent in the attempt to understand the co-mingling of mental culture and manual utilitarianism, seemed to be resolved to Leake's satisfaction in the aphorism of Charles Leland's Central Manual Training School in Philadelphia: "to bring thought and labour together to make the thinker a worker and the worker a thinker."\textsuperscript{36}

The link between thought and labour held a potent significance to technical school promoters, particularly in the context of the developing mechanized industries and division of labour factories. If, as Socrates had suggested, the 'unexamined life was not worth living,' was the unexamined work worth doing? Such a question surely would have resonated with Philosophical Radicals like William Morris, John Ruskin, or Phillips Thompson. Each of these men arrived at the same conclusion that work without meaning strips labour of its dignity and its integrity, while it robs workers of their self-worth. Modern technical education, if it signified a revival of the traditional apprenticeship ideals of trades training fused with craft acculturation, might have offered some glimmer

\textsuperscript{35}I use this term to draw an allusion to the metaphysical philosophy of Descartes, which attempted to reconcile the dual nature of Man as both mind and matter. The riddle of this Cartesian duality was how the incorporeal essence of Man interacted with the corporeal sense of Man ("an incorporeal mind lodged mysteriously in a mechanical extended body," as suggested in \textit{A Dictionary of Philosophy} [London: Macmillan Press, 1979], 92). If the culture of technical/vocational education represented (metaphorically) its "incorporeal mind," and its utilitarian aspects represented its "mechanical extended body," then the dilemma faced by turn-of-the-century educators who tried logically to reconcile these aspects becomes apparent: the former is "unextended and indivisible;" the latter is "extended and divisible." (p.91).

\textsuperscript{36}Quoted by Leake in \textit{AR}, 1904, 249.
of hope for an antidote to alienated labour. To be sure, mental culture ennobled manual utility in the same way that thought ennobled labour. It boasted the potential to elevate the exercise above the merely technical and towards a higher vocational plateau.

However, to an 'earthbound' philosopher-bureaucrat like Albert Leake, the link between thought and labour held a less esoteric, more concrete, significance. While he continued to stress the educational and cultural aspects of manual training, and suggested how these aspects could only enhance the benefits of technical education, Leake perceived the relationship between thought and labour in more pragmatic terms. In defining the goals of technical education, therefore, he adopted a pattern of reasoning similar to that which S.P. May had used with respect to the utility of art education in the 1880s. Leake wrote in his annual report for 1905,

The aim of Technical Education is to effect a rise in the level of intelligence and efficiency among all on whom our industries depend, in the confidence that this will mean to the workmen increased wages and increased power of adaptation to the changes which so often dislocate our industries.\(^{37}\)

Yet, there was one distinct difference between Leake's and May's respective views of technical education. While May had tended to stress how the development of skilful workers could enhance the broader industrial outlook of the province (a macro-economic perspective), Leake seemed to focus more on the benefits that might accrue directly to the workers (a micro-economic perspective). Increased wages would certainly enhance workers' material lives, while the "increased power of adaptation" would improve the

\(^{37}\textit{Ibid.}, 1905, 301.\)
continued employment prospects of manual workers in a volatile industrial labour
market.

Leake also agreed with John Millar that in a democratic society, the primary aims
of a public education were the cultivation of general intelligence and the "making of good
citizens." For Leake, the micro-perspective on the benefits of technical education posed
no contradiction here. In reconciling the lofty aim of democratic citizenship with the
otherwise utilitarian aims of technical education, Leake rationalized his point of view by
insisting that good citizenship first required a man to "be capable of ... earning a
livelihood for himself and those dependent upon him ...." Only when a man proved
capable of self-support could he endeavour to be of useful service to the community at
large -- a popular standard both of citizenship and of manhood. Assuming this
assumption to be true, Leake suggested that the need for advanced technical education
was quickly becoming both "real and vital." Most commentators agreed that the modern
circumstances of urban industry rewarded workers who could adapt quickly to new
machinery and penalized those who lacked mechanical acumen. Like John Seath, Leake
listened to the concerns of manufacturers who complained of a lack of skilled labour, and
wondered why only a small minority of workers appeared to avail themselves of the
opportunity to take technical training wherever it was made available. As in the case of
manual training, Leake ascribed any lack of interest or public support for technical

38Ibid., 1905, Part II, 299.
39Ibid., 302.
education to ignorance and misunderstanding. However, other problems such as lack of
time, workers' fatigue, and financial constraint might also have contributed to the
relatively low levels of participation among working people. As such, he recommended
that employers offer special inducements, in order to

encourage the spread of Technical Education by giving preference to those
who are making an effort to obtain it ... by granting privileges in the way
of time or bonus to those of their employees who are attending classes for
their own improvement, and incidentally for the benefit of their
employers.\textsuperscript{40}

By this means, those workers who internalized the values of self-improvement and self-
development through education might be rewarded for their "good citizenship." They
might then be held up as paragons for their fellow workers who would be encouraged to
follow their example.

Curiously, the prerequisite standard of "good citizenship" that Leake prescribed
explicitly for men (economic self-reliance and the support and maintenance of
dependents) gave no indication as to what prerequisite standard might apply to women.
Women, after all, comprised a significant (and growing) segment of the paid work force.
Working women certainly contributed to the support and maintenance of their families.
Furthermore, in the case of single women, widows, and estranged wives with children,
women were often solely responsible for their own economic survival. Yet, the genuine
technical education of women was seldom given the same degree of attention and serious
scrutiny that was afforded to men's technical education.

\textsuperscript{40}Ibid., 301.
This realization prompted Adelaide Hoodless to broaden her own perspective in the ongoing advocacy of domestic science education. For Hoodless, this would represent a significant departure from her earlier crusade to restore the harmony and integrity of working-class households through domestic science education. Whereas a large part of the earlier domestic science crusade had assumed the role of working-class women as housewives, Hoodless would now begin to assert the particular needs of working-class women as waged workers. Thematic ally and conceptually, Hoodless’ new position also signified an inversion of the previous (male) discourse on thought and labour as it pertained to technical versus ‘vocational’ education. In her Report on Trade Schools (1909), Hoodless chose to downplay education’s role in preparing women for their ‘vocational’ roles as wives and mothers, in order to stress modern education’s failure to develop women’s technical knowledge and skills for specialized industrial work.

It might be overstating the case to suggest here that Adelaide Hoodless had undergone a dramatic conversion, or that she had suddenly embraced the gender politics

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41 Adelaide Hoodless, Report to the Minister of Education on Trade Schools in Relation to Elementary Education (Toronto: L.K. Cameron, 1909), p.3. In this report, Hoodless noted: "During the past two or three years, as a result of the introduction of manual training into the schools, and as an expansion of that branch of education, several High Schools and Collegiate Institutes have added special technical departments to their buildings and courses of study. In every case the work has been planned and carried on in the interests of boys and little if any attention given to the claims of girl pupils."

42 Ibid. In fact, Hoodless more than acknowledged the gathering flight of women into waged labour. According to her, "about half of the pupils attending the public and high schools are girls, and a large majority of these girls must eventually become wage-earners." [emphasis added]. (p.3)
of a more politically charged feminism. On the other hand, her rhetoric gave notice that she was now unwilling to concede what she considered to be basic issues of women's rights and women's equality in the public domain. For Hoodless, this sense of rights and equality meant that women and men should be regarded equally in the schools, and should be given an equal opportunity to develop useful workplace skills. Hoodless's use of history to buttress her argument perhaps best signified her apparent shift in perspective. "Changes in industrial conditions demand a readjustment of educational methods and courses of study," she wrote.

When the home was a manufacturing centre, from which the necessaries of life were produced, little was demanded of the elementary school except a knowledge of the three R's.

As the social and educational influence of construction, composition, and the stimulus of responsibility were removed to the shop and factory, and specialized work took the place of a general knowledge, women were deprived of the interesting and character building elements which were their birthright.

That circumstances compelled women to follow the various industries into shop and factory, without either mental or technical training, accounts, in a large measure, for the lower standard of efficiency, lower wages, and consequent social deterioration of women wage-earners. That this is a serious social and economic matter is beyond question.43

This passage, in which Hoodless began to locate the modern inequality of women in the context of the historical transition from pre-industrial to industrial society, is compelling for at least two reasons. Firstly, by suggesting that the process of industrialization had 'deprived' women of the "interesting and character building elements which were their birthright," Hoodless echoed the sentiments and the historical perspective of some late-

43Ibid.
nineteenth century trade unionists -- a perspective that was borne out of the journeyman's struggle to maintain craft traditions and the integrity of the trades. Secondly, during her early crusade for domestic science instruction, Hoodless tended to focus on the alarming lack of home instruction between working-class mothers and daughters in the domestic arts, owing largely to the industrial social condition that too often compelled these mothers to divert their talents and energies to the realm of paid industrial labour. Now, with domestic science programmes on a reasonably secure footing in the private, public and high schools, Hoodless assigned to these programmes a more thorough workplace orientation, and began to question why more attention could not be given to preparing women for their eventual workplace destinies.

It is important to recognize, however, that Hoodless did not at this point concede that these workplace destinies were desirable, only that they constituted the reality of many women's lives. Nor did she abandon her driving conviction that social stability and progress rested on the shoulders of the women who tended the hearth, tidied the house, prepared the meals and reared the children. Rather, she incorporated these animating ideas into the general framework of education and 'citizenship' laid down by John Millar, in a manner analogous to what Leake had contributed with respect to (male) workers.

"Whether the homemaker has been, or is a wage-earner, or woman of independent means," wrote Hoodless,

the responsibility is the same, and the influence upon the class she represents of equal importance. The standard of honour, obedience to laws, service to humanity, sense of justice, respect for good work and the many other qualities which make the good citizen, be he mayor or
mechanic, are directly due to the home training and early influences.\textsuperscript{44}

Yet, where Leake had suggested that the prerequisite of good citizenship among workers was economic self-reliance and the (material) support of the family, Hoodless now identified the precondition of good citizenship generally as maternal nurturing and the exercise of moral influences upon family life.

If indeed women's potential contribution to the cultivation of character and 'good citizenship' proved to be so central, surely it followed that at least as much attention should be given to women's education as was given to men's education. Yet, in the area of technical education in particular, women's concerns remained largely unaddressed. For Hoodless, it was not surprising, simply disheartening, that the newly emerging technical departments in the high schools were obviously designed with the interests of boys and young men in mind, and that the provisions for girls and young women appeared only as an afterthought. Like all other institutions in society controlled by men, she reasoned, the schools were "one-sided." Therefore, despite the fact that women and men in Canadian society rarely ventured into precisely the same trades and occupations in the early twentieth century, they often studied the same courses in the technical departments, designed "on lines laid down for the boy's benefit." In fact, she noted, the whole of the public discourse on technical education tacitly assumed that it pertained to the education and training of young men. After reviewing the expressed views of various manufacturers, boards of trade, and even educators, she concluded: "Not once has there

\textsuperscript{44}Ibid.
appeared a reference to the woman wage-earner. The extremely limited provision made in a few schools for instruction in domestic science and sewing is all the consideration allowed for the vast army of women workers.\textsuperscript{45}

If the same standard of good citizenship were applied to women as to men, then a greater degree of attention would have to be afforded to women's technical education. However, if the assumption of adaptability in the labour market defined the goal of men's technical education, as both Seath and Leake preferred, then it seemed to Hoodless that precisely the opposite assumption would best serve women's interests. Domestic science, being the woman's realm in technical education, had tended to focus mostly on the inculcation of generic household skills\textsuperscript{46} and the principles of homemaking. Yet, the possession of these skills had not served women well in the industrial labour market. Scarcely recognized as skills at all, the talents that women brought to the workplace, and the abilities that they auctioned for meagre wages, were routinely underestimated.\textsuperscript{47}

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\textsuperscript{45}\textit{Ibid.}, 4.
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\textsuperscript{46}I use the term "generic" here, not in any pejorative sense, but rather to denote the non-unique character of these skills in the labour market. That is, since many of the women vying for paid employment would have possessed similar skills that would have been of use to employers of domestic labour and industrialists in the clothing, textile and millinery industries in particular, their skills would not have been considered scarce, and therefore accorded a further diminished status approaching that of common unskilled labour.
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\textsuperscript{47}The literature on this issue is considerable and growing. For some examples in the historical literature, see Jane Gaskell, "Conceptions of Skill and the Work of Women: Some Historical and Political Issues," \textit{Atlantis} 8, 2 (Spring 1983); Mercedes Steedman, "Skill and Gender in the Canadian Clothing Industry, 1890-1940," in Craig Heron and Robert Storey, eds. \textit{On the Job: Confronting the Labour Process in Canada} (Montreal: McGill-Queen's Press, 1986); Shirley Tillotson, "The Operators Along the Coast: A Case Study of the Link
\end{flushright}
skills that women practiced in the workplace were already adaptations of the skills that they practiced in the home. On this point, Hoodless' brief historical sketch assumes a possible third significance. When the home was a centre of productive labour, women's generic domestic skills were perfectly appropriate to the work required of them. When these same skills were transferred and adapted to the industrial labour market, however, they served as a basis to further diminish the status of women's jobs relative to those of men. What modern working-class women required, so long as they were compelled to venture into the paid industrial labour market, was access to training for specialized and valuable skills that would enhance the status of their occupations. This in turn might lead eventually to higher wage increments, less condescension from male co-workers and employers, and fewer circumstances of gender exploitation. At the very least, it might place women on a footing equal to that of men in the realm of technical education. Hoodless, therefore, rejected the notion that technical schooling ought to be about developing adaptable workers, and offered instead that "[t]he object of the technical school is to train experts, master mechanics, etc."\textsuperscript{48}

In fact, rather than common technical education, Hoodless addressed the importance of trade schools, which could develop more specialized and marketable skills in young men and young women alike. The specialized trade school, in Hoodless's

\textsuperscript{48}Hoodless, \textit{Report ... on the Trade Schools in Relation to Elementary Education}, 4.
estimate, would serve well as "a sort of balance wheel for the public school." Here she began to merge her ongoing concern for the morality of womanhood and family life with the workaday reality of women's paid industrial labour that most recently occupied her attention. In so doing, she returned to the themes of culture an. utility that appeared to characterize pre-industrial trades training. Although she now expressed interest in the development of specialized skills among working women, her perspective was far from strictly utilitarian. Hoodless envisioned the trade school as an

organized apprenticeship, enabling the pupil to learn a trade under social and moral conditions which will carry her through the two or three years, which may be called the transition period between girlhood and womanhood, and sending her into the field of labour, a self-respecting, intelligent worker, conscious of her duty to her employer and herself.\textsuperscript{49}

For Hoodless, the junction between thought and labour might be located at the crossroads between the craft ideal of the apprenticeship tradition and the mechanical ideal of the modern industrial culture.

Hoodless's idea of trade schools, albeit idealistic, aimed at restoring the integrity of manual and industrial work, particularly for women. In this respect, her assertions might have borne an unwitting resemblance to those of some modern socialists and Philosophical Radicals. Yet, in another respect, she struck a remarkably consistent chord when she drew a class-cultural distinction between the expected living standards of industrial workers and those of the more well-to-do. Echoing a more familiar refrain, she suggested that trade schools would certainly prove their mettle if they helped to elevate

\textsuperscript{49}Ibid., 5.
the condition of the industrial working class. Yet, this assertion had never implied that such workers in modern urban society ought to surround themselves with the gentile refinements of middle-class material culture, nor did it imply that workers should aspire to the vulgar trappings of ostentatious materialism. Nevertheless, if the conditions of workers (both male and female) were improved, by nurturing the link between thought and labour, this would satisfy the prerequisite for good citizenship that Leake had established. "The result of such [trade] schools," Hoodless wrote, "should be towards higher standards of living (not more elaborate) and the development of a more intelligent, earnest, and capable worker. ... There is nothing of greater fundamental importance in human life than the manner of earning a living."\(^50\)

The Emergence of "Special" Industrial Classes in Collegiate Institutes

Between 1903 and 1911, several of the sites that had enthusiastically embraced the new 'practical' programmes immediately readied themselves to expand into the area of technical education courses. The early competition in 1903 for shares of the province's $25,000 technical education disbursement had particularly encouraged school promoters in smaller cities like Stratford, Brantford, Berlin and Woodstock to embark on plans either to build new manual training facilities annexed to their high schools or collegiate institutes, or to renovate existing wings of these schools and equip them with modern

\(^{50}\)Ibid, 5 and 14.
industrial tools and machines. While this competition sparked some jealousy and backbiting among the various local school boards, it also pointed to the eventual adaptation of manual training facilities to the work of more advanced technical education, much in the way that both Albert Leake and John Seath would prescribe. In fact, Richard Harcourt vigorously encouraged several local boards to expand into advanced technical instruction almost as soon as their manual training plans were approved. In Berlin, for instance, school officials quickly drafted plans to build a new and separate manual training facility. This facility, originally dubbed the Berlin Manual Training School, would be renamed the Berlin Technical School -- "a much larger and more suitable name" according to the Minister of Education.\textsuperscript{51}

In Stratford, local industrial conditions greatly influenced the way in which school planners developed their new manual training facility in 1903. Harcourt regarded Stratford as "a large and prosperous city," and viewed it as probable site where advanced technical education could flourish. In addition to wood work, the facility included sufficient tools and apparatus for a comprehensive metal work course, as Harcourt specifically recommended.\textsuperscript{52} The facility would be equipped as much as possible to resemble a small modern machine shop, with a blend of newer machines and more

\textsuperscript{51}R.G.2, D-7, Box 12, Richard Harcourt to L.J. Breithaupt, 16 September, 1903; Breithaupt to Harcourt, 8 October, 1903.

\textsuperscript{52}Ibid., Box 8, Richard Harcourt to C.A. Mayberry (Collegiate Institute, Stratford), 18 February, 1903; copy to Mr. Burt (Brantford), Mr. McPherson, K.C. (Stratford), John Brown, M.P.P.
traditional tools. For advanced wood working, the Stratford Collegiate Institute's manual training wing housed six wood turning lathes powered by a motor, as well as a sufficient complement of wood working tools, including chisels, files, planes, sanders, saws and hammers. The basement of the building was turned over to metal working and included two lathes, three forges, three vices, three anvils, and one drill, as well as various shafting and forge tools. In nearby Woodstock, the manual training department was similarly prepared for the introduction of more advanced technical programmes. Like Stratford's facility, it was equipped with six wood turning lathes, shafting benches, two metal lathes, various iron working tools, a band saw, a forge and anvil, and a gas engine. While the movement to equip these facilities for more advanced technical instruction seemed impressive in the early stages, they were appropriate only for small classes with very general lessons in industrial workshop practice. As an extension of manual training, the emphasis in "special technical instruction" would still be to teach generic workshop skills and to familiarize students with some of the basic industrial techniques for the uses of machines and tools. Specific and specialized trades training did not enter into the mandate of these centres.

Although the limited size of some of the more ambitious manual training centres posed an obvious impediment to the development of advanced technical instruction over

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54Ibid., Special Technical Instruction -- Woodstock Collegiate Institute, 1903.
time, these facilities began to signal the movement towards the broader establishment of a parallel technical stream in the high schools and collegiate institutes of Ontario. In 1909, Albert Leake noted with dismay that the programme in Brantford, which six years earlier had boasted one of the most ambitious plans for the development of manual training and domestic science, had become seriously hindered by its insufficient accommodations. Leake recommended that the Brantford school board give "special consideration" to the question of technical education, and cautioned the board not to lose sight of the importance of domestic science as a special branch of technical education. The question of technical evening classes for young men and women alike also concerned Leake.\textsuperscript{55}

The Brantford Collegiate Institute's special industrial class consisted of only six boys in 1910. This class spent each morning practicing the industrial arts in the wood and metal shops and took their academic subjects with the other students in the collegiate institute in the afternoons. Albert Leake prescribed that when the numbers enrolled in the technical stream were sufficiently large, separate academic classes should be formed for these students. Evening classes in forging, mechanical drawing and wood working appeared to have been well attended, as were the voluntary classes on Saturday mornings. Leake was encouraged that many of the boys who attended on Saturdays often stayed the whole day to practice advanced work.\textsuperscript{56} In 1911, the number of boys enrolled in the technical stream at Brantford had risen to nine. However, only three of these boys had

\textsuperscript{55}Ibid., v.4, Brantford Collegiate Institute, 1909.

\textsuperscript{56}Ibid., 1910.
actually passed the entrance examination required of all high school and collegiate institute students. The other six students had passed in English and arithmetic, and were admitted to the technical programme only with the special permission of the principal.\textsuperscript{57} This situation did not bode well for Richard Harcourt's objective of eight years earlier that the establishment of higher technical departments would help to legitimize technical knowledge and destigmatize manual labour.

In fact, the situation at Brantford in 1911 was further impeded by the uneasy coexistence of technical and academic classes being conducted in the same collegiate institute building. Insufficient electrical circuitry in the building meant that the forges and the lathes could not be run at the same time. As such, certain classes in wood work and metal work could not be held simultaneously. Furthermore, the school determined that the lathes could not be used during regular school hours because they caused excessive vibrations in the classrooms located above the shop facilities. In a sense, the Brantford Collegiate Institute may have been making a virtue out of a necessity when it boasted its programme of evening and Saturday morning classes.

For the advocates of advanced technical instruction, the Hamilton Technical and Art School seemed to present a more promising scenario. This school attempted to do for Hamilton what the Toronto Technical School was supposed to have done for Toronto. It attempted to provide quality daytime instruction for young men and women on the verge of entering manual occupations in the city's industrial sector. Its programme was

\textsuperscript{57}Ibid., 1911.
conceived as an alternative stream to the regular academic high school programme: but unlike the "special technical instruction" in other cities, it was carried on in a special and separate facility. The Hamilton Technical and Art School offered a programme of industrial education that professed a much closer association with the local labour market than could any high school manual training programme. The facility included a blacksmith shop, a woodshop and a machine shop, each occupying an area of approximately 2,500 square feet. The shops were equipped with an assortment of "carefully selected ... hand and machine tools." The directors of the school attempted to win the favour of all interested groups in the community -- the local "manufacturers, engineers, educators, labor associations and the general public" -- and attempted to build a consensus on what the most appropriate route to genuine industrial education might be. Given the local labour market conditions. As The Hamilton Manufacturer noted:

It is universally conceded that the systematic training of apprentices in the shops which has been in vogue for generations has practically broken down, and this, too, at a time when the increasing complexity of processes of manufacture and the application of scientific discoveries to these processes make such training imperative, but as yet no substitute has been agreed upon.

Like the nineteenth-century mechanics' institute, the school also included an industrial museum, to "give the many students of the institution a more ready knowledge of the

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59 Ibid., 44.
nature and variety of the manufacturers of their home city."

The Hamilton Technical and Art School deviated from the general pattern in other centres in another respect as well. It represented a timely movement in the direction of what R.A. Pyne had called for in 1905 -- the "increasing complexity rather than simplification of educational ordinances ... to accompany the progress of commercial, industrial and social specialization." Proficiency, expertise, mechanical acumen, and know-how all defined the goals of the "organized apprenticeship" that the Hamilton Technical and Art School professed to offer. Rather than merely adaptable workers, this school aimed at developing creative and skilled workers, who could make a positive contribution to the progress of local industry. As the Hamilton Herald reported in 1910, the school aimed at turning out mechanics who could "introduce new ideas and get away from the old," and defined the ideal graduate as "an original workman" for whom knowledge really was power. "When the power is properly used," noted the Herald, "his position is improved and the services rendered by him are of more value to his employer than the man without a thorough knowledge of the work in hand. In return," the report concluded, "a larger salary is paid." As for the working woman, however, Adelaide Hoodless' chagrin appeared to be more than justified. Like most other advances in technical education in Ontario, little immediate attention was paid to the technical or

60Ibid., 46.
61AR, 1905, xxiv.
vocational training of women bound for the paid workforce. The Hamilton school included domestic science classes for women, but the focus of comment on this course curiously still centered on the effect that this training might have on the men of the community. The *Herald* depicted the domestic science course condescendingly as "one department which should be of interest to all who eat -- especially working men." The paper went on to suggest: "Young bachelors, thinking of taking a chance in a matrimonial lottery, should try to draw for a prize one of the pupils at the cooking department."\(^{63}\)

In 1909, the movement that was underway at the local level to coordinate manual training and domestic science with industrial and technical training prompted an official response from the education department. As had happened in other areas of curriculum administration much earlier, the education department announced its intention to regulate and closely monitor the delivery of industrial arts programmes. This endeavour first involved the establishment of coherent objectives that would consistently guide the development of programmes from the elementary to the advanced levels of technical instruction. Using manual training and domestic science as a foundation, the education department hoped to erect the framework for a province-wide system of technical education which, if it came to fruition, might eventually comprise an alternative and parallel stream to the liberal academic programme of the public schools, high schools and collegiate institutes.

\(^{63}\)Ibid.
The department's circular on elementary industrial arts (Circular No.7) applied specifically to villages and towns. It blended R.A. Pyne's vision of a more complex and specialized educational machinery for the province with his predecessor Richard Harcourt's concern for the status of technical and practical knowledge within the school programme. Also influential in the drafting of this Circular was both John Seath's and Albert Leake's insistence on the importance of generic skills and their adaptability to the needs of local labour markets. (Pyne's preference for more specialized job skills and more specific expertise would later be applied to the advanced technical education mandate of the collegiate institutes and technical high schools.) This document further served as a signpost that pointed unapologetically to the homogenization of the cultural facets of technical schooling within the context of a utilitarian model of industrial education, as it defined some of the benchmark objectives for a 'modern industrial apprenticeship.'

As listed in the general aims of Circular No.7, the cultural goals of the new industrial education were reduced to the formation of proper habits and attitudes. In this sense, the guidelines emphasized a sort of normative training to encourage the development of those characteristics that were considered to be desirable attributes of a modern shop worker. Comprising the first three general aims of an elementary industrial education, the cultural component of the programme directed schools

1. To stimulate intelligent appreciation of industrial life and processes.
2. To develop at an early age habits of industry, respect for labour, and a love for productive and constructive work.
3. To encourage the spirit of cooperation on which depends not only the success of the modern shop, but also the success of every individual life.

The remaining five aims addressed the utilitarian goals of the programme:

4. To bring the life and interests of the school more closely into touch with the working life to be lived after school days are over.
5. To reveal to the pupils to some extent their peculiar bent, so that the choice of an occupation may be the more intelligently made.
6. To give ability to read and make working drawings such as are used in the industries.
7. To give facility in the handling of common tools, and ability to put and keep them in good working order.
8. To give accurate ideas of the cost of labour, and value of material.

The final two goals on this list could easily be construed as having both cultural and utilitarian aims, since they addressed both the common use of modern shop tools and the habits of shop order, efficiency and tool maintenance.64

Among educators, the idea of industrial education had always suffered from the charge that it was little more than an educational fad. Consistently critics and sceptics worried either that it would merely be grafted onto an already overcrowded curriculum, or that its practical orientation would only compromise the integrity of the liberal curriculum. A decade of experience with manual training and domestic science had not fully succeeded in dispelling these notions.65 Yet, reformers were likewise consistent in their assault on the liberal curriculum, which they characterized as being oblique and

64 Ontario, Education Department, "Circular No.7," Elementary Industrial Art in Public and Separate Schools in Villages and Towns: Explanatory and Descriptive Circular (Toronto, 1909), 3-4.

impractical for the majority of school-aged pupils. While no doubt pleasing to modern educational reformers, the province's programme for elementary industrial arts tried only half-heartedly to assuage the critics.

The prescribed programme sought to fuse the reformer's educational demand for curricular integration with the political economist's instrumental demand for industrial integration. However, in the process or correlating "ordinary school subjects" with "vocational training," the new directive did not ordain that technical studies be made more cultural in nature, to integrate them into the fold of a liberal education. Rather, it intimated that the core school studies might be given a more utilitarian spin, to integrate them into the framework of industrial education. This epistemological synthesis, of course, was to take place not in the regular classroom but in the industrial arts room, where shop teachers (and domestic science teachers) were encouraged to find correlations with the core curriculum that they might exploit to show how industrial work was the logical and practical extension of core school knowledge. Although the responsibility for assimilating school knowledge with practical workshop exercises rested with the teachers, Circular No.7 included specific suggestions for teachers as to how this integration might be effected. For instance,

[t]he making of scientific apparatus adds life and vitality to science teaching. Descriptions of tools and processes are practical exercises in composition. Calculations of time, cost and material provide a kind of workshop mathematics that will prove most valuable. The study of the growth of timber, seasoning, warping, etc., offer practical nature study, and in fact, the points where this subject may touch and help other studies
are only limited by the resourcefulness of the teacher.\textsuperscript{66}

Just as the manual training promoters had suggested a few years earlier, these sorts of correlations potentially had the effect of making the regular school studies more meaningful and relevant to some pupils, by turning abstract school knowledge into useful applied knowledge.

In the case of the manual training advocates, of course, the emphasis on applied school knowledge was meant to yield a net social benefit by encouraging young working-class students to remain in school. The appeal for elementary industrial arts, on the other hand, established its objective much more baldly. The promotion of applied school knowledge was expected to yield a net economic benefit by equipping young working-class students with the basic technical acumen to be efficient, competent and industrious workers. The recommended programme stressed industrial drawing \textit{neither} because of the educational benefits associated with the training of the hand and \textit{nor} because of the cultural benefits associated with the development of aesthetic sensibilities. The programme would stress drawing specifically because of the utilitarian benefits associated with hiring workers who could draft working plans and drawings and who knew how to read them.\textsuperscript{67} Similarly, the principles of geometry were to be "carefully

\textsuperscript{66}\textit{Elementary Industrial Arts...: Explanatory and Descriptive Circular}, 30.

\textsuperscript{67}\textit{Ibid.}, 16. The exact wording of the Circular on this point is revealing: "It should be kept in view \textit{first and always} that drawing lies at the base of every industry. Every object and every building, whether it be a simple cottage or a gorgeous cathedral, begins with a plan, and the successful carrying out of the project depends on the plan being faithfully followed. ... The individual who can draw with ease and accuracy, can gain skill in any kind
taught" and the construction of geometrical figures "frequently practiced," not because of the way that geometry combined abstract with spatial reasoning, but because "no progress in mechanical drawing can be made until [geometric principles] are thoroughly known."68

Ideally, each pupil that completed the prescribed course should be fully capable of both rendering and reading the kinds of working drawings that would be used in local industries, "so that when he goes to work he will not have to wait for the explanations of the foreman, thus increasing materially the cost of production."69

In addition to stressing the importance of such prerequisite and generic industrial skills as drawing and benchwork, the programme guidelines also ascribed an acutely ideological mission to the mandate of elementary industrial arts. For most types of common shop labour, industry preferred workers who were not only adaptable but malleable. While it was important that young workers possess a basic acquaintance with industrial skills and workshop practices, it was also considered desirable that they learn to think in terms of industrial priorities in daily life. Workers who thought in terms of time and cost possessed habits of thought consistent with an industrial world view. Workers who accepted the logic of shop floor organization were less likely to resist industrial authority. As such, the province's guidelines prescribed that both of these patterns of

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68Ibid., 21.

69Ibid., 21-22.
thought be developed and encouraged through the elementary industrial arts programme. For instance, the guidelines for benchwork suggested that for any article produced by a pupil, the cost of materials should be calculated and "a money value" should be fixed on the boy's time. From these values, the total cost of the finished article could be calculated. This suggestion cleverly combined the practical integration of school arithmetic with a more subtle object lesson in commodity labour.

The object lesson was less subtle in the Circular's recommendation that the division of labour be demonstrated by selecting a large project and assigning each student a different task in its construction. "During its process," noted the guidelines, "the pupil learns that he must fit in to the general scheme of things, and that his work must be well done or it will spoil the whole when the parts are assembled." Leaving aside the obvious inference of pupils being encouraged to "fit in" rather than stand out, this recommendation depicted the division of labour as a mode of organization in which pupils/workers were integrated into a collective process of production, rather than becoming alienated from both the product and the process. Yet arguably, the latter case might well have been more likely (through the sheer force of repetition and the atomization of tasks) in the modern sphere of industrial labour.

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70Ibid., 29.

71This literature on the relationship between industrial alienation and the division of labour is immense, and too large to list in detail here. Mostly drawn from a Marxist or neo-Marxist perspective, critiques of industrial alienation and its damaging social psychological consequences tend to focus on issues pertaining to the meaninglessness of work and the commodification of labour. A few useful primers are Melvin Seeman, "On the Meaning of
In addition to these ideological object lessons, the guidelines advised that industrial arts programmes be conceived with strong links to local industry, and further recommended that local manufacturers be invited to participate. Borrowing a page from the organization of late-nineteenth-century mechanics' institutes, industrial arts classes would be encouraged to assemble their own 'industrial museums,' which would include specimens of wood, metal and other raw materials, as well as samples of locally produced articles, donated by manufacturers. Employers might also be invited to address the pupils on the conditions of the local labour markets, the manufacturing processes, and the products created. (These talks might then form the basis for English composition exercises).\textsuperscript{72} In addition, the guidelines recommended that industrial arts be complemented with field trips to nearby shops, buildings and factories, where they could observe ("under guidance") the techniques, processes and products of particular industries and trades.\textsuperscript{73}

These recommendations in 1909, of course, were prescriptive rather than

\textsuperscript{72}Elementary Industrial Arts in Public and Separate Schools of Villages and Towns: Explanatory and Descriptive Circular (1909), 4 and 16.

\textsuperscript{73}Ibid., 5.
regulatory. The movement towards a coherent provincial system of industrial education was buoyed by the activities of those local school boards that readied themselves for advanced industrial classes after having laid the groundwork of manual training. Yet, these boards were clearly in the minority. The type of system that Circular No.7 presupposed simply was not in place in Ontario in 1909. However, Circular No.7 was significant in another respect. It signalled the provincial government’s abandonment of its tentative, arm’s length approach to technical education by incorporating the idea of vocational training into the broader mandate of public education. At the same time, it advocated a closer cooperation between schools and industry that opened the door to direct industrial involvement in the public schools.

The Emergence of Public Technical Education

The years 1910 to 1913 were a watershed for the development of public technical education. Both federally and provincially, a movement was quickly afoot to rationalize and to regulate the development of programmes for the training of apprentices and mechanics. At the federal level, the establishment of a Royal Commission on Industrial Training and Technical Education in 1910 began anew the process of studying the effects of industrialization on the skill requirements of Canadian industry and its impact on the needs of Canadian workers for educational and training opportunities in their communities. Spearheaded by the self-styled labour relations conciliator Mackenzie
King, the commission was chaired by Dr. James Robertson (one of the original promoters of the Macdonald Manual Training Fund), and included among its Ontario contingent Thomas Bengough (the author of Learning How to Do and Learning By Doing), David Forsyth (a respected technical education promoter from Berlin, Ontario), and James "Jimmy" Simpson (the socialist chairman of the Toronto Board of Education and one-time member of the Toronto Technical School Board). Between 15 July, 1911, and 30 September, 1912, the commissioners embarked on a extensive tour, and an exhaustive schedule, that took them through the Maritimes, Newfoundland, Ontario, Quebec, the West and British Columbia, before heading to the United States, Britain and Europe. The report was tabled in 1913.

The commissioners’ report started from a decidedly educational or 'cultural' perspective that affirmed the value of a general education, acquired both formally through schooling and informally through life experiences. In addition to the appropriate habits and attitudes nurtured through a general education, the commissioners added the proposition that "the harmonious growth of the powers of the body, mind and spirit should be fostered." Meanwhile, they cast the issue of industrial and technical education in the context of a more broadly delineated political economy that attempted to

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74Metro Toronto Reference Library, Baldwin Room, Simpson Papers, "P.C.1133, Certified Copy of the Report of the Privy Council, approved by His Excellency the Governor General on 1st June, 1910."

account for the evolving relationships first between education and individual development and subsequently between the individual and the state. Towards the relationship between education and individual development, the commissioners pointed to the anticipated role of schooling in fostering the "the strengthening of desire and will-energy to give effect in everyday life to the concepts of duty, truth, beauty and goodness." In so doing, however, schooling had also to prepare the student "for later life as an individual, as a working earner, as a citizen and as a member of the race ...." Again the correlation between wage earning and responsible citizenship was enunciated, and from this correlation derived the relationship between the citizen and the state. The state's interest was best served when its citizens were "able and willing to fill their places in the community, as citizens discharging their duties and preserving their rights, as individuals in the economy of life, and as earners contributing to the material prosperity of the state." Reciprocally, the state assumed an obligation to its citizens -- an obligation to lead the fight "against ignorance, helplessness, poverty, disease, vice and ill-wills." Using a social Darwinian allegory that depicted "[a]ll life as an unceasing struggle," the commissioners' report deployed a military metaphor to explain the need for greater educational scope and systemic complexity in order to combat the forces of economic and

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76 Ibid., 16.

77 Ibid., 10-11.

78 Ibid., 16.
social disintegration in modern life. "Industrial and technical education is to train individuals for that warfare," the report stated. "Its endeavours are most successful when the experiences ... are a vital part of the hard campaign. It must ever vary its strategy and tactics and weapons, as the field of operation is moved forward." Thus, while raw materials, labour-saving machinery and organization constituted the arsenal of industrial progress, this report affirmed from an educational perspective that the quality of individual citizens was "the most important asset of the State."  

Military metaphors notwithstanding, the philosophical undercurrent of this approach to education was unmistakably liberal-humanist. The commissioners' concerns rested less with the requirements of business and industry, and leaned more towards the requirements of the individual worker and citizen in modern society. Their depiction of manual and technical education, therefore, tended to emphasize the programme's cultural and educational components above its utilitarian components. This bias was no doubt foreseeable, given the background of some of the individuals who staffed the commission. They accepted the model of manual training as a predominantly cultural undertaking and characterized its links to trade preparation in the later years as pre-vocational work -- "discovering aptitudes and tastes and developing skill and ability for some occupation." On this point, the report continued: "Whether [manual training] results in an increase in brain power is a question elusive of proof. The evidence,

\footnote{\textit{ibid.}, 15-16.}

\footnote{\textit{ibid.}, 17-18.}
however, is clear that it adds to the happiness of the pupil ... and quickens the rate of his progress in other school work.\textsuperscript{81}

If the cultural model was 'pre-vocational,' and the utilitarian model was 'vocational,' then indeed the two had to complement and reinforce each other for the benefit of the students and the society in which they lived. The cultural components were necessary for individuals to understand their relationship to work and society, and the utilitarian components were necessary for individuals to make their way in work and society. In the view espoused in the Royal Commission's report, the fusion of cultural and utilitarian components held the key to merging the ideas of personal welfare and state prosperity. A predominantly utilitarian approach to technical education, such as was actually evolving in Ontario's technical departments and schools, attempted to fit students into the mould of industry, encouraged an instrumentalist approach to schooling, and even helped to lay the foundation for industrial alienation. A balance of the utilitarian with the cultural approach, as the report intimated, reasserted the autonomy and the integrity of individual students in the process:

In the organization of this form of education, the attempt must be made to meet all the needs of all the people, with care that none shall be debased by the occupations for which they are prepared, and none shall be debarred from earning satisfaction, as well as satisfactory wages, from labour.\textsuperscript{82}

Satisfaction at work, again, affirmed the value of knowledge when applied to labour and

\textsuperscript{81}\textit{Ibid.}, 10.

\textsuperscript{82}\textit{Ibid.}, 18.
ran counter to the notion that workers might be 'debased' by their occupations. This implied, echoing Richard Harcourt's sentiments, that knowledge lent dignity to work and status to occupations because it empowered workers. This faith, however, might have been misplaced in the modern machine-driven industrial ethos.

Yet, in spite of the liberal humanist vision of the commissioners' report, the course of action advanced by the Royal Commission implied a tacit acknowledgement of a movement towards greater systemic complexity in the machinery of education, much along the lines envisioned by R.A. Pyne in Ontario. Utilitarian advocates of technical education would have been pleased with the Royal Commission's recommendations for federal involvement. After navigating their way through the murky ambiguities of the federal government's role in this arena -- was technical education solely a matter of education (a provincial jurisdiction) or did it also pertain to trade and commerce (a federal jurisdiction)?\(^3\) -- the commissioners proceeded to recommend that Ottawa subsidize the provinces' programmes in industrial and technical education. They recommended, for instance, that $350,000 per annum be distributed to the provinces according to population to subsidize manual training programmes, and that $3,000,000 be

\(^3\)Robert Craig Brown and Ramsay Cook, *Canada, 1896-1921: A Nation Transformed* (Toronto: McClelland and Stewart, 1974), 95. As Brown and Cook note, this ambiguity had long been a stumbling block. Since the turn of the century, they observe, lobbyists for federal involvement (Boards of Trade and the Canadian Manufacturers' Association being among the loudest) had oriented their concerns for technical education around the issues of trade and commerce, as much as around education itself. This, in part, helps to account for the nature of the utilitarian arguments coming from the business and industry sectors, and the manner in which they enveloped technical education into questions of larger political economy.
provided annually for technical education at the secondary school level. The commissioners further recommended that these federal subsidies be carried out for a period of ten years. While these recommendations were received in 1913, the federal government moved slowly to act on them.

The issue of technical education lay dormant in Ottawa throughout the war years, and was not revived until 1919. In that year, Robert Borden’s government passed the federal Technical Education Act. This act did not go nearly as far as the Royal Commission had recommended six years earlier. It provided for a technical education fund of $10,000,000 to be distributed to the provinces over ten years, with each province receiving $10,000 annually plus quarterly subsidies in proportion to their populations. These subsidies, however, remained contingent on the province spending an equivalent amount on their own technical education programmes.\(^\text{84}\)

While the Royal Commission on Industrial and Technical Education was conducting its tour in 1911, the education department in Ontario embarked on its own course of systemic rationalization. The process began with the publication of John Seath’s *Education For Industrial Purposes* (1911), a comprehensive report to the education department which attempted to take stock of the programmes of manual, industrial and technical education in Ontario. Seath's role in the education department had been enhanced in 1906 when he was promoted from high school inspector to the re-established office of superintendent (chief director) of education. Seath's bureaucratic

\(^{84}\text{Ibid., 95-96.}\)
acumen, his strong personality, and his commitment to educational reform, combined to make him probably the major driving force in Ontario's education department until his death in 1919. As Stamp notes, teachers and principals throughout Ontario developed a healthy disdain for the manner in which Seath proceeded to push through his educational agenda. Among the unflattering sobriquets ascribed to Seath, adds Stamp, were "Olympian Zeus" and "the autocrat of the education department."

As Seath charted the progress of technical education in Ontario and abroad, he began to draw conclusions that were less than encouraging for the province, as he was compelled to acknowledge the deficiencies of Ontario's system. "Of technical education in the limited sense of the term," he wrote, "we have none in our Public and High Schools, nor have we industrial education in the sense of preparation for the trades, except ... in the Toronto and Hamilton Technical Schools, and, to a very limited extent, in a few of the other High Schools." Furthermore, where industrial and technical education departments were developing in the high schools, they still appeared to remain detached and aloof from the industrial labour markets for which they were supposed to prepare students. "Nowhere, except the Sault," he observed with disdain, "has a

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connection been established with the local industries. Manual training and domestic science -- the foundation courses of technical education -- fell prey to similar negative scrutiny, as these courses were found to be too inefficient and too sporadic to stimulate the development of technical work in the higher grades. Of the manual training programmes in most centres, for instance, Seath generalized that "with extremely few exceptions, all of those who take the courses are intended for other than industrial occupations; they give up manual training courses after one year or at most two." Such a situation as this one might have satisfied those educators whose sympathies rested with the cultural model of manual training and who preferred to advance the concept of a general education, but it would have been discouraging to those who shared the utilitarian outlook and who preferred the notion of specialization in education.

Seath's recommendations amounted to much more than platform for reforming the systems of technical education. They represented a much more extensive and interventionist role for the education department in the administration, monitoring and coordination of technical education programmes in the province. In this sense, Seath advanced R.A. Pyne's conviction that more complex systems of schooling were needed if

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87Ibid., 271. In Sault Ste. Marie, an arrangement was made between the local board of school trustees and Algoma Iron Works. In addition, the general manager of the Lake Superior Corporation arranged to have apprentices in that company take courses in mechanical drawing, English and mathematics. Seath noted that these apprentices would be away from their jobs for one afternoon per week, but that they would continue to receive their regular wages for the time spent in class.

88Ibid., 270.
public education were to keep pace with modern times. In the process, however, he also buttressed the case for systemic specialization, and underplayed the role of general instruction in the technical education of workers and students bound for the industrial labour market. In his recommendations, he continued to insist that the first fundamental principle was that a "good general education [is] an essential preparation for all vocations." Yet, he suggested that manual training and domestic science be conceived both "as a basis for men's and women's trades as well as for cultural purposes," a tacit statement of a new equilibrium of cultural and utilitarian goals in these courses, which represented somewhat of a departure for the education department.

Searl proposed two separate branches of technical education for the province. The first branch would target those students who were likely to leave formal schooling at the legal minimum school-leaving age of fourteen years, or those who might remain one or two years longer in the high school. For these students, he proposed three types of institutions: the general industrial school which would deliver a curriculum with the industrial labour market in full view, but would also continue the cultural agenda of public schooling; the special industrial school, which would lead more directly into trades and industrial occupations; and the technical high school (or high school technical departments, such as already existed in some centres) which would provide more advanced skills training and knowledge for those students who continued with their

\[89\text{Ibid.}, 345.\]

\[90\text{Ibid.}\]
schooling after age fourteen. The second branch would target the training and technical education of adult workers and apprentice day-labourers. For these students, Seath proposed three more specialized types of institutions: the apprenticeship school, in which apprentices from local industrial shops might attend classes for part of the day; the evening school, which would provide instruction to 'supplement' the day labours and shop work of adult students; and the correspondence-study school, which would attempt to reach working people in areas where no technical schools were established (through correspondence courses and "partly by a staff of travelling teachers").\(^{91}\) For the purposes of centrally administered organization, Seath provided that each industrial centre would "rank" as one unit, in which advisory committees would oversee the planning and administration of technical programmes to suit local circumstances.\(^{92}\) Finally, Seath advised that the province consider an amendment to the school attendance laws, granting local boards the authority to enact by-laws to extend compulsory school attendance to youths between the ages of fourteen and seventeen.\(^{93}\)

Seath's report reflected his own conviction of the need for a more comprehensive approach to technical education, but it drew its momentum from an ongoing lobby of business and labour groups for a more meaningful provincial commitment to technical

\(^{91}\)Ibid.

\(^{92}\)Ibid., 346-7. These advisory committees would be composed of members of the school trustees, and an equal representation of local citizens "representing the employers and the employees."

\(^{93}\)Ibid., 348.
education. The Canadian Manufacturers' Association, along with local boards of trade, had strongly encouraged both the federal and the Ontario government to act on the question of technical education since the turn of the century, and had stepped up this lobby in the years approaching 1911. In 1909, the American Federation of Labor adopted a resolution in Toronto endorsing the concept of public technical education on the grounds that "any technical education of the workers in trade and industry, being of public necessity, should be not a private, but a public function, conducted by the public and at the public expense." The Trades and Labour Congress likewise lobbied for public responsibility for technical education on the grounds that it was beneficial for the society as a whole and that it potentially provided workers with the means to combat the drudgery and oppression of their industrial work environments.

*Education for Industrial Purposes*, therefore, amounted to much more than just a report on the state of technical education with a series of recommendations. It became a blueprint for the provinces' Industrial Education Act of 1911. With the passage of the Industrial Education Act in 1911, Ontario's education department attempted officially to 'modernize' its approach to technical education. In doing so, it prescribed and formalized changes in structure and organization in an attempt to erect a *bona fide* provincial system

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94Ibid., 351. Depositions from the CMA and the Toronto Board of Trade were appended to Seath's report [Appendix A].

95Ibid., 352.

of technical education animated by concrete and coherent goals. These goals were subsequently shared with local educators and administrators through a department circular.

The province's new manifesto of technical education signalled changes far more profound than the document's innocuous name (Circular No.27) implied. In fact, Circular No.27 reflected an attempt on the part of the education department to reconcile John Seath's call for the training of adaptable and flexible workers with R.A. Pyne's insistence that increasing complexity rather than simplification surely characterized the modernization of educational systems. This endeavour resulted in a complex blueprint for a system of technical education that was multi-layered, more regulated, and increasingly specialized. Yet, at the same time, it incorporated the ideas that any comprehensive system must be adaptable and appropriate to local circumstances, and must remain flexible in the face of individual needs and goals.

This ministry circular made a clear distinction between the different types of technical training that should be provided to students depending on their occupational destinies. For instance, it made a clear distinction between 'industrial schools,' which were to provide training "for workmen and workwomen," and 'technical schools,' which were to provide training "for foremen and forewomen and the holders of minor directive positions in the trades."97 Based on this distinction, the act provided for six different

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categories of schools, each representing a different level of instruction. General industrial schools were to offer basic workshop practice and preparation for industrial occupations. Special industrial schools would stress the theoretical and practical work of particular trades carried on in a particular city, town or village. Technical high schools would now be intended specifically "for the training of duly admitted High School pupils for minor directive positions in industrial establishments." Co-operative industrial schools would be set up to provide programmes agreed upon by school boards and local employers for the training of articled apprentices. Schools of fine and applied arts comprised the fifth category; and industrial, technical and art evening classes for working men and women comprised the sixth.98

The variety of schools and programmes envisioned by the Industrial Education Act only vaguely concealed the basic principles and premises that informed it. It gave notice that the administration and coordination of public technical education was to be formalized and bureaucratized. Technical education classes and industrial training programmes, like the modern industrial workplace that they courted, were refashioned to become compartmentalized and largely sequestered from one another. The variations in admissions policies recommended in Circular 27 reinforced this compartmentalization. In the absence of compulsory attendance laws beyond the age of fourteen, Circular 27 cited the need for employers to offer inducements, such as time off work and increased wages, to their young employees in order to encourage their attendance at classes in co-

98Ibid.
operative industrial schools. With or without inducements, however, admission to these schools would generally be contingent on an employers' recommendation or referral, or on the permission of the school. Students intending to enrol in the special or general industrial schools would first have to have completed at least the fourth form of public or separate school. At that point they could be admitted at the discretion of the principal of the school. Admission to a technical high school would require that the student had passed the high school entrance examination. However, "no educational requirement [would be] prescribed for admission to the Industrial, Technical and Art evening classes. The only requirement is that the students be workmen and workwomen employed during the day."

Furthermore, the varieties of technical training suggested in these regulations attempted to parrot the actual stratification of industrial occupations in the modern workplace and the modern labour market. In so doing, these regulations assumed that different categories of industrial workers required different programmes of technical training and instruction. The programme of the general industrial school day classes, for instance, presumed a student clientele that had completed the fourth form in a public and separate school and sought to provide a combined curriculum of industrial practice and 'industrially oriented' general courses. The programme included prescribed courses in composition (dealing "mainly with industrial topics"), literature (to "cultivate a taste in good reading"), mathematics, science and shop practice. A course in history and civics

99Ibid., 4.
was also included, the object of which "should be the development of the industrial citizen." The emphasis in history and civics classes, therefore, would be placed "upon industrial or economic phenomena -- upon the development of transportation and communication, the growth of municipalities, and civic organization" as well as "the changes being produced by the concentration of labour and capital in production." This programme best exemplified the concept of an integrated curriculum -- one that would combine liberal subjects with industrial (pre-) occupations. As the levels of programmes became more specialized in the special industrial schools, the technical schools, and the evening technical and art schools, the integration of liberal subjects with industrial concerns would become less of a priority. For instance, the regulations pertaining to evening industrial schools specified that all subjects "shall be taught as to have a direct application to the industries." Separate curricular guidelines were generally specified for boys and girls, men and women, in each of the particular types of programme -- with women's training usually treated (if at all) as an afterthought.

Moreover, the regulations in Circular 27 combined a new movement towards centralized regulation and authority with an old commitment to "local option" and local initiative. The actual development of priorities and the implementation of programmes would become the responsibility of local advisory industrial committees. These committees, consistent with John Seath's recommendations, would be composed of

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100 Ibid., 12-13.

101 Ibid. 10.
twelve members: six from the local board of school trustees, three representing local employers, and three representing local workers. The education department "reasonably assumed" that the representatives of these committees would have "an expert knowledge of the industrial conditions." However, all powers exercised by these committees were checked by the local boards of trustees, whose final approval and consent would be required for all decisions affecting local schools. In some instances, the "joint approval" of the local board and the Minister of Education might be required.  

Initially, advisory industrial committees were given the responsibility of overcoming the three major problems identified with the advancement of technical education: the "indifference" of most potential working-class students; the lack of availability of competent teachers; and the difficulty of designing courses specifically to suit local industrial and labour market circumstances. Circular 27, therefore, recommended that advisory industrial committees canvass local employers and workers because the "sympathetic co-operation of all ranks of labour [would be] essential to success." In finding competent teachers, the regulations suggested that teachers of general subjects be qualified teachers who had taken the time to familiarize themselves with the requirements of industry. Teachers of technical and special industrial courses, however, should be "foremen or forewomen or others specially trained for the purpose ..." To suit local industrial and labour market circumstances, the regulations required that the advisory committees submit reports on the details of local industry in relation to their

102 Ibid., 4.
schools' equipment and the courses to be taken up. The work prescribed for each locality might then be subject to the Minister's approval.\textsuperscript{103}

The Industrial Education Act and Circular 27 went a long way to reorganize and reinvigorate the progress of technical education in Ontario along systematic lines. Within the next few years after its passage the initial returns looked promising for the education department. Four cities (Brantford, Hamilton, London and Toronto) had established general industrial schools by 1914. Three localities (Haileybury, Sudbury and Toronto) had opened special industrial schools. Seven new technical high schools or high school technical departments were established, and another twenty-seven communities had embarked on programmes of technical evening classes.\textsuperscript{104} While Hamilton had been the first city to open a technical high school especially built for the purpose in 1909, Toronto followed suit with the impressive Central Technical School in 1915, built at a cost of $2,000,000.\textsuperscript{105} By 1919, the year that the federal Technical Education Act made additional monies available to the provinces for technical education development, Ontario already boasted sixteen technical high schools in its major industrial centres.

The complexity of the new system did not completely obscure its utilitarian bias. For the most part, provisions for technical education were to continue apart from the mainstream public and high school courses – and where possible, in separate facilities.

\textsuperscript{103}\textit{Ibid.}, 4-5.

\textsuperscript{104}Stamp, \textit{The Schools of Ontario}, 83.

\textsuperscript{105}\textit{Ibid.}
By focusing on industrial correlation and the needs of local industries, the new programmes tried to strike a balance between the two competing models of the modern technical school mandate: generalism versus specialization. Yet, industrial and technical schooling, even where it involved 'academic' courses, would have a decidedly practical and 'relevant' focus on industrial themes. This arrangement surely satisfied educational conservatives as much as it did utilitarian advocates of technical programmes. Yet, far from Richard Harcourt's ideal of dignifying technical knowledge by integrating it with the core curriculum, the new agenda portended the continued marginalization of technical knowledge. By officially sequestering the knowledge (as well as the students) into an alternative school arrangement, the education department may have inadvertently contributed to the stigmatizing both of technical studies and of those who undertook them.

Ironically, this may have been especially true when liberal and technical streams existed side-by-side within the walls of the same high schools, occupying their own wings separated only by corridors. By the 1920s, in fact, the comprehensive school quickly became a common model of school organization. Wherever technical departments were formed within high schools, an opportunity existed for students in these respective streams at least to come together socially and extracurricularly, and thus to foster an understanding and awareness of each others' social class backgrounds. The idea of a co-mingling of students from different backgrounds (and different destinies) was clearly more illusory than real. As Robert Stamp has noted aptly: "Now the school was
to function less as the great equalizer and more as the great selector, selecting the most
talented for the higher level jobs, and selecting from the rest those destined for office and
factory employment."106 Yet, much of this process was less selection than ascription.
Working-class origins generally meant working-class destinies. While the schools
continued nominally to balance competing goals, social reproduction superseded
democratic egalitarianism; specialization eclipsed generalism.

106 Ibid., 84.
Chapter Nine

Apprenticeship's Legacy:

Conclusions and Reflections

When properly trained for his job, one of the first effects observable is that the workman likes his work, understands it, has ability to do it well, and therefore is sure of obtaining reasonably good returns. The finest and highest of such developments are in the character of the man, on his managing ability and on the spirit and methods of co-operating with his fellow workers and other in the community.

Dr. James Robertson¹

The centre of interest in the field of education today is undoubtedly the subject of the relations between education and industry. The advocates of the educational traditions of the past need have no fear that this attempt to give education a more practical bearing on the needs of the times, will necessitate the abandonment or even the neglect of the more cultural subjects. It simply means that the art of living and the conduct of business today require a transformation in our educational methods.

The Canadian School Board Journal²

"Whither does it all tend?" was the question that Charles Hill Trout had posed in 1886. In the context of the mid-1880s, this question disclosed an acute ambivalence

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¹Quoted from Dr. Robertson's address to the Hamilton Canadian Club, in "Explains Benefits of Vocational Training," Hamilton Spectator, 3 February, 1914.

about the relative rewards and costs of progress. The cult of science that drove modern industry also affected the tenor of social discourse and the explication of social purpose within public institutions. It alerted modernists and anti-modernists alike to the promises and the consequences of contemporary social and institutional change. It animated the ideals of social reformers and validated the idea of social engineering. Among educators, it sparked a new debate about the standards of relevance in schooling, and the relative place of 'practical' subjects within a core liberal curriculum.

The idea of technical education percolated through the filter of this debate. Dismissed by educational conservatives and traditionalists as a prosaic and merely serviceable schooling option -- one that threatened to compromise the integrity of the core cultural mission of public schooling -- technical education developed as an adjunct to mainstream schooling throughout the last few decades of the nineteenth century. In mechanics' institutes, schools of art and design, and subsequently in the Toronto Technical School, the anticipated clientele remained the working adult mechanic and trade labourer. Yet, the much heralded demise of the traditional model of apprenticeship ensured that the idea of technical education would remain a current preoccupation and would arouse considerable interest among both school reformers and educational administrators. Not simply the institutions of industrial and technical training, but the very idea of technical education was apprenticeship's enduring legacy.

In this regard, apprenticeship's legacy was an incongruous one. The traditional model of apprenticeship served as both a repository of ancient traditions and a vehicle for
the development of skills and the perpetuation of trades. In other words, it served both an educative and a practical function in the context of pre-industrial artisan culture. From the vantage point of late-nineteenth-century political economy, the passing of the traditional apprenticeship system left a void in the training of skilled workers. Clearly this void was not filled by the employers of labour. In compiling documentary testimony for publication in *Education for Industrial Purposes*, John Seath sifted through over one hundred manufacturers' replies to a circular requesting that they comment on the state of their apprenticeship system and the ages at which young workers entered their shops. Those employers who acknowledged employing 'apprentices' comprised a slim minority of the responses. More typically, they replied in the same vein as W.K. McNaught, president of the American Watch Case Company of Toronto who remarked: "I am sorry to say that apprenticeships are a thing of the past in this business."  

Yet, most employers also acknowledged a need for, and a benefit to be derived from, formal programmes in technical instruction.

Since industrial employers and manufacturers had apparently all but abdicated the responsibility for training workers, this void in apprenticeship training would have to be filled by some form of technical education. From the vantage point of the skilled trades, the passing of the traditional apprenticeship system left an additional void in the ability of the trades to perpetuate their cultural (as well as skilled) inheritance, and to ensure the

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3Quoted in Seath, *Education for Industrial Purposes*, 353. The reprinted responses are found between pages 353 and 375 in Appendix B.
exclusiveness and respectability of their crafts. To a certain extent, trades would attempt to fill this void through the establishment of unions and their attenuating struggles for shop floor control. However, the trades too would lobby for technical education as a way of strengthening the command of skilled workers to autonomy and respectability. Like public schooling in the late-nineteenth and early-twentieth centuries, technical education would become a locus for the ongoing debate over the goals and values of culture and utilitarianism. Yet, as programmes of industrial and technical instruction developed, first as adjuncts and then as auxiliary programmes to public schooling, they co-opted some of the traditional forms and functions of apprenticeship, but may have lost sight of some of its more salient and romantic ideals.

One such ideal of traditional apprenticeship was the communitarian ethic of useful service. In the pre-industrial context, the artisan's burden of responsibility in a community, and hence the artisan's respectability, resided in the performance of trades that were of value to the other members of the community. The service ethic emphasized the use value of an apprenticeship in the manual trades. However, in the context of modern political economy, 'useful service' became co-opted by the concept of 'industrial citizenship'. Yet, the essential grain of the ethic of 'useful service' appeared to survive in the cultural vision of some of the strongest proponents of technical education. For instance, Jimmy Simpson called upon the ethic of 'useful service' both as a vehicle to invoke the egalitarian goal of public schooling and as a yardstick to critique the apparent class bias in modern education. "If our educational system is to be a potent factor in
bringing about social betterment," he said,

... it must emphasize those ideals which lead to useful industry rather than idle parasitism, which point to service to humanity rather than wealth accumulation. The school must unreservedly teach that idlers and useless workers are parasites and that the idle rich are at least as dangerous as the idle poor. 4

James Robertson likewise characterized the mission of industrial and technical education as being "to transform and develop utter selfishness into public service; and to bring about a quick conscience instead of no sense of proportion or responsibility." 5 While promoting the recommendations of the Royal Commission on Industrial and Technical Education, Robertson thus attempted to elevate the cultural importance of technical education:

A man who makes good things for service adds to the wealth of the world and to the capacity of human life. But a man who makes poor things to sell had better have died young before he debased the quality of human endeavour. Poor work on poor things for large profits debases the very currency of life itself as contained in power for service and worthy accomplishments. The man who debases the quality of individual life and national life is no product of the school. He needs education." 6

There can be little doubt that the modern factory system produced numerous such examples of "poor things for large profits." Here the ethic of 'useful service' had been all but lost, and required the civilizing energy and vitality of a progressive approach to

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6Ibid., 7.
technical education to restore it.

Yet, so much of the emphasis in the development of technical programmes after 1911 was to prepare workers to "fit in" to modern industry and to match their talents to the requisite needs of local labour markets. Less and less did promoters appear to stress the need for creative workers possessed of the "inventive spirit," to use J.G. Hodgins words from 1876. Instead critics and promoters alike more often spoke of the diminished skills of young workers, their lack of preparedness for the existing labour market, and the resulting problem of youth unemployment. The "value of a trained life," as one Hamilton newspaper put it in 1916, was found in better employment prospects, increased job security, and higher earning potential. Of those young workers who left school early without the benefit of a general or special industrial education, the paper concluded that "they earn but a pittance in the kind of work open to them. ... They drift about from one job to another, usually holding two or three jobs in a year."7 Increasingly since the late-nineteenth century, the value of technical education came to be seen primarily in terms of pecuniary employment benefits for workers and economic benefits for industry. It had primarily an exchange value.

The growing importance of formal credentials provided probably the most cogent argument for the exchange value of technical training. Diplomas and proficiency certificates, whether awarded by art schools, technical schools or special industrial schools, testified to the growing importance that would be attached to objective measures

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7"The Value of a Trained Life," The Times (Hamilton), 31 August, 1916: 53.
of merit and achievement in the industrial labour market. Again, one of the romantic ideals of traditional apprenticeship had seemingly been co-opted. Whereas a skilled journeyman in search of a situation might once have been able to trade on the reputation of his master, the more impersonal industrial labour market required more tangible and objective evidence of a worker's preparation for employment.

Trade union leaders and organizations generally welcomed the development of technical education programmes, so long as these programmes were credible and were geared towards preparation for the skilled occupations. After all, the appropriate credentials for technical training affirmed the value and the respectability of a worker's technical knowledge, competence, and skills. They rendered these skills objectively verifiable and, so long as the skilled labour market did not become flooded with workers possessing identical credentials, they promised to command a respectable wage.

Ironically, however, the trades paid a hidden cost for this benefit. One romantic ideal of craft and trade heritage that was embedded in the traditional apprenticeship system was the perpetuation of the "mysteries of the trade." The "mysteries of the trade" denoted much more than trade secrets. At a core cultural level, they denoted the heritage of the crafts -- the complex of symbols, rituals, observances, pride and traditions -- passed down through the apprenticeship system. At a more pragmatic level, they denoted also the techniques and artistry of handicraft production that often took years to learn. When these two aspects were combined, the "mysteries of the trade" protected the insularity of the trades -- their claim to 'elitism' and their ability to exclude outsiders. One had to earn
entry into the trades, and masters and skilled journeymen stood as the gatekeepers. When nineteenth-century trade unionists sought to control entry into the trades, they harkened back to this tradition.

However, as technical education developed, and eventually became bureaucratized, the "mysteries of the trade" were invariably breached. Formalized instruction meant teaching by curriculum. Curriculum development increasingly demanded that the knowledge and mechanical skills of industrial trades and occupations be studied, broken down, sequentialized, systematized, and routinized -- a peculiar allusion to Taylorism and Fordism on the shop floor. Once studied and broken down, at least the basic technical knowledge and rudimentary skills training might then be taught to anyone meeting the minimum entrance requirements of the school. When knowledge and skills training were co-opted through technical schooling, the trades effectively lost 'exclusive ownership' of them.

Labour, of course, was not unanimous in its solid support for bona fide technical education. In fact, organized labour's more radical brethren in the Socialist Party of Canada, Toronto Local No.24, passed a resolution in 1910 opposing the expansion of institutional technical education -- a resolution that prompted the resignation of Jimmy Simpson:

That the process of capital accumulation springs from constant invention of ever newer and costlier machinery, the value of which as an economic force, is its labor saving qualities; the purpose of its introduction being the replacing of live human labor by a cheaper mechanical process, from which flows the ever recurring forcing out of employment the great masses of labor, and
Whereas Modern production [is] resting upon the physical sciences, technical education would make the workers more proficient wage slaves and greater producers of surplus value of the capitalist class. Consequently, technical education would have the same effect on the working class as labor-saving machinery which means the intensification of labor, swelling of the unemployed army, giving an ever increasing power to the capitalist class over the working class.

Therefore -- the benefits accruing from a technically educated working class would be reaped by the capitalists, and instead of tending to raise the workers in the social scale, it would be the means of their further degradation... 

This resolution points to a profound distrust of the motives of technical educationists and their supporters as either agents of capitalist manipulation or dupes of capitalist hegemony. From the vantage point of Toronto's Socialists and their fellow travellers, formalized technical education was not only analogous to scientific management; it was scarcely distinguishable from scientific management; and its result was not enrichment or empowerment for workers, but continued impoverishment and exploitation.

In the same way, it appeared that the state usurped another critical aspect of the artisan tradition when it erected its own 'formalized apprenticeship system.' Traditional apprenticeship had always been typified by the private contract that sealed the arrangement, and the paternalistic social relations that characterized it. Although these contracts were legally binding -- notarized and filed -- the state had virtually no role to play in the enterprise. Traditional apprenticeship comprised a complex give-and-take between master and apprentice that was essentially private, personal and individual. As technical education programmes passed through the local voluntarist phase of the late-

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8Quoted in Connor, "The Biography of Jimmy Simpson," ch.8: 4
nineteenth century into the public school phase of the twentieth, the ethos of skills training passed from one form of paternalism to another. The quasi-paternalism of the school, mediated by government and industry, would replace the paternalistic relations of the pre-industrial workshop. When this transition had reached fruition in the years after 1911, it would become the prerogative of the state to define the terms and conditions of a modern apprenticeship — to rationalize the criteria and underwrite the credentials. In 1928, the province of Ontario appeared to do precisely that, with the passage of its Apprenticeship Act. This act, legislated at a time when the province boasted forty-two industrial and technical schools with a full-time enrolment of about 20,000 students (plus an additional several thousand part-time students), broadened the range of available programme options and endeavoured to link technical and vocational courses more directly to specific trades and occupations in industry.⁹

Finally, the most revealing aspect of apprenticeship's incongruous legacy was spun through the ongoing dialectic between the cultural and utilitarian goals of technical education. In the romantic ideal of the traditional apprenticeship, culture and utility were integrated in a single institution, as inseparable and interdependent as the mind and the body. (Certainly the specific circumstances of any individual apprenticeship arrangement might have rendered this notion apocryphal. However, it remained very much alive in the

⁹Joseph Schull, *Ontario Since 1867* (Toronto: McClelland and Stewart, 1978), 273. In addition to the 42 industrial and technical schools, there were also as many as 61 night schools active with a total enrolment of about 30,000 adult trades people, mechanics, clerks, students and day labourers. 40 schools taught English to immigrant adults, and 6,000 physically and mentally impaired children were taught in special classes.
ideal of apprenticeship -- the very ideal whose passing was lamented throughout the late-nineteenth century.) The system served a dual function simultaneously: to train young wards in the arts and techniques of handicraft labour, and to initiate them into the traditions and rites of craft culture. With the passing of the traditional institution, the goals of culture and utility would increasingly be articulated separately, and often competitively. The idea of technical education, and the institutions that embraced it, were shaped by this dialectic.

Conceived originally as practical courses in "useful knowledge," technical education was provided ad hoc within an institution that espoused a decidedly cultural mission -- the mechanics' institute. Nurtured within mechanics' institutes, technical training gravitated towards the industrial arts and provided the impetus for the development of schools of art and design. All the while, the idea of integrating industrial and technical subjects into the mainstream of public education was roundly eschewed by those educators and administrators who feared that the introduction of 'practical' subjects might compromise the integrity of the core (cultural) curriculum. Yet this was no mere happenstance, since the core message from those who advanced the utilitarian view of technical education, such as S.P. May, was that it was intended primarily (and almost exclusively) to yield an economic benefit. In other words, the industrialization of the modern workplace, together with the commodification of waged labour, signalled the rise of a strict 'utilitarianization' of training. The Toronto Technical S. hool portended a movement from the 'craft model' to the 'industrial model' of technical instruction, for the
first time emphasizing science over art.

With the experimental introduction of manual training and domestic science in 1900, 'practical' subjects made their way into the public schools only when their cultural and educational aspects were emphasized, and even exaggerated. Yet, the introduction of these subjects paved the way for more advanced technical courses to follow. While local option and the relative autonomy of local boards of education still predominated, lobbies from business and labour joined with technical school boosters in the educational bureaucracy to urge a greater government involvement in the conception, design and monitoring of industrial and technical programmes. Concurrently, utilitarian advocates encouraged a view of technical schooling that emphasized its direct relation to the workplace, and encouraged a view of technical education that valued it not for its own sake but as an 'instrument' for achieving labour market success. In this sense, manual training and domestic science might be redeployed as preparatory courses for more advanced work; or, as James Robertson noted in 1916, the "cultural practical arts [would] become prevocational education."¹⁰ Robertson in fact defended the public expenditures called for in the Industrial Education Act along lines that presaged the human capital thesis: "While this kind of education will cost more, the cost is a national investment of the most advantageous kind. It is an investment in the people themselves."¹¹

Culture and utility survived in an uneasy accommodation under the best of

¹⁰Robertson, "Education for Occupations," 9 [my emphasis].

¹¹Ibid., 14.
circumstances and struggled in a 'winner-take-all' competition under the worst. Few protagonists of technical education appeared to share Albert Leake's vision of a theoretical reconciliation that would strike a sustainable balance between the two goals. Unquestionably, in the years after 1911, utilitarianism defined the official objectives of industrial and technical education, with cultural (or 'educational') goals normally confined to the preliminary stages and the general industrial schools. Utilitarianism legitimized the public investment in technical programmes, through a litmus test of practicality that was never applied to traditional public school and high school programmes. Utility drove the enterprise; culture followed. Yet if, metaphorically, culture were depicted as the 'mind' of technical education and utility the 'body,' then did it figure that the body should drive the mind? -- No more so than if the mind drove the body! Was it not more sensible for the two to act in concert -- each stimulating and informing the other? This was perhaps the most penetrating irony of apprenticeship's legacy -- the alienation of culture from utility.

As the motto of an early-twentieth century American manual training school intoned,

Hail to the skilful cunning hand
Hail to the cultured mind,
Striving for the world's command
Here let them be combined.\textsuperscript{12}

\textsuperscript{12}Cited by Albert Leake in AR, 1905, 300.
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