

news from CUASA

Special Edition

Editor: Jon Alexander

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IN DEFENCE OF THE HIGHER LEARNING IN CANADA

Jon Alexander

PART I

"Education is taken to be the deliberate, organized attempt to help people become intelligent."

Robert M. Hutchins, *The Learning Society*

This new series in defence of higher education comes to you from the Carleton University Academic Staff Association, a group of some 600 professors and professional librarians who have become so concerned about the underfunding crisis that we have decided to speak directly to you, the politicians and officials most concerned with higher education in Ontario. This special newsletter, then, has been sent to all members of the provincial legislature and to those officials whom we have identified in a preliminary way as most important to the making of higher educational public policy. As a group, we have never before chosen to speak to you directly in this way, but the urgency of the crisis and the rapidly deteriorating conditions under which university teaching is now being attempted in Ontario and at Carleton University do not permit our continued silence.

Our new series in defence of higher education owes a great debt to the late Robert Hutchins, who taught and expounded the true meaning of the higher learning in North America. It is he who taught us that the ultimate aim of education is understanding, that its goal is the development of human beings through the development of their minds, and that the proper measure of its achievement is not manpower but manhood and womanhood. It is he too who taught that between the system of higher education and the political system, an essential tension must endure. This is so because although the educational system is determined by the convictions of the community about what the community needs, every educational system contains some germ of true education and is therefore likely to have side effects unexpected by and unwelcome to its sponsors.

On the one hand, the system of higher learning accounts for almost forty percent of the nation's growth and productivity, and so a great social and political interest arises to control and channel this tremendous source of wealth along lines of utilitarian community interest. This is why no educational system can ever hope to free itself from the duty to remain accountable to its political paymasters. This, too, is why the more benighted among the public and the popular press have struck out blindly under economic pressure to attempt to force the system to rectify the nation's current economic ailments. We say the current attack upon higher education is blind because it attempts to force the educational system to provide goods it cannot deliver. Much of the blame for this unhappy situation rests with the current generation of practising academics. We have not taught the politicians what they reasonably may and may not expect in return for the society's very considerable investment in higher education. We have not rendered higher education sufficiently accountable. We have failed to make sufficiently clear why the system cannot deliver those goods that are instantly required to remedy the present global depression that has prompted the recent inward-looking disenchantment with the practice of higher learning in Canada.

On the other hand, due to this same depression, the nation's system of higher learning has not fulfilled its recent promise to provide the upward mobility upon which the political hopes for a democratic society ultimately depend. Let us recall that promise for the closing years of the twentieth century. Once a luxury of the upper class and a means for preparing the sons of the rich for their station in life, higher education has undergone a profound democratic revolution. Today education as upper class privilege appears profoundly antidemocratic. Today the right to education arises out of the democratic idea that everybody should have a chance to become intelligent. It arises too from a statistical connection between an individual's schooling, and his or her employability and income. The connection shows that college graduates earn on the average almost \$500,000 more in their lifetimes than those who stop at the eighth grade. This connection has a further simple logic: large numbers of prosperous citizens add up to a prosperous country. This understanding led over a very few decades to a sensational increase in the number of pupils of both sexes but especially of women, a new access to higher education that still is the greatest source of hope for eventual sexual equality. Eventually, this promise must be redeemed. There

is also a simple democratic political logic. That is, the concept of a right to work has led to a belief in a democratic right to schooling as the surest path to a useful and productive life that contributes substantially to the well-being of one's community and nation.

Up to the onset of the present depression it was therefore fashionable to call for more and more education. Anything that went by the name of education was a good thing just because it went by that name. During depressions the magic goes out of the name and so we who are practising academics and intellectuals must provide a spirited defence of the higher learning if we wish to preserve whatever we have to offer that is of value. Our people, as the last few years have shown, will strike out blindly under economic pressure; they will destroy the best and preserve the worst unless we make the distinction between the two somewhat clearer to them. It is to this task that this series is dedicated.

We begin with the one single cardinal fact on which all students of the higher learning are agreed: Canada in general and Ontario in particular are drastically shortchanging their systems of higher education. The only way to account for this fact other than by vague references to "hard times" is that education is now viewed less as an investment than as a consumer good. This cynical view cannot disguise the fact that we all have a responsibility for the ongoing viability of the social experiment that is Canada. At issue is not simply the prosperity of professors or even the future of the higher education enterprise itself. At issue is long range national prosperity. The economic future does not lie in offering nonrenewable natural resources or cheap labour to the increasingly restrictive world trading blocs. It lies in knowledge, which is every advanced economy's central and essential resource.

This is so because in the long run we cannot protect our national share of unskilled production; ultimately we cannot match sweat equity with 950 million Chinese. We cannot avoid the necessity of resting national prosperity on an ever increasing dependence upon scientific knowledge and freely developed new ideas -- if only to support our own increasingly aging population. Before World War II, the ration of workers to non-workers was 9 to 1. It is now 3 to 1. By 1990 it will be 2 to 1. Inescapably, the fact is that by 1990 two of us will have to produce what fifty years ago it took nine people to make or otherwise provide. Inescapably, Canadians' reliance on higher education -- already very considerable -- is about to become profound. The crucial factor will be the rate at which we develop and apply new technologies. This, in turn, is critically dependent upon our providing for an increasingly educated and -- which is to say the same thing -- an increasingly flexible and versatile work force.

In education you very much tend to get what you pay for. Underfunding has reached the point that even practising academics must now speak out to warn as clearly as possible that the second rate institutions now being created out of first rate institutions cannot carry us as a society into a viable future. So long as the political system treats education in Canada largely as a consumer good, so long as gross underfunding continues, we are all mortgaging our futures. We are treating our country as though we only rented it and could easily move out once the shell has sufficiently deteriorated.

Ultimately our people are our capital. If we had a far sighted human capital investment policy, long defences of the higher learning in Canada would be unnecessary; its value would speak loudly for itself. Such a policy would seek the intellectual development of Canadians as persons rather than simply as workers. We need to become a more intellectually versatile and adaptable people, not a nation of smart robots.

In the next issue of this series we shall attempt to explain the essential differences between efficiency and effectiveness in higher education, and why the universities must resist current political pressures for rationalization and vocationalism, all in the interest of preserving as much of the higher learning as presently survives the misguided attacks of recent years.

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Meanwhile, there is a particular crisis that concretely exists at Carleton University and that concretely demonstrates the effects of the underfunding crisis. In the national capital, the physical condition of Carleton's library is a national and provincial disgrace. A library is a university's mind and heart, and so the condition of our library is in many ways the condition of our collective enterprise. However excellent its faculty and student body, no university can in the long run be any better than its library permits. We have in the past suffered the decline of our library in virtual silence, but now deterioration has reached the point where we must insist that the province take urgent action to rectify the decline so that the other monies being spent for higher education are not now squandered for lack of this particular horseshoe. Here then is an objective report meant to highlight a particular crisis at Carleton University that is now seriously hampering efforts to do excellent research and to teach advanced research methods to the current generation of students. This report too must be understood as exemplifying the overall current costs of the underfunding crisis to Ontario and to the enterprise of higher learning as a whole.

This report on the library was first published as an internal report to the Carleton University community in the library newsletter, Advent.

THE CARLETON UNIVERSITY LIBRARY: SPACE AND PHYSICAL ENVIRONMENT

By Verna G. Wilmeth
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The MacOdrum Library building, consisting of the 1st and 2nd floors, was completed and occupied by the Library and the University Administration in 1959. The three upper floors were added in 1963. Only in the summer of 1970 did the entire 100,000 net assignable square feet (nasf) become Library space. In 1972, after two years of planning, the proposed Library Extension of 65,000 nasf was dropped when the Province curtailed capital funds. Since that date, the Library has received 550 nasf of compact book storage in the tunnel adjoining the building, and a new receiving and equipment and supplies storage area consisting of 540 nasf. In the summer of 1979 the Library's Cataloguing, Acquisitions, and Systems departments moved from MacOdrum into 8,830 nasf of space on the 1st and mezzanine levels of the St. Patrick's College building. This allowed expansion of stacks for the book and serial collections and replacement of student seats which had been removed to accommodate the growing collection. Disbanding the Divisional system and removing Library personnel from the 1st, 3rd and 4th levels to less space on level 2 allowed graduate studies to be returned to student use. Other minor moves and changes brought the seating count up to 1,200.

The Library's present space inventory stands at 114,695 nasf. This includes the Map Library, located in the Loeb Building, which contains the University's collection of sheet maps in cabinets, wall maps, and cartographic reference materials. The only possibility for expansion of this collection is by removal of student seats. Seating in this room is far below the minimum standard of 20 sq. ft. per place.

Since 1979, reassignment of space in MacOdrum, compression of the book collection, and reduction of the amount of space per seat have been the only means of coping with the growing collection, now at over 1,387,000 volume equivalents with an insured value of \$73,000,000. In December, 1981, the number of volumes housed per square foot of stack space was 26.79. The standard is 15 per square foot.¹

As for seating, our total available space seats only 15.49% of total full time equivalent students (1981-82 figures) as compared to Ontario standards of 25% of undergraduates and 40% of graduates to be seated at one time.² These 1200 places are the absolute minimum if the University plans to maintain the open stacks and study philosophy which it has today.

Carleton's 1982 entitlement of space by Provincial "Building Blocks Formula"³ is:

	Carleton Entitlement	Carleton Space	Percent of Entitlement	Present Net Entitlement
STACK	92,272	51,798	56%	
STUDY	52,982	30,550	57%	
SERVICE	36,313	32,347	89%	
TOTAL	181,567	114,695	63%	66,872 nasf

It is unfortunate for the library world that books manufactured after the mid-nineteenth century are subject to rapid deterioration from the interaction of the acid in their paper with atmospheric moisture. This produces paper-destroying sulfuric acid, a reaction which is accelerated by heat and fluctuating temperature and relative humidity. MacOdrum building was designed with the principles of temperature and relative humidity control within 69-77°F and 50-60% RH. Early in the use of the building it became apparent that there were serious problems in maintaining acceptable levels of both.

The building difficulties began with some serious design faults: 50% of the exterior walls were windows, and inferior construction of these windows, metal frames, and plastic panels between caused loss of heat and heat build-up. Condensation in cold weather and leaking during storms added to the problem on all levels. Vertical strip blinds were installed on windows to control direct sunlight. These, after destruction by students and cleaning staff, had to be removed, leaving the collection, especially in stack areas near the perimeter, vulnerable to ultraviolet rays. Unfiltered fluorescent light fixtures compounded the problem which causes rapid deterioration of the cellulose in paper.

The original air filtering system was not adequate to prevent a build-up of dust in the Library over the years. When the collection numbered less than 400,000 volumes it was financially possible to dust them each summer. When operating funds were reduced in the mid-70's the Library had to drop this program. The filtering system, although greatly improved by installation of electrostatic filters in 1969, is not adequate in terms of modern levels of pollution and standards of protection. There is no mechanism in the system for filtering atmospheric pollutants such as hydrogen sulfide, sulfur dioxide, or ozone. The latter is actually produced by electrostatic filters.

Throughout the years of building operation, the Physical Plant staff worked to maintain a suitable climate and to overcome some of the above-noted defects: the building was caulked and windows sealed, adjustments and refinements were made to controls and ducts, and new and replacement machinery installed. Significant improvements were made to humidity control and a relatively stable environment was achieved by 1975. At this point, energy conservation programs were instituted and the building was put on a "cycling" schedule. This meant that ventilating fans were stopped when the building was closed, providing no heating, cooling, or filtering until the building opened again. Further, no cooling or dehumidification was provided on week-ends when the building was closed in summer. Some consideration was given to extremes of temperature. In addition, direct outside air, regardless of its relative humidity, was used to cool the building when temperatures were suitable. This led to disastrously high levels of RH, far above the levels of tolerance recommended by library authorities and by the National Library of Canada.⁴ This practice continues today.

Through the building's history the problem of fluctuations in temperature and humidity has been acute. Stable periods when fluctuations are within the guidelines alternate with other periods when fluctuations are severe for no discernible reason. Variations in the building at the same time in different locations have been recorded as high as 20°F and 30% RH. In combinations with these "normal" fluctuations of temperature and relative humidity, regularly scheduled "cycling" is an additional impetus toward deterioration of valuable library materials.

At the present time Mechanical Maintenance personnel are installing a sophisticated computer-controlled sensing system to determine temperature and relative humidity throughout the building. However, the fact remains that the building's mechanical heating, ventilating, and air conditioning equipment is inadequate, inefficient, worn and outdated.

Nothing has been said of the climate for occupants of this building. Human beings seem to be comfortable at the temperature and RH levels recommended for books and micromaterials. Judging from the complaints of staff and users, the climate is as unsuitable for them as for library materials.

In short, the space and climate problems of the MacOdrum building have reached serious proportions. The Library has become a seriously over-crowded place for books, readers, and staff. Fifty-five staff, 1,200 study places, and 1,387,000 volumes are crammed into space designed for 600,000 volumes, 1,000 study seats, and 45 staff. The atmospheric controls are inadequate to maintain the desirable temperature of 68-77°F, and relative humidity of 50-60%, and extreme fluctuations occur in both throughout the year. Air filtering too is inadequate, and deterioration of the valuable collection is inevitable under these conditions.

What can be done? What are the University's alternatives?

1. Allow conditions to remain the same and continue to take out seats and add stacks to house materials purchased each year. (We will not yet face the alternative of purchasing NO new materials). This is an estimated 30,000 volume equivalents each year, on the premise that materials budget funding will remain at its present level. The end result will be a building packed with books and audio-visual materials, with places for fiche catalogues and on-line terminals for the Library data base, fiche readers, cassette and video play-back equipment, Reference area with limited seating, and a small reserve reading area. The stack floors would be closed for study purposes and study areas would have to be provided elsewhere in the University. The collection would continue to deteriorate physically.
2. Institute a change in policy which would enable the Library to pursue a "steady state" collection where equal numbers of volumes are removed each year as new ones are added. It would be labour-intensive to sort, discard, or sell volumes to maintain a useful and responsive collection for teaching and established research. The Library would rely heavily on interlibrary loan. The collection would continue to deteriorate physically, but more of the older material in poor condition could be discarded.
3. Build an addition to MacOdrum of 65,000 nasf, following the original design accepted by the University in 1972. This includes upgrading the present facility by building elevators serving both sections and by exterior treatment to reduce window area and improve efficiency of the ventilating and heating system. Install proper filters and humidity control for both buildings. Estimates for a project of this magnitude run over \$13,000,000, and an additional \$175,000 would be needed for yearly operating costs.
4. Procure off-campus storage space of 2,000 nasf now and another 3,000 by 1987. This space would require climate controls for proper temperature and humidity. Staff, transportation for regular retrieval, rental, maintenance, and utilities would be added to the library's budget. Improve existing heating and air conditioning; install a new exterior cladding on the building to keep out the rain and keep in the warmth.
5. Procure space on campus for a storage facility of 5,000 nasf, or 2,000 now and 3,000 by 1987. Any space, except the 1st floor of St. Pat's College building, would require extensive renovation to enable it to meet requirements for security and climate control. Improve existing heating and air conditioning; install new "skin" as above.
6. Build a compact storage area in the present building. This requires moving a number of existing operations. Money and plans for such a project are now being negotiated with the Province, but unless an expensive (\$150,000) compact shelving system could be installed, this space would provide shelving for less than two years acquisitions. No improvement of the building's climate is included in this project.

Perhaps the solution lies in a combination of several of these alternatives. The last is nearer to reality than the rest, but at best is a stop-gap measure further compacting the contents of the already bursting building, and doing nothing for the climate conditions. It is obvious that money is the key in all but the first and second alternatives, and the second is a labour-intensive solution which requires input from all academic departments on a continuing basis, and does nothing for the climate control. What is certain is that unless the Province and the University can agree on a program to improve the situation the collection will continue to deteriorate and eventually there will be no study space left in the Library.

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3. Ibid.
4. National Library, Committee on Conservation. Guidelines for Preventive Conservation. Ottawa, 1981, p. 4.