Journal of the Society for the Study of Architecture in Canada
Le Journal de la Société pour l'étude de l'architecture au Canada

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Volume 47, numéro 1, 2022

URI : https://id.erudit.org/iderudit/1095164ar
DOI : https://doi.org/10.7202/1095164ar

Aller au sommaire du numéro

Éditeur(s)

SSAC-SEAC

ISSN

1486-0872 (imprimé)
2563-8696 (numérique)

Découvrir la revue

Citer cet article

Ashby, J. (2022). Ron Thom in the Limestone City: Megastructure, Urban Renewal, and the Academy. *Journal of the Society for the Study of Architecture in Canada / Le Journal de la Société pour l'étude de l'architecture au Canada*, *47*(1), 19–42. https://doi.org/10.7202/1095164ar

RON THOM IN THE LIMESTONE CITY
Megastructure, Urban Renewal, and the Academy

> JAMES ASHBY[1]

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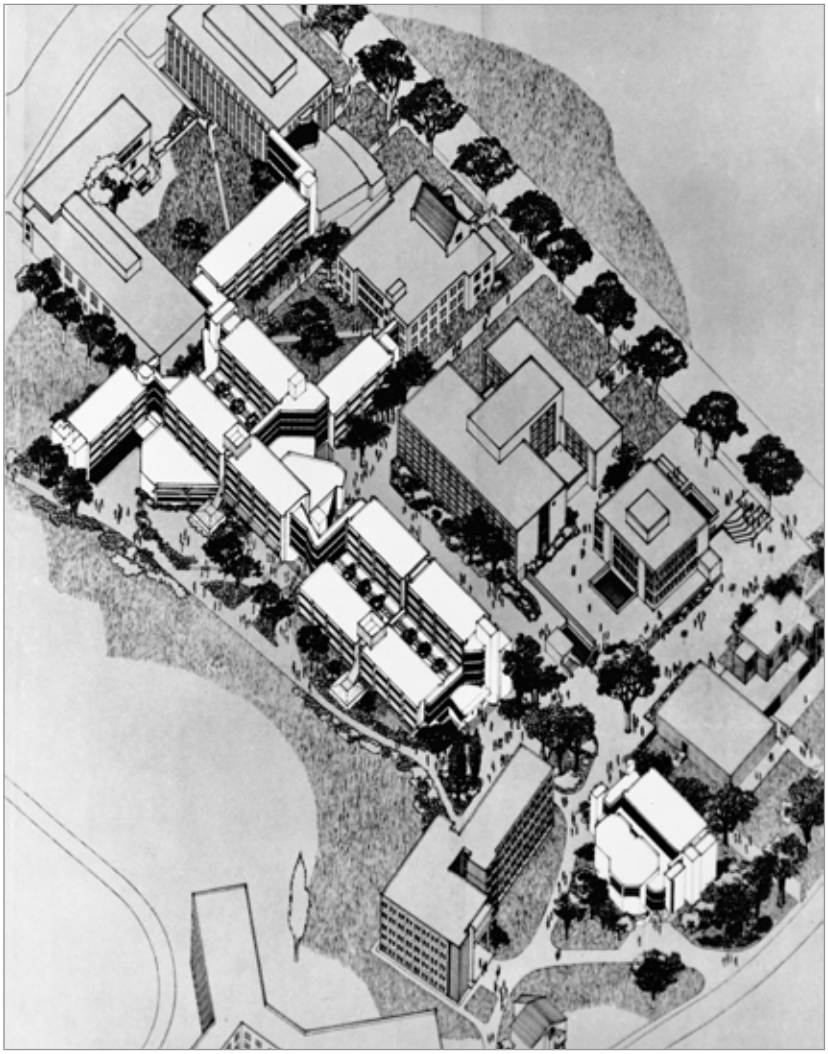

FIG. 1. AXONOMETRIC DRAWING OF PROPOSED ARTS AND SOCIAL SCIENCES COMPLEX (R.J. THOM & ASSOCIATES, *C.* 1970) SHOWING SITING AMONGST NEIGHBOURING BUILDINGS AT QUEEN'S UNIVERSITY, KINGSTON. | QUEEN'S UNIVERSITY ARCHIVES, V28-B-MACKIN-1, QUEEN'S PICTURE COLLECTION, BUILDINGS, MACKINTOSH-CORRY HALL.ASPX?ID=8773#I1], ACCESSED APRIL 5, 2021.

Initiated in the afterglow of Canada's Centennial commemorations, the Arts and Social Sciences Complex (R.J. Thom Architects, 1972-1974) at Queen's University in Kingston was at the confluence of diverse forces and ideas, as architects were questioning and redefining the Modern Movement.[2] As an act of the institution's renewal, the concrete complex inserted within the campus amongst Queen's limestone buildings is urban, modular, and extensible. Resonating with the megastructure movement of the 1960s and 1970s, the low-rise groundscraper plugged into existing departmental buildings and captured the interdisciplinary spirit of the Faculty of Arts and Science, as it expanded in the post-Centennial period (fig. 1).

Within the context of the ambitious renewal and expansion of Canada's institutions of higher education, universities were establishing, consolidating, or enlarging departments of the arts, humanities, and social sciences in the 1960s. This was, in part, in response to the interests of government and academics to better understand and respond to changes within Canadian society. Along with an overall surge in enrolment in higher education, the expansion was accelerated by public policy in Ontario that guaranteed university placement of all qualified students. In addition, the complex at Queen's is an example of the Ontario government's preference for enlarging and intensifying existing campuses to expand access to university education from the 1950s to the 1970s. Campuses were testing grounds for new ideas, and the legacy is a series of buildings of

considerable ambition, many of which engage with the built environment within existing campuses. Construction of the Arts and Social Sciences Complex was completed at the very end of almost three decades of educational mobilization, economic expansion, and urbanization, which transformed not only Canadian society, but also the so-called Limestone City and Queen's University.

Forward-looking interests in innovation were tempered by a growing appreciation of community, the public realm, and the qualities of the traditional city. In Kingston in the late 1960s, anxieties about high-rise development along with concerns for safeguarding the character and quality of existing buildings prompted a nascent heritage conservation movement. Concurrently at Queen's, one of the nation's oldest degree-granting institutions, there were related concerns about modernization. Principal John J. Deutsch [1911-1976] was critically assessing the impacts of postwar expansion on the university's highly valued intimacy and sense of community.

The Arts and Social Sciences Complex was designed by Ronald "Ron" J. Thom [1923-1986], having achieved accolades for two exceptional projects: Toronto's Massey College (1960-1963) and Peterborough's Trent University (1963-1971). He had also participated in Expo 67 in Montreal, which was the focus of the architectural avant-garde and the global media.[3] The 1969 commission in Kingston occurred as Thom embarked on a new, more independent phase of his career. The project at Queen's represents a step in the evolution of the work and practice of one of the most significant Canadian architects of the postwar era.

Conceived as a large, multiphase project accommodating lecture halls, laboratories, classrooms, offices, and social spaces, initially for ten departments or divisions, Thom's design for Queen's comprises a central spine and interconnected wings of up to four storeys. The scheme linked to several existing buildings: Sir John A. Macdonald Hall (Marani, Morris & Allan, 1960) to the north, and Dunning Hall (Marani *et al.*, 1960) and Richardson Hall (David Shennan, 1954) to the east. The entire ensemble formed several courtyards. Led by project architect Alastair Grant [1934--], the design is a rectilinear ensemble, executed in concrete, and organized around "the student street," a forum for engagement, socializing, and informal learning. The Arts and Social Sciences Complex is both a continuation and an evolution of the Modern Movement, contributing to the discourse on megastructure, Brutalism, indeterminacy, and engagement with the existing urban realm.

FIG. 2. SOUTHEAST ENTRANCE AT BLOCK C, MACKINTOSH-CORRY HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

Only the first phase was completed prior to widespread financial retrenchment. It comprises two buildings: the sprawling Mackintosh-Corry Hall, and the music building, Harrison-LeCaine Hall. Among many contemporaneous examples of educational infrastructure, the complex has remained overlooked and under-examined within discourses on the architecture and urban design of the late Modern Movement in Canada (fig. 2). This study offers a reading of the Arts and Social Sciences Complex as a representation of multiple forces and ideas that were shaping the built environment in the late 1960s and early 1970s, in Kingston and beyond. While not a masterpiece of the period, the project provides a window into a particular post-Centennial moment.

The context for the project is examined by addressing the evolution of both the city of Kingston and Queen's University until the post-Centennial period; the megastructure

movement during which a new generation of architects found opportunities particularly at new and existing campuses; the specificity of the approach to the expansion of higher education in Ontario; and the modernization of education in the arts, humanities, and social sciences. The Arts and Social Sciences Complex is specifically addressed with respect to Queen's University's stated objectives of quality of life and flexibility; Thom's design in the form of a collegiate megastructure; the complex as a work of Thom the architect and within the evolution of his larger practice; as well as the building within the context of rehabilitating the historic city. Finally, some observations are offered on the complex as its stands today.

BUILDING COLLEGIATE FOUNDATIONS AT KATAROKWI[4]

The Arts and Social Sciences Complex was under construction as Kingston was celebrating its colonial tercentenary, commemorating the establishment of a trading post and fort in 1673 on traditional Anishinaabe and Haudenosaunee territory, known as Katarokwi.[5] The strategic location of the settlement on Lake Ontario, at the junction of the Cataraqui and St. Lawrence rivers, not far from the United States border, shaped the city's military, political, economic, and institutional histories, and accordingly, the development of Queen's University.[6] The Arts and Social Sciences Complex is one of many incremental steps in the development of the campus and the institution, which contributed to the evolution of the city.

SCOTTISH AND LOYALIST ROOTS

The Church of Scotland established Queen's College as an educational institution in 1841. Kingston enjoyed power and prestige as the first capital of the United Province of Canada, when the city had a population of over 5,000.[7] A fire in 1840 destroyed much of the town centre and prompted reconstruction in local limestone and brick.[8] During the latter half of the nineteenth century, Kingston developed a reputation as the Limestone City, and the architecture of Queen's University reinforced that image. Victorian-era Kingston was generally a townscape with a silhouette of domes, spires, chimneys, and gables (fig. 3).

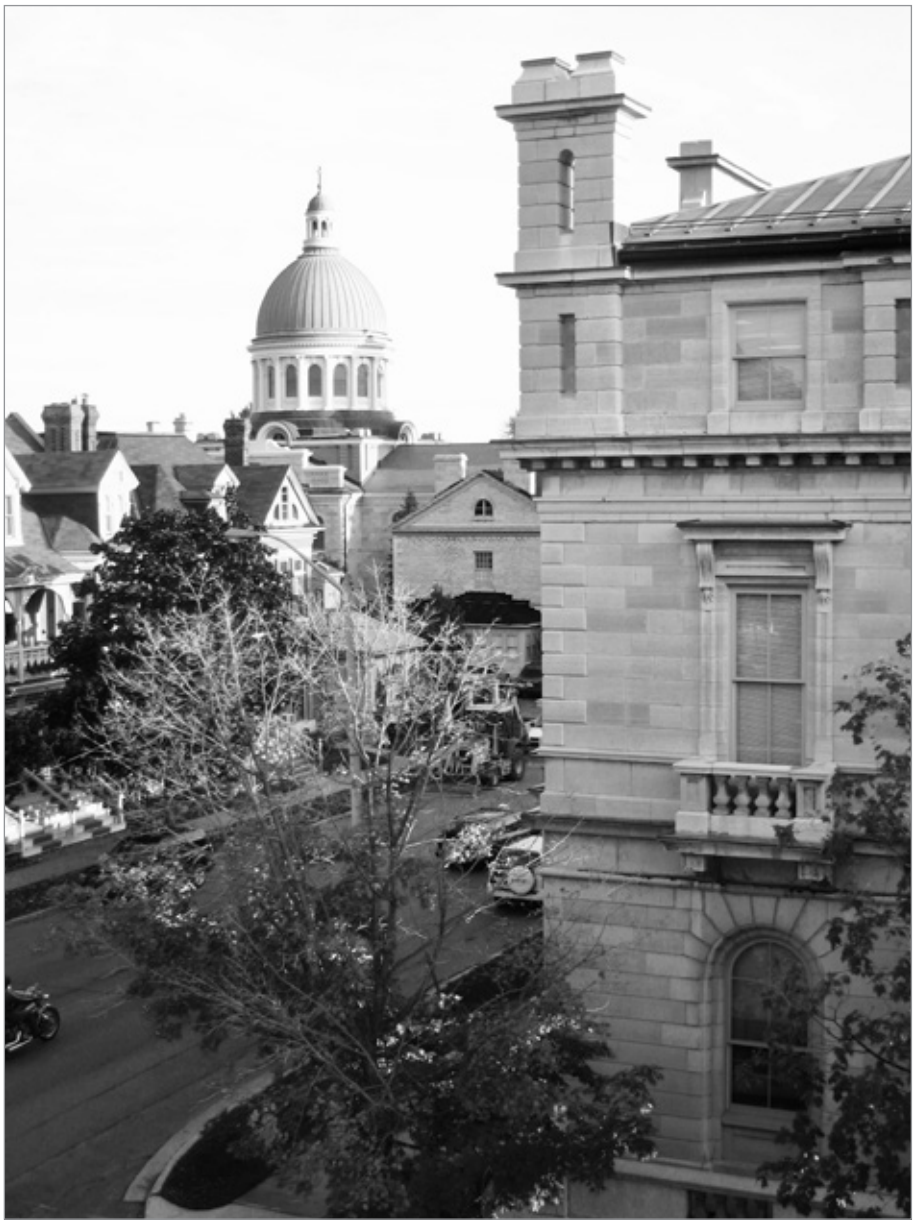

FIG. 3. VIEW NORTHWARD ALONG KING STREET EAST IN KINGSTON, CHARACTERIZED BY NINETEENTH-CENTURY BUILDINGS IN LIMESTONE AND BRICK. | JAMES ASHBY, 2007.

Queen's campus was located west of the town on land that had been settled by a loyalist leader.[9] The institution developed incrementally through the late nineteenth

FIG. 4. RICHARDSON HALL (DAVID SHENNAN, 1954) AT LEFT, AND DUNNING HALL (MARANI, MORRIS & ALLAN, 1960) AT RIGHT, UNIVERSITY AVENUE, QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

and early twentieth centuries. Its slow growth, due to limited financial resources, "resulted in a pattern of relatively modest, low buildings used by one or a few departments and set off with grass and trees."[10] The construction of Richardson Stadium in 1921 marked the beginning of the enlargement of the campus westward.[11] Architects of subsequent academic buildings embraced Collegiate Gothic but, within a few years, economic challenges slowed further growth through the challenging 1930s. Beginning in 1939, manufacturing plants for the war effort were constructed near the city's boundaries, and anticipated aspirations for urbanization and economic expansion in the postwar era.[12]

POSTWAR MATURITY AND DEFERENTIAL MODERNISM

Kingston extended its municipal boundaries in 1952, resulting in an increase of population to over 48,000 in just four years.[13] Suburban residential development reflected an expanding middle class.[14] Construction of the Kingston Bypass commenced in 1954, and it later connected communities across Ontario as Highway 401. In 1958, St. Lawrence Seaway opened and fundamentally transformed commercial navigation at Kingston.

The city benefited from a robust planning culture at that time, in part due to the participation of Queen's faculty members in various roles within municipal government.[15] The growing scale and complexity of the transformation of the city and its surroundings prompted the City of Kingston to initiate a comprehensive planning study in 1958.[16] Leading the initiative was Gordon Stephenson [1908-1997] who had completed his design education at Paris and worked for Le Corbusier [1887-1965].[17]

On campus, administrators anticipating postwar growth hired pioneering landscape architect Frederick Todd [1876-1948] to develop the campus master plan of 1945. There were approximately 2,000 students registered at that time.[18] However, the greatest impact on Queen's development during the early postwar period came with the appointment of William A. Mackintosh [1895-1970] as principal in 1951. His decade of tenure earned him the title of "the building principal" because of the extraordinary growth under his leadership.[19]

A further attempt at improvement occurred with the hiring of celebrated landscape architect and town planner Gordon Culham [1891-1979], who authored the 1955 campus master plan. Culham's focus was the pedestrian network and internal courtyards, as well as the integration of parking.[20] In spite of the series of master plans in the postwar era, one might conclude that campus development was opportunistic rather than strategic. The university commissioned approximately ten buildings from the end of the war up to 1960, and there was an evolution from Collegiate Gothic toward the Modern Movement. The campus architecture of the 1950s was generally respectful of Queen's existing buildings, and consistently finished in Queenston limestone[21] (fig. 4). All of the houses on the block west of the original campus, with the exception of two of historic interest, were demolished by 1960 for future expansion.[22]

DIVERGING DIRECTIONS IN THE 1960S

Co-authored by George Muirhead [1916-2018], *A Planning Study of Kingston, Ontario* of 1960 was more sophisticated than many previous Canadian urban renewal studies.[23] While most such studies recommended demolition of ageing neighbourhoods, Stephenson and Muirhead's work was pioneering "in its detailed consideration of the history of the city and proposals for what we now know as heritage conservation."[24]

Through the 1960s, economic expansion continued to transform Kingston. A regional shopping centre was constructed and, as part of the provincial government's investments in technical training, St. Lawrence College opened in 1967. A high-rise hotel was completed that same year, establishing a model for the city's waterfront redevelopment as envisioned in the 1960 plan.

At Queen's, James A. Corry [1899-1985] was appointed as the thirteenth principal in 1961. Concurrent with a Canada-wide surge in university enrolment and attendance, Corry oversaw even greater growth and expansion at Queen's than had Mackintosh. More than ten buildings were constructed, renovated, or enlarged to accommodate an increase in enrollment by 80 percent.[25] The administration commissioned the campus master plan of 1961 by Barott, Marshall, Merrett & Barott (BMMB). The architects described the campus as "an informal hodge-podge of buildings of various sizes, heights, shapes, and masses forming a variety of irregular intervening spaces."[26] In response to the rise of the automobile, the BMMB plan proposed an inward facing campus, with parking at the periphery.[27]

There was further evolution toward more overt expressions of the Modern Movement on campus. For the most part, architects continued to conceive buildings as independent pavilions in a verdant landscape, however, there was greater expression in their forms. There was also a deliberate move away from limestone and toward exposed concrete.[28] Building in stone became increasingly untenable due, in part, to the time and expense associated with traditional masonry, along with the lack of skilled craftspersons.[29] Concurrently, on North American campuses and beyond, "Concrete buildings became the signals of institutional advancement. Concrete became not just an acceptable material for the traditional forms of institutional architecture but an emblem of its age."[30]

FIG. 5. JEFFERY HALL (MARSHALL & MERRETT; STAHL, ELLIOT & MILL, 1969), UNIVERSITY AVENUE, QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

CENTENNIAL REASSESSMENT

Almost 300 kilometres east of Kingston, themes of modernity, modernism, and the Modern Movement were explored at Expo 67, the international exposition in Montreal. Similarly, many of the projects of the Centennial building programs across Canada focused on the future.[31] However, in Kingston, the city's Centennial project took the form of both urban renewal and celebration of the city's past. The official project for 1967 was Confederation Park, a public green space at the waterfront on the disused railway yard opposite City Hall (George Browne, 1844). It comprised the restoration of the former station for Kingston and Pembroke Railway (1885) and the construction of a fountain and gardens. With its concrete arch, reflecting pool, and sequences of water jets, the fountain symbolized themes of national unity through modern abstraction.[32]

On campus, Jeffery Hall (Marshall & Merrett; Stahl, Elliot & Mill, 1969) was designed as an unapologetically modern building in exposed concrete, echoing the late work of Le Corbusier (fig. 5). That said, the building respected the setback from University Avenue established by earlier buildings, and its three-storey height was compatible with the setting. Furthermore, its scale, proportions, solidity, and deeply set windows resonated with those qualities of the historic buildings nearby.

During the twilight of Corry's principalship, *Queen's University Planning Study* was completed.[33] In reaction to what had occurred on campus previously, the study's authors articulated a new direction. They recommended that buildings be planned on a departmental basis

and conceived as part of an overall plan rather than in isolation. With respect to the future architecture of the campus, the report concluded that buildings should be moderate in height and designed for compatibility.

Within both the campus and the city, there was a growing appreciation of the character of existing buildings and districts, and the quality of the public realm. In 1968, John Deutsch was appointed Queen's fourteenth principal and emerging concerns for retaining a sense of intimacy and community on campus would shape his principalship. The following year, the Board of Trustees recommended that Ron Thom be appointed as the architect for an Arts and Social Sciences Complex.[34]

ENGAGING THE URBAN REALM, FOSTERING COMMUNITY, AND PLANNING FOR CHANGE

In the early 1960s, Thom's Massey College at the University of Toronto ignited controversy within architectural circles. While there was appreciation for the craftsmanship and picturesque qualities of the building, architect Brigitte Shim's research revealed "bewilderment over its unique and therefore unclassifiable appearance"[35] (fig. 6). The decade of the 1960s bore witness to new approaches to architecture and urbanism in an era characterized by multiple visions and competing ideologies.[36] While Thom had not been an adherent of functional modernism, just several years after the completion of Massey College, his peers were increasingly questioning the orthodoxies of the Modern Movement to which many had adhered. In the post-Centennial period, "architectural discourse and practice in Canada . . . paralleled widespread debate about how to correct 'heroic' modernism's shortcomings," according to Rhodri Windsor Liscombe and Michelangelo Sabatino, "without necessarily undermining its founding principles."[37]

Globally, one of the themes to emerge in the 1960s was megastructure. Arising from what has been described as an "international crisis of urbanism and architecture in the late fifties and through the sixties,"[38] there was a growing awareness of the limits of the planet's resources, a renewed interest in intense urbanization, and a reaction against Modern Movement planning that had delineated separate zones for different activities.[39] The city was no longer thought to consist of individual buildings, and the term "megastructure" emerged in order to characterize a modular, extensible, prototypical city structure.[40]

In his seminal book *Megastructure: Urban Futures of the Recent Past*, architectural historian Reyner Banham [1922-1988] codified the genre and identified nine Canadian buildings of the 1960s and 1970s as exemplars within his global survey.[41] Almost three decades later, architect Phyllis Lambert [1927--] reaffirmed the significance of 1960s megastructures in Canadian architecture and traced the history of megabuilding, citing examples *avant la lettre* such as l'Université de Montréal (Ernest Cormier, 1928-1943).[42] As recently as 2019 in *Canadian Modern Architecture*, architect George Baird [1939--] examined twelve key megastructures from the 1960s to 1980, and delineated the relation of the later examples with High-Tech.[43] While a broader survey of the built legacy of the megastructure movement in Canada is lacking, there are no less than seventeen examples of campus planning and academic architecture

FIG. 6. MASSEY COLLEGE (R.J. THOM FOR THOMPSON, BERWICK & PRATT, 1963), UNIVERSITY OF TORONTO. | JAMES ASHBY, 2019.

TABLE 1: Megastructure and Higher Education in Ontario University and college buildings associated with the megastructure movement of the 1960s and 1970s
Housing Complex B (today South Residences), University of Guelph. Guelph; John Andrews, 1966-1968.
Centennial Building (today William Tamblyn Centennial Building), Lakehead University. Thunder Bay; Fairfield & Dubois, 1967-1969.
Scarborough College (today Andrews Building, University of Toronto Scarborough). Toronto; John Andrews with Page & Steele, 1963-1969.
Ross Social Sciences and Humanities Building, York University. Toronto; UPACE Ltd., 1968-1970.
D.B. Weldon Library, University of Western Ontario. London; Murphy, Schuller, Green and Martin, and John Andrews Architect, 1968-1972.
McMaster Health Sciences Centre, McMaster University. Hamilton; Craig, Zeidler and Strong, 1968-1972.
South Building, Erindale College (today William G. Davis Building, University of Toronto Mississauga). Mississauga; Raymond Moriyama with A.D. Margison & Associates Ltd., 1970-1973.
Arts and Social Sciences Complex (today Mackintosh-Corry Hall), Queen's University. Kingston; R.J. Thom Architects, 1972-1974.
Jorgenson Hall, Podium, and Library, Ryerson University. Toronto; Webb Zerafa Menkes Housden, 1971-1974

associated with the movement, nine of which are in Ontario (table 1).

Banham argued that megastructure was one of the main architectural themes of Expo 67.[44] Decades later, Inderbir Singh Riar reaffirmed the significance of megastructure at Expo 67 while identifying evidence of contradictions within the movement.[45] That being said, in the effervescence of 1967, international accolades emboldened efforts within Canada for conceiving large-scale complexes, and "boosted the confidence of Ron Thom's generation of architects."[46]

Concurrent with Expo 67, the Centennial building programs produced a series of cultural infrastructure projects across Canada, many of which are characterized by Brutalism. "As the country emerged from its colonial past to forge a new identity as the culturally progressive, democratically transparent and independent nation," Colin Ripley and Marco Polo opined, "it represented itself with the anti-historical, anti-hierarchic informality of Brutalist architecture."[47] The architects of the official projects of the Centennial programs embraced both concrete and Brutalism.[48] With buildings such as the National Arts Centre (Affleck, Desbarats, Dimakopoulos, Lebensold, Sise, 1969) in Ottawa, Brutalism was strongly associated with Canadian architecture's modern identity.[49]

Architectural discourse engaged both megastructure and Brutalism during the late 1960s and early 1970s, particularly with respect to campuses, which were a testing ground for new concepts of communication and human interaction.[50] This aligned with a shift in approach to pedagogy, specifically a focus on interdisciplinary education; that is, breaking down barriers between faculties, as well as those between students and professors. The best of campus architecture of the era opposed the fragmentation of knowledge into circumscribed disciplines and the autonomy of isolated departmental buildings.[51] Academic megastructures, in particular three author-architect schemes, brought a university community within a single concrete complex: Burnaby's Simon Fraser University (Erickson / Massey, 1965); University of Toronto's Scarborough College (John Andrews with Page & Steele, 1969); and University of Lethbridge (Erickson / Massey, 1971).[52] These are amongst the best international examples that include the University of East Anglia (Denys Lasdun, 1964-1968).[53] With respect to the concrete and Brutalist architecture of the 1960s on Canadian campuses, author Barnabas Calder described it as "architecture of international calibre in its rigour, its expressiveness, its self-confidence, and its diversity."[54] While Thom's Trent University is not specifically associated with the *béton brut* [raw concrete] pioneered by Le Corbusier, the rugged, rubble stone, concrete walls resonate with the experimental work of the period, which is now broadly characterized as Brutalism in Canada.

In parallel, interests in the vibrancy of the historic city and its potential to inform the design of future communities emerged in global architectural discourse. According to Philip Goad, when the CIAM [International Congresses of Modern Architecture / Congrès internationaux d'architecture moderne] was usurped by Team 10 in 1959, a young generation of radical thinkers brought forward interests in community, the street, and human scale.[55] In Canada in the 1960s, the qualities and characteristics of the traditional or historic city were relatively new areas of focus. This interest had developed in part as a reaction to the impact of the earlier Modern Movement and demolition of many existing buildings.[56] The streets of the traditional city with their open-ended social order became a model for a new type of academic environment: "By the 1970s, interior streets were revolutionizing Canadian campuses. Beyond responding to the cold climate, interior streets democratized university corridors, accommodating the informal lifestyle of a new generation of youths."[57]

FIG. 7. VIEW OF ARTS AND SOCIAL SCIENCES COMPLEX (R.J. THOM ARCHITECTS, 1972-1974, TODAY MCINTOSH-CORRY HALL) LOOKING EAST, QUEEN'S UNIVERSITY, KINGSTON. | UNKNOWN PHOTOGRAPHER, *C.* 1974, QUEEN'S UNIVERSITY ARCHIVES, V28-B-MACKIN-4, QUEEN'S PICTURE COLLECTION, BUILDINGS, MACKINTOSH-CORRY HALL.

Architects designed spaces for social interaction, using circulation to promote communication: "Such open and interstitial spaces served as informed forums for interdisciplinary discourse, serendipitous encounter, unscripted speculation, political activism, and edifying play."[58] Notable Canadian examples of megastructures with interior streets include the Housing Union Building (Diamond and Myers; R.L. Wilkin, 1971) at the University of Alberta in Edmonton, Mount Royal College (Stevenson, Raines, Barrett, Hutton, Seton and Partners, 1972) in Calgary, and Scarborough College.

In addition, reflecting anxieties about an uncertain future, architects were preoccupied with indeterminacy; that is, designing buildings that would easily accommodate change.[59] Architects took a variety of innovative approaches in the 1960s and 1970s, many of which were manifest in megastructures. Flexibility was anticipated by employing a design comprised of an infrastructure to be disassembled and reassembled as needs evolved, as at McMaster Health Sciences Centre (Craig, Zeidler and Strong, 1972).[60] Alternately, flexibility was accommodated by providing large expanses of unobstructed, column-free space, as at University of Winnipeg's Centennial Hall (Moody, Moore, Duncan, Rattray, Peters, Searle and Christie, 1970-1972).[61] Adaptability was sought by planning for "plugging-in" purpose-built facilities to an organizing spine, as at Simon Fraser University. Extensibility was accommodated by designing a linear building to facilitate future additions at either end, as at Scarborough College.

The megastructure movement, in all its richness and with inherent tensions and contradictions, was described by Baird as "one of the most remarkable episodes . . . in the history of architecture in Canada."[62] If megastructure may be bluntly defined as a city within a single building, and an academic megastructure as an institution within a single building, then Thom's megastructure for Queen's was an attempt to accommodate an entire faculty of ten departments within an interconnected building (fig. 7).

MOBILIZING EDUCATION AND EXPANDING ONTARIO CAMPUSES[63]

The design of the Arts and Social Sciences Complex occurred at the end of a phenomenal period of postwar expansion of higher education during which enrolment in Canada increased faster than in any other industrialized nation.[64] Prior to that, Queen's was among just five degree-conferring universities in Ontario, along with Toronto, McMaster, Ottawa, and Western. The need to accommodate rapid expansion of enrolment was identified by statistician Edward F. Sheffield [1912-??] in 1955. He surprised administrators and bureaucrats with his estimate that enrolment in Ontario universities would more than double from 1960 to 1965.[65] In the early 1960s, with Ontario as the nation's most populous province and its economic engine, the goal of mass, universal, post-secondary education became public policy.[66] An enormous mobilization effort ensued and, by 1973, there were ten additional, provincially assisted universities.[67] The number of full-time university students had multiplied fourfold within three decades.[68]

Prior to the 1960s, despite the Ontario government's responsibility for higher education, support to universities was generally arranged informally.[69] Given the absence of a management framework for university–government relations in the early 1960s, educators established the Committee of Presidents of Provincially Assisted Universities of Ontario. The committee commissioned research and, beginning with *Post-secondary Education in Ontario, 1962-1970*,[70] its series of authoritative publications influenced the

administration of higher education. The inaugural report, known informally as *The Deutsch Report*, was authored by economist John Deutsch, who later became Queen's principal overseeing the Arts and Social Sciences Complex.

Initially it was John G. Althouse [1899-1956], Chief Director of Education in Ontario, who established the path for growth of the province's university education system with his preference to expand and adapt existing institutions. That is, established universities would expand, while some colleges and technical institutes would be transformed into universities. However, it was under the leadership of William G. "Bill" Davis [1929-2021] that education in Ontario was radically transformed.[71] Among his wide-ranging accomplishments, the government adopted a three-pronged approach for the growth of university education: the expansion of the existing universities (five institutions); the transformation of existing colleges into new universities (eight institutions); and the creation of two entirely new universities (Brock and Trent), by 1973.[72]

The biggest threat to the autonomy of Queen's and the other institutions came from the *Report of the Spinks Commission to Study the Development of Graduate Programmes in Ontario Universities* in 1966. Its author, John Spinks [1908-1997], proposed a single "Provincial University of Ontario," modelled after the University of California.[73] The proposal was decisively rejected, confirming that the provincial government would avoid direct political or administrative control over its institutions of higher education.[74]

Having survived a series of challenges, by the early 1970s the Ontario universities eventually achieved collective autonomy.[75] Queen's was within a group of universities at arm's length from government control. Corry and Deutsch, described as shrewd and prescient strategists, successfully navigated the institution through this period of flux "allowing Queen's to guard its distinctiveness as a national university with a reputation for quality teaching . . . "[76]

By 1972, there was a funding system that achieved public accountability while preserving institutional autonomy. However, the following decade was characterized by under-funding and retrenchment.[77] Thom's project was completed at the twilight of a period during which Queen's and the other Ontario universities had enjoyed considerable autonomy, and their growth had provided extraordinary opportunities for architects to engage with existing built environments in the expansion and intensification of campuses across the province.[78]

FRAMING THE ARTS AND SOCIAL SCIENCES

In 1967, Queen's administration first expressed interest in planning a new facility for its humanities and social sciences departments. In the 1960s, the growth of the social sciences along with their increasingly interdisciplinary nature were reflected in new programs and degrees offered. Queen's Faculty of Arts and Science grouped together the subjects of geography, sociology, political studies, economics, public administration, law, business, local government, and intergovernmental relations, along with music, for a proposed Arts and Social Sciences Complex.[79]

The need to support the arts and social sciences in Canada was identified in 1951 by the Royal Commission on National Development in the Arts, Letters, and Sciences. The publication of the influential *Massey Report* led to the establishment of the Canada Council for the Encouragement of the Arts, Letters, Humanities, and Social Sciences, six years later. Expansion of research and education in the social sciences in the postwar era responded to the interests of the government and academic communities to identify, understand, and resolve the problems associated with the increasing size and complexity of Canada and its institutions.[80]

Progressive, social-democratic values were crystallized in the 1968 declaration by Pierre Elliott Trudeau [1919-2000], then Minister of Justice, of *The Just Society*.[81] His aspirational message, grounded in the principles of humanity and compassion, addressed minority rights (in particular those of indigenous peoples), income disparity, equality of opportunity, urban problems, pollution, and unity. While Canada had experienced unprecedented population growth, economic expansion, and urbanization in the postwar period, these forces had, in some cases, exacerbated inequity. Of all the academic disciplines, the social sciences are arguably the most emblematic of the immediate post-Centennial period, due to the focus on changes, either intended or unintended, which were preoccupying Canadian society.

During the 1960s, both existing and new universities in Canada created departments of social sciences. The domain was sufficiently mature that, in some cases, social sciences achieved full faculty status, as at Ottawa and McMaster. In addition to employment opportunities within the federal and provincial governments, there was a growing demand for the teaching of social science subjects in community colleges and high schools.[82]

At Queen's, the Faculty of Arts and Science experienced unparalleled expansion in the 1960s, more than doubling the number of full-time students from 1961 to 1968.[83] During that same period, the faculty added new departments

FIG. 8. AERIAL VIEW OF BUCHANAN BUILDING (THOMPSON, BERWICK & PRATT, 1956-1960), UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER. | UNKNOWN PHOTOGRAPHER, 1960, "AERIAL VIEW OF BUCHANAN BUILDING," UNIVERSITY OF BRITISH COLUMBIA ARCHIVES PHOTOGRAPH COLLECTION.

FIG. 9. GROUND FLOOR CORRIDOR WITH COURT BEYOND, ARTS BUILDING (TODAY MACKINNON BUILDING) (SERT JACKSON AND ASSOCIATES INC. WITH HANCOCK LITTLE CALVERT ASSOCIATES, 1967), UNIVERSITY OF GUELPH, GUELPH. | JAMES ASHBY, 2012.

and expanded course offerings in the subjects of geography, computing, sociology, film, economics, politics, and music.[84] In the fall of 1969, Dean George A. Harrower struck a committee that held open meetings on the state of the curriculum leading to the *Harrower Report* as a blueprint for change.[85]

For the arts and social sciences, the wide range of subjects and activities demanded a variety of different spaces for teaching, learning, and research: lecture theatres, classrooms, reading rooms, seminar rooms, computer rooms, laboratories, lounges, offices, and support spaces. Understandably, there was a range of approaches to designing such buildings in the 1950s and 1960s. While no dominant typology emerged, architects were giving shape to an emerging academic discipline, itself in a state of flux, and they consistently embraced the language of the Modern Movement.

An important precedent for the Queen's complex is the Buchanan Building (Roy Jessiman for Thompson, Berwick & Pratt, 1956-1960) for the arts and humanities at the University of British Columbia in Vancouver. The design was influenced by Mies van der Rohe's Illinois Institute of Technology (1938-1958) in Chicago. The Buchanan Building comprised five rectilinear blocks of up to four floors, arranged in an "S" configuration.[86] The complex of 17,700 square metres was constructed in stages, and eventually framed two landscaped courts[87] (fig. 8). The design, with its geometric rigour, precision, and clarity, reflected the Modern Movement while it echoed the tradition of the collegiate quadrangle. Thom was working within the firm, in various capacities, during that period.

Parallel efforts to frame the arts, humanities, and social sciences in the 1960s represent a range of approaches in Ontario. At the University of Guelph, architects translated the collegiate modernism of Boston and Cambridge in the design of the Arts Building (Sert Jackson and Associates Inc. with Hancock Little Calvert Associates, 1967; known today as the MacKinnon Building)[88] (fig. 9). Echoing the collegiate quadrangle, this innovative example of an arts building is comprised of three wings of almost 20,000 square metres, framing an open green space. The glass-enclosed arcade, the carefully articulated, gridded elevations with *brise-soleil*, and the robust concrete facades established a modern, urban, collegiate character for the campus. With respect to contemporaneous examples in Ontario, each had a considerable, if not monumental, presence due to scale, height, and form, and all were executed in concrete: Sidney Smith Hall (John B. Parkin Associates, 1961), University of Toronto; Ross Social Sciences and Humanities Building (UPACE Ltd., 1968-1970), York University; and Social Science Centre (Murphy, Schuller, Green and Martin, 1973), University of Western Ontario. While each of these buildings has an individual expression, today these campus projects are associated with Brutalism.

In 1967, Queen's administration commissioned Marshall & Merrett and Stahl,

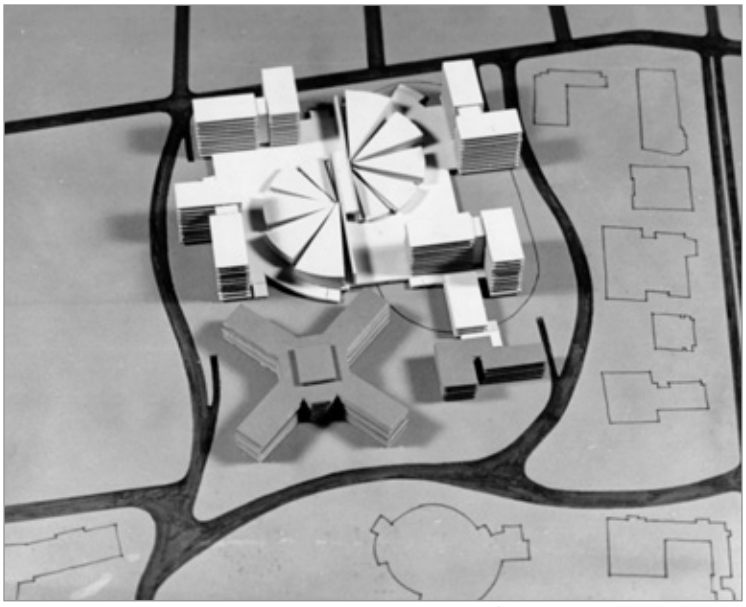

FIG. 10. AN ARCHITECTURAL MODEL OF PROPOSED ARTS COMPLEX (MARSHALL & MERRETT; STAHL, ELLIOTT & MILL, 1968), ON THE SITE OF THE FORMER RICHARDSON STADIUM, QUEEN'S UNIVERSITY, KINGSTON. | UNKNOWN PHOTOGRAPHER, QUEEN'S UNIVERSITY ARCHIVES, 3711-3-9, 1 OF 2, QUEEN'S UNIVERSITY: OFFICE OF CAMPUS PLANNING AND DEVELOPMENT, 2. ARTS / SOCIAL SCIENCE COMPLEX, 1971-1973.

FIG. 11. CAMPUS PLAN OF QUEEN'S UNIVERSITY ILLUSTRATING THE CLUSTERING OF FACULTIES AND DEPARTMENTS, AS WELL AS PROPOSED EXPANSION INTO THE SURROUNDING CITY FABRIC OF KINGSTON, 1970. | QUEEN'S UNIVERSITY ARCHIVES, 3711-1-8, QUEEN'S UNIVERSITY: OFFICE OF CAMPUS PLANNING AND DEVELOPMENT FONDS, 1960-1980, CAMPUS PLANNING AT QUEEN'S, 1961-1980, SEPTEMBER 1970.

Elliot & Mill to prepare a design for an arts complex on the site of the former stadium. The scheme comprised no less than eight ten-storey towers arranged in a pinwheel formation on a shared podium (fig. 10). The architects envisioned a complex of over 22,000 square metres with parking for 400 cars.[89] However, the consensus on the so-called Marshall Plan was that it was too inhumane in scale.[90]

The redefinition of Queen's Faculty of Arts and Science in 1969 occurred as Ron Thom initiated his design for a new building. The interdisciplinary nature of social sciences reflected in the administrative structure of the faculty would challenge the architects in delivering a design; that is, working with representatives from eighteen divisions participating in ten committees.[91] The project would not be the result of the singular vision of an artist-architect working in concert with a visionary patron as at Massey College, but rather the product of many voices participating in robust committee discussions at multiple levels, resulting in incremental decisions based on consensus or compromise.

CONCEIVING A COMPLEX FOR QUALITY OF LIFE AND FLEXIBILITY

Deutsch's installation as principal in 1968 was marked by a symposium, "The University and the Ethics of Change," at which he expressed a vision for Queen's that was grounded in the experience of place: "Queen's has an almost unique opportunity to develop a kind of total university environment. Few of its students live at home. More than most universities, it can consider the educational experience as, potentially at least, a total immersion in the academic environment."[92]

In spite of initial reluctance to expand Queen's in the postwar era, the university had grown at almost the same rate as the overall provincial system.[93] One of Deutsch's priorities was to protect the traditional intimacy and sense of community that Queen's offered, in the face of continued expansion pressure. Reflecting Deutsch's interests in greater control over planning, he established an Office of Academic Planning and appointed Professor Graham Andrews as campus planner in 1968.[94] That same year, Deutsch created a committee on campus planning.[95] He clearly understood the significance of the physical environment in shaping both individual experience and academic community: "If we are correct in assuming that a high-quality educational experience is based on the student's immersion in a total environment, then no part of the university is without academic significance."[96]

The clustering of related departments became increasingly codified in Queen's planning, and the departments of arts and science were consolidated west of University Avenue encompassing several existing buildings (fig. 11). After the

rejection of the multitower proposal, and with new leadership at a number of levels, the project for the arts and social sciences took a different direction. Within the architect's brief, two priorities were identified: quality of life and flexibility.[97]

With respect to quality of life for both students and staff, the brief sketched a vision of a pedestrian-friendly, social place with attractive spaces inside and out, compatible with the scale of the existing campus.[98] Aside from a small, separate building for the music department due to the specificity of its program, departments were to be accommodated within a single building.

The design was to be modular, with larger, shared spaces such as lecture rooms on the lower levels, and smaller, more individual spaces above. Common facilities, such as a reading room and a coffee lounge, were to be located centrally, in order to contribute to the sense of an academic community. To ensure flexibility, space was to be allocated based on needs, as determined by the university administration. Rooms could be reassigned to allow for expansion and contraction of the various departments with the Faculty. The co-location of departments was intended to foster interdisciplinary studies. In addition, newer academic units would benefit from adjacency to more mature ones.

Eight architectural firms were interviewed and R.J. Thom Architects was offered the commission in the spring of 1969.[99] Ronald Watts [1929-2015] became dean that same year and he appointed C.E.S. "Ned" Franks [1936-2018] to the building committee. Franks worked closely with architects Thom and Grant.[100]

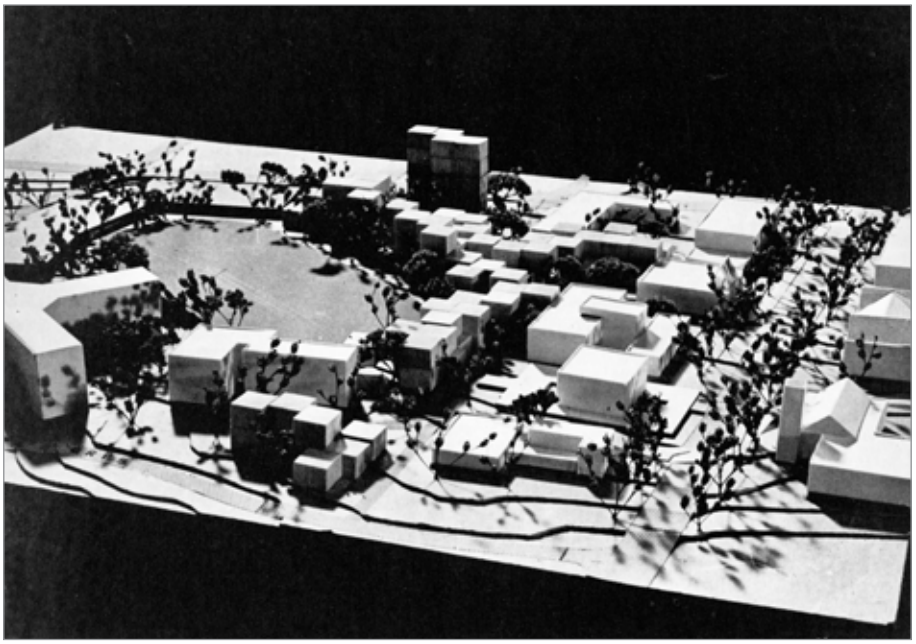

FIG. 12. MODEL OF PROPOSED ARTS AND SOCIAL SCIENCES COMPLEX (R.J. THOM ARCHITECTS, *C.* 1970), QUEEN'S UNIVERSITY, KINGSTON. | UNKNOWN PHOTOGRAPHER, QUEEN'S UNIVERSITY ARCHIVES, 3711-3-2, QUEEN'S UNIVERSITY OFFICE OF CAMPUS PLANNING DEVELOPMENT, COMMITTEE ON CAMPUS PLANNING, AUGUST 1971, BOOK 2.

Thom presented two initial concepts for the Arts and Social Sciences Complex in early 1970. The proposed complex was located on the former site of Lower Alfred Street, immediately to the west of existing buildings. One scheme was based on an assemblage of identical blocks and the other comprised of cubes. The preferred scheme consisted of linear blocks of several storeys joined together along a north–south axis. Wings extended at right angles and formed courtyards with existing buildings. With the exception of the southernmost element, that is, the music department, the blocks were contiguous. As presented, the complex could be expanded in several different directions. It was low rise, modular, dense, urban, and extensible. The ensemble framed a sports field to the west. While the closure of the city street was consistent with a pedestrian-focused campus, the architect was to provide parking for a total of 1,600 cars. The proposed parking was pushed to the western extremity of the site and buffered by a sports field.

Presented as an alternative, the second scheme was comprised of cubes placed horizontally and vertically in an informal, stepped, and staggered arrangement (fig. 12). The complex meandered north–west to south and had an organic character. Its wings extended to the east, connecting to three existing buildings to form courtyards. The sole vertical element was a prospective residential tower at the north. However, it was felt that this scheme encroached on the sports field, and it was swiftly rejected.

Thom's proposal moved beyond simply clustering buildings together. He envisioned the complex as connective tissue linking adjacent buildings, and thus their departments, together into almost a single entity. While addressing campus design, architecture, and landscape, Thom's proposal resonated with

the urban infill aspirations introduced by Stephenson and Muirhead. Perhaps most importantly, as a diagram, the scheme captured the interdisciplinary spirit of the multi-department Faculty of Arts and Science.

By 1971, perhaps in spite of the many stakeholders and the flux within the Faculty of Arts and Science, a clear direction emerged for the Arts and Social Sciences Complex:

> the stage by stage construction of a set of linked buildings which eventually when fully completed some decades hence might provide some 400,000 gross square feet [37,160 square metres] of academic space on the site. These buildings were to be planned in a modular and interconnected form to provide a measure of flexibility for changing academic and administrative needs in the future and were to link up with existing buildings . . . where related departments and activities would be housed.[101]

ANTICIPATING THE FUTURE WITH A MODULAR, COLLEGIATE MEGASTRUCTURE

Thom embraced the directive of a flexible and modular architecture by delineating a series of different spatial modules; that is, rooms for reading, study, and computing, as well as offices, classrooms, laboratories, and work areas. Each module was characterized by adjacencies, circulation relationships, and needs for natural and artificial light.[102] To accommodate the various modular spaces, the team refined the series of rectilinear blocks, which were organized along a central spine. Each block had a footprint of almost 220 square metres, and was comprised of a concrete structure of four bays in length, three in width, and up to four storeys (plus basement) in height. The assemblage of blocks was designed to connect to the backs of existing buildings; that is, Sir John A. Macdonald Hall to the north and both Dunning and Richardson Halls to the east, thus forming two landscaped courts.

Thom's biographer Douglas Shadbolt [1925-2002] characterized the success of the strategy for Queen's: "The ingenious use of linked, low buildings as a means of adding to and connecting the existing higher buildings . . . thus maintains the human scale of the university campus instead of confronting the students with one huge building towering over the others."[103] A more nuanced reading is that the scheme is both "figure"—an object within the campus landscape—and "ground"—a device along with the existing buildings that frames exterior urban spaces.[104] Within the framework of "figure–ground," the Queen's complex is both a megastructure comprised of modular blocks as well as a framing device that encloses landscaped courts. This sensitive approach to the particular qualities and constraints of the site was characteristic of Thom's work, as demonstrated previously at the campuses in Toronto and Peterborough.

The approach to flexibility was based mainly on deployment; that is, departments would be assigned or reassigned the various spaces of a standard modular design based on needs. Flexibility, in this case, was cleared defined by the university administration and for its own benefit. This was not flexibility aimed to liberate or empower students, academics, or even the Faculty of Arts and Science itself, but rather to be exercised by the centralized administration of the university in managing the use of the complex. In addition to accommodating anticipated changes in programs, the Queen's megastructure was extensible, insomuch as it could grow as the faculty expanded. Additional blocks were planned at the northwest and southwest.

Thom's design for Queen's shares similarities with contemporaneous university projects within the megastructure movement, particularly where architects engaged with existing buildings while continuing or echoing the tradition of the collegiate quadrangle. Examples include the University of Leeds (Chamberlin, Powell and Bon, 1964-1976) in the United Kingdom, and the National Institute for Higher Education (Building Design Partnership with Patrick Whelan, 1970-1984) in Limerick, Ireland.

At Queen's, with respect to the administration's priority to improve the quality of life and sense of community on campus, Thom's response was the student street. The linear, interior space was lined with lounges, a coffee shop, a bookstore, and shared spaces, all of which communicated a vision of a faculty of departments that engaged and socialized in an informal manner, enhancing education outside the classroom.[105] This interior realm could be considered a version of Lower Alfred Street; that is, Thom's scheme effectively brought the activity and open-ended social order of the city street into the heart of the complex. Thom's approach was consistent with other Canadian campuses of the period, as Lisa Landrum observed: "Interior streets interconnected with landscaped promenades remain a versatile strategy of integrating academic environments within continuous urban fabrics."[106]

Known informally as "the walkway," the planning committee enthused: "No other university building has this type of facility, which is really an extension of existing campus pedestrian paths, and

FIG. 13. "THE STUDENT STREET," LOOKING SOUTH, MACKINTOSH-CORRY HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

FIG. 14. VIEW ABOVE THE SKYLIGHTS OF THE STUDENT STREET LOOKING NORTH, MACKINTOSH-CORRY HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

is for general public use"[107] (fig. 13). The student street is illuminated by periodic skylights, integrated into the roof with its structure of exposed concrete beams. At just one storey in height, the low profile of the interior street permitted the upper floors of the blocks on either side to benefit from direct natural light (fig. 14). The interior was furnished with a "modular box universal system" of flat, hollow concrete containers with insertable components such as cushions and potted plants.[108] The student street is the main element of a broader circulation network within the complex. The entrances, lobbies, and stair towers are characterized by plan geometry of 45 degrees, as is the coffee lounge, which is the major social space.

Like many other projects addressing pressing educational demands in the short term and continued growth over the longer term, the Arts and Social Sciences Complex was to be constructed in phases. The Queen's complex was planned in three stages: 50% completion by 1972; 70% by 1975; and 100% by 1980.[109] The construction budget was $6,500,000 for the entire three stages.[110] While this proved to be a challenge for both architects and faculty, Thom and Franks became and remained good friends over the course of the project.[111]

As regards building materials and assemblies, the Arts and Social Sciences Complex is somewhat of a departure from Thom's previous work. He had employed a combination of traditional building materials and methods, along with modern ones such as concrete, at both Massey College and Trent University. For Queen's, however, the building technologies were entirely modern. Having just completed Trent's Lady Eaton College (1968), the architects were interested in continuing to explore the possibilities of exposed concrete, but in a different way.[112] The firm worked with their long-time collaborator Morden S. Yolles [1925--], one of Canada's leading structural engineers. Poured-in-place concrete was used for structural elements, including walls enclosing stair towers. However, the majority of the complex is clad in identical panels of precast concrete. Each had a horizontal orientation and a smooth surface finish. Set within the precast panels are windows in anodized aluminum frames. The integrated soffits and sloped sills of the panels have considerable depth, resulting in a play of light and shadow. The expression of the structural grid at the outermost plane of the wall and the considerable depth of the façade are reminiscent of Le Corbusier's postwar work. The individual blocks of the building, with their grey colour and deeply set windows, resonate with the earlier, thick-walled, limestone buildings on campus. Within the ensemble, places of circulation, such as entrances, stair towers, and passageways, are generously glazed and feature anodized aluminum frames and spandrel panels.

Whereas Thom selected an enviable collection of imported furniture and hand-made ceramic lamps for Trent, the firm specified contract furniture for Queen's. One source was Reff Furniture

FIG. 15. STUDENT LOUNGE, MACKINTOSH-CORRY HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | QUEEN'S UNIVERSITY ARCHIVES, V28-B-MACK 9.3, QUEEN'S PICTURE COLLECTION, BUILDINGS, MACKINTOSH-CORRY HALL.

FIG. 16. MAIN ENTRANCE, HARRISON-LECAINE HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

in Toronto (fig. 15).[113] With respect to materials, finishes, furnishings, and fixtures, the Arts and Social Sciences Complex was an exercise in restraint. Examples of cost-cutting measures included eliminating the westernmost blocks from the first phase, reusing existing furniture, deleting proposed roof gardens, and installing minimal landscaping in the courts.

By 1974, the university had completed the first phase of the complex, which comprised six connected blocks (A to F) enclosing 18,975 square metres of floor area and a separate seventh block (M) for music of 2,375 square metres.[114] The building for the School of Music housed classrooms, teaching and practice studios, rehearsal halls, staff offices, a laboratory, and a lounge area (fig. 16). It was named Harrison-LeCaine Hall after Frank Harrison, British musicologist, and Hugh LeCaine, a major figure in the development of electronic music in Canada.

Deutsch chose to dedicate the main building to his two predecessors. It was officially named Mackintosh-Corry Hall, honouring the two principals who were born in the nineteenth century and who oversaw the most dramatic periods of the university's development in the twentieth. Like other megastructures conceived as multiphase projects, the Queen's complex would remain incomplete.[115] The economic recession put an end to plans to construct the second and third phases of the complex within the decade.

DEVELOPING R.J. THOM ARCHITECTS

The commission for the Queen's complex occurred within a specific period in Thom's professional career; that is, after having achieved considerable notoriety for Massey College and Trent University. Moreover, this phase began with independence from his Vancouver partners.

After serving in World War II, Thom was educated at the Vancouver School of Art, not as an architect but as a painter. He apprenticed in Vancouver with Thompson, Berwick & Pratt, becoming professionally registered in 1957, and a partner the following year. Thom achieved recognition for a series of residences influenced by the work of Frank Lloyd Wright [1867-1959], the traditional architecture of Japan, and projects by his contemporaries on the west coast.

A shift in the firm occurred when Thom's design was the winner of an invited, two-stage competition in 1960 for Massey College, a prestigious new graduate institution in Toronto. Thom's move to Ontario marked the beginning of the second phase of his career. He established the firm of R.J. Thom Architect as the Toronto partner of Thompson, Berwick, Pratt & Partners. Subsequently, the Vancouver-based firm reorganized in response to its expanding workload, just as Thom was initiating the design of Trent University.[116] Thom's greater autonomy within the firm reflected the changes occurring in Canadian practice in the 1960s, particularly as opportunities for commissions were plentiful. At the Royal Architectural Institute of Canada's Banff Session '64, on the subject of campus architecture, Thomas Howarth [1914-2000] characterized the dynamism within the architectural profession: "New professional groupings have emerged and formal and informal consortia have been arranged; the old order is changing and new tensions are evident as various groups act and interact."[117]

FIG. 17. LADY EATON COLLEGE (R.J. THOM, THOMPSON, BERWICK, PRATT & PARTNERS, 1968), TRENT UNIVERSITY, PETERBOROUGH. | JAMES ASHBY, 2005.

By 1970, changes in the Canadian economy, within the architectural profession, and within the administration of Thom's practice brought further evolution in his work. If there is foreshadowing of the 1970s shift in Thom's architecture, it is found at Lady Eaton College at Trent (fig. 17). Thom was responsible for the Trent campus master plan, and his firm executed the initial structures. The campus has been described as "one of the singular places in the country, a crowning achievement of 20th-century Canadian design."[118] The project for Lady Eaton College was influenced by Trent's Champlain College, and it opened three years later in 1968. The buildings of Champlain were unified by walls of rubble-aggregate concrete, which resonated with the region's limestone and its heritage buildings.[119] This construction was labour intensive, requiring careful setting of the limestone rubble within the formwork and subsequent hand-tooling of surfaces. While the aesthetic effects were extraordinary, the costs were unsustainable for a provincially funded university.[120] A different approach was required for Lady Eaton College, Trent's college for women.

Like several of the other campus buildings, the design of Lady Eaton College was led by one of the firm's project architects. Alastair Grant was responsible for the development of the project and its execution under Thom's guidance. The college comprises two residential wings of linked "houses" and a commons block, all of which loosely enclose a landscaped court, demonstrating the firm's sensitive approach to siting and landscape. The building's forms, proportions, and materials complement those of nearby structures. Unlike Champlain College, there are no grand, multistorey spaces at Lady Eaton. Furthermore, the walls were executed with less expensive, board-formed concrete. Described as "the *almost perfect* design of a university college," Lady Eaton is very well conceived and executed, although more modest than its antecedent.[121]

In 1970, the firm was restructured as R.J. Thom Architects, making a break from the Vancouver firm, and beginning the third phase of Thom's career.[122] With the exception of Thom, each partner became a manager for one or more projects, supported by a team of staff architects "capable of taking a concept or rough sketch and notes from Ron Thom and developing them into a viable building in close collaboration with him."[123] The new decade began with rising inflation in Canada, and the ensuing major economic downturn had a severe impact upon the building industry. Nonetheless, having established a solid reputation particularly within the educational sector, Thom's firm designed and executed significant projects in Ontario, including Shaw Festival Theatre (1973), Niagara-on-the-Lake; Sir Sandford Fleming College (1973), Peterborough; and Metropolitan Toronto Zoo Master Plan and African and Indo-Malaysian pavilions (with Crang and Boake, and Clifford and Laurie; 1974). These buildings have been described as low to medium cost, and the Queen's complex is part of this third phase in Thom's career.[124] The projects are characterized by "direct, functionally-determined planning, excellent siting, their no-frills expression relying on sensible, low-maintenance materials, good proportions and restraint."[125]

To date, the work from this period has not benefited from the level of scholarly interest afforded the earlier buildings. This work is more varied due to contributions from multiple authors. That said, the buildings from the early 1970s, such as the Queen's complex, reflect Thom's engagement as an architect in a more multifaceted role. He participated as lead designer for projects directed by his trusted

partners, each having established greater autonomy within the firm and overseeing their own teams. Along with his partners, Thom managed an increasingly multidisciplinary practice.

The evolution of Thom's career, from the artist-architect of Massey College to the managing partner role at the conclusion of the Queen's complex, resonates with Carole Moore Ede's contemporaneous characterization of the profession:

> Canadian architecture has reflected a marked transition from the architect's personal expression of an art to a more comprehensive, unified approach to building. The architect has become more aware of the long-range problems—the growth of population, transportation systems, urbanization, and the increasing need for flexibility.[126]

FIG. 18. ELROND COLLEGE (IRVING GROSSMAN, 1972-1973), KNOWN TODAY AS PRINCESS TOWERS, PRINCESS STREET, KINGSTON. | JAMES ASHBY, 2019.

REHABILITATING THE HISTORIC CITY

At the time of the development of the Arts and Social Sciences Complex, the modern city of Kingston had established multiple communities and identities: "Loyalist Kingston, military Kingston, working-class Kingston, academic Kingston, and penal Kingston."[127] In fact, by the late 1960s, the city exemplified some of the problems delineated by Trudeau in *The Just Society*.[128]

Amongst the concerns of citizens was the threat to historic buildings and established neighbourhoods. The city's politicians, administrators, and community groups debated the potential impact of intensive, high-rise development.[129] In the years leading to the tercentennial, Kingston was pioneering in its efforts to identify heritage neighbourhoods and districts for renewal through conservation and infill. Responding to pressure from Kingston, the Ontario Legislature granted the city the right to designate heritage buildings in 1970, preceding the province-wide *Ontario Heritage Act*.[130] As part of protection efforts, the City of Kingston published its first volume of *Buildings of Architectural and Historic Significance*.[131] Arriving at Queen's in 1971, architectural historian Pierre du Prey [1943--] developed introductory courses in Canada's architectural history. Along with his students, he became an activist in the nascent heritage conservation movement.[132]

Recognizing that Queen's urban campus had limited capacity for future growth, the university purchased twenty-four hectares that held a former prison farm and quarry, almost two kilometres away. The West Campus was established in 1969, and the government of Ontario commissioned the first building. The Ontario College of Education (Drever, Smith and Cromarty, 1971; known today as Duncan McArthur Hall) is a low-rise structure set within a park-like landscape.[133]

During that period, an off-campus project supported by Queen's administration tested the town and gown relationship. Concurrent with Thom's commission, Elrond College (Irving Grossman, 1973) was a radical, student-driven response to the local housing crisis.[134] The design of the unofficial college fused high-density urbanism and modern architecture with a grassroots movement of communal and cooperative living[135] (fig. 18). With respect to urban design, Elrond College is arguably the antithesis to Thom's project. The eighteen-storey building towered over its nineteenth-century neighbourhood. Muirhead, Kingston's city planner, was highly critical: "The building is grossly out of scale and character with the surrounding area and completely insensitive to the general character and scale of Kingston architecture . . . it is a monstrosity."[136]

On the main campus, in their 1971 planning study for University Centre, Parkin

Searle Wilbee Rowland conceived a megastructural assemblage of existing and new buildings up to seven storeys, with a connecting tunnel under University Avenue. The centre was intended to "stimulate the academic and intellectual environment at Queen's by providing a place where students and faculty could meet in an informal setting."[137] The ambitions were campus-wide, insomuch as University Centre was envisioned as the central hub of a series of so-called "sub-centres," with the student street of the Arts and Social Sciences Centre as the first.[138] University Centre was eventually designed by Arthur Erickson [1924-2009] and completed in 1974, in a much smaller form than originally envisioned. At Queen's, the Arts and Social Sciences Complex provided an early example of this new type of interior urban realm designed to bring students and faculty members together in an informal setting.

RECONSIDERING AN INCOMPLETE AND AGEING MEGASTRUCTURE

Thom's complex for Queen's has been largely overlooked by architectural historians, even in recent initiatives to document and assess the architecture of the late twentieth century.[139] The project has been overshadowed by examples of exceptional quality from an extraordinary period in Canadian architecture. Within Thom's oeuvre, the Queen's project has been underexamined, given the achievements of projects such as Massey College, Trent University, and the private residences. Reflecting on Thom's varied career, architectural historian Marie-Josée Therrien opined: "Thom has conceived great and not so great architecture. Avoiding the latter to only praise the masterpiece does not serve well the history of Canadian architecture."[140]

Initially, the Arts and Social Sciences Complex was not universally welcomed. There were complaints about wayfinding and navigation within the multiple interconnected wings.[141] One account casts a shadow by claiming that project relations were acrimonious, prompting Thom's departure.[142] However, Thom's former associates dispute this narrative.[143]

While there is ambition in the planning and design of the complex, its constituent spaces and elements are modest as opposed to exceptional. The complex lacks grand interior spaces, but neither are they intimate nor particularly nuanced. The student street has the character of a skylit corridor, rather than an arcade or galleria. Its width is greater than its height, lending the sense of a walkway rather than a generous, urban, public realm. Furthermore, at the north, the internal street terminates abruptly at an existing wall. That said, the interior street elevates the importance of the university community and its social experience within the heart of the building, something now commonplace for campus architecture of the twenty-first century. Thom designed glazed stair towers to discourage people from using elevators, and it is these well-lit spaces and the network of glazed passageways offering serendipitous encounters that are among the strengths of the scheme.

Interiors, such as offices and seminar rooms, are generally well proportioned and well lit, if rather modest. Inside and out, the building is finished in a limited palette of economic materials. With its repeated concrete panels and windows, this is an architecture reliant upon standardization, which is a departure from the specificity of Thom's earlier bespoke work. Due to the generous proportion of glazing in the form of ribbon windows, the elevations are free of the bunker-like quality of some of the contemporaneous buildings associated with Brutalism.

Outside, the courts are well proportioned with a sense of scale and enclosure that is conducive to quiet repose. Exterior passageways pierce the buildings to allow continuous pedestrian routes from court to court, without having to enter the building (fig. 19). While the landscape design is pleasant and complementary, it lacks a particular vision or defined character.[144]

While both Mackintosh-Corry and Harrison-LeCaine Halls have been the subject of minor alterations over the years, mainly within interiors, they remain largely intact. That said, lacking the benefit of comprehensive rehabilitation after almost five decades, the buildings are understandably worn and somewhat deteriorated. For example, the superficial deterioration of the anodic film on the aluminum panels has resulted in an unintended, mottled appearance. Queen's administration's facility condition index indicates Mackintosh-Corry is "poor" and Harrison-LeCaine is "critical."[145] Neither the University nor the municipal authorities consider the buildings to hold any heritage significance, and both sites have been identified by Queen's for future redevelopment.[146]

Thom's scheme to provide quality of life and flexibility may continue to be challenged in ways that were not anticipated fifty years ago; not the least of which is the urgency to adapt due to the climate crisis. Another aspect of its evolution, echoing Trudeau's call for *A Just Society*, is the decolonization and indigenization of Queen's University.[147] As part of a 2018 exhibition, visual artists Raven Chacon, Ogimaa Mikana, and Camille Georgeson-Usher each designed an outdoor installation.[148] Their murals of vinyl transfer on concrete "transform high-traffic public

FIG. 19. NORTHERN COURTYARD OF MACKINTOSH-CORRY HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

FIG. 20. *NEVER STUCK*, OGIMAA MIKANA (SUSAN BLIGHT [ANISHINAABE, COUCHICHING] AND HAYDEN KING [ANISHINAABE, GCHI'MNISSING]), 2018, VINYL TRANSFER ON CONCRETE, AT SOUTHERN ENTRANCE OF MACKINTOSH-CORRY HALL (R.J. THOM ARCHITECTS, 1972-1974), QUEEN'S UNIVERSITY, KINGSTON. | JAMES ASHBY, 2019.

spaces on Queen's University campus and brutalist 1970s architecture with bold Indigenous visual presence"[149] (fig. 20). One of a growing number of such activities on North American campuses,[150] the installation provokes a broader reconsideration of the complex histories of the campus that include the traditional teachings and ways of learning that predate the founding of Queen's, as well as the role of the Arts and Social Sciences Complex today within its cultural landscape.

CONCLUSION

> The polarized society of the 1960s produced remarkably discordant ideas. On the one hand, there was the 1961 publication of *The Death and Life of Great American Cities* by New York-based architecture critic Jane Jacobs that decried the violent destruction of cities by proponents of urban renewal and charted a powerful case for the maintenance of the finely-grained neighbourhoods . . . The same year, *The New University* was released by Murray Ross, the University of Toronto's vice president. Ross recommended that an expanded student population should be embraced within (largely hermetic) modern buildings . . . [151]

Rather than an exemplar of polarity, Thom's design for the Arts and Social Sciences Complex is within the spectrum of approaches to architecture and urbanism in the 1960s. Following Thom's considerable accomplishments at Massey College and Trent University, the project in Kingston illustrates the continued use of the campus as a testing ground for new approaches to urban design and architecture in the postwar era. As elsewhere in Ontario, the opportunity for architects to engage with the existing built environment arose due to the government's preference for enlarging and intensifying existing campuses in order to expand access to university education. For Queen's, Thom's design for a large, interconnected building demonstrates a critique of, yet an indebtedness to, the Modern Movement. Echoing both collegiate precedent and the open-ended social order of the traditional city street, the complex is nonetheless rational, modular, and accommodates standardized rooms constructed, in part, of industrialized and prefabricated materials and assemblies.

The scheme was influenced by the university administration's goal of improving the quality of campus life, by encouraging community and interdisciplinary exchange within the various departments of the Faculty of Arts and Science. This was part of a broader effort to develop a pedestrian-focused campus experience in the late 1960s, with an architecture that was compatible with the scale and character of the existing buildings. Organized along the student street, the interior became an extension of the public urban realm of the campus.

Resonating with the approach to pedagogy within the faculty, the complex was created through a collaborative, consultative, multidisciplinary design process. In addition, demonstrating approaches to indeterminacy, Thom designed for both flexibility to accommodate changes within departments and extensibility for future growth.

As with other ambitious examples within the megastructure movement, the Arts and Social Sciences Complex was envisioned as a large, multiphase project and was only partially completed. The complex was inaugurated as a major economic recession ended almost thirty years of continuous investment and expansion of higher education, as well as unprecedented opportunities for experimentation on the part of a new generation of architects. While not a masterpiece of the period, Thom's Kingston project is a compelling example of the built legacy of the megastructure movement, among the many contemporaneous buildings that warrant further scholarship and reassessment.

The Queen's complex is at the intersection of multiple themes in architecture and urbanism of the late 1960s and early 1970s: megastructure, Brutalism, renewed interest in the traditional city, as well as indeterminacy. In the post-Centennial period, in designing a complex at Queen's University for study, learning, and research of societal change, Thom addressed issues of pedagogy and academic community and engaged in the discourse on intervening in the existing built environment as part of the evolution of the Modern Movement.

NOTES

1. I am particularly grateful for the generosity of retired architect Alastair Grant, the project architect for the Queen's complex and former partner of Ron Thom. His insights and recollections proved invaluable. In conducting research, the assistance of Queen's University Archives and that of archives specialist Maggie Hunter at Canadian Architectural Archives, University of Calgary, was much appreciated. For permission to publish an image of the work *Never Stuck* by Ogimaa Mikana, I thank Susan Blight and Hayden King. Reviews and comments on earlier drafts of this paper by Mariana Esponda Cascajares, Wilfred Ferwerda, and Jacqueline Hucker were very helpful. I am also very grateful to the editorial team of the *Journal*.

2. The project was known by various names over the course of its development: Humanities and Social Sciences Departments (1967), Humanities-Social Sciences Complex (1968), Arts Complex (1968), Social Sciences Complex (1969), Art-Social Science Complex (1969), Arts-Social Science Complex (1970), and Faculty of Arts and Social Science Complex. The title used most often during design and construction was Arts and Social Sciences Complex, and it is used throughout this paper. The complex ultimately comprised two separate buildings: Mackintosh-Corry Hall (1974) and Harrison-LeCaine Hall (1974).

3. At Expo 67, Thom designed the Polymer Pavilion (since demolished) for the exhibit of synthetic rubber, latex, and plastics.

4. Katarokwi (various spellings) is generally accepted today as the name of the region by indigenous peoples, although its history is a complex one of multiple peoples, multiple languages, and an evolution of meanings. Refer to Queen's University, 2015, "Traditional Territories," in *Queen's Encyclopedia*, Queen's University, [https://www.queensu.ca/encyclopedia/t/traditional-territories], accessed May 21, 2022.

5. Queen's University, *id.*

6. Osborne, Brian S., 2019, "Kingston," in *The Canadian Encyclopedia*, [https://thecanadianencyclopedia.ca/en/article/kingston], accessed May 21, 2022.

7. McKendry, Jennifer, 1995, *With Our Past Before Us: Nineteenth-century Architecture in the Kingston Area*, Toronto, University of Toronto Press, p. 7.

8. Local Black River limestone was easily quarried and used in many early buildings. Refer to Hewitt, D.F., 1964, *Building Stones of Ontario: Part 2 – Limestone*, Toronto, Government of Ontario, p. 1-2, [http://www.geologyontario.mndm.gov.on.ca/mndmfiles/pub/data/imaging/IMR014//IMR014.pdf], accessed May 21, 2022.

9. Commonwealth Historic Resource Management Ltd. and Queen's University Campus Planning and Development, 1998, *Queen's University Heritage Policy: Inventory and Evaluation*, Kingston, Queen's University, p. 1.3.

10. Department of Building and Grounds, Queen's University, 1966, "Queen's University (Preliminary) Planning Study," locator 3711, box 1, file 2, Queen's University Campus Planning, Office of Campus Planning and Development, Queen's University Archives, p. 5.

11. Commonwealth Historic Resource Management Ltd., *Queen's University Heritage Policy*, *op. cit.*, p. 1.21.

12. Factories for the production of aluminum, nylon, and terylene were constructed. Refer to Stephenson, Gordon and G. George Muirhead, 1961, *A Planning Study of Kingston, Ontario*, Kingston, Corporation of the City of Kingston, p. 16-17.

13. Osborne, "Kingston," *op. cit.*

14. McGeachy, Robert, 2005, "Polson Park and Calvin Park, 1954-1962: Two Land Assembly Subdivisions in Kingston, Ontario," *The Journal of the Society for the Study of Architecture in Canada*, vol. 30, no. 1, p. 27-39.

15. Gordon, David and Michelle Nicholson, 2011, "Reflections on the 1960 Planning Study of Kingston," in David Gordon (ed.), *Global Plans, Local Influences: Celebrating the 50th Anniversary of Gordon Stephenson and George Muirhead's Planning Study for Kingston*, Kingston, ON, Queen's University, W.D. Jordan Special Collections & Music Library, p. 31-32, at p. 31.

16. Stephenson and Muirhead, *A Planning Study of Kingston, Ontario*, *op. cit.*, p. 17.

17. The Kingston study was connected to important global planning trends illustrated in Stephenson's work in Canada, England, and Australia. Refer to Gordon, David and Michelle Nicholson, 2012, "Beyond the Tabula Rasa: Gordon Stephenson and Urban Renewal in Kingston, Ontario," *Town Planning Review*, vol. 83, no. 3, p. 337-354.

18. Andrews, Graham, 1970, September 30, "Campus Planning at Queen's, 1969-1980," locator 3711, box 1, file 8, p. 1, Queen's University Campus Planning, Office of Campus Planning and Development, Queen's University Archives.

19. Queen's University, n.d., "Mackintosh, William Archibald (1895-1970)," in *Queen's Encyclopedia*, Queen's University, [https://www.queensu.ca/encyclopedia/m/mackintosh-william-archibald], accessed May 21, 2022.

20. Gkotsis, Tony and Urban Strategies Inc., 2014, *Queen's University Campus Master Plan*, Kingston, Queen's University, p. 15.

21. "Architects hired by the university embraced the Modernist style, but never with much verve. Here the problem was that the university tended to fall into the habit of using the same architectural firms." Refer to McDowall, Duncan, 2016, *Queen's University, Vol. III, 1961-2004: Testing Tradition*, Quebec, McGill-Queens University Press, p. 181.

22. Two buildings were spared from demolition: Etherington House (1879) and Grey House (1900). Refer to Commonwealth Historic Resource Management Ltd., *Queen's University Heritage Policy*, *op. cit.*, p. 1.21.

23. Gordon and Muirhead, *A Planning Study of Kingston, Ontario*, *op. cit.*, p. 31.

24. *Id.*, p. 32.

25. Queen's University, n.d., "Corry, James Alexander (1899-1985)," in *Queen's Encyclopedia*, Queen's University, [https://www.queensu.ca/encyclopedia/c/corry-james-alexander], accessed May 21, 2022.

26. McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 181.

27. Gkotsis and Urban Strategies, *Queen's University Campus Master Plan*, *op. cit.*, p. 15.

28. Queen's first academic building characterized principally by the use of exposed concrete is Watson Hall (Gordon S. Adamson & Associates, 1967).

29. In 1966, Queen's Chancellor J.B. Bertram wrote of the lack of skilled labour in Kingston and Eastern Ontario: "This shortage extended to practically all the building trades, in particularly stone and brick masons." Refer to Stirling, John Bertram, 1966, Letter of October 7 to Ron Thom from Chancellor, Queen's University, copy in private collection of Alastair Grant.

30. Dober, Richard P., 1992, *Campus Design*, New York, J. Wiley, p. 105-106.

31. Polo, Marco and Colin Ripley, 2014, *Architecture and National Identity: The Centennial Projects 50 Years on – Architecture et identité nationale : les projets du Centenaire, 50 ans plus tard*, Halifax, Dalhousie University Press, p. 12-15.

32. The arch traversing the fountain represents the aim of the Fathers of Confederation to unify the provinces from the Atlantic to the Pacific coasts. The numbers of fountain jets and the various cycles and illuminations symbolize the history of Confederation.

33. Department of Building and Grounds, Queen's University, 1966, *Queen's University (Preliminary) Planning Study*, *op. cit.*

34. Queen's University, 1969, May 9-10, "Minutes of the Board of Trustees," locator 3711, box 3, file 9 (folder 2 of 2), Arts / Social Science Complex, Queen's University Campus Planning, Office of Campus Planning and Development, Queen's University Archives, p. 4.

35. Shim, Brigitte, 2013, "Reflections on Massey College," in Thomas Symons, Brigitte Shim, Adele Weder, Tony Robins, and Ronald J. Thom (eds.), *Ron Thom and the Allied Arts*, West Vancouver, West Vancouver Museum, p. 39-45, at p. 40.

36. Lin, Zhongjie, 2010, *Kenzo Tange and the Metabolist Movement: Urban Utopias of Modern Japan*, New York, Routledge, p. 8.

37. Liscombe, Rhodri Windsor and Michelangelo Sabatino, 2016, *Canada: Modern Architectures in History*, London, Reaktion, p. 231-283, at p. 231.

38. Rouillard, Dominique, 2018, "Editorial: Megaspace Structure Yona Friedman and Eckhard Schulze – Fielitz," in *Histories of Postwar Architecture*, vol. 1, no. 3, p. 3-18, at p. 4, [https://doi.org/10.6092/issn.2611-0075/8965], accessed May 21, 2022.

39. Bourdon, Valentin, 2018, "The Tragedy of the Megastructure," in Dominique Rouillard (ed.) *Histories of Postwar Architecture*, vol. 1, no. 3, p. 105-116, at p. 106, [https://doi.org/10.6092/issn.2611-0075/8523, accessed May 21, 2022.

40. Relph, Edward, 1987, *The Modern Urban Landscape: 1880 to the Present*, Baltimore, John Hopkins University Press, p. 243.

41. The nine Canadian examples are listed in Ashby, James, 2013, "*Megastructura Canadensis*: Reconsidering the Dinosaurs of the Modern Movement," *The Journal of the Society for the Study of Architecture in Canada*, vol. 38, no. 2, p. 79-86, at p. 80.

42. Lambert, Phyllis, 2004, "Canada: Urban Architecture and the Social Contract," *Transactions 2004: Life, Learning and the Arts*, 7th series, vol. 4, RSC Symposium, National Gallery of Canada, Ottawa, November 19, 2004, p. 5-7.

43. Baird highlighted the following megastructures in Canada: Scarborough College (John Andrews with Page & Steele, 1966); Simon Fraser University (Erickson / Massey, 1968); University of Lethbridge (Erickson / Massey, 1971); Habitat 67 (Moshe Safdie with David, Barott, Boulva, 1967); Place Bonaventure (Affleck, Desbarats, Dimakopoulos, Lebensold, Sise, 1967); McMaster Health Sciences Centre (Craig, Zeidler and Strong, 1972); Ontario Place (Craig, Zeidler and Strong, 1971); Eaton Centre (Bregman and Hamann with Zeidler Partnership, 1977); Housing Union Building (Diamond and Myers with R.L. Wilkin, 1971); Centennial Hall (Moody, Moore, Duncan, Rattray, Peters, Searle and Christie, 1972); and Robson Square (Arthur Erickson, 1983). Refer to Baird, George, 2019, "Megastructures and High-Tech," in Elsa Lam and Graham Livesey (eds.), *Canadian Modern Architecture – 1967 to the Present*, Toronto, Princeton Architectural Press and Canadian Architect, p. 155-182.

44. Banham identified four specific buildings at Expo 67 as megastructures: Man the Producer pavilion (Affleck *et al.*, 1967), Man the Explorer pavilion (Affleck *et al.*, 1967), Habitat 67 (Moshe Safdie *et al.*, 1970), and the U.S. Pavilion (R. Buckminster Fuller and Shoji Sadao, with George F. Eber, 1967). Banham also characterized Montreal as a "megacity" referencing contemporaneous megastructural projects such as Place Bonaventure (Affleck *et al.*, 1964-1967) and the Metro, the city's mass transit system. Refer to Banham, Reyner, 1976, *Megastructure: Urban Features of the Recent Past*, New York, Harper & Row, p. 105-129.

45. Riar, Inderbir Singh, 2014, "Expo 67, or Megastructure Redux," in Laura Hollengreen, Rebecca Rouse, and Bobby Schweizer (eds.), *Meet Me at the Fair: A World's Fair Reader*, Pittsburgh, ETC Press, p. 255-270, at p. 255.

46. Shadbolt, Douglas and Ronald James Thom, 1995, *Ron Thom: The Shaping of an Architect*, Vancouver, Douglas & McIntyre, p. 110.

47. Polo and Ripley, *Architecture and National Identity*, *op. cit.*, p. 21.

48. Significant buildings of the centennial programs include Charlottetown's Confederation Centre of the Arts (Affleck *et al.*, 1964), Ottawa's National Arts Centre (Affleck *et al.*, 1967), and Toronto's Ontario Science Centre (Raymond Moriyama, 1969), among others.

49. Legault, Réjean, 2011, "The Idea of Brutalism in Canadian Architecture," in Rhodri Windsor Liscombe (ed.), *Architecture and the Canadian Fabric*, Vancouver, University of British Columbia Press, p. 313-340, at p. 334.

50. Moulis, Antony and Georgina Russell, 2015, "John Andrews International Educational Projects in Queensland 1972-1980," in Paul Hogben and Judith O'Callaghan (eds.), *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 32nd Annual Conference, "Architecture, Institutions and Change,"* Sydney, SAHANZ (Society of Architectural Historians, Australia and New Zealand), p. 425-434, at p. 427.

51. Landrum, Lisa, 2019, "Campus Architecture: The Radical Medium of Learning," in Lam and Livesey (eds.), *Canadian Modern Architecture – 1967 to the Present*, *op. cit.*, p. 91-120, at p. 114.

52. Muthesius credits Canadian architects with pioneering "the single structure campus." Refer to Muthesius, Stefan, 2001, *The Postwar University: Utopianist Campus and College*, New Haven, Yale University Press, p. 187.

53. Canadian universities, including York, Trent, Simon Fraser, Scarborough, and Lethbridge, are discussed in Muthesius, *id.*, p. 187-194.

54. Calder, Barnabas, 2010, "York University, Ontario," *Twentieth Century Society*, August 2010, n.p., [https://c20society.org.uk/building-of-the-month/york-university-ontario], accessed May 21, 2022.

55. Goad, Philip, 2013, "Open Field, Open Street, Open Choice: John Andrews and the South Residences, University of Guelph (1965-1968)," in Alexandra Brown and Andrew Leach (eds.), *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 30th* Annual Conference, "Open," Gold Coast, SAHANZ, vol. 2, p. 639-650, at p. 640-641.

56. Evidence of questioning modernism in Quebec and Canada is traced as early as the late 1950s. Refer to Vanlaethem, Francine, 2008, "The Ambivalence of Architectural Culture in Quebec and Canada, 1955-1975," in Dimitry Anastakis (ed.), *The Sixties: Passion, Politics, and Style*, Montreal, McGill-Queen's University Press, p. 127-144, at p. 128. See also Pouliot, Christine and Francine Vanlaethem, 2019, *Étude patrimoniale du campus de l'UQAM : pavillons Judith-Jasmin et Hubert-Aquin*, Montreal, JFD Editions, p. 27-28.

57. Landrum, "Campus Architecture: The Radical Medium of Learning," *op. cit.*, p. 112.

58. *Id.*, p. 94.

59. These themes are examined in Ashby, James, 2013, "Flexible, Adaptable, Extensible and Indeterminate: The Late Modern Megastructure and Conserving its Legacy in Canada," in Timo Tuomi, Tommi Lindh, Miia Perkkio, and Jenni Sahramaa (eds.), *Proceedings of the 12th International Docomomo Conference*, Porvoo, Finland, Docomomo Finland, p. 131-136.

60. Bessai, Tom, 2007, "McMaster Health Sciences Centre," in Michael McClelland and Graeme Stewart (eds.), *Concrete Toronto: A Guidebook to Concrete Architecture from the Fifties to the Seventies*, Toronto, Coach House Books, p. 276-277.

61. Keshavjee, Serena, 2006, "Campus as City," in Serena Keshavjee and Herbert Enns (eds.), *Winnipeg Modern: Architecture, 1945 to 1975*, Winnipeg, University of Manitoba Press, p. 101-129, at p. 118.

62. Baird, "Megastructures and High-Tech," *op. cit.*, p. 155.

63. The decade of the 1960s was characterized by "vigorous educational mobilization." Refer to Economic Council of Canada, 1969, September, *Sixth Annual Review: Perspective 1975*, Ottawa, Queen's Printer, p. 124.

64. Economic Council of Canada, *id.*, p. 124.

65. Sheffield, Edward F., 1955, "Canadian University and College Enrolment Projected to 1965," Prepared for a Symposium on "The Expansion of Enrolment, 1955-1965," National Conference of Canadian Universities, Toronto, June 10, 1955, Ottawa, p. 39-63.

66. Monahan, Edward J., 2004, *Collective Autonomy: A History of the Council of Ontario Universities, 1962-2000*, Waterloo, Wilfred Laurier University Press, p. 5.

67. The new universities comprised Brock, Carleton, Guelph, Lakehead, Laurentian, Trent, Waterloo, Wilfred Laurier, Windsor, and York. Refer to Fleming, W.G., 1971, *The Expansion of the Educational System*, Toronto, University of Toronto Press, p. 181.

68. Economic Council of Canada, *Sixth Annual Review*, *op. cit.*, p. 36.

69. Bissell, Claude Thomas and John A. Porter, 1971, *Towards 2000: The Future of Post-secondary Education in Ontario*, Toronto, McClelland & Stewart, p. xi.

70. Committee of Presidents of Provincially Assisted Universities of Ontario, 1963, "Post-secondary Education in Ontario, 1962-1970," Report of the Presidents of the Universities of Ontario to the Advisory Committee on University Affairs, Toronto.

71. Bill Davis was appointed Minister of Education in 1962 and Minister of University Affairs in 1964, holding both portfolios until 1971.

72. Many colleges for technical training were founded between 1965 and 1967, after the passage of a bill to create a post-secondary vocational system in Ontario. University expansion was focused on expanding existing institutions, in some cases colleges.

73. Commission to Study the Development of Graduate Programmes in Ontario Universities and J.W.T. Spinks, 1966, "Report of the Commission to Study the Development of Graduate Programmes in Ontario Universities," Toronto, Queen's Printer.

74. Axelrod, Paul, 1982, *Scholars and Dollars: Politics, Economics, and the Universities of Ontario 1945-1980*, Toronto, University of Toronto Press, p. 97.

75. Monahan, *Collective Autonomy: A History of the Council of Ontario Universities*, *op. cit.*

76. McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 53-54.

77. Axelrod, *Scholars and Dollars*, *op. cit.*, p. 98.

78. An overview of campus planning in the postwar era is outlined in Williams, Ron, 2014, "The Democratization of Learning: New and Expanded University Campuses," in *Landscape Architecture in Canada*, Montréal, McGill-Queen's University Press, p. 445-451.

79. Queen's University Faculty of Arts and Science, 1971, July, "Description of a Project for the First Stage of a New Arts and Social Science Complex," locator 5059, box 2, file 11, Mackintosh-Corry Hall, Subject Files, Provincial Grants 1971, Queen's University Archives, p. 2.

80. Vallee, Frank G., 2013, "Social Science," in *Canadian Encyclopedia*, [https://www.thecanadianencyclopedia.ca/en/article/social-science], accessed May 21, 2022.

81. Trudeau, Pierre Elliott and Ron Graham, 1998, *The Essential Trudeau*, Toronto, McClelland & Stewart, p. 16-20.

82. Vallee, "Social Science," *op. cit.*

83. McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 106.

84. *Ibid.*

85. *Ibid.*

86. From the firm of Thompson, Berwick & Pratt, the architects for the Buchanan Building included partner-in-charge Roy Jessiman [1921-1996] along with project architects Zoltan S. Kiss [1924--] and Barry V. Downs [1930--].

87. Liscombe, Rhodri W., 1997, *The New Spirit: Vancouver Modernism, 1938-1963*, Montreal, Canadian Centre for Architecture, p. 87-89.

88. The concrete buildings of University of Guelph were examined in a 2019 exhibit. Refer to Hickson, Sally and Wilfred Ferwerda, 2019, *Brutalism at Guelph: Concrete in a New Light*, Guelph, University of Guelph, McLaughlin Library, [https://digex.lib.uoguelph.ca/exhibits/show/brutalism], accessed May 21, 2022.

89. Queen's University Planning Office, 1968, February, "Description of Project for Stage No. 1 of the Arts Complex," locator 3711, box 3, file 9 (folder 1 of 2), Office of Campus Planning and Development, Arts / Social Science Complex 1971-1973, Queen's University Archives, p. 6, 9.

90. Jones, C.W., 1970, April 6, "Memo from Director of Queen's University Physical Plant to Building Committee of the Trustees," locator 3711, box 3, file 9 (folder 2 of 2), Queen's University Campus Planning, Office of Campus Planning and Development, Arts / Social Science Complex, Queen's University Archives.

91. The following Queen's University departments or divisions were stakeholders in the project: Administrative Services, School of Business, Geography, University Information Systems, Extension, Economics, Institute of Local Government, Political Studies, Institute of Governmental Relations, Sociology, School of Public Administration, Secretary's Office, Music, Space Allocation, Faculty of Arts and Science, Physical Plant, School of Urban and Regional Planning, and Faculty of Law. Refer to Queen's University, 1973, December 18, Memorandum of Meeting on December 18, 1973 – Organizational Details Concerning Arts and Social Science Complex, locator 5059, box 2, file 4, Queen's University – Mackintosh-Corry Hall, Subject Files, Early Corr. Etc., 1969-1983, Queen's University Archives.

The following Queen's University and Faculty of Arts and Science committees participated in decision-making for the project: Arts and Social Science Complex Users' Committee, Grounds Committee, Steering Sub-committee, Furniture Sub-committee, Library Sub-committee, Classroom Sub-committee, Common Room and Bookshop Sub-committee, Computer Statistical Sub-committee, and Art Sub-committee. Refer to Queen's University, Office of Campus Planning and Development, 1973, February 6, locator 3711, box 3, file 10, Queen's University Campus Planning, Arts / Social Science Complex Users Committee 1971-1973, Queen's University Archives.

92. Deutsch is quoted by Alastair Grant of R.J. Thom Architect. Refer to Grant, Alastair, 1969, December 1, Letter from R.J. Thom, Architect, to Mr. C.E.S. Franks, Chairman Building Committee, Queen's University with excerpts from the Report of the Principal's Committee on Teaching and Learning, Chapter 4, October 1969, locator 5059, box 2, file 5, Mackintosh-Corry Hall, Subject Files, Early Minutes and Corr. from Architects 1970/71, Queen's University Archives.

93. *Ibid*.

94. Deutsch appointed civil engineering Professor Graham Andrews as University Campus Planner in December 1968. Refer to McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 111.

95. Andrews, Graham, 1970, September 30, "Report including *The Constitution of the Committee on Campus Planning*, September 26, 1968," locator 3711, box 1, file 8, p. 1, "Campus Planning at Queen's, 1969-1980," Queen's University Campus Planning, Office of Campus Planning and Development, Queen's University Archives.

96. Grant, Alastair, 1969, December 1, Letter from R.J. Thom, Architect, to Mr. C.E.S. Franks, Chairman Building Committee, *op. cit*.

97. Queen's University Committee on Campus Planning, 1970, May, "Report to the Board of Trustees," locator 5059, box 2, file 4, Appendix 1, p. 3, Mackintosh-Corry Hall, Subject Files, Early Corr. Etc., 1969-1983, Queen's University Archives.

98. *Ibid*.

99. Queen's University, 1969, March 20, "Minutes of the Building Committee," locator 3711, box 3, file 9 (folder 2 of 2), Arts / Social Science Complex, Queen's University Campus Planning, Office of Campus Planning and Development, Queen's University Archives. Refer also to Queen's University, 1969, May 9-10, "Minutes of the Board of Trustees," *op. cit.*, p. 4.

100. C.E.S. "Ned" Franks, n.d. Queen's University, [https://www.queensu.ca/politics/people/franks-ces-ned], accessed May 21, 2022.

101. Queen's University Faculty of Arts and Science, "Description of a Project for the First Stage of a New Arts and Social Science Complex," locator 5059, box 2, file 4, p. 1, Mackintosh-Corry Hall, Subject Files, Provincial Grants 1971, Queen's University Archives.

102. The planning modules were based on the building standards established by the university. Refer to Queen's University Department of Physical Plant, 1968, May, "Building Standards for the Guidance of Architects," Issue #3, referenced in R.J. Thom / Thompson, Berwick, Pratt & Partners, n.d., "Arts Social Science Planning Guidelines: Modules," locator 3711, box 3, file 9 (folder 1 of 2), Arts / Social Science Complex, Queen's University Campus Planning, Office of Campus Planning and Development, Queen's University Archives.

103. Shadbolt, *Ron Thom: The Shaping of an Architect*, *op. cit.*, p.123.

104. The capacity of modern architecture to shape and define urban space, and the notion of urban design as an intrinsically historic practice were promoted by Colin Rowe at Cornell University from 1962 onward. Refer to Hebbert, Michael, 2016, "Figure-ground: History and Practice of a Planning Technique," in *Town Planning Review*, vol. 87, no. 6, p. 705-728, at p. 713.

105. Franks, C.E.S., 1970, November 27, "Common Space in the Arts Social Science Complex," locator 5059, box 2, file 5, Mackintosh-Corry Hall, Subject Files, Early Minutes and Corr. from Architects 1970/71, Queen's University Archives.

106. Landrum, "Campus Architecture: The Radical Medium of Learning," *op. cit.*, p. 112.

107. "Minutes of a meeting of the steering committee of the Arts-Social Science Complex Planning Committee, 1970, August 12," locator 5059, box 2, file 5, Mackintosh-Corry Hall, Subject Files, Early Minutes and Corr. from Architects 1970/71, Queen's University Archives.

108. "Minutes of the Meeting of the Arts and Social Science Complex Users' Committee, 1973, January 16," locator 3711, box 3, file 10, Queen's University Campus Planning, Arts / Social Science Complex Users Committee 1971-1973, Queen's University Archives.

109. "Minutes of a meeting of the steering committee of the Arts-Social Science Complex Planning Committee, 1970, August 12," *op. cit.*

110. "Minutes of a meeting of the Arts/Social Science Complex Committee, 1971, May 31," locator 3711, box 3, file 10, Queen's University Campus Planning, Arts / Social Science Complex Users Committee 1971-1973, Queen's University Archives.

111. Alastair Grant in correspondence with the author July 3, 2020.

112. *Ibid*.

113. The construction budget for Trent University was parsimonious compared to that of the privately funded Massey College. Per square foot, Thom's Trent buildings were constructed at approximately half the cost of Massey College. Refer to Shadbolt, *Ron Thom: The Shaping of an Architect*, *op. cit.*, p. 108; as well as Dodge, Bernadine and Jodi Aoki, 2003, *Ron Thom at Trent University, Precambrian Sublime: Bauhaus in the New World*, Trent University Archives, Peterborough.

114. Peter Donovan, Physical Plant Services, Queen's University, in correspondence with the author regarding floor areas, January 27, 2021.

115. Canadian examples include D.B. Weldon Library, McMaster Health Sciences Centre, Scarborough College, and University of Lethbridge.

116. Shadbolt, *Ron Thom: The Shaping of an Architect*, *op. cit.*, p. 110.

117. Howarth, Thomas, 1964, "Comments – Campus Architecture," *Royal Architectural Institute of Canada Journal*, vol. 1, no. 6, July 1964, p. 48.

118. Bozikovic, Alex, 2018, "At a Moment of Architectural Crisis, Trent University Is Retaining Canada's Modern Heritage," *The Globe and Mail*, March 9, [https://www.theglobeandmail.com/life/home-and-garden/architecture/at-a-moment-of-architectural-crisis-trent-university-is-retaining-canadas-modernheritage/article38224472/], accessed May 21, 2022.

119. The rubble-aggregate concrete was inspired by that at Morse and Ezra Stiles Colleges (Eero Saarinen, 1962), Yale University. Refer to Kapusta, Beth and John McMinn, 2002, *Yolles: A Canadian Engineering Legacy*, Vancouver, Douglas & McIntyre, p. 78.

120. Champlain College reportedly cost $7-million in 1969 dollars. Refer to Bozikovic, "At a Moment of Architectural Crisis," *op. cit*.

121. Italics added by this author. Refer to Trent University, n.d., Lady Eaton College, [https://www.trentu.ca/heritage/architectural-vision/lady-eaton-college], accessed May 21, 2022.

122. Shadbolt, *Ron Thom: The Shaping of an Architect*, *op. cit.*, p. 115-116.

123. *Id.*, p. 116.

124. *Ibid*.

125. *Ibid*.

126. Ede, Carol Moore, 1971, *Canadian Architecture, 1960-1970*, Toronto, Burns, p. 6.

127. McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 21.

128. Various constituents from both the city and the university participated in an urban reform movement in municipal politics from 1965 to 1970. Refer to Harris, Richard, 1988, *Democracy in Kingston: A Social Movement in Urban Politics, 1965-1970*, Kingston, McGill University Press.

129. Two proposals for the former industrial lands at the harbour, Marina City (William Teron, 1970) and Kingston Laguna (Wyllie, Unfal, Weinberg and Scheckenberger, 1970), were unprecedented in scale for the small city. Refer to Osborne, Brian S. and Donald Swainson, 1988, *Kingston Building on the Past*, Westport, ON, Butternut Press, p. 316-319.

130. Government of Ontario, 1970, "c 76 The City of Kingston Act, 1970," in *Ontario: Annual Statutes*, vol. 1970, article 78, [http://digitalcommons.osgoode.yorku.ca/ontario_statutes/vol1970/iss1/78], accessed May 21, 2022.

131. Kingston (Ontario), 1971, *Buildings of Architectural and Historic Significance*, Kingston, ON, City of Kingston.

132. Adams, Annmarie and Martin Bressani, 2003, "Canada: The Edge Condition," in Zeynip Çelik (ed.), *Journal of the Society of Architectural Historians*, vol. 62, no. 1, p. 75-83, at p. 79.

133. Docomomo Ontario, n.d., *Duncan McArthur Building*, [http://docomomo-ontario.ca/gallery/duncan-mcarthur-building/], accessed May 21, 2022.

134. Queen's students were inspired by experimental, cooperative residences such as Rochdale College (Tampold and Wells, 1968) in Toronto.

135. Docomomo Ontario, n.d., *Elrond College*, [https://docomomo-ontario.ca/gallery/elrond-college/], accessed May 21, 2022.

136. George Muirhead, Kingston city planner, quoted in Schmolka, Vicki, 2016, "One Sore Thumb Enough: Former Councillor," *Kingston Whig-Standard*, August 24, [https://www.thewhig.com/2016/08/24/one-sore-thumb-enough-former-councillor/wcm/2a5d6b67-9fd4-31c2-11fb-5ac653bb8e07], accessed May 21, 2022.

137. Parkin Searle Wilbee Rowland, 1971, "April, Queen's University Centre Planning Study," locator 3711, box 3, file 10, p. 4, Queen's University Campus Planning, Office of Campus Planning and Development, Arts / Social Science Complex Users Committee 1971-1973, Queen's University Archives.

138. *Id.*, p. 2.

139. The Queen's complex is discussed briefly in Shadbolt, *Ron Thom: The Shaping of an Architect*, *op. cit.*, p. 115-116. The building is also identified in McKendry, Jennifer, 2014, *Modern Architecture in Kingston: A Survey of 20th-century Buildings*, Kingston, Jennifer McKendry, p. 54.

140. Therrien, Marie-Josée, 2007, "In the Shadow of Glory: A Close Look at Two Unrealized Projects by Ron Thom," in Susan Algie and James Ashby (eds.), *Conserving the Modern in Canada: Buildings, Ensembles, and Sites, 1945-2005: Conference Proceedings, Trent University, Peterborough, May 6-8, 2005*, Winnipeg, Winnipeg Architecture Foundation, p. 95-101, at p. 95.

141. McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 182.

142. "The completion of Mackintosh-Corry had been blighted by penny-pinching on construction costs that had led to an acrimonious parting with architect Ron Thom." Refer to McDowall, *Queen's University, Vol. III, 1961-2004*, *op. cit.*, p. 268.

143. Alastair Grant in correspondence with the author, July 21 and 23, 2020.

144. There is no known landscape architect associated with the Arts and Social Sciences Complex. The landscape architecture budget was cut due to rising inflation and construction costs. Refer to Gunn, Andrea, 2010, "The Legacy of Project Green," in *Queen's Alumni Review*, Issue #2, Queen's University, p. 15, [https://www.queensu.ca/alumnireview/sites/alumnireview/files/2022-01/2010-2-QAR.pdf], accessed May 31, 2022.

145. Gkotsis and Urban Strategies, *Queen's University Campus Master Plan*, *op. cit.*, p. 18.

146. *Id.*, p. 19.

147. Centre for Teaching and Learning, n.d., *Decolonizing and Indigenizing Teaching and Learning*, Queen's University, [https://www.queensu.ca/ctl/resources/decolonizing-and-indigenizing], accessed May 21, 2022.

148. Hopkins, Candice and Dylan Robinson, 2019, *Soundings: An Exhibition in Five Parts*, Agnes Etherington Art Gallery, Queen's University, [https://agnes.queensu.ca/exhibition/soundings-an-exhibition-in-five-parts/#], accessed May 21, 2022.

149. Agnes Etherington Art Gallery, 2019, *Land Acquisition of Indigenous Art*, Queen's University, [https://agnes.queensu.ca/connect/news-and-stories/landmark-acquisition-of-indigenous-art/], accessed May 21, 2022.

150. Desrochers-Turgeon, Émélie, Darren Zanussi, and Susan Ross, 2017, *Carleton University Indigenous Learning Place Precedent Research*, Carleton University.

151. Rochon, Lisa, 2007, "Building during the 1960s: The Legacy of Ronald J. Thom," in Algie and Ashby (eds.), *Conserving the Modern in Canada: Buildings, Ensembles, and Sites*, *op. cit.*, Winnipeg, Winnipeg Architecture Foundation, p. 89-94, at p. 90.