

WINNIPEG ARCHITECTURE

University of Manitoba Modern

Monica Hutton

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WINNIPEG ARCHITECTURE

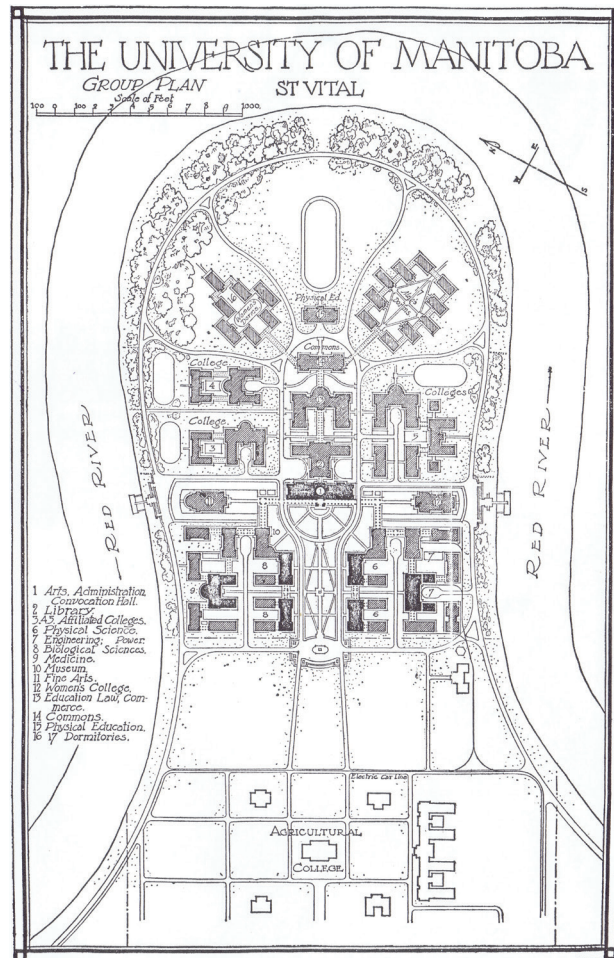
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Winnipeg Architecture Foundation

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Plan of Grounds and grouping of Buildings, prepared by Arthur Alexander Stoughton, Professor of Architecture.

Pictured: Plan of Grounds and grouping of buildings.
Prepared by Arthur Alexander Stoughton, Professor of
Architecture, for 113 acres of land deeded to the University
of Manitoba by the provincial government in 1913.

Preface

To honour the centennial of the University of Manitoba, the Centennial Committee published an architectural and historical guide to the campus and its buildings. *From Rural Parkland to Urban Centre, One Hundred Years of Growth at the University of Manitoba 1877 to 1977* is a well-researched and well-written publication, but now out-of print and almost 35 years old. This new tour of the campus builds on the 1977 guide with updated information on buildings and landscapes.

The campus is very wide spread and this guide has been designed so one is not required to follow a specific route. Certainly on bicycle or on foot, one can follow the buildings chronologically but you could also simply pick a small section of the campus to visit. Most of the buildings are open Monday to Friday to the public and many have wonderful interior spaces and public art worth seeing.

Modern Architecture of the University of Manitoba Fort Garry Campus

The development that began at the Fort Garry Campus in 1913 has continued in intervals of active development and pause over the years. The first buildings that were constructed on the rural site in 1912, including the Administration Building, Home Economics Building, Taché Hall and the Agricultural Engineering Building, were all part of a general master plan for the newly acquired site. All designed by architects Samuel Hooper and V.W. Horwood, with direction from School of Architecture Head Arthur A. Stoughton, these initial structures adhered to a strict material palette of salmon-red brick and Manitoba limestone in a Neoclassical and Georgian combination. Constructed before the onset of World War I, these buildings form a foundation phase of development that is easily recognizable on the campus.

Although a selection of buildings designed after this time attempted to carry on the original aesthetic of Hooper and Horwood, the post-1950 buildings have been more individual statements of modern architecture. Educated and inspired by School of Architecture Director John A. Russell, graduates were ready to embrace modernist principles. The development of a series of major projects in the 1950s launched a modernist movement that redefined the original plan for the Fort Garry Campus, and reflected a new freedom of experimentation with design, technologies and materials.

Before the Fort Garry Campus and the School of Architecture

1877 – 1913

In response to an increasing demand for educational facilities, just seven years after the province of Manitoba was created, a Provincial university was established on April 8, 1877, through the joining of three denominational colleges. These three colleges were St. Boniface College (founded in 1854), St. John's College (founded in 1866), and Manitoba College (founded in 1871). Initially, the university operated within buildings that were dispersed throughout central Winnipeg, on streets such as Ellice Avenue, Main Street, Kennedy Street and Portage Avenue. A seven-acre plot of land on Broadway Avenue, now the site of Memorial Park, was also transferred to the University of Manitoba in order to construct a government-funded building.

A new location for the University of Manitoba was sought in 1902 after Sir Rodmond P. Roblin, Premier of Manitoba, recommended that an agricultural college be established. In 1906, a brick and limestone complex was completed for the Agricultural College on a 117-acre plot of land along the south bank of the Assiniboine River, in what is now the Tuxedo sub-division. This site subsequently housed the Fort Osborne Barracks and now the Asper Jewish Community Campus.

With an increasing focus on practical experimentation, more field space was required by the Agricultural College. The solution came in 1911 when the Provincial government purchased 570 acres of land seven miles south of the city on the west bank of the Red River. University Council accepted a government offer for 113 acres of this land, which became the current site of the Fort Garry campus.

Early Construction and War-Time Delays

1913 – 1945

The first buildings on the Fort Garry campus were designed by architects Samuel Hooper and V.W. Horwood in 1913. These new buildings included the Administration Building, the Home Economics Building, Taché Hall and the Agricultural Engineering Building. All of these buildings were part of a general master plan, by new Head of the Architecture School Arthur A. Stoughton. Stoughton had studied at Columbia University and at École des Beaux Arts in Paris.

Tyndall stone is a dolomitic limestone quarried in Garson, Manitoba from the Ordovician Red River Formation. The first time that Tyndall stone was utilized as a building material was at Lower Fort Garry in 1832, and it has since been used extensively on architectural projects throughout Canada. The cream colored limestone is variegated by dolomite (the result of burrowing marine creatures within the limestone deposit), and a variety of gastropod, brachiopod, cephalopod, trilobite, coral, and stromatoporoid fossils.

In 1914, with the onset of World War I, early plans for the development of the Fort Garry campus were halted. No new buildings were constructed, and many schools remained in temporary locations. For instance, the School of Architecture was first housed in the Old Law Courts Building on Kennedy Street, then the Deaf and Dumb Institute on Portage Avenue in the 1920s, and finally moved to the Fort Garry campus into the attic of the Tier Building when it was completed in 1932. The Tier Building was one of only two buildings (the second being the Buller Biological Laboratories) to be added to the Fort Garry campus between the wars. Both were designed by architect and School of Architecture director, Arthur A. Stoughton. Stoughton remained as Director until his retirement in 1929. He was replaced by Milton S. Osborne, another Columbia graduate.

The Depression and World War II then delayed the advancement of the Fort Garry campus for over two decades. The campus instead provided space for the Canadian military and kept the junior and senior students split between the Broadway and Fort Garry campuses until the 1950's. These critical social events and the subsequent change in economy and population contributed greatly to the introduction of modern architecture on campus. Although construction had waned during the 1930s to 1950s, discussions as to what architecture should, and could be, had never been so inspired. A surfeit of architectural ideas, an eagerness to work, advancements in technologies and an openness of minds allowed modern architectural theory to flourish. By the time the Second World War came to an end, a new ideal had emerged that valued architecture as a social art.

Constructing a Modern Campus

1945 – 2013

John A. Russell, a graduate of the Massachusetts Institute of Technology (MIT), succeeded Milton S. Osborne as director of the School of Architecture in 1946, marking the beginning of the modern movement at the Fort Garry Campus. Just as Stoughton had promoted the internationally accepted style of Beaux-Art Classicism, Russell promoted the modernist styles associated with Walter Gropius, Le Corbusier and Mies van der Rohe, particularly as those styles were interpreted in the United States, Holland and the Scandinavian countries. Insofar as his budget allowed, Russell brought many of the leading lights of the American modernist movement to lecture in Winnipeg and act as guest critics in the school's design studios.

A series of major projects in the 1950s redefined the original campus plan, as architects took more freedom in the definition of campus buildings and experimented with new technologies and materials, coming out of the war effort. Rather than being designed under a single vision, various local architectural firms were commissioned and campus buildings began expressing local conditions and the time in which they were built. The open and expansive spaces of the Elizabeth Dafoe Library, the distinctive chapels of St. Paul's and St. John's Colleges, and the early curtain wall design of the the John A. Russell Building, embodied the ideals of the modern period.

Modern development further intensified in the 1960s as professional schools rose to faculty status and acquired their own buildings on campus. One of the last faculties to arrive at the Fort Garry Campus was the Faculty of Law, which finally vacated the Law Courts building on Broadway in 1970 to occupy new quarters in Robson Hall.

At times the strong demand for new space and facilities on the Fort Garry campus overtook the planning process, and the carefully crafted plans for the campus were compromised in the process. The majority of buildings constructed in the 1950s and 1960s have also undergone significant additions or renovations to accommodate changing requirements for space. The necessity for flexibility in the campus plan took precedence.

Construction slowed from the 1970s through until the late 1990s, but the twenty-first century has experienced another major surge in modern development, including the establishment of the SmartPark Development Corporation in 1999.

Role of Modern Landscape Design

As the modern campus expanded, landscape design became critical in connecting the individual buildings dispersed throughout the site. Prominent designed landscapes already existed in the 1950s, including spaces in front of the Dafoe Library, the Buller Building and the Engineering Building, but a new focus was placed on the relationships between buildings, the open spaces and the circulation of vehicular and pedestrian traffic. To address this issue, the Board of Governors created the Campus Design and Planning Committee in 1957, of which John A. Russell was the chair, to implement modern planning for the Fort Garry campus.

MUDRY-STOVEL PLAN (1957)

In 1957, the Board of Governors appointed two architecture faculty members, Professors A.J. Mudry and J.A. Stovel, to develop a new campus plan. They undertook the project with little previous experience, limited funding, and no clear direction on the University's vision for future growth. The resulting plan suggested that campus buildings should be organized in groupings to create open spaces; the main axis of Matheson Road should become a central pedestrian mall; and vehicular traffic should be diverted around the campus. The proposed placement of buildings was restricted to the central portion of the campus, as the fields to the east and west were needed for experimental crops by the Faculty of Agriculture and the federal Department of Agriculture.

The tentative nature of the Mudry-Stovel master plan, and the fact that several of Russell's colleagues on the architecture faculty, notably James Donahue, were severely critical of it, prompted the Board of Governors to have the report vetted by an outside consultant with special experience in campus planning. The landscape architecture and planning firm Sasaki, Walker and Associates Inc. of Watertown, Massachusetts, were retained in 1961 to review the Mudry-Stovel plan and provide recommendations. They recommended that the university hire an architect, a campus planner and a landscape architect to develop an overall landscape plan to accompany the master plan.



DENIS WILKINSON PLAN (1962)

As a result of the recommendations of Sasaki, Walker and Associates Inc., Dean Russell offered a young Englishman, Denis Wilkinson, the job of landscape architect for the university as well as a position to teach at the School of Architecture. Wilkinson completed a “Proposed Landscape Programme for the Campus of the University of Manitoba” in 1964 in which he concluded that the campus should define its own space. He suggested that the campus boundaries, as well as the main traffic ways and pedestrian walkways, be lined by dense rows of trees and shrubs. Wilkinson agreed with the idea put forth by the 1957 plan to turn the section of Matheson Road between the Administration Building and University Crescent into a pedestrian mall. He suggested there should be spaces for meeting at the junctions of pathways, enhanced by fountains and sculpture, and protected by dense plantings of trees. To provide variation to the naturally flat topography, he proposed contouring the land adjacent to buildings with subtle berms and recessing the ground for pathways. Wilkinson also presented a system of covered pathways to connect the isolated elements of the campus.

Although only a small section of his plan was realized prior to his leaving Winnipeg in 1968, Wilkinson’s concepts are still evident in the courtyards and spaces of University College and the contoured landscape between the Architecture II, Music and John A. Russell buildings. Wilkinson also worked closely with sculpture students to craft what were intended to be temporary sculptures for the Fort Garry campus, many of which are still present.

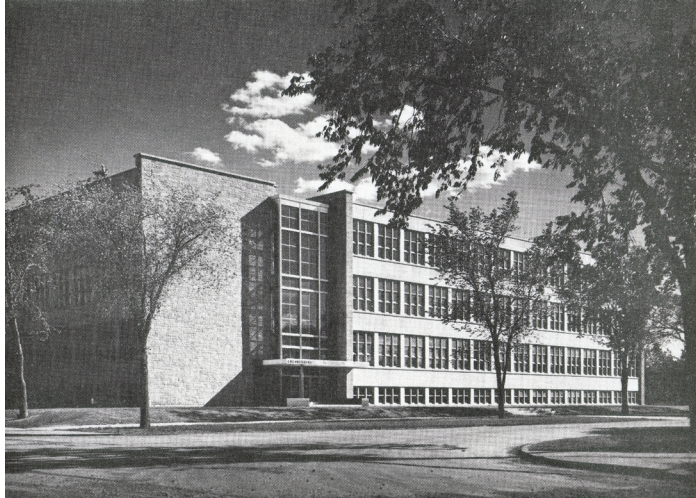
ROBERT ALLSOP PLAN (1968)

When Robert Allsop was appointed Director of Campus Planning after the departure of Denis Wilkinson, he rejected the status quo approach of a master plan and focused on developing a strategy that recognized the continuous fluctuation of needs and demands on campus. Allsop recognized that the original campus plan, rendered obsolete by the intense post-1945 growth, had not since been replaced by a new and relevant order. Allsop's new paradigm for campus development was "the university as urban centre". Planners should no longer think in terms of groups of buildings creating cloisters and quadrangles amid large open spaces. The university would have to develop a pattern of higher density to accommodate more people, more vehicles, more programs and a campus enveloped by winter during the period of its most intense usage. The consequence of this kind of thinking was to challenge some of the planning principles behind the Mudry-Stovel master plan. The axial view down Matheson Drive from the gate at Pembina Highway to the termination at the Administration Building was no longer sacrosanct. Challenged too was Denis Wilkinson's idea of converting the stretch of Matheson between University Crescent and the Administration Building into a ceremonial pedestrian mall.

During his time as director, University Centre, the initiation and central meeting point of the campus tunnel system, was constructed. Allsop's successor, Professor Alexander Rattray (also a Landscape Architect), continued treating the central campus as an urban centre, while the peripheries were thought of as areas for passive recreation with a proposed Red River walking path and a river park.

CURRENT CAMPUS LANDSCAPES

One of the most recent landscape projects on the Fort Garry campus is the recent revitalization of the pedestrian mall between the Administration building and University Crescent, also known as Curry Place. The pedestrian mall, proposed in the 1957 Mudry-Stovel plan, was designed to be completed in two phases by Scatliff+Miller+Murray (SMM). The first section, located between the Engineering Complex and University Centre, uses materials that reference the surrounding context and provides timber and steel furniture for informal meetings. The second phase, extending westward toward University Crescent, is a plaza that provides an undulating landscape, meeting spaces and a connection to many significant campus buildings.



1. Engineering Complex Additions

*75 Chancellors Circle, 1949–2005,
Green Blankstein Russell & Associates / Stantec Architecture Inc.*

105 Dafoe Road, 1957, Moody Moore & Partners.

In 1913, the original Engineering building was completed by Samuel Hooper and V.W. Horwood. This building, which still comprises the southeast section of the Engineering complex, is constructed of traditional salmon-red brick with limestone trim. Between the years 1949 and 2005, a number of contemporary additions to the original building were completed by Green Blankstein Russell Associates. The 1958 and 1962 additions utilize red brick to make reference to the original campus buildings, while the 1949 and 1967 additions broke from tradition with the use of polished limestone veneer and large plate-glass windows.

In 2005, Stantec Architecture Inc. undertook the renovation and expansion of the existing Faculty of Engineering facilities and created new facilities for the Department of Computer Science. At this point the complex became the Engineering and Information Technology Centre (EITC) and all past and present structures (with the exception of the high voltage laboratory) were divided between EITC 1 (the original campus building and the 1958 addition), EITC 2 (new 2005 construction) and EITC 3 (the 1967 addition). The 1949 addition was demolished in order to make way for the construction of EITC 2. This project was used as an opportunity to link all three sections around a central atrium and meeting space and to demonstrate structural, mechanical and electrical engineering systems to students and the public.

In 1957, Moody Moore & Partners also completed the Fetherstonhaugh High Voltage Laboratory, at 105 Dafoe Road, as an additional element at the south of the complex.



2. Elizabeth Dafoe Library

25 Chancellors Circle, 1951-1952,
Green Blankstein Russell and Associates.

"The moment when Winnipeg's architectural culture shifted irrevocably towards the modern can be identified quite precisely. In 1951 the Elizabeth Dafoe Library opened its doors to faculty and students at the University of Manitoba. It had a surface of stone, a structure of steel, and walls of floor-to ceiling glass. The space inside was open and expansive, offering visitors an experience few had encountered before."

—Kelly Crossman, *The Meaning of White, Winnipeg Modern*, Pg 131

The Elizabeth Dafoe Library (named in memory of Elizabeth Dafoe, the Chief Librarian of the University 1937-1960), also known as the Main Library, marked a significant break from earlier campus planning with traditional collegiate style buildings. The design of the library set forth the Modernist movement on the Fort Garry Campus. The floor-to-ceiling walls of glass highlighted advancements made in new glazing systems and it was the first building on campus to reveal internal functions through an exterior form. The interior space provided an easy route between the large entrance, exhibition space and reading rooms. A large mural by William McClay was designed for the open entrance space. Although breaking from the traditional design of campus buildings, limestone was used on the exterior of the building to maintain a link to the surrounding context.

Since the initial construction, the library has undergone a number of additions and renovations that have significantly altered the circulation and quality of the interior spaces. In 1978, an addition by Green Blankstein Russell Associates was made to the northwest section of the library. This addition brought the entrance to grade level and placed it at an angle to the adjacent Administration Building. The original lobby became a mezzanine to make way for a new lobby and circulation control area, and a new central stair was added for circulation. Although the original exterior wall was enclosed by a new precast concrete exterior wall, it was left exposed to the interior space.

Note: The Elizabeth Dafoe Library also houses an extensive collection of photographs by Henry Kalen in the Archives & Special Collections, which is a prized record of Modern architecture in Manitoba. Kalen also taught photography and architectural drawing in the Faculty of Architecture at the University of Manitoba. Renovations to the Archives & Special Collections, located on the third floor of the library, were completed in 2008 by Corbett Cibinel Architects.



3. St Paul's College and Chapel of Christ the King

70 Dysart Road, 1958, Gardiner, Thornton, Gathe and Associates, Vancouver and Green Blankstein Russell and Associates.

St. Paul's College and Chapel of Christ the King was one of the first projects to begin the era of modernist architecture on campus in the 1950s. St. Paul's College was founded in 1926 by Jesuits. It became affiliated with the University of Manitoba in 1931. The complex of chapel, dormitory and classrooms was designed by Vancouver architects Gardiner, Gathe and Associates, in association with the Winnipeg firm of Green Blankstein Russell. The May 1957 sod-turning ceremony marked the first phase of construction. This included two wings comprised of six lecture rooms, physics and chemistry laboratories, the University Catholic Centre units, a lunch room, a club room, the chapel and administration. The second phase of construction included residences for staff, graduates and students, further instruction accommodations, and a student lounge.

Although St. Paul's College was conceived as an individual architectural precinct within the Fort Garry campus, Gardiner, Thornton, Gathe and Associates collaborated with the architects of St. John's College to respond to the surrounding context. St. John's College is located directly east of St. Paul's College and the relationship between the colleges, the circulation requirements, and the views, informed the final composition of the complex.

The structure of St. Paul's College is a concrete frame with load bearing brick piers and walls that rest on a pile foundation. A wood plank roof deck rests on wood or steel beams throughout the



complex. The interior finishes of the college are brick, granwood, lino tile, wood panel walls, brick, and wood slats. In many locations the interior structural materials have been left exposed. The exterior finishes are rough-hewn Tyndall stone and green mosaic tile on the upper walls of the chapel. On the west face of the chapel, Vancouver artist Lionel Thomas gave Winnipeg its largest outdoor mosaic when he covered the entire upper level of the Chapel with tile-work.

The Chapel of Christ the King is the centre of the entire design concept for the college. A precast concrete bell tower, in which the bells were installed in 1966, identifies the main entrance of the college. Modest in size, the Chapel seats 380 people. The absence of pillars in the interior contributes to the sense of freedom and space and to the purity of the architectural form. The upper walls were constructed with hollow cardboard boxes, sprayed with concrete, in order to eliminate the need for columns that would disrupt the clarity of the space. The resulting rigid frame of concrete, weighing approximately 800 tons, is carried on four piers hidden in the end walls. Curtains of glass cover the first level of the east and west walls of the chapel. The white upper level and ceiling, punctured with twelve skylights, contrasts with the dark brick of the lower side walls. Blond oak pews, a pine canopy or baldachino, a Swedish granite altar and Minnesota granite altar steps enhance the richness of the interior space. The floor of patterned polished brick becomes increasingly elaborate as one moves from the nave to the sanctuary. The chapel doors are covered with hand-hammered, embossed copper by Winnipeg goldsmith, Ludwig Nickel, who also designed the Tabernacle with matching candlesticks, the black Chalice with cloisonné inlay and the mural of Our Lady of the Apocalypse. Fourteen sculptural stained glass panels depicting the fourteen stations of the cross were also designed for the space by M. Gabriel Loire of Chartres, France.



Photo, left: St. John's College and Chapel,
image courtesy of Henry Kalen (283D3.1-11)



Photo, right: St. John's College and Chapel,
image courtesy of Winnipeg Building Index

4. St. John's College and Chapel

92 Dysart Road, 1958, Moody and Moore and Partners.

St. John's College was one of the three founding colleges of the University of Manitoba, beginning as a school for Red River settlers in 1820 and becoming an Anglican college in 1866. The 1958 complex consists of dormitories for men and women to the east, teaching and administration to the west and the chapel to the north. The exterior of the complex is clad in rough-hewn limestone like that on St. Paul's College located directly to the west, and on many other campus buildings.

Like St. Paul's College, the chapel is the dominating element of the complex, rising over thirty feet to a gently pitched copper-clad roof. Rising from a point on the roof over the chancel within is the flèche, an ornamental spire which holds a six foot tall golden cross. The narthex of the chapel is accessed through a glazed entry foyer. A metal screen of brass, copper and steel plates, rods and wires was designed and crafted by Leo Mol to span east to west, separating the narthex from the nave. The structural concrete arches that form the nave of the chapel are left exposed, providing a contrast to the wooden ceiling. Fifteen windows in the chapel are made up of multiple layers of color and line and were designed by George Elsey, who also designed the exterior north gable bronze sculpture depicting St. John the Apostle, executed by Leo Mol.



5. John A Russell Building

84 Curry Place, 1958-1959, Smith Carter Katelnikoff Associates.

2005 (rehabilitation), LM Architectural Group.

2007-2009, (interior courtyard rehabilitation),

Hilderman Thomas Frank Cram.

The School of Architecture was finally able to leave behind a series of temporary locations and move into permanent quarters in 1959. The John A. Russell Building is one of the most influential works of modernist architecture in Winnipeg. The design was inspired by leading modern educational facilities: the Bauhaus buildings in Dessau by Walter Gropius and Crown Hall at the Illinois Institute of Technology by Ludwig Mies van der Rohe.

The form of the building is simple and classical. Partially the product of a limited budget, the simplicity of form is also a response to the prominent central site on campus and the mixture of architectural styles that surround it. The resulting design appears calm and consistent from all sides. The building has an introspective focus - instead of focusing the views outward to the campus, the entire building centers around a two storey glazed courtyard. This internal volume, open to the sky, is overlooked by the library, administration, staff lounges and student lounges. Floor to ceiling curtain walls were chosen strategically to create transparency around the courtyard and the staff offices. Clear and opaque glass panels set within aluminum extrusions form the four courtyard walls. The floor of the court has planting areas, interspersed with precast exposed pebble aggregate slabs and a pattern of crushed limestone.

The upper floor of the building houses workspace and a student lounge, while the main floor accommodates the library,

Photo, top: John A Russell Building,
image courtesy of Winnipeg Building Index

Photo, bottom: John A Russell Building Courtyard,
image courtesy of Scott Normand.

classrooms, administration, staff rooms and lecture theatre. When first constructed, the basement held a workshop, photo laboratory, and drawing, painting and sculpture studios, along with building services.

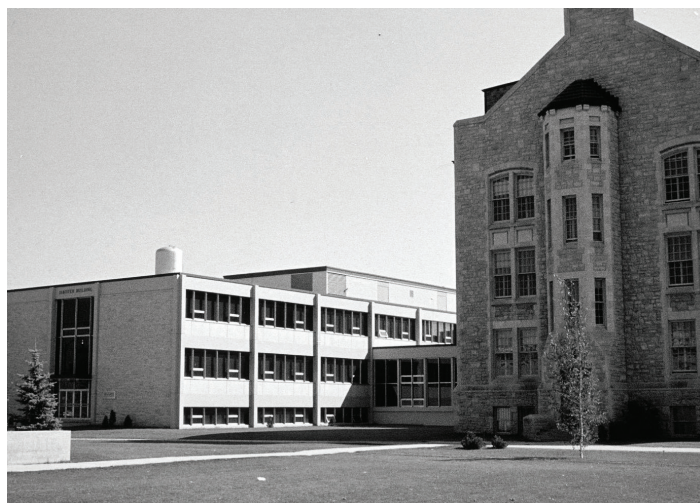
The rectangular structure cantilevers 10 feet over a recessed base on the east and west sides. Steel frame columns project on the north and south walls to express the structure with clarity. The curtain walls were composed of aluminum extrusions over wood cores, filled with a combination of clear glass (substituted with gray glass on the south side) and translucent glass backed with asbestos sheet. The remaining exterior elements are sheathed in precast concrete piers and spandrels.

While having the appearance of a curtain wall exterior cladding system, the original design was in reality a hybrid of early curtain wall technology and wood frame construction, assembled to appear like curtain wall. This unique cladding system, while highly innovative, deteriorated over time to the point where replacement became necessary.

The large circulation area on the main floor, along with the pronounced bridged entries on the north and south sides, allow the building to be utilized for through-traffic around the campus. The North bridge entry supports a sculptural work by Cecil Richards, titled "Night and Day".

No additions have been made to the John A. Russell Building but the Faculty has acquired additional space in the Architecture II Building and C.A.S.T (2002). As a result, the John A. Russell building is primarily used by students in the departments of Interior Design, Landscape Architecture and Urbanism. In 2004 - 2005, an intensive building restoration was completed by LM Architectural Group, with the help of Bockstael Construction Ltd., and the University of Manitoba's Physical Plant. The breakdown of the extruded aluminum storefront framing systems and building seals, along with asbestos issues, posed serious concerns for the future of the structure. As well, there was a desire to upgrade thermal performance and energy conservation which required removal and replacement of the cladding. In 2008 LM Architectural Group was awarded a Heritage Winnipeg Preservation Award for envelope preservation.

The influence of the John A. Russell Building can be seen in the design of many other campus buildings. Simple rectangular forms and projecting entrance platforms with wide stairs can be found in the design of the Music Building, the Architecture II Building, and the Education Building. Similar twin entrances and a central two-storey courtyard can be seen at the Animal Science Building.



Photo, top: Crop Research Building,
courtesy of Henry Kalen (250D6.1-4)

Photo, bottom: Isbister Building (left),
courtesy of Winnipeg Building Index

6. Crop Research Building

7 Service Street 3S, 1960–1961, Waisman, Ross and Associates.

Also known as the Plant Science Building, this contemporary building was designed to relate to a series of existing faculty buildings surrounding the site. The materials used in the interior, including quarry tile, natural cedar and brick, were chosen for the earthy quality that relates well with the studies of the faculty.

This structure is now part of an Agricultural complex that occupies a generous section of Dafoe Road between University Crescent and MacLean Crescent. The complex includes original campus buildings as well as a 1996 addition at the corner of Dafoe Road and Service Street 3S.

7. Isbister Building

183 Dafoe Road, 1960–1961, Blankstein, Coop, Gillmor and Hanna.

Originally used for the study of Commerce and Psychology, this structure now houses the study of Geography, Near Eastern and Judaic Studies and Sociology. This is one contemporary design that aimed to reference the early campus buildings in both scale, style and selection of materials. The rough-hewn Tyndall stone, exposed concrete and polished limestone dressing, complement the Tier building (1932), connected to the west.



8. Science Complex: Allen Building, Parker Building and Armes Building

30A Sifton Road, 144 Dysart Road, 30B Sifton Road, 1960-1961, Green Blankstein Russell and Associates.

The complex known as the Science Lecture Block is composed of three buildings: the Armes Building which houses lecture rooms; the Parker Building, which has chemistry laboratories; and the Allen Building which has physics laboratories. This three-block addition to the Fort Garry Campus is sheathed in pre-cast concrete and Tyndall stone, with tinted windows in vertical groupings. The buildings were completed and opened in 1960. In 1967, an additional floor was added to both the Parker and Allen buildings.

The Armes Building was named for Henry P. Armes, former Dean of Arts & Sciences. The Parker Building honours Matthew A. Parker, who was one of the first six science professors to join the University faculty. The Allen Building, which houses the Cyclotron Research Station, is named for the University's first professor of physics, Dr. Frank Allen.

Photo, left: Science Complex, courtesy of The University of Manitoba Capital Projects

Photo, right: Animal Science Building, courtesy of Henry Kalen (367D3.1-5)



9. Animal Science Building

12 Dafoe Road, 1960-1962, Smith Carter Searle Associates.

Housing the Department of Entomology and Animal Science, this symmetrical two-storey building bears many resemblances to the John A. Russell Building designed by Smith Carter Katelnikoff Associates. The twin entrances marked by cantilevered decks, and a two-storey interior courtyard, reference the notable 1959 structure. Similarly, the courtyard is enclosed by a curtain wall, which in this case utilizes tinted gray glass. The designer for the landscaped interior courtyard was Canadian horticulturist, Stan Westaway, who ran the greenhouse at the university.

The exterior of the structure is sheathed in panels of Tyndall stone, precast concrete and aggregate panels. The design is rather utilitarian and the greatest emphasis was on the utility of the laboratories and classrooms.



10. Education Building

*71 Curry Place, 1961-1962, Libling, Michener and Associates.
Additions in 1965 and 1969, Libling, Michener and Associates.*

This building provided a welcome permanent home to the Faculty of Education. The faculty was previously located in a variety of temporary spaces including the Administration Building, the Soil Science Building and Hut "J".

The Education Building is sheathed in polished limestone panels, with a recessed grouting detail that provides a distinctive shadow outline to the panels. The windows are grouped in threes, with a rhythm of one wide and two narrow. The exterior has had few alterations.

The interior has a central reception area dominated by a floating staircase and light well. Unfortunately, since the initial construction, the building has undergone a number of interior modifications to meet new functions which have severely altered the public spaces.

Photo, above: Education building,
courtesy of Henry Kalen (376D4.2-7)

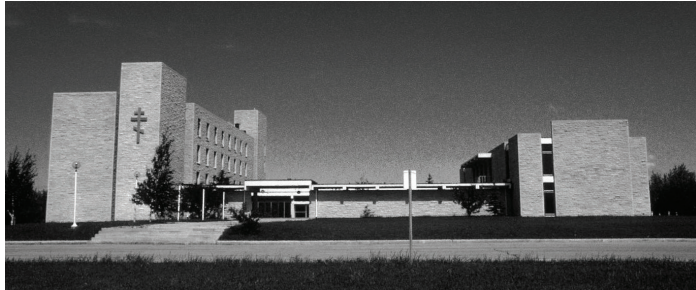
Photo, opposite: Pharmacy Building,
courtesy of Monica Hutton



11. Pharmacy Building

50 Sifton Road, 1961-1962, Blankstein, Coop, Gillmor and Hanna.

The Department of Pharmacy at the University of Manitoba was created in 1914 and it was not until 1970 that it became the Faculty of Pharmacy. The department was first located on Notre Dame, at the Health Sciences Hospital location. It then moved to Broadway and finally to the Fort Garry campus in 1949. The Department occupied an army H-Hut (temporary structure) until construction of a new building in 1962. The building is long and narrow and was considered to be very contemporary in its design. The exterior finish is of rough-hewn, random patterned Tyndall stone veneer. This choice of building material was more traditional and likely chosen to blend with adjacent structures. The north and south walls have large aluminum windows, which lighten the stone facades. In 2006, Pharmacy left the campus and returned to the Notre Dame location, to a new building. 50 Sifton Road now houses the Department of Biological Sciences.



12. St. Andrew's College

*29 Dysart Road, 1963, Green Blankstein Russell and Associates
(lead architect: Alex. W. Nitchuk)*

St. Andrew's College is located in the most northern section of the Fort Garry campus. It is the first Ukrainian-language college to be opened by the Greek Orthodox Church in North America. Named after St. Andrew, apostle of Greece and Scythia and the patron saint of the Ukrainian Greek-Orthodox Church of Canada, the library contains one of the largest collections of orthodox manuscripts and books in the world. St. Andrew's College in Winnipeg traces its beginnings to the Ukrainian Greek Orthodox Seminary which was established in Winnipeg in 1932. Previously, pastoral courses in Theology were only available in Saskatoon and Regina.

The plan for the establishment of a College was presented to and approved by the Clergy Conference of the Ukrainian Greek-Orthodox Church of Canada on June 25, 1943. Subsequently, St. Andrew's College was incorporated under its charter in September 1946 on the premises of the former St. John's College (Anglican) on Church Avenue in Winnipeg. The programs included a degree program in the Faculty of Theology, a regular Department of Education High School program (until the end of the 1952-53 academic year), and Ukrainian Cultural Summer Courses (introduced in 1947 and continued until 1980s).

After the discontinuation of the High School program, Church leaders expressed the need to move the institution to the University of Manitoba campus. In 1960, negotiations were initiated with the University of Manitoba, culminating on June 14, 1962 when St. Andrew's College became an associated college of the university. Construction of a new building on the campus began in December 1962 and was completed in the spring of 1964.

Similar to St. Paul's College and St. John's College, both located south of St. Andrew's, initial drawings and plans included a chapel in the southeast corner of the complex that was ultimately never realized. As the college exists today, an entrance portico on the south side leads to an exterior courtyard, defined by a four-storey rectangular building to the west, a two-storey rectangular volume to the east, and a single-storey intersecting structure to the north. The buildings are finished in rough-hewn, random patterned Tyndall stone, with polished Tyndall stone dressing accentuating the windows.



13. Mary Speechly Hall and Pembina Hall

34 MacLean Crescent, 1963-1964, Waisman, Ross and Associates.

Mary Speechly Hall, also known as the Women's Residence, is a 10-storey contemporary high-rise that was the tallest structure on the Fort Garry campus at the time of its completion in 1964. The structure accommodates 245 residents in single and double rooms, with the main and tenth floors housing lounges for student gatherings. The main floor lounge is inset from the top nine floors that are supported by large concrete columns around the perimeter, creating a covered arcade space that envelops the lounge. On the south side, all rooms have a view to the Red River that runs along Freedman Crescent.

The exterior is clad in red brick and poured concrete, creating visual harmony with neighboring Taché Hall.

Pembina Hall, joined to Mary Speechly Hall by a glazed corridor, houses the Faculty Club on the main floor and the student cafeteria on the upper floor. Both floors have full window walls on the south side, and the hall is accentuated by a very distinctive, folded plate concrete roof line.



14. Pembina Hall Residence

30 MacLean Crescent, 2011, Raymond S C Wan Architect Inc.

As the first phase of a five-year, one hundred million dollar redevelopment project for the Fort Garry Campus called Project Domino, a new high-rise residence was constructed, spanning over the existing Pembina Hall (1964). Pembina Hall is comprised of two masonry-clad towers supporting glazed residences between. The new structure accommodates 360 students in single rooms. Each room has an exterior glass wall with either a view north to the campus or south to the Red River. This structure, along with Investors Group Field (2012), has significantly altered the skyline of the Fort Garry Campus. The design is quite successful in retaining and respecting Pembina Hall while providing new, necessary accommodation.

The new residential space that this project provided allowed Taché Hall to be vacated and renovated into the new quarters of the Faculty of Music and School of Art, another part of Project Domino. During construction Bird Construction erected one of the largest steel box trusses ever installed in Manitoba. The truss joins the 14 and 15-storey towers at the fourth level spanning the existing Pembina Hall building. The truss took months of planning and fabrication, eight days of assembly and two 300-ton cranes to install.

Photos, above: Pembina Hall Residency, courtesy of Monica Hutton

Photo, opposite: University College, courtesy of Henry Kalen (403D3-18)



15. University College

210 Dysart Road, 1963-1964, Moody, Moore & Partners.

Designed to accommodate 500 day students and 50 resident students, University College marked a radical departure from traditional residential campus buildings such as Taché Hall. A steel and concrete structural frame and an integrated air-conditioning system are indicative of the changing technologies and construction methods of the time. The complex is composed of three parts. The centre block, stretching north-south, is a seven-storey dormitory faced with rough-hewn Tyndall stone and courses of concrete. The twinned windows are offset at each floor creating a checkerboard effect on the building's facade. The main floor of the dormitory houses the general and student offices and a reception room, with twin full-storey windows staggered on the east and west sides. To the west is a three-storey classroom wing, with a planetarium located on the second floor, which is connected to the dormitory by a fully glazed concourse. The second and third floors have precast concrete sun control panels projecting between each window. To the east is the dining hall and kitchen. It is connected to the dormitories by two glazed hallways that enclose an open courtyard and sculpture garden. A full window-wall on the west of the dining room, or Great Hall, opens to the sculpture garden.



16. Architecture II Building

56 Curry Place, 1964-1965, Smith, Carter, Searle Associates.

Before the Architecture II Building housed the Faculty of Architecture, it was called the Fitzgerald Building for the School of Art. This contemporary structure clearly expresses the interior functions of the building through its exterior components. The main south side entrance, marked clearly by a cantilevered deck reminiscent of the John A. Russell Building to the east, leads into a dark teak- finished entry hall that joins offices and the former School of Art's Gallery One One One. North-facing clerestory windows that stretch the full length of the roof bring natural daylight into the third floor that was originally used for painting studios. The north-facing windows are the largest in the building since the studios and workshops are located on that side. The ceramic studio, originally located in the basement, flowed into an outdoor area equipped with a firing pit and kilns.

The projecting towers at each end of the building, finished with a polished Tyndall stone veneer, house stairwells that are lit by clerestory windows. The east and west walls are clad in rough-hewn random-patterned Tyndall stone. The north and south structural bays are identified by the polished Tyndall stone piers that rise the full height of the building. The space between the piers is filled with a combination of reflective glazing and charcoal and pale grey precast exposed aggregate concrete panels.

The School of Art is now located in the ARTlab designed by Patkau Architects and LM Architectural Group and later also in the renovated Taché Hall.



17. Marcel A Desautels Faculty of Music

65 Dafoe Road, 1964-1965, Smith, Carter, Searle Associates.

The Faculty of Music building is a two-storey building, with an exterior sheathed in polished grey Tyndall stone and black exposed aggregate concrete window spandrels. Two dominant piers create a strong vertical emphasis on the exterior of the building and rise to meet a projecting roof cornice.

The building was designed for a modest enrollment of sixty students in the 1960s. Enrollment in the Faculty of Music building has expanded to over 250 students and new facilities are required. As part of Project Domino, Taché Hall, previously a residence, will be converted into a new home for the Centre for Music, Art and Design, along with the Faculty of Music and School of Art. The Marcel A. Desautels Faculty of Music Building will then be repurposed.

Photo, above: Marcel A Desautels Faculty of Music, courtesy of Winnipeg Building Index

Photo, opposite: Ellis Building, courtesy of The University of Manitoba Capital Projects



18. Ellis Building

13 Freedman Crescent, 1966, George A. Stewart.

The Ellis Building, also known as the Food Science Building, was originally constructed as a one-storey structure. In 1969 a second storey was added, as well as a new two-storey wing to the south of the 1966 building. Materials and finishes were chosen to duplicate the original portion. The facility, used by the Departments of Soil Science and Food Science, is sheathed in rough-hewn, random patterned Tyndall stone and concrete. The windows are grouped in vertical pairs, which provides a rhythm to the facade, as well as lightening the visual appearance.

The Ellis Building was named in honour of the former Head of the Department of Soil Science, J.H.Ellis. Ellis was best known for mapping and classifying Manitoba soils.

19. University Centre

*65 Chancellors Circle, 1966-1969, Number Ten Architectural Group
Architect: Carl R. Nelson Jr. (then director of the Bachelor of Environmental Studies program in the Faculty of Architecture)*

University Centre is a five-storey poured and precast concrete structure that marks a critical shift in modern campus architecture in the 1960s. This project arose at a time when Robert Allsop, appointed director of campus planning in 1968, was developing a new flexible planning strategy for the campus as an urban centre. Campus leaders had begun recognizing the continually shifting needs for space on the Fort Garry campus and they desired buildings that were multi-purpose and flexible. Carl R. Nelson Jr., the project architect and director of the Bachelor of Environmental Studies program in the Faculty of Architecture, was well aware of the issues facing the



Photo: University Centre, courtesy of Henry Kalen (933D3.4-16)

campus and worked to realize many of Robert Allsop's ideas through the design of University Centre. This new outlook on campus planning abandoned the pursuit of monumental buildings on campus in favour of buildings that could be altered and reconfigured based on necessity and demand.

University Centre had restrictive design requirements that defined the ultimate form. The overall design was to maintain an unobstructed view down Chancellor Matheson Road to the portico of the Administration Building. This requirement to remain unobtrusive to the surrounding structures drove the project below grade. The above grade facilities include dining space, offices and conference rooms, while the lounges, cafeteria, bookstore and open spaces for gathering were located below grade. The building can be compared to an iceberg, as a large portion of the structure is not readily seen. This below grade construction was the catalyst for a campus wide network of climate-controlled tunnels which was another key agenda of Robert Allsop's Plan. University Centre serves as the central meeting point for all of the campus tunnels culminating at a two-storey multifunctional space referred to as a "campo". This space was conceived as a main street that could act as a market, plaza or venue for speech and debate.

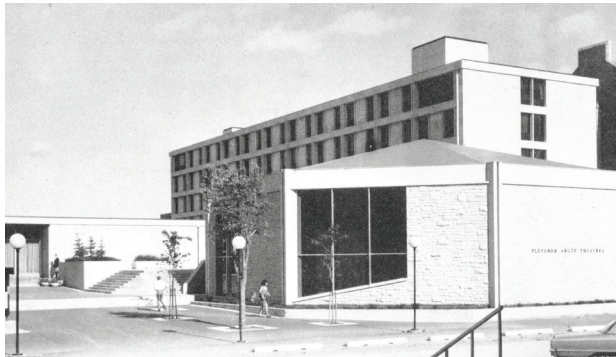
The interior campo flows outward through glazed walls to a landscaped exterior plaza of quarry tile pavers and poured concrete on the south. The plaza, designed by Lombard North Ltd., serves as a pedestrian walkway and meeting space. Projecting screens around the windows, brise soleil, are integrated into the structure to diminish the glare of the sun. The overall form, composed of planar elements and dynamic spaces, was inspired by Le Corbusier's Monastery of La Tourette at Eveux in France.

Brise soleil: an architectural device (as a projection, louvers, or a screen) to block unwanted sunlight.

20. Fletcher Argue Building and Theatres

*15 Chancellors Circle, 1966-1967,
Waisman, Ross, Blankstein, Coop, Gillmor, Hanna.*

Originally occupied by the Faculty of Arts, this six-storey rectangular building is entered from a sunken plaza through a below-grade main entrance. To the left of the plaza is a protruding, octagonal volume that houses the theatre. The deep, narrow building is located between the Tier Building (1932, Arthur A. Stoughton) and the Elizabeth Dafoe Library, all of which are connected through an underground concourse. A refined geometric grid organizes the rooms on each floor. The building is finished in rough-hewn random-patterned Tyndall stone, precast concrete, polished Tyndall stone and black spandrels below the windows. The windows on the sixth floor provide a view from the faculty lounge to the central campus space.



Photo, above: Fletcher Argue Building and Theatres, courtesy of The University of Manitoba Capital Projects



21. Duff Roblin Building

190 Dysart Road, 1970, Green Blankstein Russell and Associates.

As an academic building built in 1970, the Duff Roblin Building fits the profile of Brutalism as a form of expression linked to civic and institutional projects from this era. Like the Public Safety Building, 191 Princess Street, this structure is notable in demonstrating a Brutalist approach which largely forgoes an exterior reliance on concrete in favour of the use of Manitoba Tyndall limestone. Here this material serves to link this structure to the campus as a whole, in which the use of Tyndall is a conspicuous theme. Interestingly, this stone is here treated in such a way as to closely resemble that common Brutalist material, corduroy concrete – incised with deep-set vertical bands and presenting a roughly-hewn surface. Other Brutalist elements include the thin clerestory windows and a clear exhibition of structure.

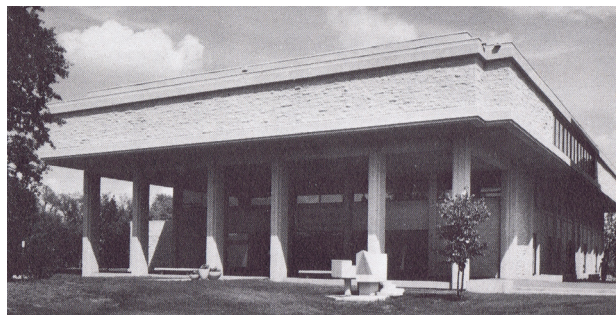
The building, named in honour of former premier of Manitoba, Duff Roblin, houses the Psychology Department and zoology laboratories.

Photo, opposite: Duff Roblin Building, courtesy of Monica Hutton

22. Robson Hall

224 Dysart Road, 1969, Ward MacDonald and Partners.

In 1970 the Faculty of Law finally vacated the Law Courts building on Broadway and joined the Fort Garry Campus, occupying new quarters in Robson Hall. Although inarguably contemporary, the structure still makes reference to a neoclassical style with its symmetry and monumental columns. The top floor of the rectangular three-storey structure projects four structural bays over the east side and three bays over the west side, each to meet a pair of freestanding, precast concrete columns. This creates a grand portico to the main entrance on the west, and a roofed exterior space to the east. A projecting block on the north elevation, entered from the main floor hall, houses the Moot court. Also housed on the main floor are two lecture rooms and a student lounge. The interior spaces were designed with natural materials such a rough burnt brick, highly polished oak, terrazzo and concrete. The stairwell, located inside the main entrance to the west side, incorporates an element of the original home of the Faculty of Law, between the offices on the second floor and the



Photo, above: Robson Hall, courtesy of Wayne Foster

library on the third. A stained and painted glass window by Robert Bell of Winnipeg and Robert McCausland Co. of Toronto, and completed in 1893 in the Old Law Courts Building, is installed here. The exterior of Robson Hall is faced partially with rough-hewn random-patterned Tyndall stone in reference to the surrounding campus buildings, and with precast concrete panels of a unique aggregate to give the structure a distinctive texture.

23. Swimming Pool Building

25 Dafoe Road, 1964-1965,
Waisman, Ross, Blankstein, Coop, Gillmor, Hanna.

The Swimming Pool Building, also known as the Joyce Fromson Pool, was the first structure of the Frank Kennedy Centre complex to be constructed. It is the only building of the complex to be faced completely in rough-hewn, random-patterned Tyndall stone. The swimming pool measures 50 x 122 ft. and is enclosed in a clear span structure. The building has thick outward-sloping walls and a full window-wall facing east, which allow access to an adjacent garden area.



Photo, opposite: Swimming Pool Building, courtesy of Henry Kalen (607C5-17)

24. Frank Kennedy Recreation Centre and Centre of Administrative Studies

17 Däfoe Road, 1972, Number Ten Architectural Group.

In 1965 the Swimming Pool Building was opened as the first structure in the east section of this complex. Intended to be the focal point of athletic activity on campus, the Frank Kennedy Centre is the first building to be encountered when driving east down Chancellor Matheson Road. Similar to the design challenge of University Centre, it was considered a critical design requirement to maintain an unobstructed view to the portico of the Administration Building. In response to this desire, the complex was stretched out below grade to the north, in order to keep the building forms low. The requirement for a windowless gymnasium resulted in a composition of precast aggregate piers, filled with chocolate brown sheet steel siding on the north and south elevations. The sheet steel siding has since been replaced. Verticality is emphasized on the east and west sides through the arrangement of polished concrete panels on the exterior walls. The Frank Kennedy Centre houses two large multi-purpose

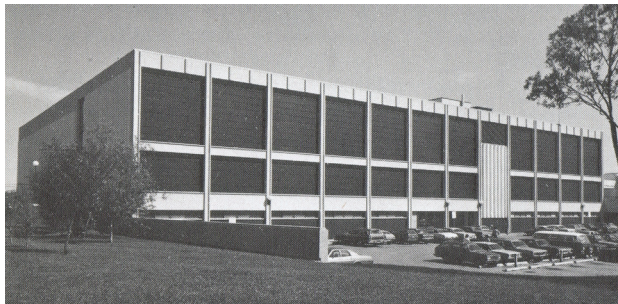


Photo: Frank Kennedy Recreation Centre and Centre of Administrative Studies, courtesy of Wayne Foster

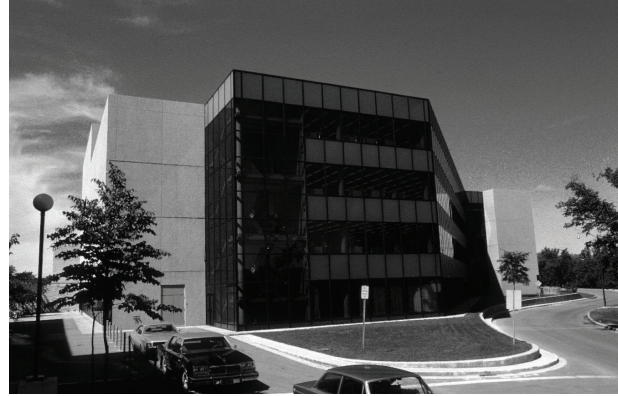
gymnasiums, a gymnastics room, a dance studio, locker rooms, offices, classrooms and a 250-yard oval track in the crawl space of the structure. The complex includes a sky-lit wing of offices, classrooms, library and study halls.

25. The Active Living Centre

Däfoe Road and University Centre, 2014, Cibinel Architects and Batteriid, Iceland

The facilities of the Frank Kennedy Recreation Centre will be supplemented with the construction of the Active Living Centre, a project which began in 2009. Cibinel Architects, in collaboration with Batteriid Architects (Iceland) has designed a new facility to directly contrast with the existing centre. The aim of the project is to engage the public at both a pedestrian and vehicular scale, support existing campus flows and increase connectivity as the new introduction to the Fort Garry campus.

Instead of a windowless construction, the new structure will have an extroverted focus, with a highly transparent facade. The new 100,000 square foot facility will be connected to the Frank Kennedy Centre at three levels, and by tunnel to the architecture faculty and thus to the rest of the campus. The Frank Kennedy Centre building will remain and will function with the new Active Living Centre as one large facility, with a centralized member services desk. Applied research will also be moving into new space at ALC. The current gymnasiums and courts in Frank Kennedy Centre will remain in use, and newly renovated locker rooms will serve all fitness areas. A large public atrium and fully glazed facade will allow views of the activities within the space and will connect members visually to nature and to the rest of the campus.



26. Machray Hall

186 Dysart Road, 1972, Smith Carter Searle Associates.

Formerly called the Northeast Multi-Purpose Building, this structure houses the Faculty of Science and marks a departure from the Science Complex, located directly to the west and completed by Green Blankstein Russell and Associates in 1961. The exterior is sheathed in panels of exposed aggregate concrete and integrates a curtain wall of bronze-tinted glass on the northeast elevation, allowing patrons of the Science library to overlook the Red River from the interior.

The building is named after Robert Machray, who was the first Chancellor of the University of Manitoba and the Archbishop for Rupertsland. Machray believed strongly that religion and education were equal partners and he was responsible for pressuring the provincial government to include natural sciences as part of the curriculum.

Photo, above: Machray Hall, courtesy of Winnipeg Building Index

Photo, opposite left: Freshwater Institute, courtesy of Wayne Foster
Photo, opposite right: Freshwater Institute, courtesy of Wayne Foster

27. Freshwater Institute

501 University Crescent, 1970-1972, Green Blankstein Russell Associates.

The Freshwater Institute was built to house the Fisheries and Marine Service of the Federal Department of the Environment, and is divided into numerous volumes, based upon function. The low foreground building to the left of the main entrance houses the administrative wing, the small block to the right houses the auditorium, and the separate five-storey structure houses laboratory and research facilities, and accommodations for scientific and technical personnel.

The rough finishes reflect the emphasis of Brutalist style architecture on the unconcealed use of materials. Exposed poured concrete, along with vertically raked precast concrete panels and quarry tiled pavers, create continuity from interior to exterior.

Upon entry to the building, a steep roof stretches upward to open up the space of the foyer. An impressive floating staircase with heavy oak railings and fittings is the highlight of the four-storey entry space. It is further enhanced by a glass-enclosed fountain sculpture by George Norris that recycles glycol rather than water. Circular forms designed by Winnipeg artist Tony Tascona, resembling colourful microscopic organisms in a petri dish, further decorate the space suspended above the staircase.



28. Wallace Laboratory

25 Dysart Road, 1986, IKOY

Addition, 2012, FT3

The Department of Geology and Mineralogy at the University of Manitoba was established in 1910 with the appointment of R.C. Wallace as Head. Similar to other departments, it occupied many locations throughout its history. As the activities and area of research grew, so did the need for larger, more complex laboratories and specialised research space. On October 26, 1986 the new building was officially opened and named after R.C. Wallace, the first head of the Department of Geology and Mineralogy. Coinciding with the opening, the Department's name was changed to the Department of Geological Sciences.



Photo: Wallace Laboratory, courtesy of Monica Hutton

The choice of IKOY to design the Wallace Building resulted in a major change in architectural style on the campus. IKOY's design philosophy embraced prefabricated construction and the use of industrialised building components. The exposed structural, electrical and mechanical systems of this contemporary structure make it a uniquely identifiable campus building. Of particular note is the 18 foot wide and full-height "street" which runs through the building.

Structural precast concrete columns, set on piles, have integrated haunches that support the precast concrete beams spanning between them. Twelve inch thick hollow core concrete planks, that are visible from the interior and exterior, cantilever into the central atrium and create an upper level walkway. The hollow core planks also serve as conduits for air distribution duct work. Other mechanical systems are brightly colored and easily identifiable. The curtain wall envelope allows the structural elements to be expressed as clearly from the outside as the inside.

The facility accommodates a wide variety of laboratories for the teaching of geological sciences. In addition to the laboratories, the building includes a two-storey administrative section, staff offices, conference rooms, classrooms and two-tiered lecture theatres that accommodate 140 students. A three-storey glazed galleria links all of the spaces, creating a gathering space for staff and students.

An additional floor, designed by ft3 architects, was added in 2012.



29. Drake Centre

181 Freedman Crescent, 1985-1987, Gaboury Associates Architects Inc.

This four-storey structure houses the Asper School of Business and the Transport Institute. The 130,000 sq. ft. structure is finished in red brick with decorative stripes of Tyndall stone. The choice of material pays homage to the neighboring historic Taché Hall. The exterior of the building is quite restrained with ribbons of windows providing the main decorative element.

The site was chosen by architect Étienne Gaboury for the view across Freedman Crescent to the Red River and for the proximity to the central campus buildings.

Photo, left: Drake Centre,
courtesy of Monica Hutton

Photo, right: Helen Glass Centre for Nursing,
courtesy of LM Architectural Group

A large central atrium serves to bring natural light into the interior spaces and provides the opportunity for students and professors to cross paths or gather to discuss ideas.

The building won a Manitoba Association of Architects' award in 1989.

30. Helen Glass Centre for Nursing

89 Curry Place, 1999, LM Architectural Group.

The Helen Glass Centre for Nursing is located immediately east of the Education Building, that was completed by Libling Michener and Associates in 1962. The structure is carefully articulated so that natural light reaches all of the offices and teaching spaces, contributing to the energy efficiency of the building. A central atrium is the primary design feature and meeting place of the building and features a cantilevered stair. This project had an extremely short timeline for design and construction, being completed in thirteen months with a fast-track delivery method. The centre is located on the previous site of the Bison Building (1952).

BISON BUILDING (DEMOLISHED)

95 Curry Place, 1948

First addition, 1952, Green Blankstein Russell and Associates

Second addition, 1960, Green Blankstein Russell and Associates

31. C.A.S.T. (Centre for Architectural Structures and Technology)

91 Dafoe Road, 2002, GBR Architects Ltd. and Herbert Enns

As a collaboration between C.A.S.T. Programme director, Mark West and architect Herbert Enns, the C.A.S.T. laboratory building was constructed as an extension to the architecture programme to test structural and material possibilities through wood, metal, concrete, masonry and textile fabrication workshops. The 5,000 sq. ft. space is situated between the schools of Engineering and Architecture and, reflecting the focus of the program on connecting various fields of experimentation. The building was designed to provide opportunities for collaborative and full-scale construction in order to complement the modern education of architects and engineers.

A number of building elements were incorporated to facilitate a new mode of education. Ten openings were intentionally left in the masonry cavity walls for infill projects to be designed, built and installed by students. The building also provides space along the south facade to test building performance against the fluctuating climate of Winnipeg. These building elements provide opportunities for students to discover the physical implications of working directly with a full scale architectural project. The building is also designed to support traditional classroom studies of construction technologies through the exposure of its structural, electrical and mechanical systems.



The exterior of the building is a highly articulated composition of brick, Tyndall stone and glass. The southwest corner of the structure is accentuated by a protruding Tyndall stone shield on the second level. Unlike other campus buildings, this Tyndall stone is thinly cut and installed to further give an appearance of thinness and lightness to the building skin. Below the Tyndall shield is a storefront window system that wraps the corner, creating a connection between Dafoe Road and the internal workings of the centre. Passers-by are drawn to a showcase of continually changing work that is displayed in the southwest windows. The interior of the building is a rough, large, open space, with a 1,200 sq. ft. loft, finished with smooth and rough concrete block.



32. Environmental Safety Building

27 Service Street 1SW, 2005, Corbett Cibinel Architects

The primary design issues driving this hazardous waste transfer station were safety and emergency response considerations. The seemingly simple structure integrates intrinsically safe electrical systems, a potentially explosive chemical storage area, a walk-in fume hood for bulking chemical waste, security cameras that are web accessible to emergency responders, and low expansion foam and Hi-Fog water mist fire suppression systems.

Corrugated metal spans the roof, sloping downward from south to north to reduce the accumulation of snow on the structure during the winter months. The exterior is clad in Tyndall stone on three sides and corrugated metal on the south. The east and west sides have extensive glazing to bring light into the space, and a small band of clerestory windows are installed below the roof line on the north facade. All of the building components are carefully articulated and highly functional, expressing the efficiency of the overall structure.

Photo, left: Environmental Safety Building, courtesy of Monica Hutton

Photo, right: Migizii Agamik, courtesy of Monica Hutton

33. Migizii Agamik

114 Sydney Smith Street, 2008, Prairie Architects Inc.

Migizii Agamik, also known as the Bald Eagle Lodge or the Aboriginal House, is a pivotal project in bringing representation of the Aboriginal community to the architecture of the Fort Garry Campus. The building focuses on the integration of Aboriginal traditions and culture and was developed through collaboration with Aboriginal designers, representatives and elders. A computer lab, student lounge, student council office, gathering space, boardroom and kitchen are some of the activities.

The Healing Lodge, a circular spiritual space, is annexed to the west side of the building. Symbols and traditions, central to Aboriginal culture, were incorporated into these spaces. Thirteen ribs within the student lounge reflect the thirteen teachings associated with the full Grandmother Moon. The circular center of the building references Mother Earth, balance and harmony, and the Medicine Wheel, while the seven poles within the building reflect other Aboriginal teachings. The four cardinal directions are referenced by the positioning of the lounge. Stretching precisely east to west, a Tyndall stone wall rises from the ground on both ends to provide a route to the building. The main building entrance is oriented towards the rising sun, to signify rebirth and new life.

The Aboriginal Centre is the first LEED (Leadership in Energy and Environmental Design) certified building on the university campus. The design approach and choice of materials aimed to achieve a high level of sustainability while still addressing cultural traditions. The use of Tyndall stone and wood meets the desire for local materials while continuing a design tradition of the older buildings on campus.



34. Welcome Centre

423 University Crescent, 2009, LM Architectural Group.

This 10,000 sq. ft. structure is located on the prominent and visible corner of University Crescent and Innovation Drive at the entrance point to the central Fort Garry campus. The form of the structure, breaking from the common rectangular forms of other campus buildings, identifies the centre as a way-finding landmark. A fully glazed and projecting foyer provides a clear and welcoming entrance point and visibility into the Visitor Reception and Information Services area. The remaining more introverted parts of the building, clad in Tyndall stone, house the offices for Campus Parking and Security Services.

Photo, left: Welcome Centre,
courtesy of Monica Hutton

Photo, right: Oxbow Field Station,
courtesy of Eduard Epp

35. Oxbow Field Station

*Faculty of Agriculture Point Lands, 2010,
University of Manitoba Sustainable Design Studio.*

The Oxbow Field Station was designed and constructed as part of a Sustainable Design Studio directed by Professor Eduard Epp for the Department of Architecture. A group of nine students (Matt Cibinel, Michael Chan, Taren Wan, Elaine Pang, Thilini Samarasekera, Richard Chiang, Jen Rac, Scott Dean, Alex Needham) designed this studio space for site meetings and fieldwork. Located on the University of Manitoba Faculty of Agriculture Point Lands, a site that is subject to seasonal flooding, the construction utilized an abandoned structural wood base that was relocated and partially reconstructed. The 14 ft. x 14 ft. structure is constructed with concrete, wood, steel, plastic and glass. Eighty percent of the materials used were reclaimed and ninety percent of the materials were produced locally or regionally.

The building is raised in order to withstand flooding and stands approximately twenty feet above grade, including a viewing deck on the rooftop. The wood frame construction, along with the post and beam structure that it rests on, was constructed using new materials. The reclaimed materials were utilized for components such as the building skin, floor finishes and the deck railing.



36. H2Office

150 Innovation Drive, 2010, Cibinel Architects

The H2Office is part of the Smartpark Development Corporation, established in 1999. Although legally a separate entity from the University, the corporation facilitates collaborations and innovation between the university and industry. The H2Office project blurs the boundaries of architecture, landscape, water management and sustainability and sets a high standard for innovative, sustainable design for future buildings on the Fort Garry campus.

Designed to appear as if it were floating above ground, this new 20,000 square-foot, single-storey office building is suspended above a 9.5m deep retention pond that was present on the building site. The narrow structure is a bridge supported on thin columns, extending over the pond. The use of glazing brings large amounts of natural daylight into the offices and provides clear views of the surrounding landscape. Butt-jointed, mirrored glazing and metal cladding in a dark metallic finish give the structure a reflective quality that allows it to blend into its surroundings unlike any other building on campus. The interior office space is open, with high ceilings, exposed steel structure, energy efficient under-floor air distribution and energy-saving direct and indirect lighting.



37. ARTlab (Art Research Technology Lab)

*180 Dafoe Road, 2012,
Patkau Architects, Vancouver, with LM Architectural Group.*

Another phase of Project Domino, the 70,000 square foot ARTlab includes sound stages and workshops, as well as art collection vaults for donated works and shared collections, studio space, digital media labs, art Gallery One One One, photography and print media studios. The completed structure achieved LEED Silver Designation, and Category A Certification, as designated

by the Government of Canada for the long term care of works of art. The building also meets museological environment requirements including temperature and humidity control, security, fire prevention and correct lighting to safely store and display works.

The main floor houses the gallery and vault, while the lecture theatre and soundstage are located at the tunnel level. Administration and studios are located on the upper two floors that extend over the main floor to create an exterior arcade. The projecting upper volume receives abundant amounts of natural daylight from a fully glazed wall. The interior spaces are organized based upon functional needs for proximity to each other and daylighting. ARTlab is configured to interconnect with above and below-ground campus circulation systems, as well as adjacent Taché Hall, where small-scale studios and offices for the School of Art will be located. A central atrium space links the below ground level of the campus to the upper floors of the School, and forms the central circulation space and social heart of the building.

The east and south sides are covered with aluminum screens, suspended three feet from the south wall of the building, to support the growth of Virginia Creeper which will shelter the interior spaces from direct sunlight.

The north side of the building is fully glazed, to provide diffused lighting to drawing, painting, and photography studios and, at the same time, provide a visible expression of life at the School of Art to the Duckworth Quadrangle beyond.

Glossary

BRISE SOLEIL

An architectural device (as a projection, louvers, or a screen) to block unwanted sunlight.

BRUTALISM

A term coined in England in 1954 to characterize the style of Le Corbusier, and the style of those inspired by the works of this architect. It is an architectural style that nearly always uses concrete exposed at its roughest and handled with overemphasis on big chunky members.

CURTAIN WALL

A curtain wall is defined as thin, usually aluminum-framed wall, containing in-fills of glass, metal panels, or thin stone. The framing is attached to the building structure and does not carry the floor or roof loads of the building.

LEED

Leadership in Energy and Environmental Design (LEED) is a third-party certification program and an internationally accepted benchmark for the design, construction and operation of high performance green buildings.

(continued on next page)

PRECAST CONCRETE

Concrete components cast in a factory or on the site before being placed in position.

TYNDALL STONE

A dolomitic limestone quarried in Garson, Manitoba from the Ordovician Red River Formation. The first time that Tyndall stone was utilized as a building material was at Lower Fort Garry in 1832, and it has since been used extensively on architectural projects throughout Canada. The cream colored limestone is variegated by dolomite (the result of burrowing marine creatures within the limestone deposit), and a variety of gastropod, brachiopod, cephalopod, trilobite, coral, and stromatoporoid fossils.

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University Of Manitoba Bike Tour Fort Garry Campus Map



1. Engineering Complex Additions, 1949-2005 **SW**
2. Elizabeth Dafoe Library, 1952 **NE**
3. St. Paul's College and Chapel of Christ the King, 1958 **NW**
4. St. John's College and Chapel, 1958 **NW**
5. John A. Russell Building, 1959 **SW**
6. Crop Research Building, 1961 **SW**
7. Isbister Building, 1961 **SE**
8. Science Complex: Allen Building, Parker Building and Armes Building, 1961 **NW**
9. Animal Science Building, 1962 **SW**
10. Education Building, 1962 **NW**
11. Pharmacy Building, 1962 **NW**
12. St. Andrew's College, 1963 **NW**
13. Mary Speechly Hall and Pembina Hall, 1964 **SW**
14. Pembina Hall Residence, 2011 **SW**
15. University College, 1964 **NE**
16. Architecture II Building, 1965 **SW**
17. Marcel A. Desautels Faculty of Music, 1965 **SW**
18. Ellis Building, 1966 **SW**
19. University Centre, 1966-69 **NW**
20. Fletcher Argue Buildings and Theatres, 1967 **SE**
21. Duff Roblin Building, 1970 **NE**
22. Robson Hall, 1969 **NE**
23. Swimming Pool Building, 1965 **SW**
24. Frank Kennedy Recreation Centre and Centre of Administrative Studies, 1972 **SW**
25. The Active Living Centre, Future Project **SW**
26. Machray Hall, 1972 **NE**
27. Freshwater Institute, 1972 **Smartpark**
28. Wallace Laboratory, 1986 **NW**
29. Drake Centre, 1987 **SE**
30. Helen Glass Centre for Nursing, 1999 **NW**
31. C.A.S.T. (Centre for Architectural Structures and Technology), 2002 **SW**
32. Environmental Safety Building, 2005 **Smartpark**
33. Migizii Agamik, 2008 **NW**
34. Welcome Centre, 2009 **Smartpark**
35. Oxbow Field Station, 2010 **NE**
36. H2Office, 2010 **Smartpark**
37. ARTlab (Art Research Technology Lab), 2012 **SE**



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