Mary MacDonald, Members of the Toronto Preservation Board and Toronto City Council
Toronto City Hall, 100 Queen Street West
Toronto, ON M5H 2N2

June 26, 2024

Dear Ms. MacDonald, Members of the Toronto Preservation Board and Toronto City Council

Re: Heritage Designation of the Ontario Science Centre

Due to recent events and the sudden closure of the Ontario Science Centre, we, the Toronto Branch of the Architectural Conservancy of Ontario (ACO Toronto) and the Architectural Conservancy of Ontario (ACO), are extremely concerned about the future of this important building. ACO Toronto and ACO would like to request that Heritage Planning, City Council and the TPB to take immediate action to have the Ontario Science Centre (770 Don Mills Road, North York, ON M3C 1T3) designated under Part IV, Section 29 of the Ontario Heritage Act.

As per the Provincial Heritage Study of 2003 (attached) this building has significant cultural heritage value, meeting a total of 7 of 9 of the Ontario Regulation 9/06 criteria prescribed for municipal designation under Part IV, Section 29 of the Ontario Heritage Act:

1. The property has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method.
2. The property has design value or physical value because it displays a high degree of craftsmanship or artistic merit.
3. The property has design value or physical value because it demonstrates a high degree of technical or scientific achievement.
4. The property has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community.
6. The property has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.
8. The property has contextual value because it is physically, functionally, visually or historically linked to its surroundings.
9. The property has contextual value because it is a landmark. O. Reg. 569/22, s. 1.

This building occupies a unique position in that it is a provincial building located on City of Toronto land. If the City is unclear as to their ability to designate the property, we would like to request that you seek an immediate legal opinion as to whether or not it can be designated a heritage building by the City of Toronto. We would also like to raise the question of who owns the OSC if the building is abandoned and no longer serving its original purpose.

Thank you for your attention and action to protect this important landmark.

Sincerely,

Deb Crawford, Chair, Architectural Conservancy of Ontario
Patricia Milne, per: The Architectural Conservancy of Toronto Board of Directors

A. INTRODUCTION

The object of this assignment has been to undertake an inspection of the site and group of buildings at the Ontario Science Centre, 770 Don Mills Road, Toronto, Ontario, to research the history of its design and construction and to evaluate its significance as a heritage resource.

The Ontario Science Centre has never been identified as a heritage resource by the City of Toronto and therefore it has never been listed on its Inventory of Heritage Properties.

In the mid 1990's a prominent addition was completed in front of the facade of the original 1964-1969 Ontario Centennial Centre for Science and Technology entrance building. If the property had been listed at that time the proposed design for the addition would have been reviewed by the City's Heritage Preservation Services staff. In this situation they would have investigated the proposal to determine whether it might possibly affect the heritage attributes of the original building and site.

In 2001 a Master Plan/Innovation Project report was prepared by the architectural firm of A.J. Diamond, Donald Schmitt and Company. The proposal addresses the current need to provide for the rehabilitation of some elements of the building fabric, to accommodate new concepts in presentation format, to upgrade the infrastructure and improve access and circulation patterns for a new generation of the visiting public.

The intent of this study has been to determine what character defining features of the buildings and site may be of heritage value and to identify whether there may be activities proposed that might pose a threat that could adversely affect those values. During the study consideration has been given to the possibility of conflict between adapting the building for change and a desire to preserve the heritage significance of the Science Centre.

B. PROPOSED OVERALL STATEMENT OF SIGNIFICANCE

The Ontario Science Centre is significant for its architecture, landscape architecture and for reasons of historical association. It was built at a time when faith and optimism in the future fostered strong confidence in the possibilities of scientific and technological advancement. The Province of Ontario seized the opportunity to promote these feelings in 1967 by selecting the Ontario Science Centre as its prime project to commemorate the Centennial of the Canadian Confederation. It would serve all people of the Province by providing easy accessibility from all major highways, from the local public transportation system, and from the extensive system of pedestrian trails in the valley lands.

The Science Centre was the first major commission, in 1964, for Raymond Moriyama, a young Canadian architect who had established a small but multidisciplinary practice a few years before. It is an important landmark project in a career that has since then continued to gain in stature. His firm has achieved national and international recognition and received numerous architectural design awards. The Ontario Science Centre was the first interactive of its type in Canada.

The architectural design and plan of the Science Centre uniquely reflect the scale of the local landform and natural landscape where the buildings are sited. In concept the architecture is stylistically an example of Brutalism. The structure is a bold expression of the use of poured in-place concrete and pre-cast concrete in combination with pre-cast concrete wall cladding. A variety of textural finishes are incorporated into the surfaces of exterior and interior concrete walls, balustrades and retaining walls catching sunlight and shadow in ways that give an unusually appealing warmth to each one of these building elements.

The massing of each building in the Science Centre cluster is crafted with immense sensitivity to architectural form so that the internal function of each individual area is subtly expressed in the overall composition. Large glazed window openings, strategically placed in relation to interior function, were designed to allow building occupants to have an opportunity to dialogue visually with nature and the external environment. The provision of natural light through a series of skylights, and the avoidance of obvious artificial light sources throughout all parts of the building group, contribute to the spatial character of each individual area. The open plan and the voluminous space of exhibition areas and workshops provide adaptability and flexibility to satisfy a constant need for change and renewal of exhibits. The use of long lasting and durable materials and a creative approach to their placement are characteristic of the quality of the building fabric throughout. The refinement in detailing of interior features such as stairs, fire hose cabinets, elevators and early furnishings are significant characteristics throughout all of the buildings. The successful realization of many of these features can be traced to Raymond Moriyama's early background in Japanese culture and philosophy.

The circulation plan is a design feature of significance conceived to direct visitors from one functional use to another through a variety of architectural spaces. The mundane world of visitor services is concentrated in the entrance building and then left behind permitting a process of discovery for visitors as they navigate onward through linking features to a sequence of exhibition spaces. The moving of groups and individuals separately from entry to the bi-level bridge link is a unique element of the system although way-finding has proven to be confusing in several areas of the complex. The sloping escalator linking the core building to the valley exhibition halls is a distinctive element of the circulation system and accentuates the natural form of the site.

The effectiveness of close design collaboration between Morden Yolles, his structural engineering partner Roland Bergmann, and Raymond Moriyama is most obviously demonstrated in the design of the pedestrian bridge that connects the entrance building to the core building. This award-winning, open-sided, folded-plate structure is an intricate combination of reinforced concrete, post-tensioning cables and steel beams. It is a thirty-foot-high, bi-level bridge spanning a ravine with glazing on one side only, and closed on the other for special displays. This feature was specifically required by the architect to provide an undisturbed view of the natural terrain of the adjacent slope and valley as the visitor moves from the hectic activity of the entrance building to the wonders of science that can be found at the end of the bridge and beyond in the valley.

Built at a time when preservation of natural features seldom received high priority, the Science Centre is an excellent example of a complex of buildings integrated with care and sensitivity in a parkland setting of valley, slope, knoll, and tableland. Raymond Moriyama and Bon W. Mueller, a landscape architect in his office, prepared not only the drawings for the areas around the buildings but also the master plan for Ernest Thompson Seton Park. The specifications for protecting existing trees were bold and innovative, as were the flood-control berms, designed to meet new post-Hurricane Hazel standards by their sub-consultants.

The Omnimax theatre and new lobby entrance addition, in front of the original Moriyama façade was designed by the Zeidler Roberts Partnership in the 1990's. Its architectural design and use of materials are clearly distinguishable from the original building. The philosophy behind this addition represents a desire for transparency in a new age of science and technology. While this addition has substantially changed the original character of the forecourt entry area it does make its own prominent architectural statement without affecting the significance of the remainder of the original Science Centre buildings and site.

The Science Centre is a conspicuous and familiar feature of the area. The natural landscape setting and the buildings continue to complement one another memorably and beautifully as seen from the north, west, and south. However, as viewed from Don Mills Road, the restrained formality of the forecourt has been greatly undermined in recent years. Nevertheless, its heritage features--the long row of flag standards, the elegant Alan Fleming logo, the rectangular fountain space (albeit stripped of its 100 jets), and the hint of surrounding vegetation--still greet visitors and draw them towards the buildings and landscape beyond.

Brief Summary of the Statement of Significance

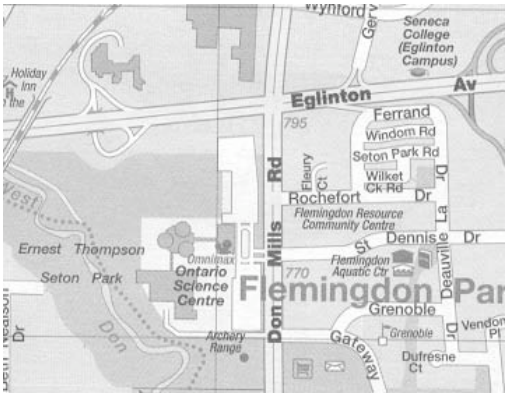
Historical
The prime project in Ontario to commemorate the Centennial of Confederation
The first interactive museum of its type in Canada and a conspicuous local landmark

Architectural
The design philosophy of Architect Raymond Moriyama
The refinement of architectural detailing and astute selection of durable materials
The creative use of concrete in a variety of forms and finishes throughout the project
The clustering by function of buildings uniquely linked to respect the landforms of the site
The careful placement of windows to visually connect interior users with the exterior environment
The provision of large open and flexible exhibit space to allow for future design trends and change
The collaboration between the architect and the structural engineer to achieve an award winning design

Landscape & Context
The innovative and bold solution for the conservation of the natural landscape and parkland
The range of public accessibility to the site from within and outside the City of Toronto

C. BUILDING & STRUCTURES INVENTORY

1.0 IDENTIFICATION & LOCATION



1.1 PIMS Installation Number: **N 00382**

1.2 PIMS Building Number: **B 14175**

1.3 County: York

1.4 Municipality: Toronto

1.5 Address: 770 Don Mills Road
Toronto, Ontario M3C 1T3

1.6 Building Name: **Ontario Science Centre**

1.7 Date of Construction: 1966-1969

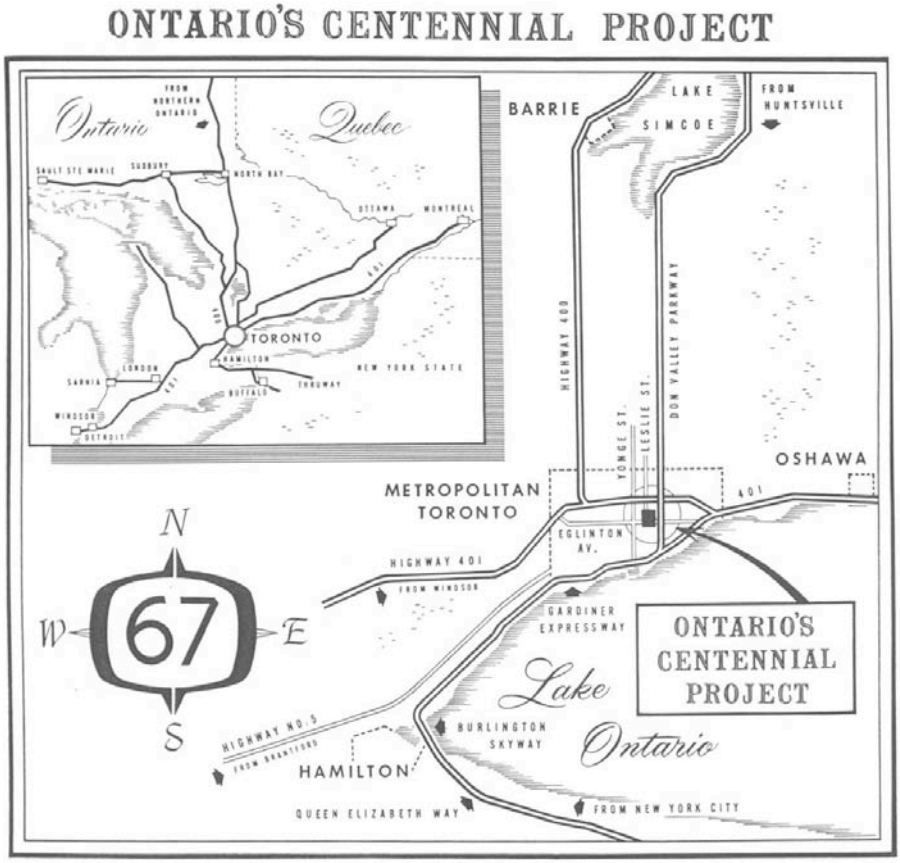
Date of Additions: Storage, Workshops & South Wing – 1989-1990
Theatre & Entrances – 1995-1996
Valley Building Restaurant – 1996-1997

1.8 ORC District:

1.9 ORC Recorder Name & Address: Rainer Mageau, Project Manager
Ontario Realty Corporation
77 Wellesley St. W. 10th Fl. Ferguson Block
Toronto, Ontario M7A 1N3

1.10 Record Date: **February – June, 2003**
Report Date: **August, 2003**
Statement of Significance Date: **-**
Evaluation Date: **-**

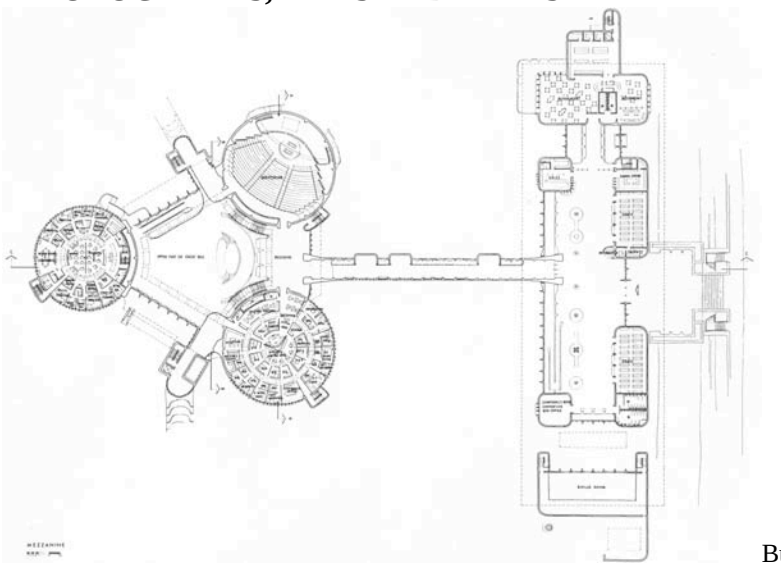
2.0 PHOTOGRAPHS, MAPS AND PLANS



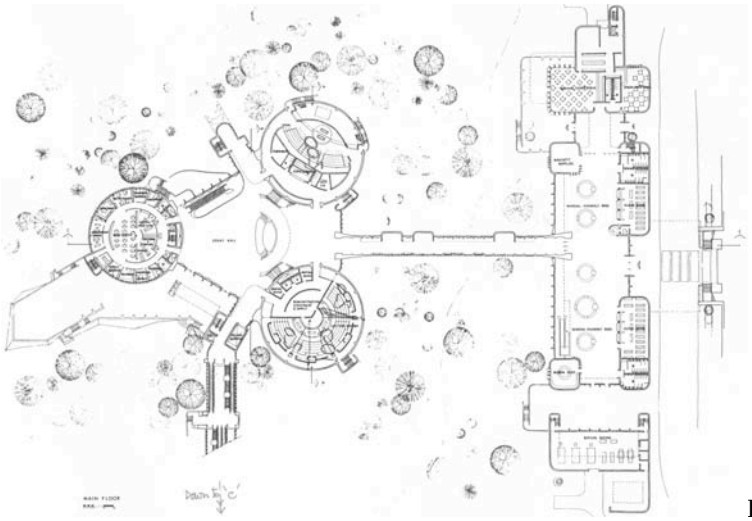
2.1 Centennial OSC location map OSC Library Files

2.2 Meagher House on OSC site (demolished 1965) *See also section E-4.2* OSC Library Files

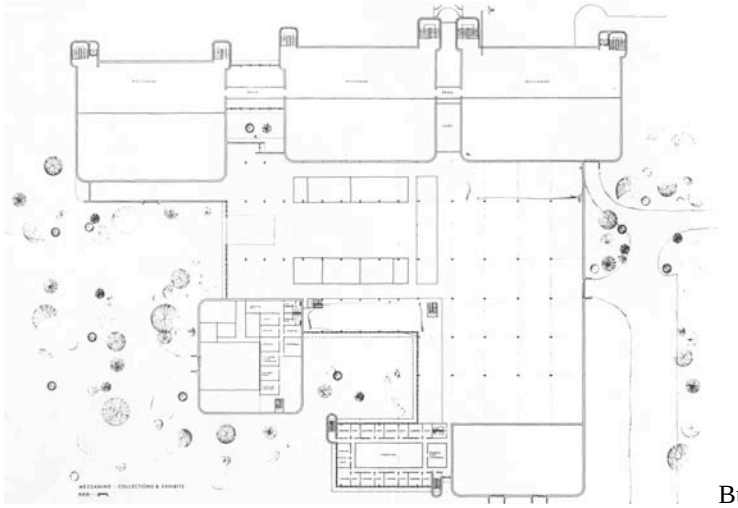
2.0 PHOTOGRAPHS, MAPS AND PLANS



Building B and A – Level A



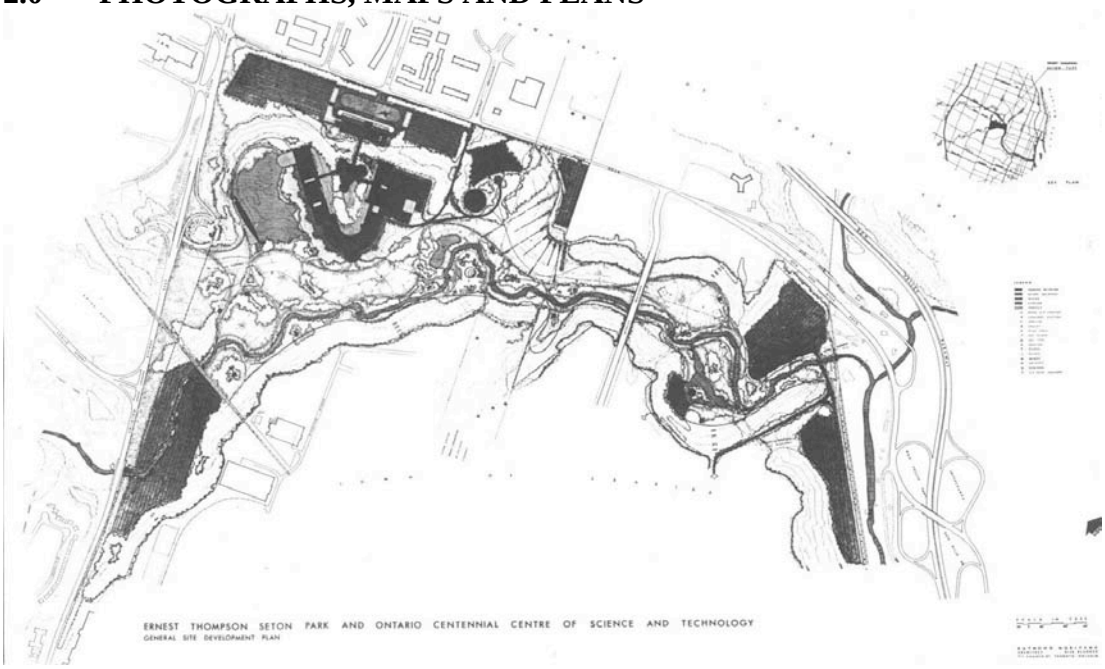
Building B and A – Level B



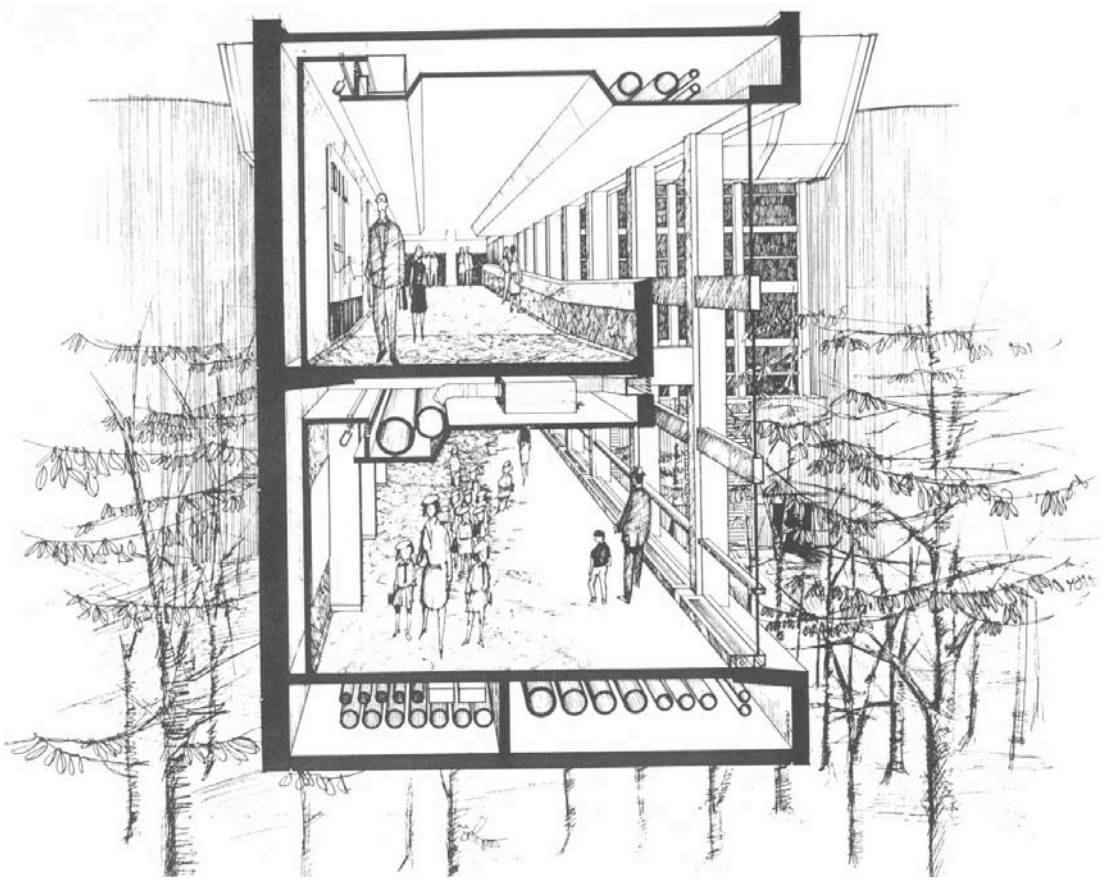
Building C – Level D and E

2.3 Original Floor Plans Raymond Moriyama Architect, 1965 OSC Library Files

2.0 PHOTOGRAPHS, MAPS AND PLANS

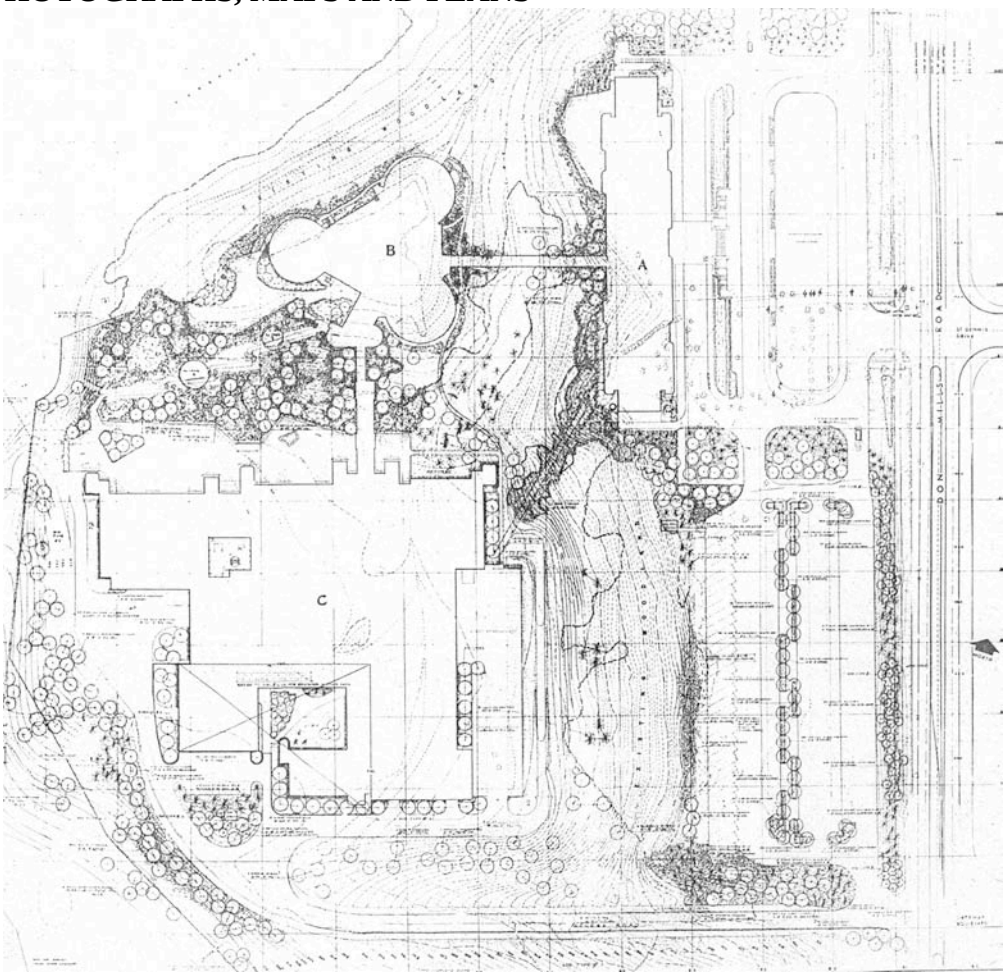


2.4 Moriyama: Overall Site and Park Plan, 1964 OSC Library Files



2.5 Moriyama: Bridge, Early Design Sketch OSC Library Files

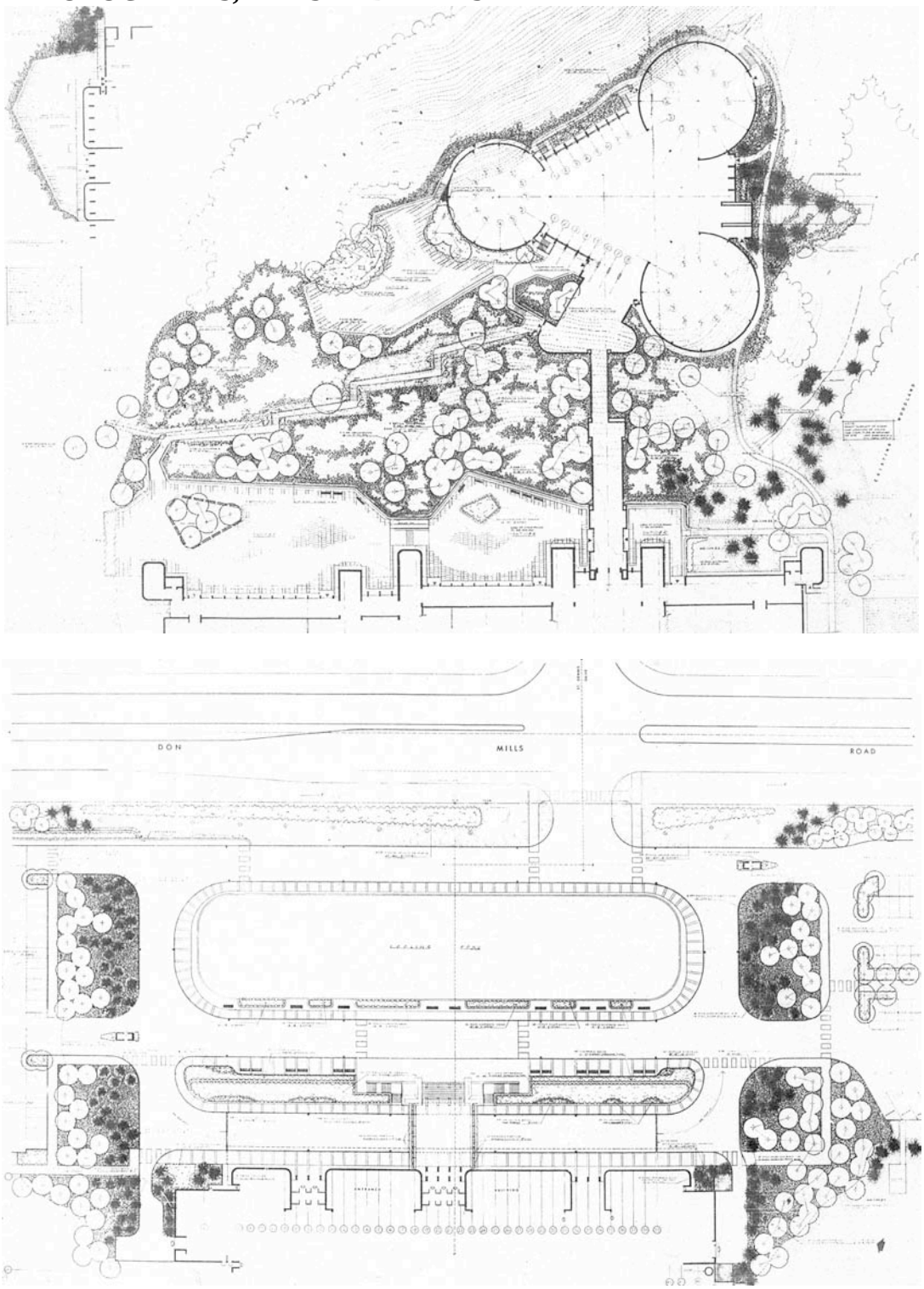
2.0 PHOTOGRAPHS, MAPS AND PLANS



2.6 Landscape Site Plan, Raymond Moriyama Architect, 1965 OSC Library Files

2.7 Original North Patio, Valley Building OSC Library Files

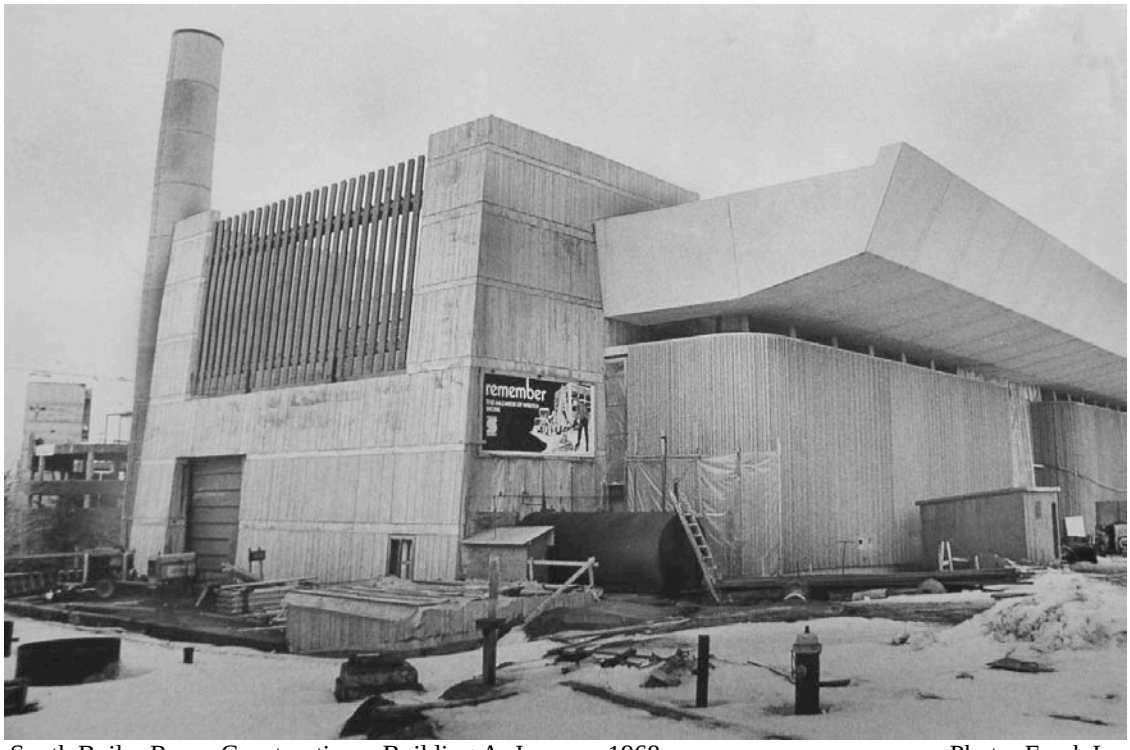
2.0 PHOTOGRAPHS, MAPS AND PLANS



2.8 Landscaping Plans - Raymond Moriyama Architect, 1965 A0,F2187, Box A-17, OCST, Drawings Roll #1

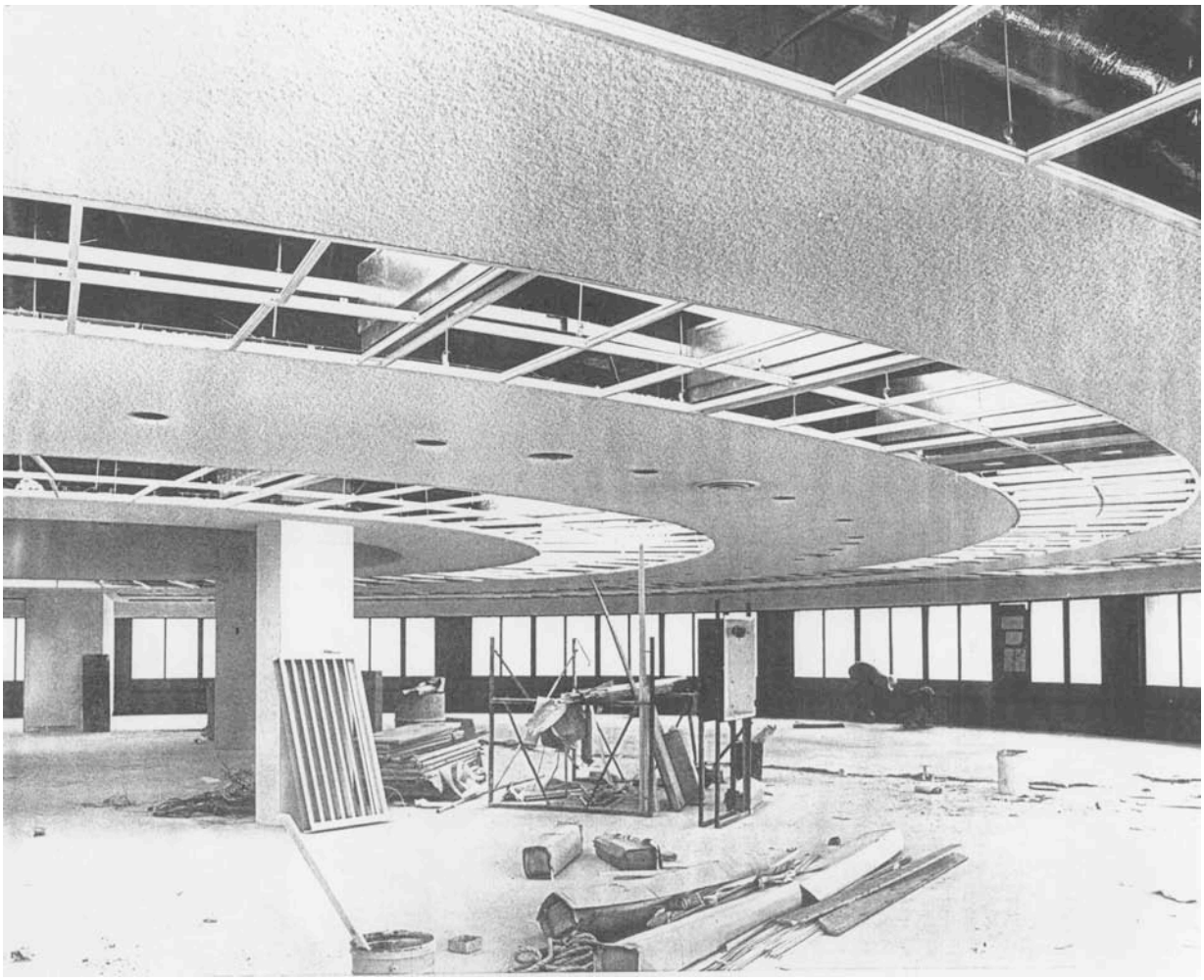
2.0 PHOTOGRAPHS, MAPS AND PLANS

2.9 Valley Building C – Foundations Construction, late May, 1966 Photo: Barry Philp



2.10 South Boiler Room Construction – Building A, January, 1968 Photo: Frank Lennon

2.0 PHOTOGRAPHS, MAPS AND PLANS



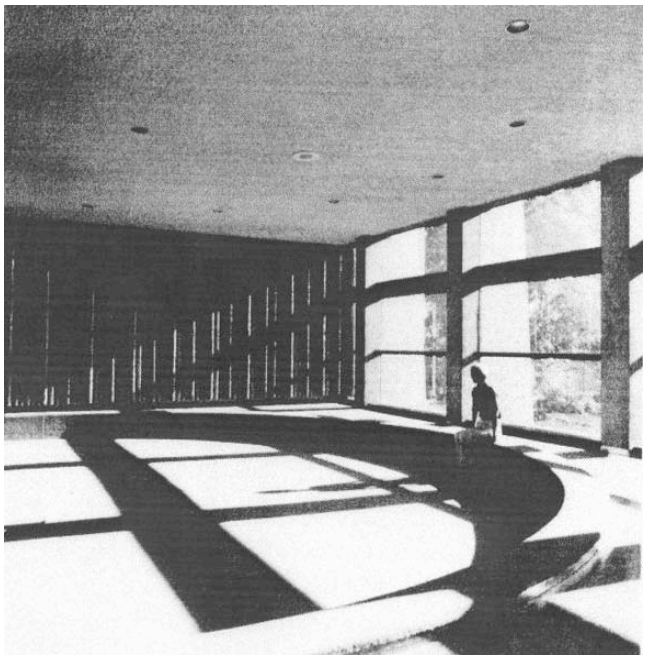
2.11 Office Area in Construction Photo: Centennial Centre of Science and Technology #2365

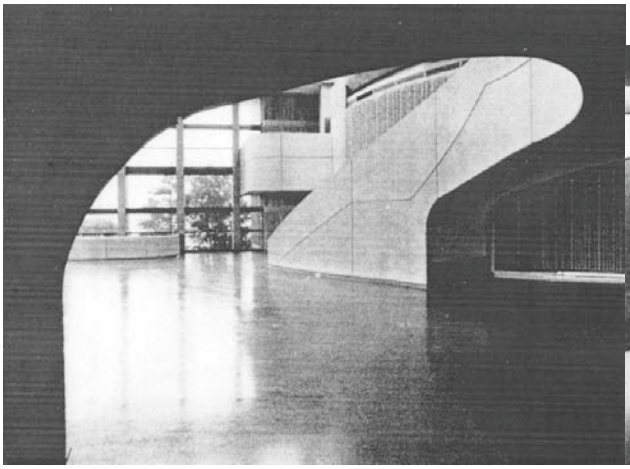
2.0 PHOTOGRAPHS, MAPS AND PLANS

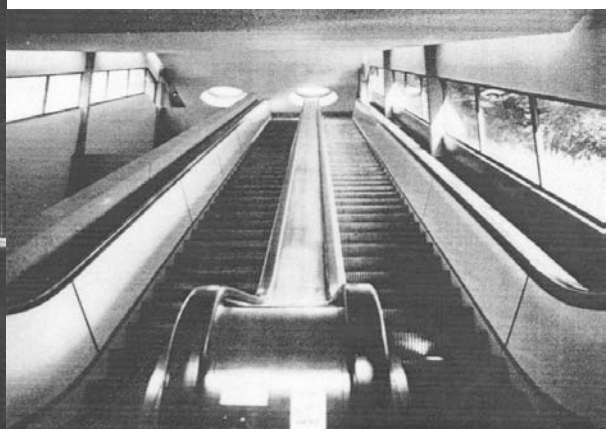
2.12 Building B, September, 1969 Photo: Reg Innell

2.13 Original Great Hall OSC Library Files

2.0 PHOTOGRAPHS, MAPS AND PLANS







2.14 Interior Views Architecture Canada – Journal of the RAIC – Sept. 1969: pp 13-18

Note: All photographs without an identified source are by Heritage Consultant William N. Greer. Complete photograph record by Heritage Consultant on CD in OSC Library Files.
[Current photographs – refer to Section 8 –Documentation]

Sources: *Ontario Science Centre Library, Photography Files*
William N. Greer – Current Digital Photographs
Other sources as noted.

3.0 DESIGN & CONSTRUCTION

3.1 Introduction

Architect Raymond Moriyama's design philosophy for the Science Centre involved a **"sequence of experiences".** *(See sketch below).* Furthermore, he considered the surrounding landscape of the Science Centre site to be part of each "experience" whether viewed through glazed wall areas and windows in the buildings or observed by going outside onto adjacent patios. He perceived that the natural environment of the site not only had aesthetic value but also educational and spiritual value as well.

The project was designed to have six sequential "experiences" as follows:-

- the **"opening"** – the forecourt with vehicle access, parking, pedestrian entries, the Centennial fountain and pool and landscaping
- the **"mundane"** – the entrance building for ticketing, coats storage, school group assembly, a shop, cafeteria, restaurant, conference rooms and the boiler room
- the **"psychological break and introduction"** – the bridge link over the natural ravine environment
- the **"statement"** – the core building and Great Hall with auditorium, lecture rooms, staff offices and in the lower level - exhibition space
- the **"adjustment"** – the elevators and escalator link down to the valley level
- the **"back up"** – the exhibition halls, workshops, assembly areas and offices

In the MasterPlan/Innovation Report – 2001, prepared for the Science Centre by A.J.Diamond, Donald Schmitt and Company, each part of the Science Centre has been identified by Zone in the same sequence used originally by Moriyama .See Section D for site plan. In addition the buildings and links have been given letters of the alphabet as follows:

Zone 1 Forecourt etc. "opening"

Zone 2 Building A – Entry "mundane"

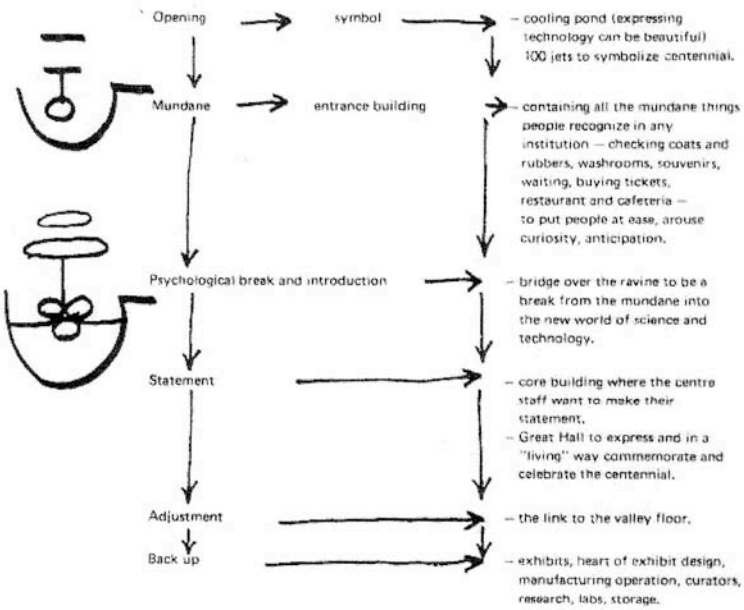
Zone 3 Bridge Link A-B "psychological break"

Zone 4 Building B – Great Hall "statement"

Zone 5 Escalator Link B-C "adjustment"

Zone 6 Building C "back up"

Zone 7 Landscape "touch the least, enhance the most"



These zones and/or the building identification letters will be used in this Heritage Significance Study Report

3.2 PHYSICAL DESCRIPTION

3.2.1 Ontario Science Centre

Address:	**770 Don Mills Road, Toronto, Ontario M3C 1T3**
Type:	**Exhibition / Educational**
Construction Date:	**1966-69**
Architect:	**Raymond Moriyama, Architect**
Structural:	**M.S.Yolles Associates Ltd.**
Mechanical:	**Nicholas Fodor & Associates Ltd.**
Electrical:	**Mulvey Engineering Ltd.**
General Contractor:	**Pigott Construction Co. Ltd.**

Aerial View looking to South West – c.1970 Photo: Colour Print OSC Library files – unidentified #

3.2.2 Use Description:

The Ontario Science Centre is a complex of three buildings connected on different levels and linked by a bridge and a sloping escalator shaft. The Entrance Building A, facing Don Mills Road, includes a theatre, ticket counters, special event and meeting rooms, student locker areas, the main kitchen, a small restaurant, a shop, offices and the services centre. This building unit is linked by a two level bridge, over a gulley, to the Core Building B that includes exhibition spaces, an auditorium, lecture rooms and offices. In turn this building is linked by escalators down to the Valley Building C that houses several large exhibition halls, a restaurant, a greenhouse, classrooms, exhibit assembly workshops, the main storage areas and offices.

3.2.3 Foundations:

The foundations of all parts of the building complex are basically poured in-place reinforced concrete for walls and floor slabs. Where areas of the foundations are exposed above grade the finish is rough surfaced board finish. The foundations of the Valley Building C, sited in the Don Valley, have been constructed on caissons owing to poor sub-soil bearing conditions in the flat lands of the valley.

3.2.4 Basement:

The Entrance Building A and Core Building B both have basement areas providing space for the distribution of infrastructure services and for general storage. Valley Building C does not have a basement. All basement floors are reinforced concrete. A concrete service tunnel slopes down the valley hill from the boiler room services centre in Building A to reach Building C.

Elevation of Entrance and Fountain – c.1970 Photo: Colour Print OSC Library files - unidentified #.

3.2.5 Number of Storeys above Grade:

Building A has a basement and two storeys above grade. The bridge constructed over a gully between the tableland, on which Building A is built, and a knoll in the valley, on which Building B is built. This link between buildings has two levels in a uniquely designed concrete structure that also provides bulkhead channels for services.

Building B is configured with three circular towers around a irregular triangular space generally three high storeys above grade, although the administration office tower has four floors within the same three storey height. The lowest level of Building B is partially below grade.

Building C is one storey above grade with a very high roof level for exhibition hall spaces and basically throughout the building. Some parts of this building include office areas on a second floor level and there is a mezzanine level for exhibits and lecture rooms overlooking the exhibition halls within the one storey height.

Grades vary around all buildings accounting for contour variations.

3.2.6 Main Structural Materials:

The main structural materials used in the building complex include cast in-place concrete, pre-cast concrete, pre-cast pre-stressed concrete structural members, structural steel beams and lightweight long-span steel joists. Lightweight autoclaved aerated concrete panels have been used for the roof and the walls are concrete block. The structural design and detail for the use of these materials together has been well executed.

3.2.7 Cladding Materials:

Deeply ribbed, pre-cast concrete panels, with a rough hammered finish on the face of the each rib, have been used as the cladding material for most exterior walls of the complex while in contrast some other wall areas are vertical board finished poured in place concrete. There are large areas of glass in dark brown anodized aluminium frames in several wall areas of each building and in the bridge that overlooks the natural environment of the setting. The cladding of walls in Building C, which are out of view from other parts of the complex, are vertical ribbed steel panelling where future expansion had been anticipated. Additions in that area have continued this use of similar ribbed metal cladding. Buff brick has been used in the Building C restaurant addition.

3.2.8 Roof Type and Materials:

All buildings in the complex have flat roofs and skylights are important features in many areas. The concrete fascia/soffit design, defining the roof edge of parts of Buildings A and B are an integral part of the architectural form of those buildings. The exhibition hall roof area of Building C originally was distinguishable because the architect, Ray Moriyama, had his name, in Japanese symbols, executed in black and white stone chips on the built-up roofing surface, to provide visual interest from the upper levels of the site. Later roof rehabilitation has eliminated this feature.

3.3 BUILDING ADDITIONS

3.3.1 Theatre (Omnimax) & Entrances

Location: **Entrance Building A**
Construction Date: **1995-96**
Architect: **Zeidler Roberts Partnership, Architects**
Structural Engineer: **Yolles Partnership Inc.**
General Contractor: **Milne & Nicholls Ltd.**

The addition of an Omnimax Theatre seating 320, together with a new main entrance lobby, was positioned on site exactly where the original two level main entrance to the Science Centre, Building A was located.
A continuous glass wall, with a light structural steel frame and bow-string mullions, was inserted in front of the entire original east ribbed concrete panel facade set to the front edge of the overhanging concrete facia soffit of the original building. Some of the original ribbed concrete panels of the façade of Building A, have been removed, re-clad or glazed in a number of areas.

The foundations are poured in-place concrete and walls of the circular theatre structure are concrete clad in Renaissance cast stone. The structural framing is steel with a hemispherical roof that was clad in nickel stainless steel.

The breezeway between the services/boiler room and the main part of the Building A, was enclosed and the main roof line extended over this area by continuing the existing roof line. This space became the relocated group entrance and enlarged Entrance area at the west side of the theatre addition.

The original upper level access road was eliminated for these additions by lowering the grade adjacent to the Centennial Fountain thereby disconnecting its water supply. The widened lower road allowed for all vehicles to serve both the new main entrance and for buses to unload at the at the new group entrance. Both of these entrances are glazed and have a sweeping roofline with a rounded metal fascia.

These additions were designed to provide a more open feeling of transparency that would invite the public into a vibrant and fascinating space and establish in the façade a new eye-catching landmark clearly visible from Don Mills Road. Interior materials are stainless steel, painted steel components vinyl flooring and glass railings.

3.3.1 Theatre (Omnimax) & Entrances

Group Entrance – Lower Level Building A


Main Entrance: Lower Level Building A

3.3.2 Storage & Assembly Workshops & South Wing

Location: **Valley Building C**
Construction Date: **1989-90**
Architect: **Moriyama & Teshima, Architects**
Structural Engineer: **M.S.Yolles and Partners Ltd.**
General Contractor: **Milne & Nicholls Ltd.**

The Storage & Workshop addition was constructed on caissons that were already in place in the area south of the existing workshops where the original design plan and construction had allowed for this type of extension. The floor slab is reinforced concrete. The building frame consists of steel columns, long span steel roof joists and decking and built-up roofing. Exterior walls are clad in ribbed steel panels matching those in the original building adjacent to the new wing. Some spaces in this wing have mezzanine levels for office and other uses.

The alterations, for a change of use in this existing wing, provided for a structure to accommodate a second floor level for offices. Some exterior concrete ribbed panels were removed to allow for the installation of windows on both levels. (These panels have been stored on site). Skylights were added in the existing roof.
Interior finishes are consistent with the original areas and office spaces.

Original south façade of original South Wing – Building C

West façade of storage and Workshop Addition – Building C

3.3.3 Valley Building Restaurant

Location:	**Valley Building C**
Construction Date:	**1996-97**
Architect:	**Julian Jacobs Architects Ltd., Architect**
Structural Engineer:	**Exsen Engineering Ltd.**
Mechanical/Electrical:	**Leipciger Kaminker Mitelman Inc.**
General Contractor:	**BWK Construction Ltd.**

The restaurant addition, located in a former patio area west of the escalator link landing, has concrete foundations and structural steel column and roof truss framing that is configured to create a serrated roof form with steel sheet roofing.

All exterior walls are glazed from sill height to form a high greenhouse-like space with neatly exposed services and lighting. The walls of the attached receiving and food storage facility are masonry clad on the exterior with buff brick similar to the base of the restaurant area.

The food serving area is entered from the base level of the escalator link and the cafeteria exits into the north corridor of the Exhibition Hall area.

Interior finishes generally are concrete block, painted steel structural elements and vinyl flooring.

Interior of Restaurant Addition – Building C – looking to natural hillside

3.3.4 Greenhouse

Location: **Valley Building C**
Construction Date: **1979-80**
Structural Engineer: **MGS- T. Dominski, P.Eng.**

The greenhouse was added at the southwest corner of Building C.
Standard Lightweight metal greenhouse structure fully glazed.
Reinforced concrete floor slab finished with a ceramic tile floor.

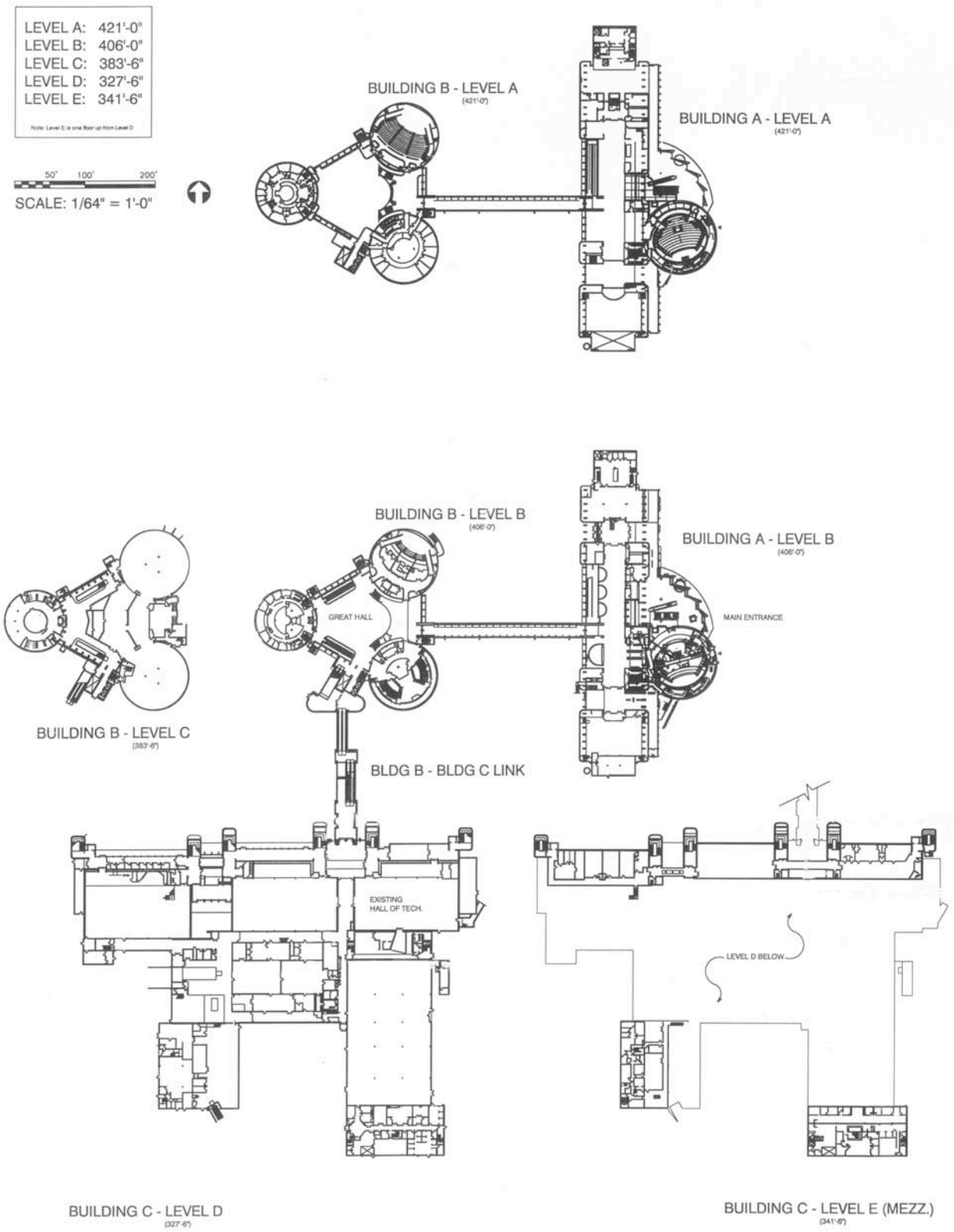
Greenhouse addition and access area to workshop areas – Valley Building C

3.3.5 Internal Courtyard #2

Location: **Valley Building C**
Construction Date: **1992-93**
Architect: **The Colborne Architectural Group**
Structural Engineer: **Yolles Partnership Ltd.**
Mechanical/Electrical: **H.H. Angus & Assoc. Ltd.**

Courtyard #2, an open activity courtyard within the Exhibition Hall area of Building C, was enclosed to accommodate a Rainforest Exhibit. The metal structure enclosure extends above the roof forming a glazed penthouse.

3.3.6 Floor Plans Existing 2003



Ontario Science Centre – Drawing File No. 36-006-02

3.4 INTEGRITY

3.4.1 Preamble

The purpose of the Science Centre from its inception was to establish an environment that could be used to open minds to science and technology in a way that would excite curiosity, inspire insight, motivate learning and involve people of all ages in "experiences" of the highest quality. The original architectural design conceived of building areas with different functions that could be adapted to accommodate changing exhibits as required to show the latest advancements and trends in scientific thought and to present them in the latest form and techniques. Such flexibility demands great sensitivity in the way the existing buildings may be used or altered by administrative and exhibition staff if the integrity of the heritage elements in those areas are to be preserved.

3.4.2 Forecourt

A major grade change, required for the construction of the one level access road serving the building's two new visitor entry points, has removed the sunken road feature that partially obscured the bus unloading area. This change in grade level has also resulted in the decommissioning of water service to the forecourt pool and its one hundred jet fountain. This feature was a symbolic design reference commemorating the Centennial of Canadian Confederation in 1967 and was also the cooling element for the original air conditioning system. It was a spectacular character defining feature of the forecourt area of the site.

The character of the forecourt is diminished by the appearance of the abandoned pool area between Don Mills Road and the Entrance building. The main entrance, now at the lower level of the original bi-level road system, is almost hidden from the approach to the Entrance building. Specially designed benches and landscaped areas near the original main entrance were removed when the dual level road approach to the building was eliminated.

The boarder landscaping, the row of flag standards along the street frontage and the landscaped areas within and surrounding the parking areas are intact although the original Ontario Science Centre pylon has been removed.

Main Lobby and Entrance Building A overlooking entry road and former fountain pool from Don Mills Road

3.4.3 Entrance Building A

The Theatre and Lobby addition, incorporating a glazed wall, extending the full width in the front of the original façade and a stainless steel domed theatre building, situated between the new entrances to the building, are distinguishable expressions of an architectural style clearly representative of design trends at the end of the 20th century. The new architectural style and form of the theatre addition and the relocated entrances indicate a shift in presenting the Science Centre to the public. Greater transparency in the architecture incorporated into the addition acknowledges a different understanding and attitude towards science and technology that has taken place since the original building was designed.

The design integrity of the original building façade has been lost but the form of the original roof line has been preserved. The new structure and use of materials on the exterior have an integrity of their own that is distinguishable from the original architectural design.

The plan for separation of the group entrance from the entrance for individuals, originally on two levels in one location, has been maintained but in separate locations at what is now the one and only level of arrival for vehicles and pedestrians.

The interior circulation pattern for visitors from entrance to ticket area and on to both levels of the Bridge link to Core building B is obscured visually and physically by an escalator to the upper level of the Entrance building in the middle of the lobby of the addition. The route to the exhibition halls was planned to be a part of the discovery process for visitors. This element adds to the complexity of way-finding within the building complex. Clarity of routing visitors through the buildings was a problem noted by critics soon after the Science Centre opened.

3.4.4 Core Building B

Changes in this building that affect its architectural integrity have been minor. One exception is the location of a control booth under the south stairway to the upper level of the Great hall that destroys the graceful line of the underside of the concrete of that stair structure and the overall symmetrical form of the bifurcated stairway.

Approach area to Great Hall viewed from end of lower level of Bridge link to Core Building B

3.4.5 Valley Building C

3.4.5.1 South Wing, Storage & Assembly Workshops

Alterations took place within the existing structure of the Valley building, known as the South Wing, and occurred in space that was originally occupied by the Parks Department and space for the Science Centre's buildings operation management. Several of the ribbed concrete wall panels were removed from the south wall of this wing in a sensitive way in order to replace the garage door openings with windows and to add additional window area for office space in the new upper level constructed within the original building envelope.

The expansion of storage and assembly workshop space, added at the south west corner of the Valley building, was planned for in this location on the original site plan. This addition also accommodates the relocation of Parks Department operations and the buildings operations management offices for the Science Centre.

The architectural design for both of these changes was executed by the original architectural firm. The use of materials and the specifications were consistently followed according to the original design intent for this part of the building. The integrity of this section of the complex has not been affected by the addition and alterations or any of the modifications required for current building codes.

Storage Area in Addition to Valley Building C

3.4.5.2 Valley Building Restaurant

The restaurant addition that extends outwards towards the natural environment into the east part of the north patio makes use of extensive areas of glass in all exterior walls and features a folded plate roof form.

The addition is generally compatible in form but the visual integrity of the area is compromised by the loss of usable outside patio space within in the landscaped environment of the valley that had been planned originally as an area for quiet reflection.

Two raised planting areas that were central to the two original valley patios have been eliminated. The west part of the north patio area is now used by large trucks to make deliveries to the restaurant service facility and to collect garbage in the storage bins located adjacent to the west end of the restaurant addition. This service area is open and unsightly since it is visible from the public areas of Building C and from the hillside walkways. Benches, originally designed by the architect especially for the exterior patio areas, are in need of repair and restoration.

The location of the entrance to the servery of the restaurant cafeteria addition, in the base landing area of the escalator link (originally the glazed exit to the west patio), affects the circulation pattern and introduction of visitors to the exhibition halls and the outdoor patio spaces on each side of that area. The addition of an exterior metal vent stack required for the servery detracts from the architectural appearance of the building as viewed from the east patio, the gazebo area and the natural landscape of the valley.

Patio area adjacent to Valley Restaurant

Service area to restaurant addition in patio area in valley adjacent to Building C

3.5 MATERIALS, FIXTURES, CHATTEL OR EQUIPMENT

3.5.1 Preamble

In the 1960s the Province of Ontario set out to provide new cultural and social facilities worthy of its status as one of the largest and wealthiest provinces in Canada and recalling its historic role at the time of Confederation. To that end the architect made a selection of materials for fittings, fixtures and the infrastructure of the Ontario Science Center based on definite criteria including , availability in Ontario, durability, versatility and economy during installation and continuing for the life of the basic building structure.

In recent additions some of the materials originally specified have been replaced with other materials. Stainless steel has been a substitute for handrails and railings, for the new elevator and many other fixtures and this material meets the original criteria for selection of materials and identifies the new from the old in an appropriate way. However the introduction of vinyl flooring instead of terrazzo in heavily trafficked areas of the additions does not take into account criteria for long term durability and cost-effective maintenance of materials for use in public spaces especially where school groups are the predominant users of circulation areas.

The presence of the following elements contributes significantly to the character defining features of the Science Centre buildings.

3.5.2 Cement

The extensive use of poured in place concrete and precast and prestressed concrete elements in the building structure as well as precast wall cladding panels, finished in a variety of textures, has been noted elsewhere in this report.

Cement, as a regionally manufactured product and a major component of concrete, is also a component in two other products used extensively in the building structure.

Siporex, a lightweight precast autoclaved aerated concrete product, noncombustible with a good thermal insulation value was used as a structural roof panel in many areas of the building.

West façade of Great Hall and Administration Office area overlooking Ernest Seton Thompson Park and the Wetlands

3.5.2 Cement

Northwest patio and west façade of Building A

Tectum, a cementitious product, consisting of wood fibers in an inorganic hydraulic cement binder, that has acoustical properties, impact resistance and the feature that it can be refinished without destroying its inherent properties. This product was used as an interior wall facing material especially in the exhibit areas and the Valley Building.

Terrazzo flooring, also with a cement component, occurs in all major circulation areas and fulfills criteria for durability and long term ease of maintenance.

Detail in concrete

Varied textures and use of concrete – lower level Building A

3.5.3 Metalwork

Bronze is a particularly prominent material in fixtures of the Science Centre.
Elevator cabs, control panels, doors and frames
Escalator panels and trim
Fire hose cabinets (some combined with a waste receptacle)
Handrails throughout the original building areas
Doors, frames and transom panels in the Great Hall and Auditorium.
Door pulls (some with a trillium logo).

Window frames have a dark bronze anodized finish in the original building.

Maintenance procedure for bronze metal elements in a number of locations has resulted in visible damage to the finish of the bronze. Restoration of the finish of these important elements of the original design would be desirable with assistance from a metals conservator and support from the related metals industry.

Interior of typical elevator

Fire hose/waste receptacle and bronze exit sign and door

3.5.4 Infrastructure

A heating and air conditioning centre, with a machinery control panel publicly visible in the group tour lobby at the south end of the lower level of Entrance building 'A', is an appropriate expression of the functioning technology of the Science Centre.

Service lines run in a sloping concrete tunnel to the Valley building 'C' and other branch lines run to the Core building 'B' in channels under the lower floor level of the Bridge link between Building 'A' and Building 'B'.

3.5.5 Equipment

An internal tractor trailer loading dock and a network of overhead doors provides for simple accessibility between the different workshops and assembly areas. This allows for flexibility in reaching all exhibit areas in Valley building 'C'.

A large heavy duty freight elevator completes the circulation network for exhibit movement by providing vertical service to the lower exhibit level in Core building 'B' and directly to the Great Hall.

Elevators serve all levels of the Science Center including the office levels in the administration tower, the studio area and the mezzanine exhibit area and the offices in the south wing of Valley building 'C'. Interior finish includes sisal paneling, a full egg crate ceiling below the lighting fixtures, a bronze control panel and bronze railings and trim.

Escalators provide continuous public access between the Great Hall, the exhibit levels of Core building 'B' and Valley building 'C ' in three sections separated by offset landing areas. The escalator structure defines the sloping nature of the site and gives visitors a feeling of closeness to the natural environment as they move down into the valley area. The continuous strip windows on each side of the escalator link allow for visitors to view the flowers, trees and birds as they move down the valley slope.

Interior tractor loading dock in Valley Building C - Workshops

Series of large overhead doors linking workshops and exhibition halls in Building C

3.5.6 Chattel

Exterior benches were designed for the site by the architect consisting of spaced parallel wood members sitting on a central formed concrete base. Several survive in the valley patio areas.

Exterior light standards on the terraces and pathways of the site are steel pipe with a white globe at the top. These are typical of the period and often referred as ‘lollypop” fixtures.

Bronze door pull

4.0 CONTEXT

4.1 Site Description

The Ontario Science Centre is situated in the southwest quadrant of the intersection of Don Mills Road and Eglinton Avenue East. The site was originally part of farmlands that extended between the east and west branches of the Don River and south to the railway tracks. The site slopes steeply down to the Don River with a high knoll in the middle of the property. Banks of the valley are covered with natural landscaping and trees. The great variation in the natural contours of the site strongly influenced the architectural design for the entire Ontario Science Centre complex.

The abutting parkland on the river flatlands, known as the Ernest Thompson Seton Park, includes recreational facilities, a wetland area and a habitat suitable for wildlife. The park is maintained by Toronto Parks in association with the Toronto Conservation Authority. Landscaped berms were provided in the parklands, as part of the Science Centre plan, to protect the buildings at the lowest level of the site on the floodplain of the Don River. This area is reached on a steeply sloping road from Don Mills Road along the south boundary of the Science Centre property.

The limited amount of tableland on the site adjacent to Don Mills Road allowed for only enough space to accommodate the Ceremonial Forecourt, the Entrance building, a road access to the building and two landscaped parking areas.

A distinct advantage of this site for the visiting public from other parts of Ontario is the ease of accessibility from major Provincial highways, such as highways 400 and 401, to major arterial routes leading to this part of Toronto. The Science Centre site is also well serviced by public transit routes.

The Science Centre and the parkland site are adjacent to the high-rise residential and commercial buildings of the Flemingdon Park development and south of Don Mills with its commercial areas and extensive, well-planned residential neighbourhoods. The corporate headquarters of several large international companies are situated nearby as well as hotel and convention facilities. These large scale developments featuring modern architecture and planning principles, together with the Science Centre, are character defining features of this part of the city.

Refer also to Cultural Landscape Inventory 2.0 and 3.0

Aerial View
Looking to North
West, c. 1980
Photo: Colour
Slide OSC Library
files - #A24627

5.0 HISTORY

5.1 Background Themes & Events

The post World War II period of the 1950's and 60's was a time of optimism and expansion in Ontario and Canada. A large number of students graduated from Canadian architectural schools and many continued their studies in Europe and the United States or worked there in offices that had considerable experience in the practice of modern architecture. Prosperity prompted a building boom that transformed Canadian cities and led to the demolition of many older buildings of architectural significance that were a vital part of the cultural heritage of those cities. Municipalities like Toronto were expanding into surrounding farmlands and large developments called for a creative approach to planning, architecture, engineering and landscape architecture.

Canadians were also excited about both the building of Expo 67 in Montreal and other landmark projects that were contemplated to celebrate the Centennial of the Canadian Confederation in 1967. Architects and engineers were especially fascinated by the possibilities that would open up for creative architectural design solutions involving new construction technologies and materials. The Federal Government encouraged participation by contributing funding of $2.5 million for the development of Centennial projects in each Province. Many architects received commissions for the design of public projects that were also planned by most municipalities to celebrate the Centennial.

The Classical Revival styles of architecture had been the choice of Canadians for most types of buildings, whether for public or private commissions, until after World War II. However, the Modern Movement in architecture was attracting the interest of many clients who had traveled abroad and observed many fine buildings designed in a more contemporary way. The International Style, also sometimes known as the Modern Style, developed in Europe after the First World War at centres of modernism like the Bauhaus School of Design in Germany. Pioneer architects of the movement, such as Walter Gropius and Mies van der Rohe, brought Modernism to North America when they fled Europe in the 1930s. The Modern Style was known for lightness, refined proportions, severely plain surfaces, large expenses of glass and a structural framing system based on steel or reinforced concrete.

Another approach to modernism in architectural design, first identified in England in the mid 1950s, became known as the Brutalist Style. It is understood to have derived this title from French for raw concrete *beton brut.* Common features of Brutalism were fewer glazed openings, rugged monolithic forms exploring a variety of uses for concrete in the context of well ordered plans. The style fostered new technologies that were able to deal with varied textural surfaces and the prefabrication of large structural concrete building elements. Buildings of this type are distinguishable by designs that separated massing into blocks that would clearly express a specific interior function.

Familiarity with Modernism increased in Canada at this time and there was a trend away from the traditional styles of architecture. This change in attitude permitted younger architects to have greater freedom in architectural expression. However many of the well-established architectural firms continued to received commissions from corporate and private clients who still preferred to have their projects realized in the traditional forms of architectural design.

.

An international architectural competition for a new City Hall in Toronto was won by a Finnish architect, Viljo Revell, in 1958. His design was an expression of Modernism that utilized the plasticity of concrete to achieve building forms that were unique and futuristic in appearance. This was a break from the formality of the purely classic examples of the International Style in the City. The appeal of Revell’s design helped to transform the public perception of Modernism, especially in Toronto, and elsewhere in Canada.

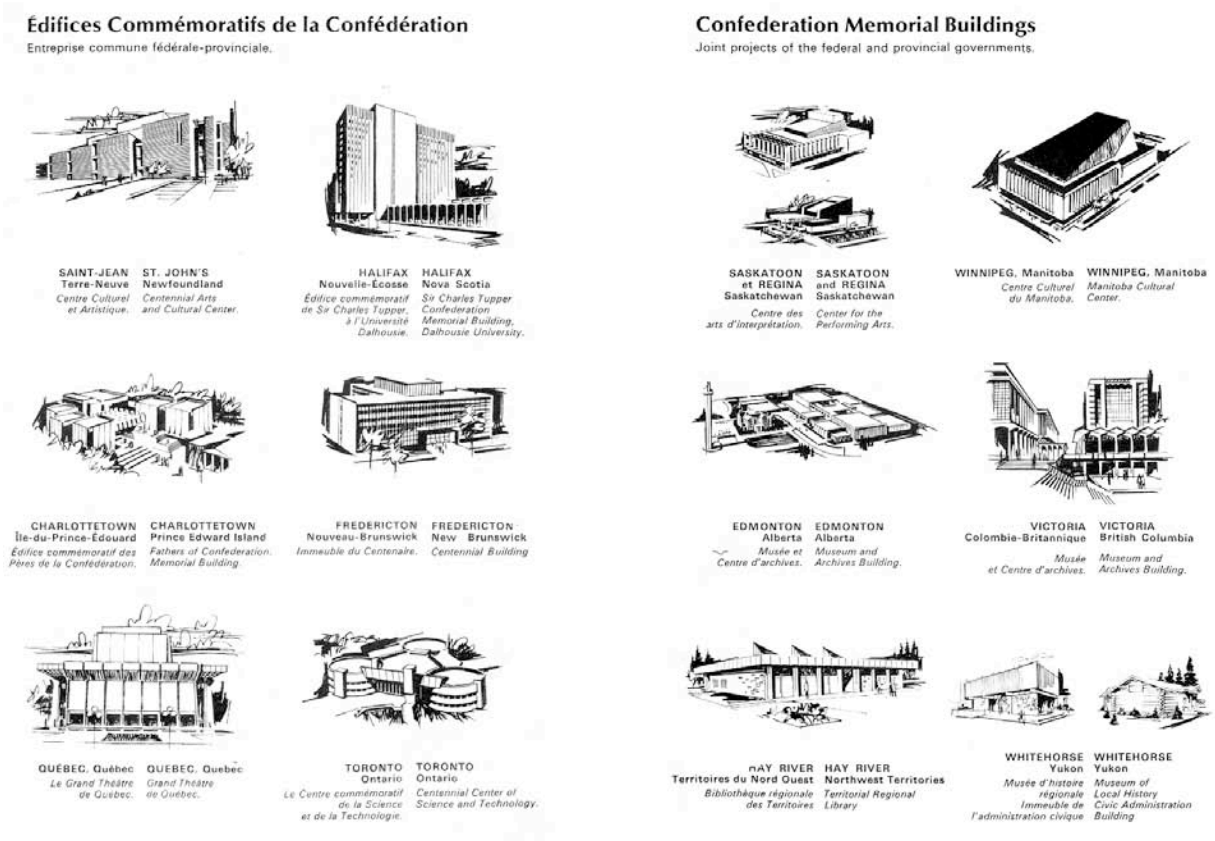
A number of the new generation of architects in Canada wished to explore the plasticity of concrete and the potential of forming concrete into a greater variety of forms and textures not possible with the type of materials commonly found in other forms of Modernism. Raymond Moriyama was one of these architects.

5.1 Background Themes and Events

He was commissioned to design the Canadian Japanese Cultural Centre where he was able to express his own Japanese cultural background with great sensitivity using concrete in architectural forms with rich textural treatments in finished surfaces. The Japanese Cultural Centre project won an Award of Merit from the Prestressed Concrete Institute in 1964.

Many large government-funded public projects in Canada were designed in variations of the Brutalist Style during this period including Guy Desbarats's National Arts Centre in Ottawa, Moshe Safdie's Habitat '67 in Montreal and Arthur Erickson's Simon Fraser University in Vancouver. In Toronto there were a number of buildings designed in this style including John Andrew's Scarborough College, Gordon Adamson's St.Lawrence Centre for the Arts, the Murray Ross Building at York University by a consortium of architectural firms known as UPACE and a series of schools for the Metropolitan Toronto School Board under the direction of architect Roderick Robbie.

Refer also to Cultural Landscape Inventory 4.0



Expo 67 Official Guide, Maclean-Hunter Publishing Co. Ltd.
The Canadian Corporation for the 1967 World Exhibition – pp. 332-3

5.2 The Design Team

Glenn Creba, the Chief Architect for the Public Works Department of the Provincial Government, had responsibility for administering all matters relating to the design and construction period stretching from 1964 until the formal opening of the Science Centre in 1969.

Macklin Hancock was born in Toronto in 1925 and graduated from the University of Guelph in 1949 with a degree of Bachelor of Science in Agriculture. He was working towards a postgraduate degree in landscape architecture and urban planning at Harvard when he was hired in 1952 to work on planning the proposed community of Don Mills. He was the Chief Planner for Don Mills Developments and developed the concept of neighbourhoods, green space and a unique road system for the community. He established of the firm of Project Planning Associates Limited. In the late 1950's Flemingdon Park was conceived with the hope that it might become a "suburban utopia". In 1963 he was asked to report to the Province on the feasibility of a specific site that would be suitable for the proposed Ontario Centennial Centre of Science and Technology. Hancock was responsible for the Expo67 plan in Montreal among numerous other important planning projects in later years such as Ontario Place, University of Guelph master plan and cities in Africa and work in China. He was president of the Canadian Institute of Planners in 1967-68. *(See also the Interview in Appendix 3.0)*

Raymond Moriyama was born in Vancouver in 1929. He graduated in architecture from the University of Toronto in 1954 and obtained a Master of Architecture degree from McGill in 1957. He worked briefly in the office of Professor Eric Arthur and then established his own firm, Raymond Moriyama, Architects and Site Planners, in 1958 with an office at 71 Yorkville Avenue. He won a Massey Medal for the Civic Garden Centre in 1961.The Provincial Government, having proposed a museum for Science and Technology as their official Centennial project, wanted to engage a young architect who could provide a contemporary architectural philosophy for this important project for which there was no design precedent in Canada. Moriyama, who had just won an award for his Japanese Canadian Cultural Centre, was commissioned to design the new museum. It was not long before he found that he would be required to do more than just design the project since there was neither an established program nor a list of requirements for the project. He met with Macklin Hancock to seek out what information had been learned about the characteristics of the site and learn what his understanding of the project was. It became clear that Moriyama would have to visit examples of related types of museums in Europe and parts of United States before he could proceed with an architectural solution. Later on in the design process he worked with Taizo Miake, a designer who had been added to the Science Centre staff. Eventually a building plan evolved that could be fully integrated with an exhibit design philosophy and educational approach that had evolved for the Science Centre. *(See also the Interview in Appendix 2.0)*

Morden Yolles was born in Toronto in 1925. He graduated from the University of Toronto in 1948 with a degree in engineering. Yolles established his own engineering firm in 1952 and in 1955 he was joined by Roland Bregmann, an engineer trained in Vienna who had emigrated from Austria 1952 to work as a bridge engineer in Canada. The influence of M.S.Yolles & Partners, Structural Engineers grew under the influence of Yolles and Bregmann who together formed the firm's creative core both technically and intellectually. Their influence on the Science Centre project, in collaboration with the creative design philosophy of Ray Moriyama, had a significant effect on the ultimate design and assembly of many of the structurally important elements of the Science Centre. This team achieved a blend of aesthetics with sound economics in the design and assembly of the structural components for each different building element of the Science Centre complex. The folded plate concrete bridge, 210-feet in length, between the Entrance building and the Core building, is a daring structural engineering solution. This link between buildings was a bold engineering feat that met the desired design philosophy of the architect and is perhaps the most eloquent individual feature of the Science Centre. A solution for the roof structure for the Great Hall was also a significant challenge for this engineering team and the column free light filled interior space is another expression of brilliant creative team work on this project. The extensive use of concrete, structurally and architecturally, in a wide variety of ways and forms throughout all parts of the Science Centre Complex required mutual respect between the architect and these engineers just as it had during their collaboration earlier on the Japanese Cultural Centre.

5.2 The Design Team

Taizo Miake was born in Tokyo in 1926 but spent most of his early life in Honolulu. He served in the US Army, received a BFA from Pratt Institute in NYC, an MFA from Florida State University in Tallahassee and for the next eight years he taught at the Layton School of Art in Milwaukee. Then he lectured at FSU and California State colleges. He was 39 when appointed Chief Designer for the Centennial Project in January 1965 and already had wide experience as a university museum and exhibit curator, and as an industrial and architectural designer. In 1966 he became Director of Interpretation with responsibility for the design and production of exhibits.

Alan Fleming was born in Toronto in 1929 and studied at Western Technical School. He taught art and design at the Ontario College of Art later and joined the graphic design firm of Cooper & Beatty in 1957. He is probably best known for the CN symbol. Fleming was commissioned to design the official logo for the Ontario Science Centre in 1968. The logo consists of three interlocking red, green and blue circles. Where the circles overlap the colours change to white and form a stylized trillium, the official wildflower of the province. This logo remains in use as an important element in all signage and publications.

Pigott Construction Company was awarded the contract to build the Science Centre. J.J. Pigott, Vice-President, and Manager for Toronto and District at the time, was a strong component member of the team that worked together to solve the numerous problems that surfaced during the construction period. His engineering background enabled him to skillfully accommodate necessary changes that were required and to keep the trades working through some difficult periods between 1965 and 1969. J.J.Pigott was the grandson of Michael Pigott, an Irish immigrant that founded the construction firm in Hamilton in 1885, and the son of Joseph M. Pigott. Management of this pioneering construction firm remained in the family until the company merged with an Alberta firm in 1992 and closed their last Hamilton office in 1993. The successor firm is now Walter Construction (Canada) Limited.

5.3 Building Design & Construction

When Leslie Frost was Premier of Ontario (1949-1961) he had been approached by members of the public expressing a strong interest in the establishment of a science museum in Ontario that would complement the functions of the Royal Ontario Museum. Edna Gardner was one of the most persistent and she became one of the first and most loyal Trustees of the Ontario Science Centre. The idea for a science museum had gained momentum by the early 1960s when John Robarts was Premier and William Davis was Minister of Education.

Consideration was immediately given to the selection of a site that would best accommodate the purposes of the museum and readily serve the people of Ontario. In 1964 this task was assigned to Macklin Hancock the planner who already had a distinguished record with Don Mills Developments and was principle of the planning consulting firm of Project Planning Associates Limited doing work throughout the city and province. He felt that the site should be a vital element in a developing community that was already closely related to arterial roadways. Hancock thought that a site for the Science Centre in central Toronto would not be feasible since the Province wanted to attract the greatest number of the visiting public easily to its prime centennial project from every region of the Province as well as from all parts of the city.

The site, that was ultimately chosen, fulfilled the selection criteria of accessibility, since it could be reached easily from the major provincial vehicular routes such as east-west Highway 401, north bound Highway 400, and the Queen Elizabeth Way from the south and the United States. It was also surrounded by expanding residential, commercial and industrial communities, such as Flemingdon Park and Don Mills. Hancock's investigations revealed that a museum structure could be suitably designed for the site and the facility could be associated with use of the adjacent Don Valley parklands that had been acquired recently by the Metropolitan Toronto Conservation Authority.

5.3 Building Design & Construction

On August 31, 1964 Premier Roberts announced that the prime Centennial project for Ontario would be a Museum of Science and Technology, to open in 1967, with a budget of $5 million. He announced at the same time that Raymond Moriyama had been selected to be the architect for the proposed museum and to work on planning the overall site. A Museum Board of Directors had been formed earlier in August with John Crean as chairman and Dr. George MacBeath became the first Director General in September 1964.

The Centennial museum project was Moriyama's first major large-scale architectural commission. There was no precedent for exactly this type of a museum in Canada or the United States although there were prototypes elsewhere in the world. The Museum for Science and Industry in Chicago was not exactly what was wanted but it was the only one in North America that closely resembled the proposed model for Ontario.

In the latter months of 1964 criteria for program needs were emerging, only a small staff had been engaged to work on it, the physical requirements of the site with such varied landforms had not been fully defined, and other museum organizations had indicated that the budget was impossibly low. Furthermore, the proposed timeframe was really unworkable if the building was to be designed and constructed with exhibits designed and installed for an opening date at any time during Centennial celebrations in 1967.

Raymond Moriyama had immediately set out to do what research he could and to develop a plan and design for a museum building on the farm tableland and valley parkland site that had been selected for the project. Architectural plans were partially complete by mid 1965 when Taizo Miake, an experienced art educator and exhibit designer, was engaged as Chief Designer to develop concepts for exhibition content. Changes in plans for some areas of the building were required to satisfy an evolving philosophy for exhibit development that could be integrated much more closely with building design development. Moriyama and Miake worked closely at this stage to find a solution that would orient users, provide distinctive spaces in buildings designed to house specific program functions and interconnect them with linking elements to form a logical circulation pattern. It was possible to make these design adjustments and still have working drawings ready for tendering in November 1965.

A contract was awarded to Pigott Construction in March 1966 for an amount three times more than the original budget figure. A Scientific Advisory Committee had been appointed by this time to work with staff and consultants on a detailed approach to be taken for exhibit content. A consensus had developed at this late stage, with the building under construction, that the first idea for a science centre as a traditional museum housing a collection of artifacts illustrating scientific and technological achievements of the past would not be appropriate. A change in direction took place and the concept of a science centre with interactive models and participatory exhibits was proposed. It was decided that this approach would be a more lively way to introduce scientific phenomena and technology to the public with a strong emphasis on education in a dynamic self-directed learning environment.

In August 1966, only four months after construction had commenced, Dr. MacBeath, the Director General, resigned when a major reorganization was announced, construction costs had soared and, with centennial year approaching rapidly, it was decided that the opening would have to be postponed at least until 1968.

Dr. William O'Dea, an engineer with experience at the Museum of London, England, was appointed Director General although he was unable to come to take over immediately. Dr. Douglas Ormond, a biologist, then served as Acting Director General until November 1966.

In February 1967 with the arrival of Dr. O'Dea the administration worked diligently to make sure that all parties involved would work together to bring the project to a successful completion as soon as possible. More architectural changes were required and additional drawings were prepared for costing by the general contractor. Unexpected site conditions had to be dealt with and it was a very difficult period for everyone concerned. In fact only the foundations of just two of the three buildings of the complex had been completed by mid 1967.

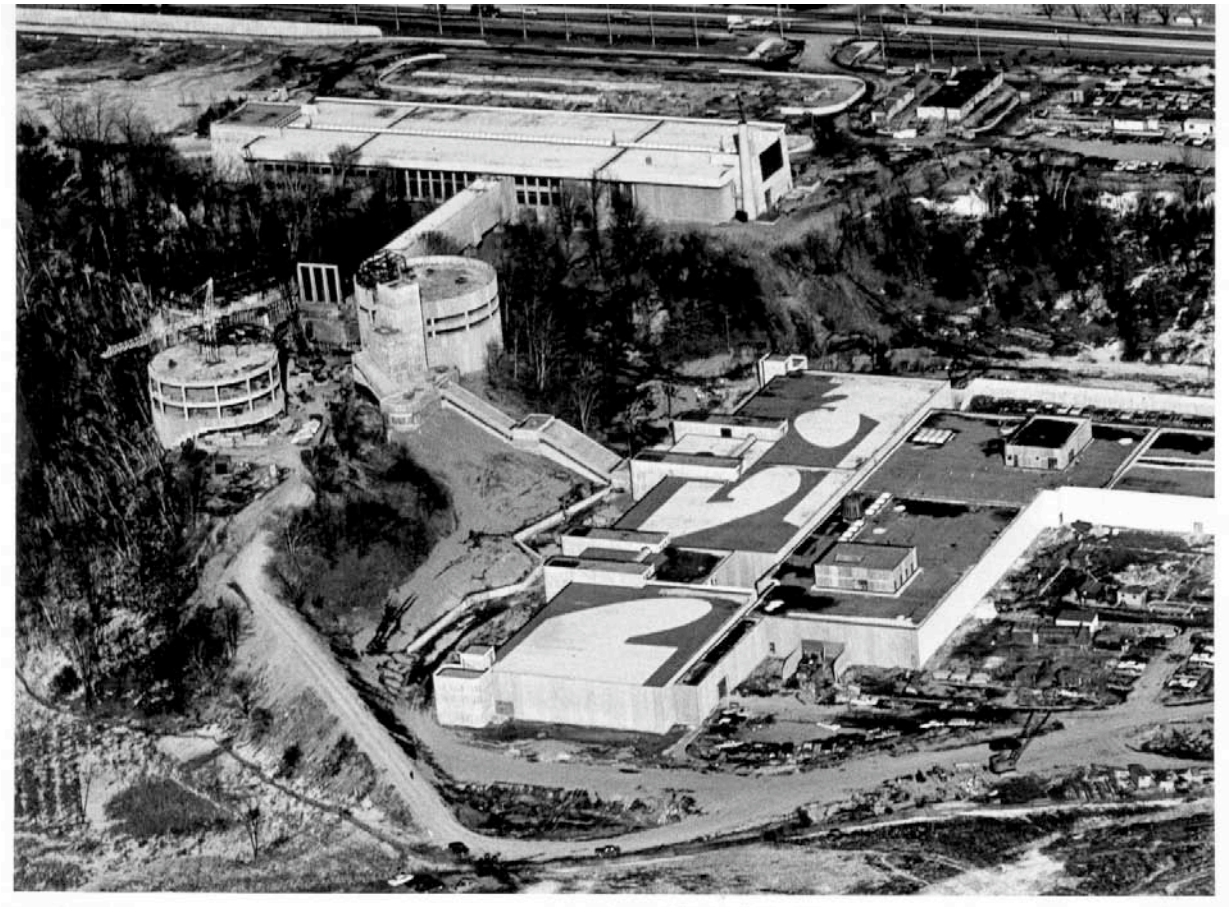
5.3 Building Design & Construction

There were further changes and construction difficulties occurred during the next year. The Entrance and the Valley buildings were not actually ready for occupancy until the autumn of 1968 and the Core building was still under construction and progressing under troublesome conditions. Materials and equipment had to be transported down into the valley and then about ninety feet up a steep specially built construction road to the knoll on which the building was sited. This required careful treatment of the remaining trees and landforms. On completion of the Core building in early 1967 it was possible to connect the bridge to it from the Entrance building and the escalator shaft to it from the Valley building thereby finally joining together all buildings and "experience" areas.

It had taken over five years to resolve the numerous challenges presented by so many changes in direction, in exhibition design philosophy, unexpected site conditions, construction delays partly caused by subcontractors, labour and most of all by the frequency and quantity of construction change orders. Dr. O'Dea returned to England in February 1969 for personal reasons and Dr. Ormond returned to serve as Director General until March 1974.

The Official Opening of the Province of Ontario's Centennial Project took place on September 26, 1969 with a new name, the Ontario Centre for Science and Technology. Very soon it was known simply as the Ontario Science Centre, although its official name remains the Centennial Centre for Science and Technology.

In October the Pre-stressed Concrete Institute presented its 1969 Award " for excellence in architectural and engineering design using Pre-cast and Pre-stressed Concrete" to Raymond Moriyama and Morden Yolles for their work on the Ontario Science Centre. *(See also Chronology Appendix 1.0)*



Ontario Science Centre under construction looking northeast - 1968
Photo Black & White Print – N&H Studio – C. 66/618

6.0 SUMMARY HERITAGE ASSESSMENT

6.1 Introduction

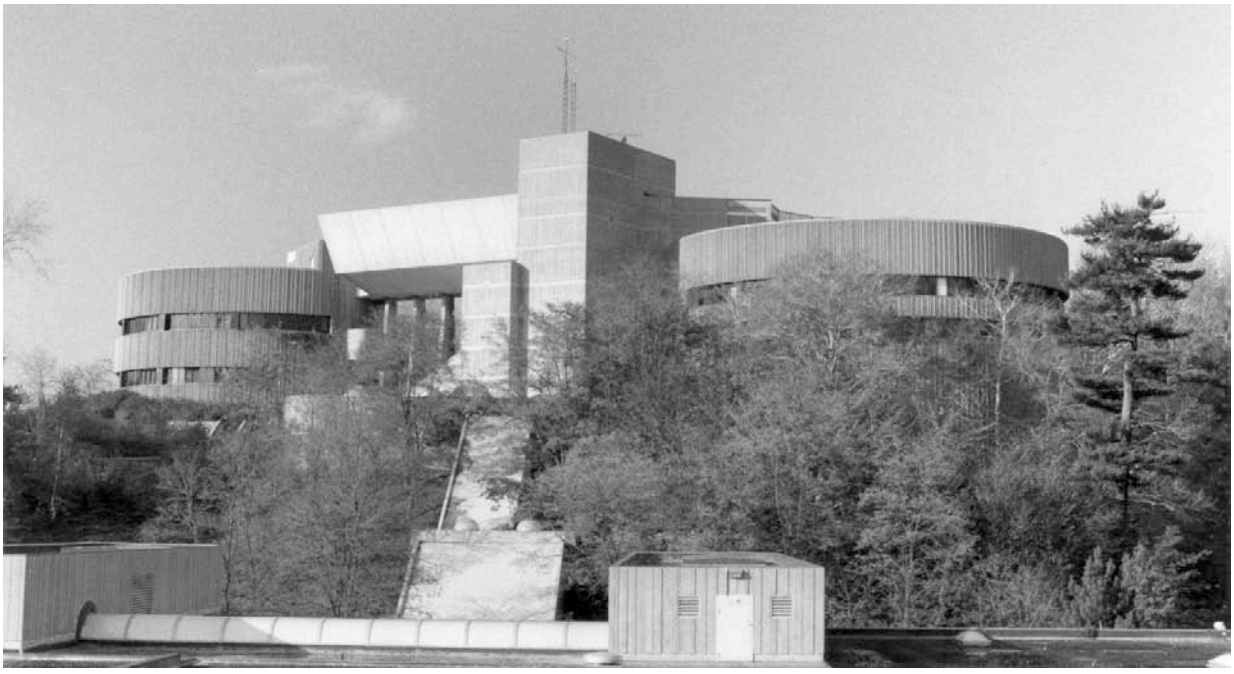
The Heritage Value of an architectural resource is not only based on historical facts and architectural design philosophy but also on Character Defining Features inherent in its fabric. The use of specific materials, the utilization of space, built form, relationships between areas, functional suitability and the quality of detailing must all be considered.
Identification of these important characteristics will provide guidance for the conservation of significant features and heritage integrity of the Ontario Science Centre.

The Zones that are noted in this section identify the same spaces as those mentioned in the MasterPlan/ Innovation Report – 2001 prepared for the Ontario Science Centre by A. J. Diamond, Donald Schmitt and Company.

6.2 Character Defining Architectural Features

Three separated buildings, linked by either a bridge or an escalator shaft, are sited to reflect variation in land contours from tableland to valley floor. Each building has a specific function assigned to it as part of the original design philosophy.

A circulation plan that leads visitors from building to building in a process of discovery while at the same time provides a dialogue with nature as they move from one area to the next.



Core Building B west elevation viewed from the roof of Valley Building C, c. 1970
Photo: OSC Library Files unidentified black and white

6.2 Character Defining Architectural Features

The use of concrete for structural elements, walls and exterior cladding and in interior spaces of each building, with finishes in a variety of textures, provides continuity in material use, definition in building form and visually links exterior and interior wall finishes.

Early view of hillside showing Core Building B, Escalator to Valley Building C and the adjacent Patio area and benches before the Restaurant addition

Photo: Panda/Craydon Assoc.
#69630-13 OSC Library Files

Precast concrete structure under construction

Photo: Frank Grant for G/W Photo Ltd.
#438-9A OSC Files

6.3 Forecourt - Zone 1 – Character Defining Features

The configuration of the building Forecourt and formal definition of the original water element structure is the 'opening statement' and symbolic feature of the pedestrian and vehicular approaches to the Entrance building from Don Mills Road and the TTC bus stop.

Aerial view of Centennial Fountain, original entrance to Building A and the building complex and overall site, 1970s Photo: OSC Library Files black and white print

6.4 Entrance Building A - Zone 2 Character Defining Features

The design and bi-level plan of the Entrance building accommodates the 'mundane' functions relative to user type, activity and the identifiable circulation routes to the bi-level Bridge and on to the Great Hall Core building. Assembly spaces, ticketing, a shop, food services and other necessities (and now the Omnimax theatre) are accommodated in this building before visitors reach the exhibit areas.

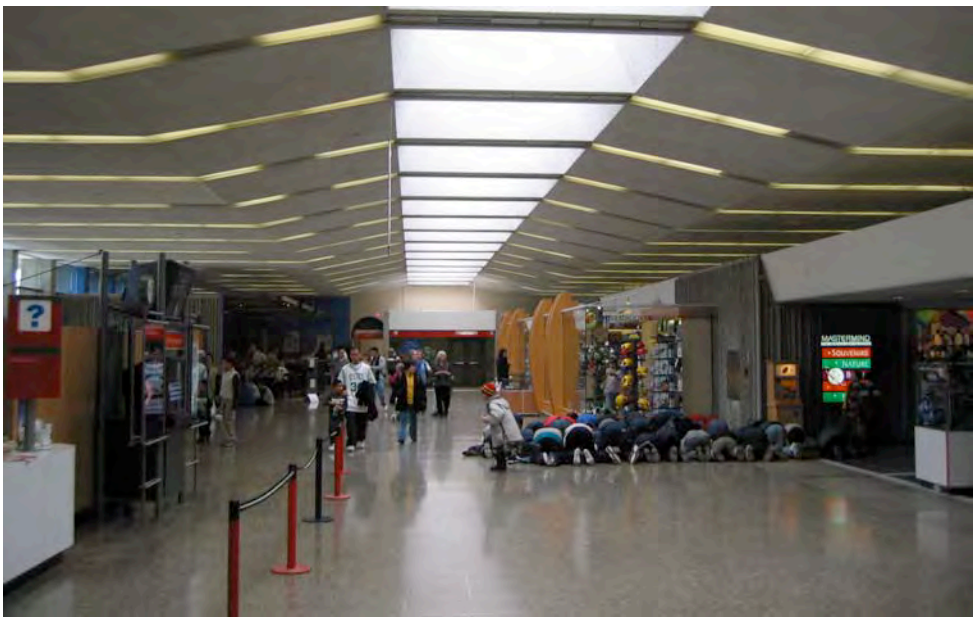
The separation of the group tour entrance and lobby area from the main entrance lobby for individuals (now including the Omnimax lobby) is a significant feature retained from the original design.

View of lower group receiving area from current entrance lobby (Level B) showing upper level (Level A) area above.

6.4 Entrance Building A - Zone 2 – Character Defining Features

The three semicircular carousels in the lower level assembly space are unique and provide school groups with built-in seating. Each one is covered in different coloured carpeting.

The clear span upper level ceiling, has a series of skylights centrally placed and extending the full length of the of the building, strip fluorescent cross lighting aligned with wall columns and window opening divisions. All solid wall areas are restricted to a standard height (about eight feet) with open space above (or with a glazed screen where enclosure is required). All of these features provide users with full linear visibility of the ceiling that is an essential feature in the upper level of the Entrance building.



6.5 Bridge Link A–B - Zone 3 – Character Defining Features

The bi-level Bridge links both the upper and the lower floor levels of the Entrance building to the equivalent floor levels of the Core building. This structurally significant bridge, on both levels, features a solid south wall for displays and window openings extending for the full length and height of the north wall to direct the visitor's undivided attention to the natural environment of the site.

This link was designed to give a 'psychological break' between the 'mundane' and is an 'introduction' to the 'statement' in the Great Hall Core building and the exhibits beyond.

Upper level of Bridges link looking towards Building A from Building C

Upper level of Bridge link looking towards Core Building C from Building A

Lower level of Bridge link looking to Core Building C

6.6 Great Hall / Core Building B - Zone 4 – Character Defining Features

The three circular tower elements create a triangular floor plan that establishes the overall form of the Core building. The extension of the form and the exterior ribbed textured concrete wall material of the tower into the interior, establishes the distinct character of the Great Hall. It is in the west tower of the Core building that staff plan and work to make the 'statement' that demonstrates the enlightening and educational intent of exhibits and management at the Science Centre.

The sweeping bifurcated concrete stairway, the large window areas facing northwest and southwest onto the natural environment of the valley, the floating cloud-like ceiling form surrounded by continuous skylights and the curving ribbed concrete walls of the towers are all significant character defining elements that contribute to the unique volume and spatial quality of the Great Hall.

The circular floor plan creates a significant flexible auditorium space in the north tower.

6.6 Great Hall / Core Building B - Zone 4 – Character Defining Features

Strategically placed strip windows connect work spaces visually to the valley environment.

Office space

The circular plan, on various levels of the south and west towers, is adaptable for lecture rooms, administrative offices, exhibit areas and other ancillary uses or services. Note that ceiling lighting reflects circular floor plan.

Lecture room

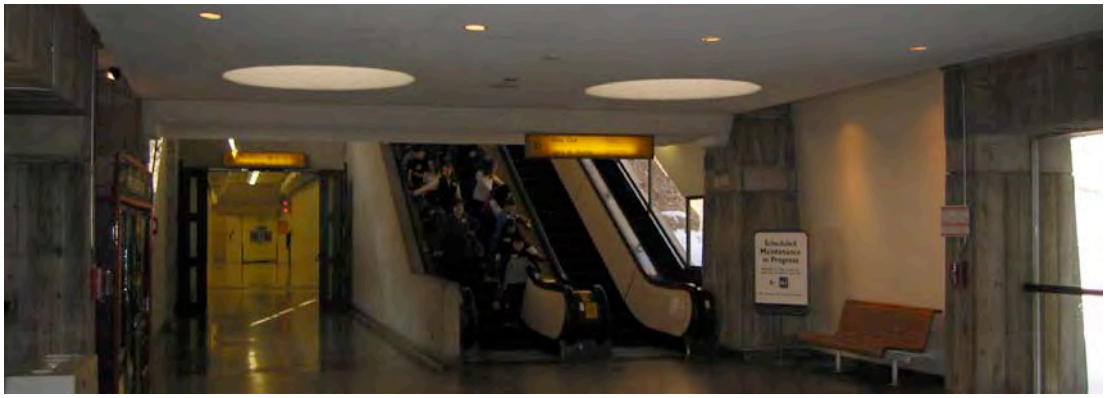
6.6 Great Hall / Core Building B - Zone 4 – Character Defining Features

Exhibition in Great Hall area

Curving stair feature from Great Hall to Upper Bridge link level

6.7 Escalator Link B–C - Zone 5 – Character Defining Features

The windows, extending for the entire length of both sides of each section of the escalator structure, visually link users with the natural landscape, birds and wildlife in this ‘adjustment’ area on the way to the exhibition halls of the Valley building.



Circular skylights strategically placed in the Escalator ceiling and at landings and in the node areas of the Valley building define points of change in the visitor circulation pattern of the Science Centre.

6.8 Valley Building C - Zone 6 – Character Defining Features

The 'black box' (an interior space 'painted out' where exhibit inputs can function without irrelevant architectural distractions) design of each exhibition hall space, and a circulation network that links all of them to adjacent workshops, exhibit assembly areas, research, curatorial and design offices and exhibit areas, give a very special identity to the Valley building as the 'heart' of the Science Centre.

The high ceilings, an open clear span structural system in exhibition and workshop areas with wall finishes that permit the attachment of services that may have to be changed for each new exhibit design, are character defining features permitting flexibility whenever necessary to satisfy the latest trends in exhibit design and museum management.

6.9 Landscape - Zone 7 – Character Defining Features

The parking areas, north and south of the forecourt, at the extremities of the Don Mills Road frontage are designed and landscaped so as not to be intrusive and blend into the natural environment of the site. *(See Section E)*

The outdoor irregularly shaped patio areas and hillside walkways between buildings in the natural landscape of the site establish an intimate dialogue between visitors and the natural elements of the site.

Service delivery and staff parking areas were specifically located for accessibility on the south side of the Valley building out of view of visitors and remote from outdoor patios, hillside walkways and the natural environment of the valley areas of the site.

7.0 EVALUATION FOR BUILDINGS AND STRUCTURES

DESIGN

1. Style/Visual Appeal	E	**VG**	G	F /P	Recognised as a very good example of a popular architectural Style of the 1960's known as "Brutalism". The Science Centre complex of three linked building units is a unique composition that clearly expresses a design philosophy of functional use in complete harmony with the natural landscape and ravine environment of s a unique site.
2. Construction/Technology	E	**VG**	G	F/P	The building complex is a good example of the structural use of pre-cast and pre-stressed concrete elements in association with structural steel and pre-cast ribbed concrete exterior cladding. It is a notable example of the use of local natural materials as well as new products such as lightweight roof panels (*Siporex*) and interior wall panelling (*Tectum*).
3. Architect/Design/Builder	**E**	VG	G	F/P	Raymond Moriyama is an architect of national significance and well recognized internationally. He is known for his creative design philosophy, careful attention to building form, refinement in details and the use of appropriate materials in the context of each site. He has a record of practicing sound construction principles in realizing his project goals.

HISTORY

4. Association/Pattern	**E**	VG	G	F/P	The principal project of the Provincial Government built to commemorate the Centennial of Canadian Confederation. It was the first centre of its kind in Canada established to present contemporary science and technology in a unique museum environment to the people of Ontario and to visitors from outside of the Province.
5. Age			**VG**	F/P	A building that was designed and constructed in the 1960's well after the half point in time between the 1830's, when the earliest buildings in the region were built, and the present.

CONTEXT

6. Landmark/Character	**E**	VG	G	F/P	A landmark building complex familiar and noteworthy as an educational centre and tourist attraction not only in the context of the city, provincially and nationally but also throughout the world. It is a neighbourhood landmark associated with Ernest Thompson Seton Park and the adjacent Conservation area.
7. Streetscape/Landscape		E	**G**	VG/P	An important building and site that contributes significantly to maintaining the dominant character and public use of open natural tableland and ravine areas in the context of a high-rise mixed residential/commercial neighbourhood.

INTEGRITY

8. Alterations			**G**	E/VG/P	Important exterior and interior architectural characteristics of the Science Centre have been retained in almost all parts of the complex. However the addition and alterations made to the façade of the most prominent publicly visible Entrance Building, its street related forecourt and water feature, have compromised the architectural character of the original design for entry into the site and approaching the building.

The Ontario Science Centre qualifies as a Heritage Resource

8.0 DOCUMENTATION

8.1 Reviewer

William N. Greer, OAA, FRAIC
Architect/Heritage Consultant
713-38 Avenue Road, Toronto, ON M5R 2G2

8.2 Date of Research

February-June 2003

8.3 Photographs/Negatives

Ontario Science Centre Library, Photography Files and W.N. Greer Digital Compact Disk
Archives of Ontario, Toronto
City of Toronto Archives, Toronto
Toronto Reference Library, Special Collections

8.4 Location of Architectural Drawings/Aerial Surveys/Topographic Maps

8.4.1 Architectural Drawings

Management Board Secretariat:
Central Drawings File, Index: N 00382
Ontario Science Centre:
Design Department (Digitized Drawings)
Archives of Ontario:
F 2187, Moriyama & Teshima Collection
RG 15, Public Works

8.4.2 Selected Aerial Surveys *(listed chronologically)*

Toronto Reference Library, Special Collections:
"Aerial Photograph of Metropolitan Toronto (Distances from City Hall Shown by Circles," (Toronto: Lockwood Survey Corporation, flown April 1965).

Archives of Ontario, Northway Gestalt Collection:
C 30, ES27-111 through ES27-124, "Centennial Centre of Science and Technology," flown Sept.1968.

8.4.3 Selected Topographic Maps

Ontario Base Maps. 1:20,000 and 1:10,000. Published 1984; based on 1982 air photography.

8.4.4 Selected Historic Maps (listed chronologically)

Tremaine's Map of the County of York Canada West (Toronto: Geo. C. Tremaine, 1860).

Illustrated Historical Atlas of the County of York . . . (Toronto: Miles & Co., 1878), "York Township," p. 15, and "Southeast Part of York," p. 19.

"Toronto Metropolitan Area Showing Transportation Services and Distribution of 1930 Population," (Toronto Transit Commission, Jan. 11, 1932); reproduced in Gentilcore and Head, *Ontario's History in Maps*, plate 7.78.

The Premier Map of Toronto and Vicinity (New York: Geographia Map Co. Inc., circa 1952).

"Toronto Metropolitan Area Showing Transit Services and Distribution of 1960 Population," (Toronto Transit Commission, Oct. 1961); reproduced in Gentilcore and Head, *Ontario's History in Maps*, plate 7.79.

8.4.5 Selected Site Plans *(listed chronologically)*

"Ontario Centre of Science and Technology [site plan with contours, buildings, plantings, etc.]," Drawing L 10, 1965, AO, F 2187, Box A-17, OCST, Drawings, Roll #1.

"Ontario Science Centre, Grounds Site Plan," Paradigm Engineering Group Inc., October 1995.

"Ernest Thompson Seton Park and Ontario Centennial Centre of Science & Technology, General Site Development Plan," Raymond Moriyama, Architect & Site Planner, Feb. 19, 1965.

"Survey Plan 499-135 [showing then-existing contours]," Ontario Dept. of Public Works, June 11, 1965.

8.5 GIS reference and UTM zone & coordinates

(The site is included in the City of Toronto's GIS database.)

8.6 MBS records/cross referencing. *(See Section 8.4.1.)*

8.7 MCTR records

8.8 Field notes – William N. Greer

8.9 Additional references

(See Appendices: 1.0- Chronology, 2.0- Interview with R. Moriyama, 3.0- Interview with M. Hancock)

8.10 Cultural Landscape Inventory. *(See Section E)*

8.11 Archaeological Resources Inventory. *(See Section F)*

9.0 ADDITIONAL PHOTOGRAPHS/MAPS/SKETCHES

10.0 REFERENCES

Leslie Maitland, Jacquline Hucker & Sharron Ricketts: *A Guide to Canadian Architectural Styles:* Peterborough; Broadview Press, 1992

John Blumenson: *Ontario Architecture, A Guide to Styles and Building Terms*: Toronto: Fitzhenry & Whiteside, 1990

Beth Kapusta, John McMinn: *Yolles, A Canadian Legacy*: Vancouver/Toronto: Douglas & McIntyre, 2002

Bureau of Architecture & Urbanism: *Toronto Modern Architecture 1945-1965*: Toronto: The Coach House Press, 1987

Architecture Canada, Journal of the Royal Architectural Institute of Canada: January 1967 Vol. 44, pp.44
October 1967 Vol. 44, pp.47 and September 1969, Vol. 46, pp.13-18.

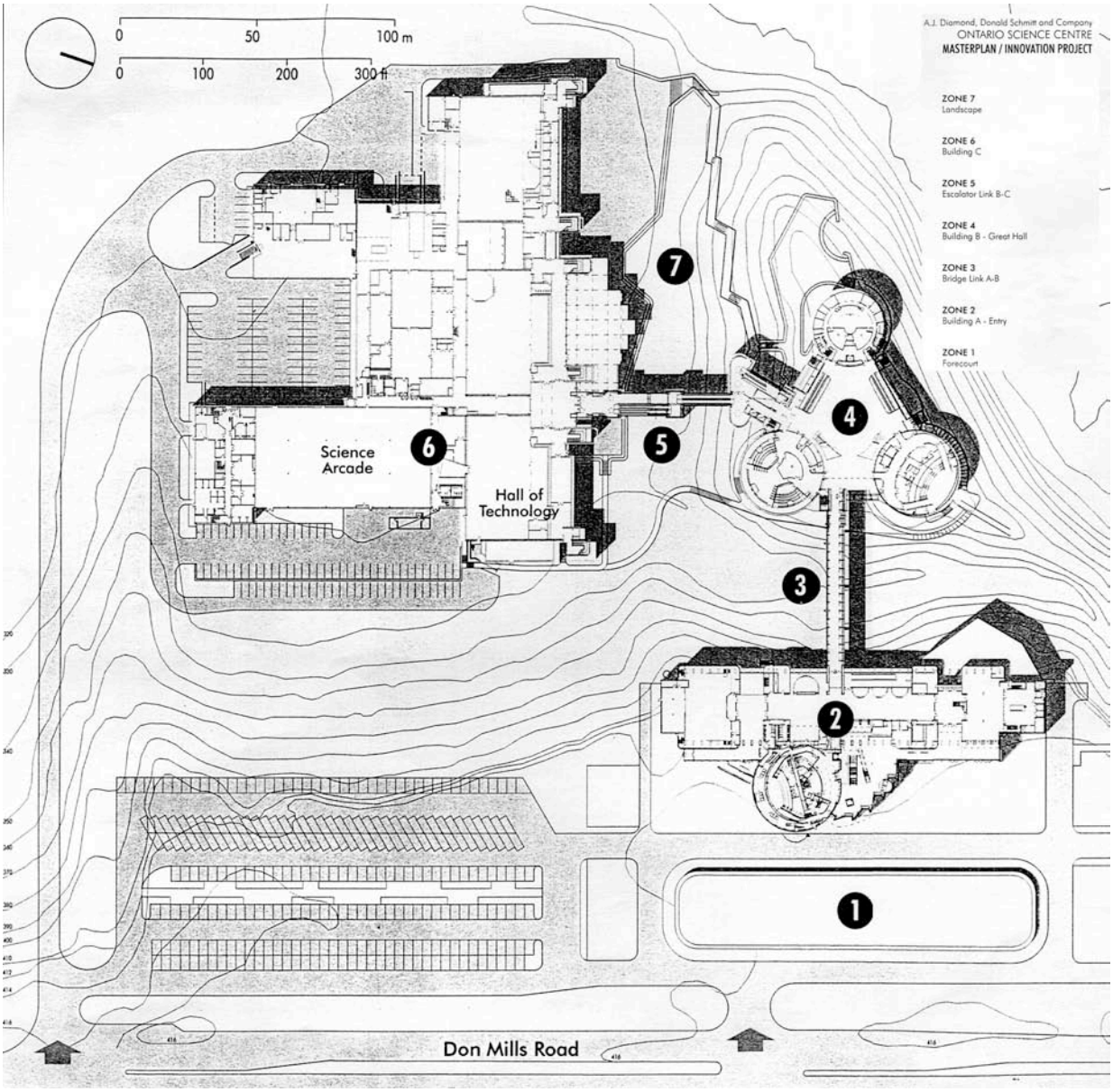
Offical Guide, Expo 67: Maclean Publishing Co. Ltd., 1967

D. HERITAGE FEATURES AND CHANGE

1.0 INTRODUCTION

The Principles for the Conservation of Heritage Resources are based on statements in the Manual of Guidelines prepared for the Province of Ontario (June 1994) and on international charters. These documents provide a basis for all decisions concerning good practice in architectural preservation.

A Heritage Resource will not be under threat or impaired when these Principles are respected relative to past and proposed interventions and are generally identified in the following review of issues in each of the seven zones documented in the Master Plan/Innovation Project report prepared in 2001 by A.J. Diamond, Donald Schmitt and Company for the Ontario Science Centre.



OSC Files

1.1 Principles

- New or evolving uses should respect the character defining features and resources of the Science Centre.
- Management should recognise heritage principles and practices in all decisions and consider reversibility and the least intrusive solution in each case.
- The form and material fabric of character defining elements should be safeguarded and respected without undoing what has been done.
- Licensees and user partnerships should be guided to respect heritage resources and character defining features of the Science Centre.
- Signage should respect heritage values
- Significant features of the natural environment of the site and views to and from the buildings should be respected and maintained.

1.2 Forecourt - Zone 1 - Issues

The opportunities presented by addressing the issues of change in the forecourt area are more of an enhancing nature than threatening to the quality of the site. Mitigation is essential to remedy the loss of the original bi-level entrance design, the symbolism of the Centennial fountain and unobtrusive circulation for motor vehicles and busses. All of these features were affected by the placement of the Omnimax Theatre and the addition of two new lobby areas. Paved areas were significantly increased with these additions resulting in a loss of planting areas between the building façade and the forecourt pool structure.

The opening up of the centre part of the former fountain/pool area proposed in the Master Plan will return visual access to the main entrance. While this implies the loss of an opportunity to restore the Centennial fountain, this alteration should not destroy the form and detail of the surrounding concrete wall. This defining feature of the forecourt reflects, in its shape, length and width the presence of the original and present Entrance building facade. Whether an amphitheatre, or some other simple break in this element, is planned to gain visual accessibility to the main entrance, the remaining form and defining perimeter structure of the original pool should be preserved.

The use of the flanking areas, remaining on either side of a proposed opening through the former pool area, should include the replacement of some type of symbolism to commemorate the Centennial of Confederation, whether water, fountain or some other feature in a manner worthy of the original intent to provide an exciting introduction to a centre of scientific discovery. Restoration of landscaping and benches in the original design for the forecourt area should be included.

1.3 Entrance Building A - Zone 2 - Issues

The change from an upper level (individual visitor) entrance and a lower level (group visitor) entrance to two entrances separated at the lower level (resulting from the Omnimax Theatre and Entrance lobby addition) has caused congestion points and disruption to the original visitor circulation patterns from the entrance. The most obvious and disorienting element in the main lobby is the positioning of the new escalator which impedes clear and direct ‘way-finding in this area.

Retention of all ‘mundane’ uses originally allotted to this building and those proposed appear to be appropriate providing the character defining architectural features of this building are preserved and restored where they have been lost or obscured by furnishings and fixtures. The glazed upper wall area of the partition to the Galaxy Room should be restored to expose the continuity of the skylight feature to the full extent of the building.

1.3 Entrance Building A – Zone 2 Issues

The proposed removal of the concrete ramp that runs between the two levels of the building, and is not used, would not affect the character or the circulation pattern within this building. Parts of the ramp space are now inappropriately used for storage. This change would enhance the use of both levels by allowing new functional spaces adjacent to the large window overlooking the natural landscape of the valley and the unique structure of the Bridge to the Core building.

Change in existing space planning on either level would not threaten heritage values if established principals are respected. The elimination of congestion and fitments that obscure views of the natural landscape from this building would enhance the arrival experience and 'way-finding' from this building to the exhibit areas of the Science Centre.

1.4 Bridge Link A – B - Zone 3 - Issues

The Bridge is a valuable feature of the Science Centre that should not be altered. Any openings or 'portholes' for new views or light would diminish the special character of this transitional space and the design integrity of this unique structure. The continuous expanse of windows on the north side introduces visitors to the natural landscape and environmental issues while the solid south side is available for creative displays relating to natural science, the engineering ingenuity of the bridge structure and service channels hidden below and above each level. This transitional space also provides an interlude of quiet and interaction with the tranquility of the natural landscape in the valley below the bridge.

Renewal of materials and finishes is appropriate with attention to criteria calling for durability and simple maintenance. The use of concrete and finishes featured in architectural detailing of the Science Centre should be respected in this space.

1.5 Great Hall / Core Building B - Zone 4 - Issues

Visitor arrival at the Great Hall on both levels from the Bridge was intended to allow for a gradual process of discovery of the 'statement' to be found there. The solution for issues identified in the Master Plan Report for this area should be solved without affecting any of the character defining features that give heritage value to the Great Hall space (see Summary Heritage Assessment).

It must be acknowledged that the visitor circulation pattern to the upper level elevator lobby is an especially circuitous route from the upper level of the Bridge. To avoid the proposed linking of the bridge arrival level directly to the elevator lobby an alternative should be found that will not affect the heritage value of the bifurcated stairway feature and the significant characteristics of the Great Hall.

The two escalators to the exhibit level below have access at the far west side of the Great Hall and are located in front of the windows facing northwest and southwest to the valley environment. They are not generally used since they are distant from the entrance to the Great Hall and unrelated to the main circulation pattern to the main escalator shaft and the elevator banks. The proposed removal of these escalators, and their solid concrete railing surrounds, would not affect the heritage value of this space and would bring the open floor space up to the window walls. Removal of the solid concrete balustrades would enhance the dialogue between visitors viewing nature in the valley and wetlands in the north part of the valley parklands below. The removal of the south escalator would open up the top landing of the main escalator shaft making it directly accessible and thereby clarifying visitor circulation and 'way-finding' to the exhibit halls. (If, for any reason, direct escalator access to the lower exhibit area below the Great Hall is desirable, then a reduced opening and reversal of the direction of the southwest escalator could allow for a choice between this or the main escalator at the same point of departure from the Great Hall).

The Master Plan indicates that there might be reasons to move the Gift Shop and Bistro restaurant to one level of the South Tower. This could distract from the 'statement' of the Core building and introduce 'mundane' functions

that were planned to be located in the Entrance building. Use of space for temporary event catering in a tower area would not likely affect the architectural integrity and heritage value of the Core building or the Great Hall.

1.6 Escalator Link B-C - Zone 5 - Issues

The Level 'C' landing area is a transition point where any changes should respect the principles for circulation and clear way-finding for visitors on the way to the exhibit areas below the Great Hall of the Core building, to the Valley building or to the large patio deck overlooking the valley parklands.

The issue of visitor orientation at escalator landing Level C would not likely be solved by adding 'new view' windows to expose the Valley building and any window openings would adversely affect the heritage fabric of the building. The same comments apply to 'bay windows' at the escalator landings and skylights in the roof of the shaft that extends from the Core building and Great Hall to the Valley building. Generally there should be no alterations to the building envelope, structure or material fabric of the escalator link shaft including any alterations or additions outside the building envelope or beyond its footprint if heritage values are to be respected.

The rehabilitation and compatible renovation of finishes and lighting, using indirect and the least obvious type of lighting fixtures, and restoration of bronze finishes is desirable to preserve heritage value consistently in this area and throughout all parts of the Science Centre buildings.

1.7 Valley Building C - Zone 6 - Issues

The most prominent issue identified in the Master Plan Project is the need for an appropriate sense of arrival when visitors reach the Valley building from escalators and elevators. The Valley landing from the escalator has a food service centre and the entrance to the restaurant servery in this space as the prelude to the Information Centre, Exhibition Hall Hub and visitor circulation system throughout the Valley building. The proposal to rework food services could restore the character of this Valley landing area. Moving the cafeteria service area to the west end of the restaurant, where food delivery and garbage removal services are located, might solve several problems that affect the heritage integrity in this part of the Science Centre. The large metal vent stack visible on the exterior of the Valley building could then be relocated and garbage bins in the west patio area might be suitably obscured from view.

Organizing Concept I of the Master Plan Project does not affect the heritage value of the Valley building since it does not affect the interior flexibility or the exterior fabric of the building's architecture. It could enhance the established functions of this building in ways that are compatible with the original design philosophy for exhibit spaces and their relationship with the workshops and other 'back-up' functions.

One exception would be the removal of ribbed concrete exterior wall panels to add windows in the north of the Innovation Project area. This alteration would affect the tranquility of the gazebo, herb garden and terrace patio immediately beside this wall and diminish the natural heritage value of the area. However, skylights in the roof or windows in the east wall could be considered as an alternative to changing the exterior appearance of this wall.

1.8 Landscape - Zone 7 - Issues

The issues and opportunities identified in the Master Plan/Innovation Project for the exterior environment of the site will enhance the original intent of integrating the features of natural science on the site with the exhibit philosophy of the Science Centre.

A long range maintenance program to conserve the heritage value of the natural and man made landscape of all parts of the site is essential to maintain its integrity.

The adverse effect of change in infrastructure services and site uses should be evaluated in relation to the principles of conservation to ensure the continued success of the Science Centre as a landmark heritage resource in the Province of Ontario.

E. CULTURAL LANDSCAPE REPORT

2.0 PHYSICAL DESCRIPTION

2.1 Physiographic description

2.1.1 Preamble

The site of the Ontario Science Centre (the Centre) lies within a much larger and predominantly linear landscape: the valley of the West Branch of the Don River. More specifically, it lies within a 72.8-hectare (180-acre) portion of E.T. Seton (formerly Ernest Thompson Seton) Park that is north of the Hydro One (formerly the Ontario Hydro-Electric System) corridor, and south of Eglinton Ave. E. The Corporation of Metropolitan Toronto leased this site, at the northeast corner of the park, to the Province of Ontario on July 1, 1965, for 99 years. As shown in the "Ernest Thompson Seton Park and Ontario Centennial Centre of Science & Technology General Site Development Plan" (Raymond Moriyama, Architect & Site Planner, Feb. 1965), the Centre occupies parkland and parkland surrounds the Centre. The City Parks and Recreation Division, which has been responsible for landscape maintenance since the Centre opened, has an on-site facility (originally in the park; now in Building C).

Unless otherwise stated in the following sections, the Centre and the park are treated as an entity.

2.1.2 Natural physiographic features


Ernest Thompson Seton Park looking to Building C

The site lies within a portion of the Lake Iroquois plain that consists of a large lagoon formed by a baymouth bar stretching from the Don River to the Scarborough Bluffs. [Chapman and Putman, *The Physiography of Southern Ontario*, Third Edition (1984), p.192, fig.26.] The site is between the west and east branches of the Don. The West Branch, although its natural course has been altered, still flows through the park and past the Centre in a generally southeasterly direction. North and west of the building complex is an oxbow (a former bend in the river) manifested as a loop of ponds and wetlands. The Forks of the Don (the confluence of the east and west branches and Taylor Creek) is approximately 1.25 km (_ mile) south of Building C.

The park occupies the floodplain and ascends the valley walls. The Centre's buildings C, B, and A, respectively, rest on floodplain, knoll/valley wall, and tableland—the last totaling about four hectares (ten acres). According to Raymond Moriyama, the knoll that accommodates Building B was preserved as much as possible because in 1964 this was one of very few such knolls shown on topographical maps of this part of the valley. [Interview with Raymond Moriyama,]

2.1.3 Cultural landforms

As mentioned above, the natural course of the river in this area has been altered somewhat.

In keeping with Raymond Moriyama's design intent, the natural physiographic features were respected as much as possible during construction of the Centre. Other considerations made certain engineered landforms necessary.

The huge berms to the south and west of the Centre were a response to the Metropolitan Toronto Conservation Authority's requirement that the building complex be protected from 800-year floods such as Hurricane Hazel. H.G. Acres and Co. Ltd., Moriyama's consultants on outside services and flood control, designed the berms.

Around Building A, the sunken parking lots, planting strips, and the raised berms were a response to the architects' desire to have passers-by see the entrance to the Science Centre rather than parked cars and buses around it. Bon W. Mueller, a landscape architect in the Moriyama office during the 1960s, handled the technical design of these features.

2.2 Land use category and
2.3 Land use activity

Much of the area in and around E.T. Seton Park and the Centre was used for agriculture in the 19th and first half of the 20th centuries. One pre-construction photograph in the OSC Library shows cows grazing on the nearby floodplain; another shows the 19th-century farmhouse that stood near the southwest corner of Don Mills and Eglinton until November 1965.

Nineteenth-century industries in the valley, although not specific to this site, were nearby. Tremaine's 1860 map shows a sawmill and small millpond near the northeast corner of present-day Eglinton Ave. E. and Leslie St. and, to the south, the Taylor Brothers' Upper Don Paper Mill, the upper limits of whose 30-acre millpond was only one lot away from the subject site. In the 1950s the site's tableland was zoned industrial; but in 1965, before any such uses had occurred, the valley and tablelands were rezoned open space. Since that time, the site's primary land-use categories/activities have been as follows:

- Corridor: Waterway and valley of the West Branch of the Don River
- Recreation: Canoeing (one day per year), walking, hiking, cross-country skiing, picnicking, and nature observation and interpretation; recreation facilities; parks servicing
- Institutional/Educational: uses associated with Ontario Science Centre programs (both indoors and out), circulation, and servicing

2.4 Patterns of spatial organization

As designed by Raymond Moriyama, Architects & Site Planners, in 1964-65 and constructed in 1965-69, the Ontario Science Centre had clearly defined patterns of spatial organization. Moriyama explained them at the time ["Thought Process & Intent," *Canadian Architect* 13 (Sept. 1969): 39] as a "sequence of experiences":

- the "opening" (the cooling pond/Centennial fountain)
- the "mundane" (Building A, the reception building, to provide for visitors' mundane needs)
- the "psychological break and introduction" (the bridge over the ravine)
- the "statement" (the core building and its great hall)
- the "adjustment" (the link to the valley floor)
- the "back up" (the exhibits and behind-the-scenes facilities)

Carefully framed yet continually changing views of the surrounding landscape were essential to each part of the experience. Whether seen through windows or entered through patio doors, the natural surroundings had educational, aesthetic, and spiritual value.

2.4 Patterns of spatial organization

Since 1990, as uses of the various spaces have been increasingly mixed, much of the rationale for the original pattern of spatial organization has become obscured. Nevertheless, A.J. Diamond, Donald Schmidt and Company, in their 2001 report, identify in the Ontario Science Centre the same progression of spaces as originally intended. In addition, they list the landscape.

- Zone 1 Forecourt (including vehicular entrance and drives, drop-off and loading points, and parking areas)
- Zone 2 Building A – Entry
- Zone 3 Bridge Link A-B
- Zone 4 Building B – Great Hall
- Zone 5 Escalator Link B-C
- Zone 6 Building C
- Zone 7 Landscape

Speaking only of the designed landscape, the following original spaces are, to varying degrees, still identifiable:

- the forecourt area, including the space formerly occupied by the Centennial Fountain
- the north and south parking lots, plus associated berms, plantings, and retaining walls
- outdoor patios 1, 2, 3, 4, and 5; associated planting beds and gazebo; and natural areas beyond
- the outdoor walks linking buildings B and C, and their natural surroundings
- the access drive serving Building C, plus associated plantings
- the flood-control berms, plus associated plantings

Finally, and very importantly, the natural environment of the park as a whole continues to extend the space around contiguous facets of the building complex.

2.5 Natural environment

The site contains a variety of habitats: riparian, floodplain, wetland, slope, and tableland. Those areas of the floodplain that are maintained as open space can be characterized as semi-natural (where natural regeneration has been permitted), park-like (where regular mowing has taken place), or horticultural (where planting beds are routinely maintained).

Northwest of the building complex the natural wetland and associated ponds and/or vernal pools preserved during construction of buildings B and C, continue to exist.

Valley Wetlands

The wooded slopes appear to be in a transitional state. Some indigenous vegetation shown on the Moriyama office's 1965 planting plans as "existing woodland" and "ex. tree," although still present, appears to be in poor condition due to age and/or adverse physical and environmental factors. People straying from patios and paths may be partly responsible for problems such as thinning of the understorey, erosion of the soil, poor regeneration of indigenous species, and invasion of opportunistic species. Some trees and shrubs specified on the 1965 planting plans (predominantly exotic but including some native species), although still present, are in decline for the reasons mentioned above and also, in some cause, because they are unable to adapt to increasing shade.

2.5 Natural Environment

The planting areas that remain close to the building complex, access drives, and parking lots contain predominantly the exotic species and cultivars specified in the 1965 planting plans. Some appear to be in good condition, while others clearly need attention and, in some cases, restoration.

View from north parking area to forecourt and east façade of Building A

Quiet Natural hillside landscape and gazebo are adjacent to east wing of Valley Building C and accessible from Escalator Landing area.

If the Parks and Recreation Division has no long-range plan for dealing with conservation and rehabilitation and providing appropriate management and maintenance guidelines for this site, such a plan should be prepared to preserved the important natural heritage of the site.

2.6 Boundary demarcation

Political: The municipal address of the Ontario Science Centre is 770 Don Mills Road. It occupies a 72.8-hectare (180-acre) portion of E.T. Seton Park. As mentioned in Section 2.1.11, the Province leased the site from Metro Toronto in 1965. With the amalgamation of Metropolitan Toronto in 1998, the park came under the jurisdiction of the City of Toronto, Department of Economic Development, Culture and Tourism, Division of Parks and Recreation.

Physical: The site is bounded as follows:
- on the east by Don Mills Road,
- on the north by Eglinton Avenue East,
- to the west by E.T. Seton Park and West Branch of the Don River, and
- to the south by a transmission corridor owned by Hydro One (formerly the Hydro Electric Power Commission of Ontario).

There are no public streets or road allowances within the site. Public sidewalks run along the north and east sides of the Centre. Immediately within these sidewalks, where they pass the sunken north and south parking lots, are broad planting strips terminating, on the inside, in concrete walls that form the lots.

2.7 Circulation network

Historically, the West Branch of the Don River was easily navigable by canoe, although portaging around some rapids may have been necessary. Since the 1970s an annual spring Don River Canoe Day (now hosted by the Toronto Regional Conservation Authority) has allowed participants to navigate the West Branch and the Lower Don by putting in at Serena Gundy Park, passing the Science Centre and, ultimately, entering Toronto Harbour via the Keating Channel.

Historically, footpaths and, later, horse riding trails, likely also existed throughout the valley. Since the 1960's E.T. Seton Park has formed one link in an extensive system of hiking/cycling/cross-country skiing trails—primarily on parkland—between York Mills Rd./Bayview Ave. and St. Clair Ave. E. /Warden Ave. Metro Parks Commissioner T.W. ("Tommy") Thompson made headines in 1969 by leading 400 people on a walk through this valley trail system.

Within the site of the Centre itself, two distinct circulation networks exist. One, built entirely on tableland, serves Building A and the adjacent north and south parking lots. The other, descending from tableland to floodplain, serves Building C and its adjacent parking, delivery bays, and service areas. The first partially separates pedestrian and vehicular routes. The second offers no separation.

Both networks have been altered somewhat since the 1960s. As originally designed, Building-A network served entrances on each of two levels and allowed school buses to drop off students on the lower level (designed specifically for their needs). At the same time, it allowed visitors arriving by TTC to cross a bridge to an upper-level plaza and entrance, and those arriving by car to walk from the parking lots to this same plaza and entrance. Since 1995, with demolition of the bridge to the upper entrance and construction of the Omnimax Theatre, all visitors must enter Building A at the lower level.

Alterations to the Building C circulation network consist mainly of enlarging the staff parking lots, removing a loading bay and, most significantly, creating a service/maintenance area in what was originally outdoor patio #3.

2.8 Site structures

(See also Section 6.10, "Buildings and Structures.")

In addition to buildings A, B, and C, their bridge and escalator connectors, and the greenhouses attached to Building C, few other site structures exist. These are:
- gazebo on patio 5 (outside Building C)
- raised herb garden constructed with landscape timbers (outside Building C)

2.9 Settlement clusters

(See also F. Archaeological Resources Inventory.)

In the 19th century, no settlement clusters existed on or near this site. However, the Taylor Brothers' 30-acre millpond and Upper Don Paper Mills, established in 1846-47, were directly south of the site. The closest village was Don Mills, around the intersection of present-day Lawrence Ave. E. and Don Mills Rd.; the next closest was Milneford, southeast of the intersection of present-day Eglinton Ave. E. and Woodbine Ave.

In the 20th century, the first major development in the area was the former Town of Leaside, a railway suburb whose land assembly began in 1912. The next was the Town of Don Mills (constructed between 1952 and 1965), followed by the Flemingdon Park and Thorncliffe Park neighbourhoods, begun in the late 1950s and early 1960s respectively.

3. CONTEXT

3.1 Description of temporal and spatial context

The Ontario Science Centre, opened in 1969, exists within a much broader area settled in the mid-19th century but developed primarily during the 1950s and 1960s.

3.2 Site uniqueness

E.T. Seton Park and the Ontario Science Centre are unique internationally because they are Raymond Moriyama's first large-scale project.

The site is unique in Canada because it contains the largest and most complex of all the provincial Centennial projects.

The site was unique in the greater Toronto area when selected in 1965, and it remains unique today. It was chosen from among 32 possible locations in and near Metro Toronto because it alone was at the geographical centre of Greater Toronto, accessible to visitors coming by public or private transportation from all directions, within a park setting, and linked to an extensive valley-park recreational system.

The site is unique in the greater Toronto area for its careful integration of a large-scale public building with a natural landscape of valley, slope, and tableland.

3.3 Site representativeness

The site of the Ontario Science Centre represents the successful outcome of a very thorough selection process. This process, initiated by the Government of Ontario, involved John P. Robarts as Premier, his Cabinet Centennial Committee, and several of his ministers: James Auld of Tourism and Information, William Davis of Education, and Ray Connell of Public Works. Involved in narrowing the list and confirming the final selection were three separate teams of consultants: Dominion Consultant Associates Limited (Ottawa), Murray B. Jones and Associates Limited, and Project Planning Associates Limited. The availability of the site was ensured through the cooperation of the Province, the Metropolitan Toronto and Region Conservation Authority, and the Corporation of Metropolitan Toronto--all of which then worked with the firm of Raymond Moriyama, Architects and Site Planners, and their consultants to achieve its careful development.

3.4 Site and inter-site relationships

(See sections 2.4 and 2.7.)

3.5 Siting and environment

(See sections 2.4 and 2.5.)

3.6 Neighbouring properties known to have heritage significance

The Ontario Heritage Foundation unveiled a provincial plaque commemorating the Model Town in Don Mills on September 20, 1997.

The neighbouring Serena Gundy Park and Taylor Creek Park commemorate former residents of the area.

3.7 Traditional views to and from the property

Views between the river valley and the slope and tableland are have existed since humans first visited and/or inhabited this area. Views of the Ontario Science Centre from the river valley, slope, and tableland have existed since early in the construction process that began in April 1966.

Views from Eglinton Ave. E. and Don Mills Rd.—of the Ontario Science Centre signs bearing Allan Fleming's logo, of the retaining wall and plantings that buffer the sunken parking lots, of the forecourt and Centennial fountain space, and of Building A—have existed since the late 1960s.

Views from the various windows, patios, and walkways have existed, for staff, since they occupied the three buildings and, for the general public, since the Centre opened in September 1969. These views include, but are not limited to, the following:

- westerly views of the slope and Building B from patio #1 and the west windows of Building A
- views of the slope and wetland from patio #2 and windows in the Great Hall
- north and northwesterly views into the trees and along the slope from both levels of the bridge

Bridge Link A-B Level A

3.7 Traditional views to and from the property

- easterly and westerly views from the escalators linking buildings B and C
- views across the floodplain from windows of staff areas in Building C
- views up the slope from the north windows and patios of Building C

Valley hillside looking to Building B

3.8 Traditional linkages

- Don River and floodplain
- Don Mills Road

(See Appendix 1.0 "Chronology," and F. Archaeological Resources Inventory.)

3.9 Distinctive neighbouring features

- The former Inn on the Park (1960s: Peter Dickinson, architect, with Webb & Menkes/Webb Zerafa Menkes), with its broad landscape setting (J. Austin Floyd, landscape architect), is a familiar landmark to those traveling on Eglinton Ave. E.
- Olympia Square (Mony Life Office Building and IOF (Foresters) Building) are familiar landmarks to those traveling on Eglinton Ave. E. and the Don Valley Parkway.

3.10 Significant landscape features

The Ontario Science Centre building complex, descending from tableland to knoll to valley floor, is the most significant feature of this landscape. Also significant are the wooded slopes, the nearby wetland, and the linear valley of the West Branch of the Don River.

Prominent, but of lesser significance, are the hydroelectric corridor to the south and the clusters of high-rise buildings on the horizon.

4. HISTORICAL SIGNIFICANCE

4.1 Year completed

Landscape by Raymond Moriyama, Architects and Site Planners:
Landscape construction carried out for Metro Parks in E.T. Seton Park began in the early 1960s and had been completed by 1969. The flood-control work in the vicinity of the Centre was completed in 1966; flood- and erosion-control work in the park was completed in 1967. Landscape work carried out for the Department of Public Works (by McLean-Piester Ltd., landscape contractors) followed completion of outside work on each building but was not fully completed until 1970. The Centennial Fountain was turned on in 1969 but, due to technical problems, required further work in 1970.

Subsequent landscape work:

- 1995: demolition of planting areas at the bridge to the upper level of Building A
- 1996: decommissioning of the Centennial Fountain
- 1997: creation of Lever Pond's Science Plaza
- 1998-99: conversion of Patio #3 into parking/service area for the valley restaurant
- 2001: unveiling of the Dr. J. Tuzo Wilson Geodetic Monument

(See also Appendix 1.0, "Chronology.")

4.2 Original Owner

No title search for this property has been carried out as part of this project. However, *Tremaine's Map of York Country Canada West* (1860) shows the owners at that time to have been Charles Snider, P. Johnston, and John Taylor & Brothers.

The valley land:
The Corporation of Metropolitan Toronto acquired approximately 160 acres in the valley in the late 1950s from the Flemingdon Park Development Corporation.

The Metropolitan Toronto and Region Conservation Authority acquired this land from the Corporation of Metropolitan Toronto for flood control purposes in 1959.

The table land:
The Corporation of Metropolitan Toronto acquired approximately 18 acres of tableland at the corner of Don Mills Rd. and Eglinton Ave. E. in 1961 from Thomas A. Meagher and Ellen B. Meagher for the sum of $356,681.44. The Meaghers were to retain joint life tenancy but, to accommodate the Centennial project, Metro bought out their joint life interest in September 1965 for $25,800.00.

4.3 Landscape architects, including site-selection consultants

1962
Don Valley, Wilket Creek and Taylor Creek Parklands study (recommending against siting zoo in Ernest Thompson Seton Park):
Sasaki, Strong and Associates Limited, Landscape Architects and Planners (Tadeo Sasaki and Richard Strong, principals)

1964, early July
Ontario Centennial Project Site Feasibility Study (ranking 32 proposed sites):
Dominion Consultant Associates Limited, Ottawa (W.L. Shortreed, president)

4.3 Landscape architects, including site-selection consultants

1964 (August?)
Final site selection and initial concept:
Project Planning Associates Limited (Macklin Hancock, principal landscape architect)

1964 (August?)
Report on selected site (confirming appropriateness of Ernest Thompson Seton Park):
M.V. Jones and Associates Limited (Murray V. Jones, former Metro Toronto Commissioner of Planning, principal)

1964, late August-1965
General Site Development Plan for Ernest Thompson Seton Park and Centennial Centre:
Raymond Moriyama Architect (Raymond Moriyama, architect, and Bon W. Mueller, landscape architect)

Detailed landscape design, including planting plans: Raymond Moriyama, Architect & Site Planner (Raymond Moriyama, principal architect and site planner; Bon W. Mueller, landscape architect; David Vickers, project captain)

Alterations to Entrance of Building A: Zeidler Roberts Partnership

Lever-Pond's Science Plaza: Ontario Science Centre staff (T. Krawano, landscape design; Denjner-Locke, fountain design)

4.4 Builders

1966-1970:
The general contractor was Pigott Construction Company Limited, Toronto. Pigott's subcontractor for paving was the Warren company, and for landscaping, McLean-Piester Ltd. of Kitchener. This latter firm, with Glenn Piester as a principal, was well known in the Toronto area in the 1960s and '70s. Its scope of work on this project included soil preparation, tree and shrub planting, stone paving, and stone-dust walks and steps.

1990s: Not known.

4.5 Design description

Like the architectural design, the landscape design for the Ontario Science Centre responds to the varied topography that characterizes the site. On the tableland the design is asymmetrically geometric. On the knoll, slopes, and floodplain it is naturalistic except adjacent to the building complex, where it is again asymetrically geometric.

4.5 Design description

The character-defining features of the landscape design are:

- the Centennial Fountain space that separates Don Mills Road and Building A
- the retaining walls and plantings that screen and subdivide the two upper parking lots
- the wooded slopes, as viewed both from inside and outside the building complex
- the outdoor patios that provide transitions between the buildings and the naturalistic landscape
- the treed flood-control berms that protect and enhance Building C

Centennial forecourt and east façade of Building A

Upper parking lot screening landscaping from Don Mills Road

4.6 Historic themes, patterns, persons, or events associated with the landscape

Ernest Thompson Seton (1860-1946), boyhood years in this and other area ravines

William Allen, Metro's first Chairman
T.W. Thompson, Metro's first Commissioner of Parks, 1955-1978

1967 Centennial/Centennial Commission/Ontario's Official Centennial Project
John P. Robarts, Premier of Ontario 1961-1971
James Auld, Minister of Tourism and Information under John P. Robarts
Ray Connell, Minister of Public Works under John P. Robarts
William Davis, Minister of Education under John P. Robarts

Tadeo Sasaki and Richard Strong, 1962 report on valley parks system

Macklin Hancock/Project Planning Associates Limited, site selection and planning
Raymond Moriyama/Raymond Moriyama, Architects and Planners
Alan Fleming, logo design
H.R.H. Princess Alexandra, unofficial opening 1967
J. Tuzo Wilson (1908-1993), Director-General 1974-1985

4.7 Integrity

Intact:
- The surrounding parkland, including the wetland, remains intact. Although there is evidence of deferred maintenance resulting in problems such as overmature and diseased trees, slope erosion, and competition from invasive species, landscape restoration is possible.
- Many species and cultivars shown on the 1965 planting plan are still in evidence.
- The footprint of Building B remains intact.
- The walkways between buildings B and C remain intact.
- The patios outside buildings A, B, and C remain intact. Although those outside Building C have been altered and reduced in size, the alterations are somewhat compatible and, ultimately, reversible.
- Some of the exterior lighting is original.
- The landscaped areas in and around the north and south parking lots appear intact, although the plantings need rejuvenation.

Affected:
- The 1995-1996 construction of the Omnimax theatre greatly altered the approach and entrance to Building A.
- The 1995-1996 construction of the Omnimax theatre disconnected the Centennial Fountain's original function as a cooling pond.
- The Centennial Fountain jets were removed in 2001 as a safety hazard.
- The 1996-1997 construction of the Lever-Pond's Science Plaza changed the character of open space outside Building A.

4.8 Physical attributes that illustrate or support historic associations

Proximity of West Branch of Don River and of E.T. Seton Park
Ontario Science Centre building/site relationship
Centennial Fountain space
Signs bearing logo designed by Alan Fleming
Dr. J. Tuzo Wilson Geodetic Monument (2001)

5. EVALUATION AND STATEMENT OF SIGNIFICANCE

5.1 Evaluation

Criterion	*Grade*	*Description*
DESIGN		
1. Style/Visual Appeal	**E** VG G F/P	Built at a time when preservation of natural features seldom received high priority, the Ontario Science Centre is an excellent example of a complex of buildings integrated with care and sensitivity in a valley, slope/knoll, and tableland setting.
2. Materials/Technology	E **VG** G F/P	The flood-control berms were constructed to meet new, post-Hurricane Hazel standards. The specifications for protecting existing trees were bold and innovative.
3. Landscape Architect/Designer	**E** VG G F/P	Raymond Moriyama, an internationally known architect and site planner, was directly involved in siting the buildings and preparing the master plan for the surrounding E.T. Seton Park. Bon Mueller, the landscape architect in the firm who produced the working drawings, is not well known but exemplifies this firm's consistently multidisciplinary approach.
HISTORY		
4. Association/Pattern	**E** VG G F/P	The Ontario Science Centre was Ontario's official Centennial project and the largest and most complex of all the provincial Centennial projects. Realizing the project on this site involved the cooperation of several levels of government including the conservation authority. While the entire project celebrated the occasion, the 100 jets of the Centennial Fountain were a direct reference to the 1867-1967 anniversary.
5. Age/Period of Significance	E VG G **F/P**	Constructed during the 1960s, E.T. Seton Park and the designed landscape of the Ontario Science Centre are after the one-half point for the Toronto region.
CONTEXT		
6. Site/Setting	E **VG** G F/P	The Ontario Science Centre, in its parkland setting near a valley trail system and several major vehicular routes, is a conspicuous and familiar feature in the area.
INTEGRITY		
7. Alterations	E VG **G** F/P	Changes of some consequence have occurred immediately in front of the Reception Building. Despite the decommissioning of the Centennial Fountain, however, its original rectangular form remains intact. On the slopes, degradation of the soil and vegetation is reversible. In the valley, intrusions on two of the original outdoor patios are reversible.

5.2 Proposed statement of significance. ***(See Section B of this report)***

6. DOCUMENTATION

6.1 Reviewer
Pleasance Crawford, Landscape Design Historian
404-190 St. George Street, Toronto, ON M5R 2N4

6.2 Date of Research
February-April 2003

6.3 Photographs/Negatives
Archives of Ontario, Toronto
City of Toronto Archives, Toronto
Toronto Reference Library, Special Collections
Toronto Star Photograph Collection

6.4 Location of Architectural Drawings/Aerial Surveys/Topographic Maps

6.4.1 Architectural Drawings
Archives of Ontario:
F 2187, Moriyama & Teshima Collection
RG 15, Public Works
Management Board Secretariat:
Central Drawings File
Ontario Science Centre:
Design Department (Digitized Drawings)

6.4.2 Selected Aerial Surveys (listed chronologically)

Toronto Reference Library, Special Collections:
"Aerial Photograph of Metropolitan Toronto (Distances from City Hall Shown by Circles," (Toronto: Lockwood Survey Corporation, flown April 1965).

Archives of Ontario, Northway Gestalt Collection:
C 30, ES27-111 through ES27-124, "Centennial Centre of Science and Technology," flown Sept.1968.

6.4.3 Selected Topographic Maps
Ontario Base Maps. 1:20,000 and 1:10,000. Published 1984; based on 1982 air photography.

6.4.4 Selected Historic Maps (listed chronologically)

Tremaine's Map of the County of York Canada West (Toronto: Geo. C. Tremaine, 1860).

Illustrated Historical Atlas of the County of York . . . (Toronto: Miles & Co., 1878), "York Township," p. 15, and "Southeast Part of York," p. 19.

(Toronto Tra"Toronto Metropolitan Area Showing Transportation Services and Distribution of 1930 Population," (Toronto Transit Commission, Jan. 11, 1932); reproduced in Gentilcore and Head, *Ontario's History in Maps*, plate 7.78.

The Premier Map of Toronto and Vicinity (New York: Geographia Map Co. Inc., circa 1952).

"Toronto Metropolitan Area Showing Transit Services and Distribution of 1960 Population,"Toronto Transit Commission, Oct. 1961); reproduced in Gentilcore and Head, *Ontario's History in Maps*, plate 7.79.

6.4.5 Selected Site Plans (listed chronologically)

"Ernest Thompson Seton Park and Ontario Centennial Centre of Science & Technology, General Site Development Plan," Raymond Moriyama, Architect & Site Planner, Feb. 19, 1965.

"Survey Plan 499-135 [showing then-existing contours]," Ontario Dept. of Public Works, June 11, 1965.

"Ontario Centre of Science and Technology [site plan with contours, buildings, plantings, etc.]," Drawing L 10, 1965, AO, F 2187, Box A-17, OCST, Drawings, Roll #1.

"Ontario Science Centre, Grounds Site Plan," Paradigm Engineering Group Inc., October 1995.

6.5 GIS reference and UTM zone & coordinates
(The site is included in the City of Toronto's GIS database.)

6.6 MBS records/cross referencing. (See Section 6.4.1.)

6.7 MCTR records

6.8 Field notes - Pleasance Crawford

6.9 Additional references
(See "Sources" listed in the right-hand column of Appendix 1.0 "Chronology.")

6.10 Buildings and structures. (See - C. Buildings and Structures Inventory.)

6.11 Archaelogical sites. (See - F. Archaeological Resources Inventory.)

7. ADDITIONAL PHOTOGRAPHS/MAPS/SKETCHES *(See Section C-2.0)*

8. NOTES – Pleasance Crawford

F. ARCHAEOLOGICAL RESOURCES INVENTORY

1.0 INTRODUCTION

The firm of Archaeological Services Inc. (ASI) was retained by Mr. William Greer to conduct a Stage 1 Archaeological Assessment to be undertaken in conjunction with the evaluation of the heritage significance of the Ontario Science Centre, located at 770 Don Mills Road, in the City of Toronto (Figure 1). The study area for the purposes of the assessment encompasses approximately 20 acres within which the three interconnected Science Centre buildings sit. The land comprises parts of Lot 1, Concession 3 E.Y.S., and Lots 9 and 10, Concession 3 From the Bay, in the geographical Township of York.

The assessment was conducted under the project direction of Mr. Martin Cooper, in accordance with the Ontario Heritage Act (R.S.O. 1990) under an archaeological consulting licence (2002-007-014) issued to Mr. David Robertson of Archaeological Services Inc. Permission to access the study area to perform the Stage 1 Assessment was arranged by Mr. William Greer.

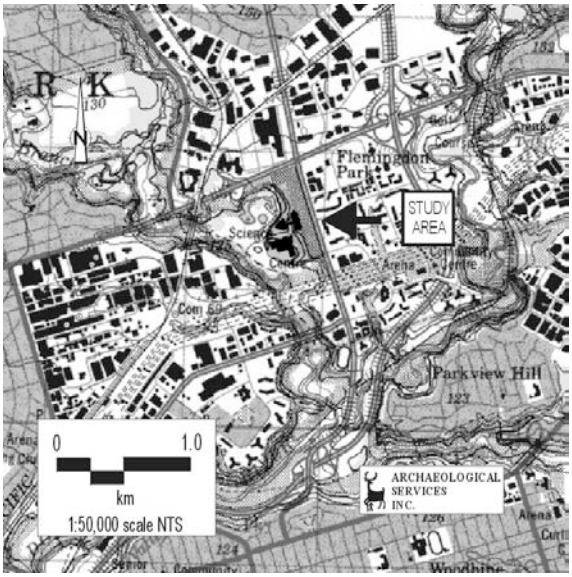


Figure 1: Location of Study Area NTS Sheet 30 M/11.

2.0 BACKGROUND RESEARCH

2.1 Previous Archaeological Research

In order that an inventory of archaeological resources could be compiled for the study area, three sources of information were consulted: the site record forms for registered sites housed at the Ministry of Culture; published and unpublished documentary sources; and the files on site at Archaeological Services Inc.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD), a database maintained by the Ministry of Culture. This database contains information on archaeological sites registered within the Borden system. The Borden system was first proposed by Dr. Charles E. Borden, and is based on a block of latitude and longitude. A Borden block is approximately 13 kilometres east-west by18.5 kilometres north-south. Sites within each block are numbered sequentially as they are found. The study area under review is located in Borden Block AkGu.

No archaeological sites have been registered directly within the study area boundaries. Two sites have been documented within a four kilometre radius and indicate the potential types of sites that can be found in a similar physiographic setting. One, registered as the Todmorden Mills site (AkGu-40), is the complex of mills and domestic buildings preserved by the City of Toronto in the Don Valley at the foot of Pottery Road. The other site, Sunnybrook Park (AkGu-29), is registered as a location within the park where two chert artifacts were found: one Middle Archaic Brewerton side-notched point, and a possible scraper.

2.2 Historical Land Use

To assess the potential for historic period archaeological features within the study area, relevant nineteenth and twentieth century maps, and secondary source materials were consulted.

2.2 Historical Land Use

Prior to the creation of Upper Canada, and the founding of York in 1793, the Don River and the major watersheds in York Region were home to the Mississauga people, a semi-nomadic Algonquian-speaking tribe that inhabited the area after the dispersal of the Ontario Iroquoians in the seventeenth century.

The British Crown negotiated with the Mississaugas to obtain title to a parcel of land in the Toronto area, extending fourteen miles along the front of Lake Ontario, according to the terms of the "Toronto Purchase" of 1797 (Careless 1984:11). It is interesting to note that the aboriginal people had named the Don River "Nichingquakokonk" according to Aitkin's 1788 survey map of the Toronto region (DVCR 1950:16). It was renamed for a river in Yorkshire, England, in 1793 (Hart 1968).

The Don River has figured prominently in the historic development of Toronto. In the upper reaches, numerous mills were established and formed the nuclei of communities such as York Mills and Todmorden. The many branches and tributaries also posed a challenge to the gridded road system, and nineteenth-century maps detail the many jogs and detours necessary to avoid bad crossing points. Farmers in the vicinity of the study area used Lawrence Avenue and the Bayview ravine to get to Yonge Street and the Town of York before they agreed to give land to open up the "Don Independent Road," now the Don Mills Road, to O'Connor Drive (Hart 1968:231). It became an important thoroughfare and was categorized as an "improved road" by 1825, and it was macadamized as far as Todmorden by 1852 (Hart 1968:231). Don Mills Road forms the east boundary of the study area.

Eglinton Avenue, the north boundary of the study area, originally represented the road allowance opened between the concessions surveyed "From the Bay" and those surveyed "East of Yonge Street" (E.Y.S.) in York Township. Its modern alignment extends north of the original survey allowance as it travels through the Don Mills intersection, hence the northernmost portion of the study area contains the original road allowance and part of Lot 1, Concession 3 E.Y.S.
Below Eglinton Avenue, the concessions in York Township were opened slowly for farming due to the thin sandy soils and rugged nature of the landscape (DVCR 1950:68). The 1860 Tremaine map of York County did not illustrate any structures within the study area, but this does not preclude the potential for finding historic archaeological sites as not all features of interest were represented on nineteenth-century maps. At that time, the west half of Lot 1, Concession 3 E.Y.S. was owned by "Francis Johnston," the west half of Lot 10, Concession 3 From the Bay was owned by "P. Johnston" and "Charles Snider," and the west half of Lot 9, Concession 3 From the Bay was owned primarily by "John Taylor and Bros.," with a small parcel subdivided from the northeast corner. The Taylor brothers owned numerous properties in the neighbourhood, but had established their businesses on different stretches of the Don River. John Taylor's water-powered saw mill, for example, was in present-day Wilket Creek Park (Hart 1968:77), while the brothers' Don Valley Pressed Brick Works was located north of the Bloor Street viaduct (Hart 1968:237).

In 1878, the York Township map in the *Historical Atlas of York County* did illustrate two structures within the study area (Figure 2). One house was located on the east portion of the west half of Lot 10, Concession 3, and one house on the small parcel subdivided from the northeast corner of Lot 9, owned in 1878 by "H.B." The west half of Lot 1 was owned by "Alex Johnson," but no structure was shown. In 1909, three houses were illustrated west of Don Mills Road and south of the Eglinton Avenue road allowance on the *Map of the Township of York and City of Toronto* published by the Ontario Free Directory and Map Company. One house was shown on the portion of the west half of Lot 10 owned by "Meagher," and two on small parcels subdivided from Lot 9.

Figure 2: Approximate study area boundary overlaid on 1878 *Historical Atlas of York County*.

2.2 Historical Land Use

The names of the owners of the latter are illegible. The original road allowance was illustrated as a dashed line, indicating that Eglinton Avenue was not an improved road. The "Don Road," however, was labeled, indicating that it was a major thoroughfare.

The construction of what is today known as the Ontario Science Centre was initiated as Ontario's centennial project for 1967 (Hart 1968:275). It comprises three interconnected buildings, two of which are on flat table land, while the third is on the floor of the Don Valley. The west and south property boundaries are formed by Ernest Thompson Seton Park, which was named for the famous author and naturalist who enjoyed the area as a youth (Hart 1968:275).

2.3 Physiographic Setting

The Ontario Science Centre is situated within the Iroquois Plain physiographic region of southern Ontario, which corresponds to the lowlands bordering Lake Ontario that were inundated with glacial lake Iroquois during the late Pleistocene period (Chapman and Putnam 1973:324). A map of surficial deposits in Toronto indicates that the study area was once situated within a lagoon embayment directly south of the interface between the Iroquois shore cliff and the till plain that it cut into (Chapman and Putnam 1973: Map 102). Consequently, the topsoil and subsoil in the study area are extremely loose and sandy. Prior to European clearance, the landscape of the Iroquois Plain would have been represented by a mature hardwood forest dominated by maple, pine and beech.
The west branch of the Don River is located directly west of the Science Centre lands, and one of the buildings is located on the floor of the ravine through which the river flows. Aquatic features such as these were important foci for humans participating in seasonal resource procurement strategies and in fact, potable water is arguably the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in southern Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

The Ministry of Culture *Primer on Archaeology, Land Use Planning and Development in Ontario* (1997:12-13) stipulates that undisturbed lands within 300 metres of a primary water source, and undisturbed lands within 200 metres of a secondary water source, are considered to be of high archaeological potential.

2.4 Field Review

An archaeological field review was undertaken by Mr. Martin Cooper on April 17, 2003, in order to identify and describe the present condition of the study area and identify its potential for archaeological remains (Figure 1). The weather was cold and overcast.

The study area, comprising three building footprints and surrounding infrastructure, has been subject to severe land disturbance. This includes the area occupied by the existing buildings and associated paved parking areas and drives. In addition, the grounds surrounding the Science Centre have been altered by the construction of the elaborate fountain structure in the front of the building (Figure 1; Plate 1) and the extensive patio in the rear, as well as landscaping adjacent to both Eglinton Avenue and Don Mills Road (Figure 1; Plates 2 and 3).

Therefore, due to the extensive disturbances that have taken place within the study area there is no potential for the identification of archaeological remains.

However, there are relatively undisturbed lands immediately adjacent to the study area. These lands consist of a wooded top of bank that, due to its close proximity to the Don River, has archaeological potential (Fig. 1; Plate 4).

3.0 CONCLUSIONS AND RECOMMENDATIONS

The Stage 1 Archaeological Assessment of the Ontario Science Centre lands south of Eglinton Avenue and west of Don Mills Road indicates that no previously registered archaeological sites are located within the study area boundaries. The field review has determined that the entire study area footprint has been subject to severe land disturbance. This includes the area occupied by the existing Science Centre buildings, paved parking areas, a fountain structure, an extensive patio in the rear, as well as landscaped berms adjacent to both Eglinton Avenue and Don Mills Road. A wooded top of bank directly west of the patio and parking lot, however, is undisturbed, and exhibits archaeological potential due to its proximity to the Don River and nineteenth-century land use.

It is recommended, therefore:

1. The existing developed lands that comprise the Ontario Science Centre may be considered free of archaeological concern.

2. A Stage 2 Archaeological Assessment should be undertaken in advance of any property redevelopment that will involve soil displacement beyond the existing building and infrastructure footprints. This should be accomplished by a test-pitting survey at five metre intervals, with soils screened through 6 mm wire mesh to facilitate the recovery of archaeological material.

3. Should deeply buried archaeological remains be found on the property during construction activities, the Heritage Operations Unit of the Ministry of Culture (MCL) should be notified immediately;
4. In the event that human remains are encountered during construction, the proponent should immediately contact both MCL, and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services (416) 326-8404.

The documentation related to the archaeological assessment of the subject property shall be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the landowner, the Ministry of Culture, and any other legitimate interest groups.

4.0 REFERENCES CITED

Careless, J. M. S.
1984 *Toronto to 1918: An Illustrated History*. Toronto, James Lorimer & Company.

Chapman, L. J. and D. F. Putnam
1973 *The Physiography of Southern Ontario.* Second Edition. Toronto, University of Toronto Press.

Don Valley Conservation Report (DVCR)
1950 Toronto, Department of Planning and Development.

Hart, Patricia
1968 *Pioneering in North York*. Toronto, General Publishing Company Limited.

Ministry of Culture
1997 *Primer on Archaeology, Land Use Planning and Development in Ontario*. Archaeology and Heritage Planning, Cultural Programs Branch, Ministry of Culture, Toronto.

5.0 DOCUMENTATION

5.1 Stage 1 Archaeological Assessment

The Ontario Science Centre, 770 Don Mills Road, Toronto, Ontario

5.2 Prepared for: William N. Greer, Heritage Consultant, 38 Avenue Road, Suite 713, Toronto, Ontario M5R2G2

5.3 Prepared by:

ARCHAEOLOGICAL SERVICES INC.
528 Bathurst Street, Toronto, Ontario M5S 2P9
Tel.: (416) 966-1069 Fax: (416) 966-9723 Email: archaeology@sympatico.ca
Website: www.archaeologicalservices.on.ca

Consulting Licence 2002-007
MCL C.I.F.# 2002-007-014
ASI File # 03TO-03
April 2003

5.4 Project Personnel:

Project Director: Mr. Martin Cooper
Report Preparation: Ms. Bev Garner
Ms. Eva MacDonald

Plate 1: Looking south along eastern boundary of study area. Landscaped berm parallel to Don Mills, interior road and fountain within Science Centre complex are visible.

Plate 2: Looking southeast to fountain and main Science Centre reception building.

Plate 3: Looking west along north boundary of study area. Science Centre parking lot and landscaped berm parallel to Eglinton Avenue visible.

Plate 4: Looking north along top of Don Valley ravine bank adjacent to Science Centre parking lot on west boundary of study area.

APPENDIX TABLE OF CONTENTS

APPENDIX

1.0 CHRONOLOGY

DATE	DESCRIPTION	SOURCE
before 1784	The Iroquoians, followed by the Mississaugas, inhabit the area.	ASI, "State 1 Archaeological Assessment of The Ontario Science Centre," April 2003.
late **1700s**	Indian alienation in the future York Township takes place in 1784. York Township is surveyed in 1791 and has its first settlers in 1793.	Frederick H. Armstrong, *Handbook of Upper Canadian Chronology* (Toronto and London: Dundurn Press, 1985), 148.
1797	The "Toronto Purchase," between the Mississaugas and the British Crown, takes place.	ASI, "State 1 Archaeological Assessment of The Ontario Science Centre," April 2003.
early **1800s**	The southeast part of York Township—including the future site of the Ontario Science Centre—is settled and area farmers agree to open the Don Independent Road (present-day Don Mills Road). Those on the west side give one half the road allowance and those on the east side give the other half.	Patricia W. Hart, *Pioneering in North York: A History of the Borough* (Toronto: General Publishing Company Limited, 1968), 231.
by 1825	The Don Independent Road is an "improved road."	Hart (1968), 231.
1846-1847	The Taylor Brothers establish their Upper Don Paper Mills due south of the future site of the Centre. The millpond floods about 30 acres of land above the Forks of the Don on lots 7 and 8, Conc. 3 from the Bay.	Hart (1968), 77.
by 1852	The Don Independent Road has been macadamized as far as Todmorden.	Hart (1968), 231.
1860	At the southwest corner of present-day Don Mills and Eglinton, Charles Snider owns the westerly 2/3 of the west half of Lot 10, Conc. 3 from the Bay, while P. Johnston owns the easterly 1/3. South of that, John Taylor & Brothers own the west half of lots 9, 8, 7, and 6. A house on the Snider's property is the only own shown at this corner. William Jones owns a sawmill at the northeast corner of present-day Leslie and Eglinton. Francis Johnston owns the property at the northwest corner of present-day Don Mills and Eglinton.	*Tremaine's Map of the County of York Canada West* (Toronto: Geo. C. Tremaine, 1860).
1860s-circa 1880	Ernest Thompson Seton (1860-1946) grows up in a house on Howard Street in Toronto, from where he wanders through the ravines observing animals in their natural habitats, often painting and sketching these scenes, and builds a cabin in the Mud Creek ravine. On later visits to Toronto, he returns to these same haunts. According to Charles Sauriol, writing in the 1980s: "Seton was undoubtedly the best known person ever associated with the Don Valley.. . . . It was through my efforts that a section of the Don Valley Metropolitan Parks system was named 'Ernest Thompson Seton Park.' The name has regretfully been shortened to 'E.T. Seton Park.'"	http://www.city.toronto.on.ca/parks_gardenss/etseton2.htm (accessed 11/02/03); and Charles Sauriol, *Tales of the Don* (Toronto: Natural History Inc., 1984), 41-42.
1878	At the southwest corner of present-day Don Mills and Eglinton, Jno. H. Taylor & Bro. owns the westerly 2/3 of Lot 10, Conc. 3 from the Bay; no owner is indicated for the easterly 1/3. There is a house on each property: the one close to the corner likely being the one demolished in 1965 to make way for the Science Centre. Jno. H. Taylor & Bro. also owns most of the west half of lot 9 and all of the west half of lot 8. An unidentified "H.B." owns a small portion of the west half of Lot 9 containing a house.	*Illustrated Historical Atlas of the County of York, Ontario* (Toronto: Miles & Co., 1878), map of "York Township," p. 16, and map of "Southeast Part of York," p. 19.

	Alex. Johnson owns the property at the northwest corner of Don Mills and Eglinton. Although 1961 Metro Toronto will acquire the property at the south*west* corner of Don Mills and Eglinton from members of the Meagher family, in 1878 Thos. Magher [sic] owns the *east* halves of lots 9 and 8: *east* of Don Mills Road.	
1878	There is extensive flooding of the Don River.	Hart (1968), 77.
1920-1952	A group of investors from Baltimore, MD, operates the Thorncliffe Race Track, which it sells in 1952 to the Ontario Jockey Club.	http://torontoneighbourhoods.net/regions/eastyork/67.html (accessed 17/03/03).
1922-1923	The Township of York is divided into the Township of North Yoark and the Village of Forest Hill.	
1927	Charles Sauriol is photographed getting water from a hand pump at Don Mills Road and Eglinton Avenue.	Charles Sauriol, *Tales of the Don* (Orillia, ON: Hemlock Press, 1992), cover.
1930s	Charles Sauriol, remembering his past walks north from the Thorncliffe farm: ". . . The west Don flower to the west of these buildings. Ruins of the upper paper mill by the river could still be seen. leaving the settlement, I followed the west Don northwards along trails, where there were groves of large basswood trees which are still there today. The valley to the C.P.R. high level bridge, and beyond, was in a wild state. The one residence overlooking the valley where the Science Centre now stands, was a fine old pioneer dwelling inhabited in the 1930's by Bill Meagher. The valley slopes at this point were heavily wooded and adjoined the watercourse of the west Don before the river's course had been altered. A wetland had formed and it, too, has survived to this day. Several mills had been located on the river, immediately south of what is now Eglinton avenue. It is said the men of the NorthWest Company had a stopping place here, identified by plantings of yellow iris. . . ."	Charles Sauriol, *Tales of the Don* (1992), 150.
1946	Passing of the Ontario C*onservation Authorities Act* makes possible the establishment of watershed-based quasi-governmental agencies charged with the restoration and management of natural resources.	http://www.uoguelph.ca/gwmg/res_cas.htm (accessed 1/8/2003).
1947-1952	E.P. Taylor purchases 31 parcels of land totaling more than 2,000 acres in the Township of North York. The land he assembles will become Don Mills.	<www.clickintodonmills.com.provincial_plaque.htm> (accessed 04/04/03).
1950s	The modern era of tree-moving equipment—such as motorized three- and four-blade tree spades—begins.	Various Web sources.
1950s-'60s	There is a growing awareness of the importance of science and technology and the history thereof.	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1952-1965	Don Mills, initiated and financed by E.P. Taylor and designed by Macklin Hancock, is built on 835 hectares of land between the west and east Don River valleys.	Text of provincial plaque unveiled Sept. 20, 1997
1953	Acting on the recommendation of the Ontario Municipal Board, the Province federates the city of Toronto and its 12 suburbs as the Corporation of Metropolitan Toronto ("Metro Toronto").	
1953	At its first meeting, as requested by E.P. Taylor, Metro Council agrees to construction of the "Don Valley Expressway." The Don Valley Parkway, as it becomes known, is completed within the decade.	John Sewell, *The Shape of the City*, 99.
1953	The Don Mills Development Corporation issues a press release that includes Macklin Hancock's original plan for Don Mills. The intersection of Don Mills Road and Lawrence Avenue East is at the centre of the development, whose residential core extends south to the CP Railroad.	John Sewell, *The Shape of the City*, 81.
1954, 14-15 Oct.	Hurricane Hazel causes 81 deaths and tremendous damage in and around Toronto.	
1955-1978	T.W. (Tommy) Thompson (1913-1985) serves as Metro Toronto's first Parks Commissioner.	Death notices and obituaries, "Thomas William Thompson," Toronto newspapers, Mar. 2, 1985.
1956	Eglinton Ave. is extended east from Leslie St. to Victoria Park Ave. --work that includes construction of bridges over the west and east branches of the Don River.	Toronto Reference Library, Picture Collection, 3 photographs by James Salmon http://historicity.tpl.toronto.on.ca (accessed 11/03/03).

1957	The Metropolitan Toronto and Region Conservation Authority (MTRCA; now Toronto and Region Conservation Authority: TRCA) is formed.	
1957	The USSR launches Sputnik: the world's first space satellite.	
1958	Leslie Street is constructed between Eglinton and Lawrence avenues east.	Toronto Reference Library, Picture Collection, 3 photographs by James Salmon http://historicity.tpl.toronto.on.ca (accessed 11/03/03).
1958	Raymond Moriyama starts his Toronto practice.	http://www.mtarch.com/people.html (accessed 25/02/03).
1958	Macklin Hancock's second large-scale project, the Flemingdon Park development, is first proposed to North York Council. Described as Toronto's first completely planned "apartment city.," it is to contain a mixture of building types and house 5000 on a 400-acre site straddling Eglinton Avenue on the north and bounded by Don Mills Road on the west, the Don Valley Parkway on the east, and the CN Railway on the south.	John Sewell, *The Shape of the City*, 100; and http://torontoneighbourhoods.net/regions/northyork/106.html (accessed 10/03/03); and William Greer, telephone conversation with Macklin Hancock, late March 2003.
1958-1961	The firm of Raymond Moriyama Architect is involved with the Japanese Canadian Cultural Centre. The design uses totally precast concrete.	Interview with Raymond Moriyama, 10/03/03.
1959	After many debates North York approves the Flemingdon Park development.	http://torontoneighbourhoods.net/regions/northyork/106.html (accessed 10/03/03).
1959	MTRCA begins acquisition of the lands, subsequently transferred to Metro Parks, which are now known as Taylor Creek Park.	http://www.city.toronto.on.ca/parks_gardenss/taylorcreek2.htm (accessed 03/03/03).
1959, 2 July	Metro Council approves the Parks and Recreation Committee's report approving a water control scheme by which lands are acquired for flood control purposes by MTRCA but developed and maintained by Metro Parks.	AO, RG 5-4, Box 21, Folder 52.-?.
late 1950s-early '60s	Thorncliffe Park Ltd., having purchased the land from the Ontario Jockey Club, develops Thorncliffe Park. This self-contained multi-cultural community straddles Overlea Boulevard, west of E.T. Seton Park and southwest of the future site of the Ontario Science Centre.	http://torontoneighbourhoods.net/regions/eastyork/67.html (accessed 17/03/03).
1960s	Metro Toronto acquires from the Flemingdon Development Corporation the land that becomes E.T. Seton Park. The land is initially intended as the site for the Metropolitan Toronto Zoo.	http://www.city.toronto.on.ca/parks_gardenss/etseton2.htm (accessed 11/02/03).
1960, March	Twenty hectares formerly belonging to the late J.H. Gundy are "donated by the Gundy Estate . . . on the understanding that $200,000 would be spent during a ten-year period on park improvements and that a suitable memorial, approved by the trustees of the estate, would be erected."	http://www.city.toronto.on.ca/parks_gardenss/serenagundy2.htm (accessed 03/03/03).
1961	For its design for Halfway House, North York, ON, Raymond Moriyama Archtect wins the Massey Medal for Architecture.	http://www.mtarch.com/awards.html (accessed 25/02/03).
1961, early	Metro Toronto purchases for park purposes, subject to a joint life tenancy to Thomas A. and Ellen B. Meagher, of 15.763 acres fronting on Don Mills and Eglinton. The price is $356,681.44.	AO, RG 5-4, Box 21, Folder 52.4.
1961-1971	John P. Robarts is Premier of Ontario.	
1962, 6 March	Metro Council approves the Parks and Recreation Committee's report that the site purchased from the Meaghers be used for "a new Metropolitan Toronto Zoo to be constructed as a centennial project."	AO, RG 5-4, Box 21, Folder 52.-?.
1962, Dec.	Federal Government initiates plan to help finance provincial Centennial projects, but details are sparse.	
1963	Design work for Inn on the Park (northeast corner of Eglinton Avenue East and Leslie Street) gets underway. Peter Dickinson is the architect, with Webb & Menkes/Webb Zerafa Menkes.	Toronto Reference Library, ARCHINDONT.
1963, 11 Sept.	At the opening of Ryerson Polytechnical Institute, William Davis, Minister of Education, announces formation of a Science and Industry Committee to investigate the educational potential of a science "museum" to complement existing institutions. $25,000 is to be allocated for this feasibility study.	*First 10 years: Ontario Science Centre* (Toronto: n.d.), 2.
1963, 8 Oct.	The three-month study begins.	AO, RG 15-1-0-192, #24, Minister's Correspondence, "1967 Centennial" file.

1963, 17 Dec.	Metro Council approves its Parks and Recreation Committee's report, based on a study by Sasaki, Strong and Associates Limited, recommending "the abandonment of the zoo project on the basis that the site was unsuitable," and approves in principle its development as a recreational park.	AO, RG 5-4, Box 21, Folder 52.-?.
1963, Dec.	The Federal Government officially announces $2,500,000 towards Centennial projects of the ten provinces.	*First 10 years: Ontario Science Centre* (Toronto: n.d.), 2.
1964	The City of Toronto makes a bid to James Auld, Minister of Tourism, that the proposed Centre be built on the CNE grounds.	AO, RG 15-1-0-192, #24, Minister's Correspondence, "1967 Centennial" file.
1964 ???????	Macklin Hancock and his firm, Project Planning Associates, selects Ernest Thompson Seton Park as the site for the proposed Centre and produces a report that includes a concept design. In carrying out this work, Hancock visits the Museum of Science and Industry in Chicago.	Linda M. LeGeyt, *Changing the Face of Canada: Profiles of Landscape Architects*, Vol. 1 (Ottawa: Canadian Society of Landscape Architects, 1997), 29; and William Greer, telephone conversation with Macklin Hancock, late March 2003.
1964	The Ontario Dept. of Travel and Publicity (formed in 1946) is renamed the Dept. of Tourism and Information. (It will remain as such into 1972.)	AO, Inventory 65, p. 1.
1964, 24 March	Metro Council approves the Parks and Recreation Committee's total development plan for Ernest Thompson Seton Park as well as its recommendation for "a Parks Department Yard facility located on Don Mills Road required to service the Don Valley system."	AO, RG 5-4, Box 21, Folder 52.-?.
1964, 8 April	Ontario's Cabinet Centennial Committee recommends to Cabinet that Ontario's Centennial Project should be a "Museum of Science and Industry" but notes that this shall not necessarily be the final name.	AO, RG 5-13, Box 37, Folder 1.2.
1964, 19 May	Ronald E. Johnson, office of the Minister of Tourism and Information, in his response to a Cabinet Centennial Committee draft report, recommends: " . . . To offset the danger of hiring one of the less imaginative, but more powerful, Ontario architectural firms, a competition could be held to design the building (or buildings) to house the displays. . . ."	AO, RG 5-13, Box 37, Folder 1.2.
1964, 3 June	The Cabinet Centennial Committee report suggests that • the name of the project be the "Ontario Centre of Science and Technology" • the site be a minimum of 200 acres • the site be "within an area centrally located and closely adjacent to Metropolitan Toronto . . . and well served by road and, if possible, by public transportation" • "have public recreation lands adjacent to the complex"	AO, RG 5-13, Box 37, Folder 1.2.
1964, July	As requested by James Auld the previous month, Dominion Consultant Associates Limited of Ottawa carries out a "Site Feasibility and Selection" study. W.L. Shortread, president, writes to Auld on July 3rd: "The specific sites being studied are at Clairville, the Don Valley at Eglinton and a possible C.N.E. waterfront site."	AO, RG 5-4, Box 21, Folder 52.2.
1964, 9 July	The Cabinet Centennial Committee discusses the site of the provincial project, as follows: • The Don Valley offers a "favourable location" that is the "property of Metro Parks" • Mr. Auld will visit the CNE grounds "to look over possibilities" • Consultants will report on three sites: Don Valley, CNE, and Clairville Dam. As for the name of the project, "museum may be wrong word; 'institute' or 'centre' may be preferable."	AO, RG 5-13, Box 37, Folder 1.2.
1964, late July [?]	Murray B. Jones, former Metro Planning Commissioner and now principal of M.V. Jones and Associates Limited, reports favourably on the Eglinton/Don Mills site.	AO, RG 5-22, Box 1571, Folder 58.
1964, 22 July	James Auld writes William Allen, Metro Chairman, regarding the Don Valley site.	AO, RG 5-4, Box 21, Folder 52.-?.
1964, by early Aug.	John Gale ("Jack") Crean has been appointed Chairman of the Board of Directors of the CCS&T	AO, RG 5-4, Box 21, Folder 52.1.

1964, 14 Aug.	Premier Robarts send a list of architects to James Auld, with a copy to Jack Crean, noting, "The attached . . . will be of interest to you." On the list are five "Out-of-Town Architects" and six "Toronto Architects" including Raymond Moriyama. The list is dated Aug. 11, 1964.	AO, RG 5-4, Box 21, Folder 52.3.
1964, 12 Aug.	At a meeting of the Cabinet Centennial Committee, "It was agreed that the architect or architects for this project would be worked out by the Honourable T.R. Connell and the Honourable John P. Robarts."	AO, RG 5-13, Box 37, Folder 1.2.
1964, 27 Aug.	The Executive Committee of the MTRCA endorses "in principle, the Ontario Centennial Project as outlined by the Ontario Government' and agrees "to use the use of certain Conservation-Authority lands . . . for this purpose."	AO, RG 5-4, Box 21, Folder 52.-?.
1964, 28 Aug.	Jack Crean writes to James Auld that since Moriyama has been chosen, " . . . Messrs. Project Planners [sic] have done a superb job in pulling the matter together for the Prime Minister's Press Conference" [whose date, although originally set for Labour Day, has been advanced to August 31st]. They were engaged to do only this job of preparation for the Press Conference and we are freely to employ them again or not as we see fit. . . ."	AO, RG 5-4, Box 21, Folder 52.3.
1964, late Aug.	Raymond Moriyama Architect, is contacted by Ray Connell, Minister of Public Works, and asked to design the Ontario Centennial Centre of Science & Technology. Moriyama agrees and, during the next few days, visits the site, meets with Project Planning Associates Limited., and begins preparing preliminary sketches and plans. Note: The Moriyama firm's involvement will eventually include • master plan development of the 180-acre park • master plan of the Centre • site development and flood control • architectural design and supervision of the buildings • landscaping and exterior furnishing • architectural signs—interior and exterior • interior design of public areas including restaurants and board room • design of modular furniture • consultation on exhibits.	Interview with Raymond Moriyama, March 10, 2003; AO, F 2187, Box A-17, "OSC Development Sketches"; and Raymond Moriyama, "Thought Process and Intent," *The Canadian Architect* 13 (Sept. 1969): 39.
1964, 31 Aug.	Premier John Robarts announces Ontario's centennial project: a $5 million Centre for Science and Technology to be located in Ernest Thompson Seton Park. The Centre is envisioned as 100,000-sq. ft. and the project is to cost $5 million. The architects are to be: • Raymond Moriyama of Toronto, Project Architect • Roscoe and MacIver of Hamilton, Sssociate Architect • Summerville, McMurrich & Oxlet of Toronto, ssociate Architect. Robarts also announces that George MacBeath's and Jack Crean's appointments. He mentions that "the firm of Project Planning Associates Limited has prepared initial plans for the supporting parks and to create a setting that will enhance the buildings of the complex."	*First 10 years: Ontario Science Centre* (Toronto: n.d.); AO, RG 5-52, Box 157, Folder 58, kit for August 31, 1964, press conference.
1964, 1 Sept.	Dr. George MacBeath becomes the first Director of the Centre. Previously director of the New Brunswick Museum, he is described as "one of Canada's top museum experts."	AO, RG 5-4, Box 21, Folder 52.-?.
1964, 22 Sept.	Metro Council adopts Report No. 10 of The Parks and Recreation Committee, entitled "Approval of Establishment of Province of Ontario Centennial Project in Metropolitan Parks Setting."	AO, RG 5-4, Box 21, Folder 52.-?.
1964, 13 Oct.	At a conference on the Centennial project held in James Auld's office Metro Parks Commissioned T.W. Thompson suggests that the site of approximately 180 acres be divided into a blue zone for immediate construction and a green zone for parks development. It is agreed that Metro will "proceed with the construction of the planned cloverleaf at the intersection to provide access to industrial plants to the north of Eglinton Avenue and to the Project site."	AO, RG 5-4, Box 21, Folder 52.-?.

1965-end of 1967	The Dept. of Tourism and Information has a Centennial Planning Branch that promotes planning and programming at the community level and acts as a liaison body with the Federal Centennial Commission and with Centennial committees in other provinces.	AO, Inventory 5 (RG 5, Tourism), Vol. 1.
1965, 4 Jan.	Raymond Moriyama receives the preliminary list of requirements. Ten months—from Jan. 14 to Nov. 15—are allotted for design. The project is to go out for tender on Nov. 15th.	Raymond Moriyama, "Thought Process & Intent," *The Canadian Architect* 13 (Sept. 1969): 42.
1965, 7 Jan.	William Davis writes to Jack Crean: " . . . the fact that roughly 100,000 square feet of your total 1967 plan for 267,000 sq. ft. is devoted to education demonstrates aptly our shared conviction that the OCS&T will take its place as an important and integrated part of Ontario's educational system. It is regrettable, but understandable, that certain educational facilities must be left until Phase 2 for reasons of economy . . ."	AO, RG 5-4, Box 21, Folder 52.5.
1965, Jan.	Raymond Moriyama describes his concept: the bridge from "the mundane to the marvelous"; the high ceilings and glass walls expressing "openness"; and the three "interlocking circles—man, science, and nature—as natural as water, land, and air. The fact that it resembles a trillium, the logo for the province, is interesting and a definite plus." He expresses his concern that the building meet the needs of the public, including the handicapped. About the landscaping, Moriyama says: "Touch the least; enhance whatever is there." Taizo Miake, 39, an industrial and architectural designer by profession, joins the staff and encourages those involved to "consider all possible ways of captivating, involving, and education visitors."	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1965, 19 Feb.	Raymond Moriyama, Architect & Site Planner, prepares a drawing entitled "Ernest Thompson Seton Park and Ontario Centennial Centre of Science & Technology General Site Development Plan." Note: Bon W. Mueller was as responsible for "landscape."	AO, RG 15-33, Roll 1, containing 5 architectural drawings. Raymond Moriyama, "Thought Process & Intent," *The Canadian Architect* 13 (Sept. 1969): 42.
1965, March	Re the Centre, Raymond Moriyama, Architects, reports that "our work . . . is starting into working drawings."	AO, F 2187, Box A-17, A-1-A-15, Roll #1.
1965, 22 Apr.	Metro Council approves that an application be made to North York Township for an amendment to the North York Official Plan, rezoning E.T. Seton Park as open space. (The tableland had been previously been zoned industrial.)	AO, RG 15-30, #7, Letter, T.W. Thompson to MTRCA, 13 May 1965.
1965, 27 April	Premier Robarts unveils detailed plans for the CCS&T and estimates the cost at $14 million: an amount necessitated by the difficulty of the site, the unforeseen size of the development, the scope of the educational services, the construction industry boom, and increases in labour costs.	*First 10 years: Ontario Science Centre* (Toronto: n.d.) 3; AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1967 Centennial" file.
1965, 13 May	T.W. Thompson, Commissioner, Metro Parks, submits to the MTRCA Moriyama's "master plan for development of Ernest Thompson Seton Park and notes: "The northern section of the site . . . entails a joint use by the Province of Ontario and this Department as the Province will be developing its Centennial Centre . . . in this area. In this regard various flood control measures are required in the flood plain to protect and safeguard the Provincial development. Plans showing the details of these . . . prepared by H.G. Acres [H.G. Acres and Co. Ltd., Moriyama's outside services and flood control consultant] will be available . . . and I request your approval of such measures . . ."	AO, RG 15-30, #7, Letter, T.W. Thompson to MTRCA, 13 May 1965.
1965, 18 May	Raymond Moriyama, Architect, completes drawings entitled "Main Floor Plan, Lower Building," "Upper Floor of Upper Building," Lower Floor of Upper Building," and "Crawl Space Plan of Upper Building." The second is marked "drawn by T.M."	AO, RG 15-33, Roll 1, containing 5 architectural drawings.
1965, 11 June	The Ontario Dept. of Public Works completes "Survey Plan 499-135," showing existing contours.	AO, F 2187, Box A-17, Roll #1,"OCSC Drawings."
1965, June	Drawings completed by Moriyama's office as of this month include "Site Plan showing Fill & Excavation."	AO, F 2187, Box A-17, Roll #1,"OCSC Drawings."

1965, by 18 June	MTRCA "has approved the re-zoning and also the plans for conservation against flood."	AO, RG 5-4, Box 21, Folder 52.5.
1965, 22 June	Bill 114, *The Centennial Centre of Science and Technology Act*, establishes the Centre as the official centennial project of the Government of Ontario. The Centre is to be a corporation without share capital, consisting of no fewer than 16 or more than 26 trustees appointed by the Lieutenant-Governor of Canada in Council.	AO, Inventory 47 (RG 47, Culture); and *First 10 years: Ontario Science Centre* (Toronto: n.d.), 3.
1965, 1 July	The Province of Ontario leases the northeast corner of E.T. Seton Park from Metro Toronto for 99 years (through 2064) for the Centennial Centre for Science and Technology.	http://www.city.toronto.on.ca/parks_gardenss/etseton2.htm (accessed 11/02/03).
1965, Aug.-Dec.	Tenders for "Construction of 3 Park Bridges, Ernest Thompson Seton Park," Raymond Moriyama, Architect, are to be received on Aug. 17th. Special information includes "protection of all trees outside work area" and "making good any damage at no cost to Owner." The work is to be completed by Dec. 17th.	AO, F 2187, Box A-2, Job 6470.
1965, early Sept.	Metro Toronto completes a "most difficult negotiation" to acquire the Meaghers' joint life tenancy. The cost, subsequently absorbed by the Province, is $25, 800.	AO, RG 5-4, Box 21, Folder 52.4.
1965, 27 Oct.	The Meaghers' house is about to be demolished. Some architectural parts and artifacts may have been removed by Russell Cooper for Black Creek Pioneer Village; others may have gone to True Davidson for Todmorden Mills.	AO, RG 5-4, Box 21, Folder 52.4.
1965?	Raymond Moriyama, Architect, prepares an undated drawing for "South End Shelter, Ernest Thomson [sic] Seton Park." Included are a washroom building and a concession/storage/shelter building with terrace.	AO, F 2187, Box A-2, Job 6470-5.
1965, 4 Nov.	Drawings completed by Moriyama's office as of this date include "General Site Plan," "Flood Protection, North Area," "Flood Protection, South Area," "General Planting Plan" and, at a larger scale, a '"Planting Plan" for each of several areas of the site.	AO, F 2187, Box A-17, Roll #1,"OCSC Drawings."
1995, Nov.	Tenders are called for construction of the Centre.	
1966?	Raymond Moriyama, Architect, and A. & M.V. Shore Associates Ltd. prepare an undated 16-page "Feasibility Study & Estimated Costs for providing Electrical Services & Mech at the Ernest Thompson Seton Park for the Municipality of Metropolitan Toronto Parks Department."	AO, F 2187, Box A-2.
1966	The Centre becomes an agency, rather than a branch, of the Dept. of Tourism and Information. This agency is divided into three branches: • Professional Services • Interpretation • Administration. Each branch has a director who reports to the Director-General.	AO, Inventory 47 (RG 47, Culture).
1966	A Scientific Advisory Committee is established. This committee changes the CCS&T from a conventional museum with static exhibits to a living, dynamic centre with interactive exhibits. It states that the Centre should "grow and change, constantly striving to interpret the world of science in such a way that the people of Ontario can understand and appreciate the forces that are changing their lives."	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1966	Taizo Miake, 40, is promoted to Director of Interpretation and made "responsible for the design and production of exhibits."	CCS&T Annual Report for 1966, p. 2.
1966, 23 Feb.	Tenders are opened from four general contractors proposing to construct the CCS&T. The DPW has estimated $20,270,000.00. The bids are as follows: 1. Pigott Construction Co. Ltd., Toronto $21,703,310.00 2. Inspiration Limited, Toronto $ 22,400,000.00 3. V.K. Mason Construction, Toronto $ 23,724,000.00 4. Perini Ltd., Toronto $23,853,000.00	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1967 Centennial" file.

1966, 15 Mar.	Pigott Construction is awarded a contract for $21,703,310 for construction of the Centre. $401,702 [1.9%] of this total is for landscaping; $474,750 [2.2%] is for flood control. Construction starts shortly thereafter, as trucks and earthmovers begin reshaping the site.	CCS&T Annual Report for 1966; AO, F 2187, Box A-17, Roll #2, A15-C2.
1966, 8 Apr. -8 May	Raymond Moriyama and wife travel to Beirut, Jerusalem, Tel Aviv, Istanbul, Rhodes, Dubrovnik, Athens, Rome, Florence, Milan, Stuttgart, and Paris. Although he describes this as "my first real holiday in several years," he also studies the exhibits in various museums and institutions en route.	AO, F 2187, Box A-17, A-1 to A-15, Roll #1.
1966, 26 May	The Metropolitan Toronto Zoological Association, at its first meeting, votes to ask Raymond Moriyama to "pick out a 200 acre site" to replace the much-maligned Riverdale Zoo.	"First step taken towards establishing $10,000,000 zoo," *Toronto Star*, May 27, 1966, p. 21.
1966, 28 May	The *Toronto Star* publishes an article explaining delays and outlining progress at the Centre. At the time, a staff of 90 is working in rented quarters on nearby Prince Arthur Place; but outside experts complain there's not enough consultation.	"Ontario's birthday project: An empty field . . . and a pile of junk," *Toronto Star*, May 28, 1966, p. 14.
1966, June	The Civil Service Commission recommends that the Centre be a separate agency rather than a branch of Industry and Tourism. There is to be a Director-General plus three directors: of professional services, interpretation, and administration.	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1966, July	Raymond Moriyama Architects moves from Church Street to its present-day (2003) office at 32 Davenport Road.	http://www.mtarch.com/30at32.html (accessed 05/03/03).
1966, 31 Aug.	Upset by soaring costs, postponement of the Centre's opening to 1968, and the announcement of a major reorganization for the Centre, Dr. George MacBeath resigns as director, effective August 31st.	*First 10 years: Ontario Science Centre* (Toronto: n.d.); AO, RG 15-1-0-192, #24, Minister's Correspondence, "1967 Centennial" file.
1966, Aug.-Nov.	Dr. Douglas N. Omand, a biologist, serves as acting director until Nov. 30th. Although Dr. William T. O'Dea, an electrical engineer from the Science Museum of London, is appointed Director-General on Sept. 9th, he does not start until 1 Feb. '67.	CCS&T Annual Report for 1966.
by 1966, Dec.	All of the flood -control work and most of the outside services around the Centre have been completed.	AO, F 2187, Box A-17, Roll #2, A15-C2.
1966, Dec.	On Raymond Moriyama Architects' project list this month are: • 6450 Ontario Centre of Science and Technology • 6440 Metro Toronto Parks Planning • 6517 Ontario Centre of Science and Technology Furniture • 6520 Metro Toronto Parks Bridges • 6539 32 Davenport Road • 6610 Geo. Crowthers Limited (with 14 additional numbers) • 6611 University of Waterloo Health Service Building • 6612 University of Waterloo Hagley Residence • 6616 Holiday Inn • 6618 Woodgreen • 6618 Massey Medal Residence During the year several people join the firm who will stay for 25 years or more: Ted Teshima, Mary Sabat, Anson Finlay, John Snell, Joni Inouye, and Aubrey McIntosh. Bon W. Mueller is there as landscape architect.	http://www.mtarch.com/30at32.html (accessed 05/03/03).
1967	Canada celebrates its Centennial year: the 100th anniversary of Confederation.	
1967	The Ontario Dept. of Public Works is reorganized as follows: "The Chief Architect's Branch is abolished and replaced by an expanded and restructured Operations Division. The traditional activities of the former Architect's Branch are assigned to the Design and Construction Branch in the Operations Division."	AO, Inventory 88 (RG 15, Public Works), Vol. 1, p. 12.
1967	George Stockton, a landscape architect, joins Raymond Moriyama Architects but does not immediately become involved with the Centre. (Stockton will still be with the firm in 2003.)	http://www.mtarch.com/people.html (accessed 25/02/03).; and Interview with Raymond Moriyama, 10/03/03.
1967, 1 Feb.	Dr. William T. O'Dea begins his duties as Director-General, a position he will hold until February 1969.	CCS&T Annual reports for 1966, 1967.
1967, Feb.	"Raymond Moriyama: Credo for an Office" is published in *The Canadian Architect*. By this time, according to the article, the	http://www.mtarch.com/credo.html (accessed 25/02/03).

	firm has grown to nine architects, a landscape architect, an interior designer, a spec writer, a researcher, an office manager-comptroller, and twelve others: a total of 26.	
1967, 21 March	The Centennial Commission sends out cheques for $2.5 million as each province's share in the Federal Government's Centennial Memorial Programme.	AO, RG 15-1-0-192, Minister's Correspondence, "1967 Centennial" file.
1967, 16 May	At the unofficial opening of the Centre, H.R.H. Princess Alexandra lays the cornerstone and unveils a plaque reading: "The Centennial Centre of Science and Technology of the Province of Ontario There Buildings Were Dedicated by H.R.H. Princess Alexandra on Tuesday, May 16, 1967 To Advance the General Understanding of Science and Technology" She then tours preview exhibits at the CNE. Note: Princess Alexandra (b. 1936) is the daughter of the 1st Duke of Kent and Princess Marina of Greece. She is therefore a first cousin of Queen Elizabeth II. The 1967 trip, from May 14th through June 16th, was her first official visit to Canada. Angus Ogilvy (b. 1928), whom she married in 1963, accompanied her on this visit, which began in Toronto.	OSC Library, photographic collection; CCS&T Annual Report for 1967.
1967, June	With excavation and foundation work completed on only two of the three buildings, a construction-industry strike all but stops work.	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1967, 12 July	Raymond Moriyama's office informs the DPW that "the work of landscaping and parking areas is on schedule."	AO, RG 15-1-0-192, #24, Minister's Correspondence, "1967 Centennial" file, Letter, Raymond Moriyama to G. Mann.
1967, 1 Sept.	Eight government officials from the USSR tour the Centre site.	AO, RG 15-1-0-192, #24, Minister's Correspondence, "1967 Centennial" file.
1967, late	A report on E.T. Seton Park states: "All flood control works have been completed by the Province and most of the erosion control works in the area will be completed and water and sewage services provided. The river banks will be sodded and the entire area seeded; park furniture will be installed and footpaths constructed throughout. The development now envisaged has been simplified and designed to complement the Provincial project. Additional funding will be required in order to provide park lighting and hydro service to the buildings together with a major tree planting programme. The valley floor has, unfortunately, been almost completely denuded of trees due to the floor and erosion control works required to [protect] the Science Centre. I estimate that hundreds of trees are required . . ."	AO, RG 15-30, #7, "Additional Notes Re Central Don Park Development, 1. Ernest Thompson Seton Park."
1968, Jan.	DPW Minister Ray Connell is recuperating from a heart attack.	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1967 Centennial" file.
1968, Jan.	J.J. Pigott, vice-president of Pigott Construction, goes public about delays at the Centre, calling the project "a provincial bloody disgrace" and predicting that it will lead to "litagation." He denies that strikes and bankruptcies have been major factors and instead blames the DPW and the "lag" in transmission of the necessary "design information."	AO, RG 15-1-0-192, #24, Minister's Correspondence, "1967 Centennial" file, clippings from Toronto and Hamilton newspapers.
1968, 19 June	Ray Connell gives MLA's a morning tour of the Centre A bus picks them up at Queen's Park at 9:30 and returns them about 11:30.	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1967 Centennial" file.
1968	After the Education Liaison Committee, in association with the Dept. of Education, approves the Centre's education program, the design is modified to accommodate 50 busloads of students per day. The sunken entrance is designed to obscure cars and buses. The lower levels of the reception building and bridge are intended for student use.	CCS&T Annual Report for 1968; *First 10 years: Ontario Science Centre* (Toronto: n.d.).
1968, fall	The "access road" to Building B is removed so that Pigott can "complete the exterior works this fall." Pigott continues work on Building B by accessing it via the bridge.	AO, F 2187, Box A-17, Roll #4, G4.
1968, Sept.	Northway-Gestalt circles the Centre and takes 14 low-level oblique aerial photos of the buildings, whose exteriors appear	AO, Northway-Gestalt Collection, C 30, ES27-111 through ES27-124.

	to be nearing completion.	
1968, 3 Oct.	The official hand-over takes place of the following areas: the Boiler House; part of the main floor of Building A; all of the building-C parking lots; and some of the north and south parking lots. Staff begins moving into the reception and valley (exhibits and workshops) buildings. The valley building is "roofscaped [with] artistic patterns of different coloured Ontario stones."	AO, F 2187, Box A-17, Roll #2, A15-C2; *First 10 years: Ontario Science Centre* (Toronto: n.d.).
1968, 29 Oct.	Moriyama's office writes: "There is no allowance in the present contract for flowering plants." Also, because the Centre will not be open by spring 1969, it has deleted from the contract the circa-2000 bulbs that it had specified. Furthermore, because "Metro Parks may be maintaining the grounds at the Centre in the future," DPW should arrange with Parks to provide such plantings.	AO, F 2187, Roll #2, C-1, Letter, David Vickers to G.A. Mann, 29 Oct. 1968.
1968-1973	John P. Robarts Research Library, University of Toronto, is constructed. Architects are Warner Burns Toan & Lunde of New York, with Mathers and Haldenby of Toronto. Patricia McHugh writes a decade later: " . . . with 100,000 yards of poured-in-place and precast Brutalist concrete, it would have taken a heap of hills and high-rises to integrate this mass. . . . "	Patricia McHugh, *Toronto Architecture: A City Guide* (Toronto: Mercury Books, 1985), 120.
1969	Alan Fleming, Canada's leading graphic designer, creates the Centre's logo. Among Fleming's other widely known designs are the CN symbol (1961) and the Trent University crest (1965). The logo consists of three interlocking circles in green, red, and blue and, where the circles overlap, the three petals of the trillium, stylized, in white. The three colours are chosen because, when spun, they appear as white: another "science exhibit."	
1969	Metro Parks Commissioner T.W. Thompson casually remarks that one could take a 10.5- kilometer walk through the geographic centre of Toronto without crossing a paved street. To prove the point he leads 400 people on a walk through the Central Don park system. This becomes the first in a long series of walks led by Tommy Thompson.	"Thomas William Thompson: Metro administrator boosted park system," *Globe and Mail*, Mar. 2, 1985.
1969	The National Arts Centre in Ottawa is completed. This three-theatre complex costs $46 million. The architects are Affleck, Desbarets, Dimakopoulos, Lebensold, Sise of Montreal.	Various Web sources.
1969, Feb.	Dr. O'Dea returns to England for professional reasons. Dr. Omand becomes Director-General..	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1969, 2 April	Pigott informs Moriyama's office that " . . . There is no doubt that all work deficiencies, including outside work and landscaping can be completed prior to the end of May 1969, except for such landscaping which due to its species will have to be deferred until the Fall."	AO, F 2187, Box A-17, Roll #2, A15-C2, letter, A.F. Purdy to Raymond Moriyama Architects, 2 Apr. 1969.
1969, 23 Apr.	Pre-take-over inspections of the tower building begin.	AO, F 2187, Box A-17, Roll #2, A15-C2.
1969, 25 Apr.	Staff members begin to move into the tower building and "it is estimated that the main deficiencies in the total complex will be completed in their entirety by May 311, 1969, with the exception of certain landscaping requirements . . ."	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1969 Centennial" file, Letter Glenn Creba to Ray Connell, Apr. 25, 1969.
1969, May	Moriyama's office completes a set of "As-Built Drawings" for the Centre.	AO, F 2187, Box A-17, Roll #1,"OCSC Drawings."
1969, 20 May	The Executive Committee of the Board of Trustees of the Centennial Centre of Science and Technology votes to name it the "Ontario Science Centre."	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1969 Centennial" file, Memo, D.N. Omand to the Government, 20 May 1969.
1969, 22 May	Raymond Moriyama received notice that, in a competition for design excellence given by the Prestressed Concrete Institute of America, the Ontario Science Centre has won the top award from a total of 203 entries throughout North America.	AO, RG 15-1-0-192, #24, Minister's Correspondence, "1969 Centennial" file, Memo, Glenn Creba to Ray Connell, 22 May 1969.
1969, June	J.R. Simonett succeeds Ray Connell as Minister of Public Works.	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1969 Centennial" file.
1969,	*Time* magazine quotes Raymond Moriyama as having said, "If	"Ontario: Do-It-Yourself Science," *Time*,

27 June	it looks as though it will make a beautiful ruin someday, then I feel it's probably good architecture." The unidentified *Time* writer adds, "Like Ottawa's new National Arts Center, the wandering structure evokes the mood of a contemporary castle."	27 June 1969 (undated photocopy in Toronto Reference Library, Special Collections, vertical file).
1969, July	Drawings are finalized for entrance identification signs to be created by King Plastics Ltd. Note: These are used until 1996, when the present signs replace them.	Various drawings dated July 1969.
1969, 15 Aug.- 22 Oct.	Problems with the cooling pond, possibly due to cracking of the concrete pad, have been found to exist. Records kept from Aug. 15th thru Oct. 22nd of the "quantity of water per day related to the weather conditions of that day" show that a total 4,235,200 gallons were lost during that period.	AO, F 2187, Box A-17, Roll #2, A15-C2.
1969, Sept.	Canada's two leading architectural publications, *The Canadian Architect* and *Architecture Canada*, each publish stories with extensive coverage of the new Centre. An editorial in the *Globe and Mail* on opening day calls it "a truly exciting creation—an amalgam of function and aesthetics that may well leave its mark on the landscape not only of Ontario but of the continent."	"Ontario Science Centre," *Architecture Canada* [46](Sept. 1969): cover, 13-18; "Centennial Centre for Science and Technology," *The Canadian Architect* 13 (Sept. 1969): cover, 38-53; CCS&T Annual Report for 1968-69.
1969, Sept.	The following have played key roles in the project: DPW Chief Architect: D. Glenn Creba Raymond Moriyama Architect: Architect and Site Planner: Raymond Moriyama Project Manager: David Vickers Project Construction Manager: John V. Snell Assistant Construction Manager: Thomas Motomochi Landscape: Bon W. Mueller Interiors and Furniture: G. Ronning-Philip General Contractor: Pigott Construction Co. Ltd. Consultants: Structural: M.S. Yolles Associates Limited Mechanical: Nicholas Fodor and Associates Ltd. Electrical: G.E. Mulvey & Company Ltd. Outside Services and Flood Control: H.G. Acres and Co. Ltd. Soils: William Trow Associates Ltd. Acoustics, Lighting, AudioVisual: Reeve-Sound Company Inc.	Raymond Moriyama, "Thought Process & Intent," *The Canadian Architect* 13 (Sept. 1969): 42; and information from title blocks on various drawings.
1969, Sat., 27 Sept.	The Ontario Science Centre has its official opening. A quasar signal monitored by the Lake Traverse radar telescope in Algonquin Park is relayed from there to Ottawa and thence to the Centre by a special landline and microwave hookup. This triggers a relay circuit switching on a helium-neon laser beamed in the Great Hall to switch on a current that ignites a device on a curtain rod. With a puff of smoke the curtain falls to reveal the tricolour logo designed by Alan Fleming. The time is exactly 11:15:46 a.m. In his remarks, Premier Robarts calls Ontario's "the most ambitious and most complex of the provincial Centennial projects."	*First 10 years: Ontario Science Centre* (Toronto: n.d.); AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1969 Centennial" file.
1969, Sun., 28 Sept.	The Centre opens to the public and receives 7,000 visitors on the first day.	"7,000 swarm into buildings of do-it-yourself science centre," *The Toronto Star*, 29 Sept. 1969.
1969, 7 Oct.	The final take-over inspection report is issued.	AO, F 2187, Roll #2, A15-C-2.
1969, 21 Oct.	The DPW's "landscaping contractor" (a Pigott sub-contractor?) is "still planting in this general area" near the boundary with the Seton Park: an area the Metro Parks Commissioner refers to as "this rather nebulous 'no man's land'."	AO, RG 15-30, #7, Letter, T.W. Thompson to G.A. Mann. 21 Oct. 1969.
1969, 23 Oct.	The "piping and valves in the cooling pad" [i.e. in the fountain in front of the Reception building] have been "installed in	AO, RG 15-30, #7, Letter, Nicholas Fodor and Associates to Raymond Moriyama, 23

	accordance with the details provided to the Contractor," according to Nicholas Fodor and Associates Ltd., Moriyama's electrical consultant.	Oct. 1969.
1969	The Centre founds, funds, administers, and houses the Ontario Film Institute.	AO, Inventory 47 (RG 47, Culture).
1969, late	The Centre's final construction costs are approximately $23 million, with another $7 million spent on initial exhibit development.	J. Tuzo Wilsoon, "Ontario Science Centre," *The Canadian Encyclopedia* (Edmonton: Hurtig, 1988).
1969, late	Amidst general praise for the Centre, there is controversy after an Ontario supplier complains that Canadian-made equipment was not used for the cooling pond.	AO, RG 15-1-0-1192, #24, Minister's Correspondence, "1969 Centennial" file.
1969, fall-**1970**, spring	"Our landscaping sub-contractor" is still grading and planting behind the OSC.	AO, RG 15-30, #7, Exchange of letters between T.W. Thompson, Commissioner, Metro Parks, and G.A. Mann, Director, ODPW, Design and Construction Branch., 21 Oct. 1969, and 4 Feb. 1970.
ca 1970?	D. N. Omand, Director-General, writes of the Centre, ". . . During construction, great care was taken to avoid damage to the natural stand of mature trees which covers much of the site. As a result the buildings seem to fit naturally into their environment, and tall maples, beeches and oaks grow virtually up to the walls and windows. They are a joy to the eye, from their first budding in the spring, to the burst of riotous colour which marks the Canadian autumn, and, indeed, even when covered with snow. . . ."	Douglas N. Omand, "The Ontario Science Centre," *Museum* 26 (ca 1970?): 78 (undated photocopy in Toronto Reference Library, Special Collections, vertical file).
1970, Sept.	Since opening day a year earlier, the Centre has had 1.4 million visitors.	OSC Annual Report for 1970-71.
early 1970s	Construction of Flemingdon Park is completed.	http://torontoneighbourhoods.net/regions/northyork/106.html (accessed 10/03/03).
during 1970-1971	A change in the Act permits the Centre to become known henceforth as the Ontario Science Centre. The Ontario Film Institute begins its program in the Auditorium.	OSC Annual Report for 1970-71.
1971	Alexi Kosygin, the USSR Minister of External Affairs, visits the OSC.	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1971-1985	William G. (Bill) Davis, the Minister of Education in the Robarts Government, is Premier of Ontario.	
1972	As part of a massive reorganization of the Government of Ontario, • the Dept. of Public Works is "succeeded in its functions" by the Ministry of Government Services; • the Dept. of Tourism and Information is merged with the Dept. of Trade and Development to form the Ministry of Industry and Tourism; and • the Dept. of Education becomes the Ministry of Education. However, responsibility for the Centre is moved from Industry and Tourism to the ministry of Colleges and Universities.	AO, Inventory 88 (RG 15, Public Works), Vol. 1; AO, Inventory 65 (RG 5, Tourism), p. 1; AO, Inventory 2 (RG 2, Education), Vol. 1; and AO, Inventory 47 (RG 47, Culture).
1972, July	Entrance fees increase from $.50 to $1 for students and $1 to $1.50 for adults. Children and senior are free.	OSC Annual Report for 1972-73..
during 1973-1974	The Centre establishes an outreach program and a reference section. Note: By 1987 the travelling outreach program, known as "Science Circus," reached 250,000 people annually.	OSC Annual Report for 1973-74. J. Tuzo Wilsoon, "Ontario Science Centre," *The Canadian Encyclopedia* (Edmonton: Hurtig, 1988).
1974	J. Tuzo Wilson is appointed a Companion of the Order of Canada.	
1974	On March 31st, Dr. Omand leaves the Centre to take up duties with the Provincial Government. His replacement as Director-General, in September, is Dr. John Tuzo Wilson, a renowned geophysicist, University of Toronto professor (1946-74), and Principal of Erindale College (1967-1974). During his years at the Centre (1974-85), Wilson is instrumental in making it one of the world's leading science institutions.	OSC Annual reports for 1973-74, 19744-75; *First 10 years: Ontario Science Centre* (Toronto: n.d.).
1974, 11	The Centre hosts "In Praise of Hands," the very influential First World Craft Exhibition, featuring the work of artisans from 50	OSC Annual Report for 1974-75; Octavio Paz, *In Praise of Hands: Contemporary*

June-2 Sept.	countries. There are 665,053 visitors during this period. In conjunction with the exhibit, a 222-page book, containing two essays plus photographs of all the major pieces on display, is published.	*Crafts of the World* (New York: New York Graphic Society, 1974).
during 1974-1975	The Centre becomes home to the Metro Toronto Science Fair.	OSC Annual Report for 1974-75.
1975	The Centre, through its Board, begins reporting to the minister responsible for culture.	AO, Inventory 47 (RG 47, Culture).
during 1975-1976	A mini-theatre is added in the exhibition hall., the cafeteria is renovated, and a plans for a planetarium are underway. Roland Emmett's fantastic mechanical creations are displayed in the Great Hall. Exhibit and maintenance costs are escalating.	OSC Annual Report for 1975-76.
1976, sum-mer	The "Nature Heritage, Show runs for 12 weeks and features First Nations people (Inuit and Indian) demonstrating traditional skills.	OSC Annual Report for 1976-77; *First 10 years: Ontario Science Centre* (Toronto: n.d.).
1976	The Faculty of Education, University of Toronto, begins to use the OSC as a unique practice-teaching centre for a select number of its students. The OSC begins to offer professional development for teachers.	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
during 1976-1977	A review of long-range thinking is underway.	OSC Annual Report for 1976-77.
1977, Jan.	Plans are finalized for a new greenhouse designed by T. Dominski, P. Eng., of the MGS.	Various drawings dated Jan. 1977, MGS-CR-76256.
during 1977-1978	The Centre opens the miniature planetarium and plans a Solar House. It also establishes programs for high school and college students. Note: Tuzo Wilson later describes the program as a "day school that teaches and gives credits to 25 senior high-school students, all talented in science, who attend for one semester."	OSC Annual Report for 1977-78. J. Tuzo Wilsoon, "Ontario Science Centre," *The Canadian Encyclopedia* (Edmonton: Hurtig, 1988).
1978	OSC mounts "Soviet Spaceships," a travelling exhibit, in the Great Hall., and in the fall hosts a “Symposium of Living Explorers that includes Arctic and space explorers.	OSC Annual Report for 1978-79; *First 10 years: Ontario Science Centre* (Toronto: n.d.).
1978, July	Plans for new cooling towers in the boiler house are finalized.	Various drawings, MGS for Min. of Culture and Recreation.
during1 978-1979	The Centre hosts the Great International Egg Race. The Solar House opens in spring 1979 on the west terrace level. There is change in the exhibit halls.	
1978, 1979,1 980	Moriyama & Teshima Architects work on an OSC Mine Exhibit Feasibility Study..	AO, Moriyama & Teshima Collection, F 2187-1-006, "Ontario Science Centre project records."
1979	During the Albert Einstein centennial in March, the OSC hosts a play, and film, and workshops. In April, it holds a lecture series on "Issues in Modern Medicine."	*First 10 years: Ontario Science Centre* (Toronto: n.d.).
1979	Publication of *First 10 years: Ontario Science Centre* (Toronto: n.d.)	Copy in OSC Library.
1979	Moriyama & Teshima Architects prepare 43 architectural drawings re OSC site work.	AO, Moriyama & Teshima Collection, F 2187-1-006, "Ontario Science Centre project records."
during1 979-**1980**	The greenhouse is scheduled to open in June 1980 The Centre celebrates the International Year of the Child. The "Wood" exhibit, held June 29-Oct.21, 1979, celebrates craftsmanship and features the many uses of wood: e.g. buildings and newspapers.	OSC Annual Report for 1979-80.
during 1980-1981	The Centre begins to market exhibits for sale. The Aims and Objectives : “Promoteamong the general public an understanding of science and modern technology Develop systems to increase public interest Being a high profile well attendedtourist attraction Provide support and extension facilities the the education system Lead role in creative science exhibit design and presentation	OSC Annual Report for 1980-81. J. Tuzo Wilsoon, "Ontario Science Centre," *The Canadian Encyclopedia* (Edmonton: Hurtig, 1988).

	Being a community centre for discussion of science issues Serve as an industrial liason facility" Note: By 1987, according to Tuzo Wilson, "Britain, the US, France, China, Japan, Malaysia and Australia have purchased exhibits and rented exhibitions from the Centre. To meet this demand the centre has licensed private industry to manufacture and sell copies of its exhibits to museums and science centres around the world and in Canada. "	
by 1981, 31.Mar	The capital cost of the OSC facilities amounts to $29,428,750. from Federal and Provincial sources	OSC Annual Report for 1980-81.
During 1981-'82	162,340 attend events in the auditorium, plus another 183,241 in school groups, plus another 2556 in tour groups. School groups use the lecture halls 282 times. The facilities are rented for private use 81 times.	OSC Annual Report for 1981-82.
1982	1982 marks the 125th anniversary of Confederation.	
1982, Aug.	A area for snow removal equipment storage is created in front of Building A, with Nicol and Johnston as architects. It occupies space under the steps from the lower level to the upper pool.	Various drawings dated August 1982, MGS-CT-36125.
During 1982-1983	The Chinese Exhibit runs for six months.	OSC Annual Report for 1982-83.
1984, Jan.	Plans by B.K. Nayyar for the Foundry in the Hall of Technology, Building C, are finalized.	Various drawings, MGS-CT-44271.
during 1985-1986	Tuzo Wilson retires in 1985, and Jim Parr becomes Director-General. Parr submits a strategic plan for the first time to the Board.	OSC Annual Report for 1985-86.
1986	Moriyama & Teshima Architects win the Governor General's Medal for Architecture for Science North, Sudbury, Ontario.	http://www.mtarch.com/awards.html (accessed 25/02/03).
1986, Feb	A new pump for the cooling system is required.	
during1986-1987	The Centre enjoys renewed enthusiasm, increased attendance, and larger grants.	OSC Annual Report for 1986-87.
1986	Moriyama & Teshima Architects are engaged to work on a storage and assembly addition and renovations and an addition of a second level in part of the south wing of Building 'C' for offices.	AO, Moriyama & Teshima Collection, F 2187-1-006, "Ontario Science Centre project records."
1987, Feb.	Designs are underway for "Mastermind," a new shop in Building A.	
during 1987-1988	There are new exhibits and renewals of older ones. Jim Parr terminates his tour of duty. There is discussion of a major development plan so the Centre can move along with the times and maintain its "world-class status." A hotel, science park, and aquarium next to the Centre are among the ideas discussed.	OSC Annual Report for 1987-88.
1987, Aug.	Final drawings for roofing repairs to Building C are prepared. When these are carried out, the Japanese characters that spell Moriyama's name will no longer be visible.	Various drawings dated Aug. 1987, MGS-CT-55016.
1988	The public is told that the OSC needs roof repairs.	Newspaper article, (photocopy in Toronto Reference Library, Special Collections, vertical file).
1989, 27 Mar.	OSC greets its 25 millionth visitor: a family from the Cleveland, Ohio, area.	"Centre greets 25 millionth visitor, *Globe and Mail*, 28 Mar. 1989.
during 1988-89	Mark Abbot becomes Director-General. A plaque in the Science Hall (still there) commemorates William O'Dea as the Centre's first director. There is discussion of a nature trail to commemorate Douglas N. Omand as the Centre's second and fourth Director-General. Under consideration are an Omnimax theatre as an attraction, nature-related initiatives, and modifying the facilities for technical conferences and classroom space. The Ontario Film Institute leaves.	OSC Annual Report for 1988-89.
1989,	Plans are well underway for alterations to the south wing of	Various drawings dated Feb. 1989, MGS-

Feb.	Building C, which include the addition of a new storage wing. Moriyama & Teshima are the architects, with Mitchell Partnership Ltd. as mechanical engineers and M.S. Yolles and Partners Ltd. as structural engineers. The south wall is to have concrete panels removed for windows and asbestos removed.	CT-74853.
1989	Further roof repairs are being planned.	Various drawings entitled "Roof Repairs," 1989, MGS-CT-55388.
1989	Toronto City Council establishes the Task Force to Bring Back the Don and appoints its first members.	Task Force to Bring Back the Don Web site.
during 1989-**1990**	The Centre reviews its mission, operating style, and facilities, in order to provide a higher quality experience and "open minds to science." There is a desire to improve the buildings and create a spirit of fun in the context of science and technology.	OSC Annual Report for 1989-90.
during 1990-1991	Mark Abbot leaves and Brian Shannon becomes Acting Director-General. Environment becomes a focus. A capital project in joint venture with Imax Solido—a theatre attached to the Centre—is being discussed. Financial restructuring is to take place. Talk of "revitalization" includes mention of a master plan, building renovation, upgraded food service (especially in the valley building), better access for the disabled, a new visual symbol, and a strengthened role in education. Expansion in the valley is to be de-emphasized for environmental and economic reasons. Because there is to be no future development of the Don Mills/Eglinton corner, the possibility of adding a parking deck to the lot south of the fountain is discussed.	OSC Annual Report for 1990-91.
1991	Phyllis Yaffe becomes the Board's first female chair and uses the title of "Chairperson."	AO, Inventory 47 (RG 47, Culture).
1991	The boiler plant is converted.	Various drawings, dated April 1991, MGS-W-55255-90.
during 1991-1992	A new Mission Statement “Through participating exhibits, public programs and reaching out to Ontario’s community the Ontario Science Centre will engage the interest of people of all ages. We will strive to create environments which excite curiosity,inspire insights and motivate learning in Science and Technology”. Dr. Emlyn H. Koster, from Alberta, becomes Director-General in August 1991. Talk continues of renewal, revitalization, and greater responsiveness to the market. Negotiations are underway for an Omnimax theatre and a new restaurant in the valley building. F. Edna Gardner, a founding trustee, dies.	OSC Annual Report for 1991-92.
1992	The OSC assumes responsibility for alterations and additions to the building. Prior to this the Ministry of Government Services/Management Board Secretariat/Ontario Realty Corporation have been responsible.	
1992, Aug.	Design of the Rainforest, to occupy the former outdoor court #2, is well underway. Involved are The Colborne Architectural Group, Paul Nevins in charge; the Yolles Partnership Ltd. as structural engineers, and H.H. Angus & Associates Ltd. as mechanical and electrical engineers.	Various drawings dated Aug. 1995, MGS W-36055, for the Ministry of Culture et al.
during 1992-1993	The new Environment Hall opens in July 1992. A new streamlined organizational structure is developed. The Centre has a fire-safety retrofit and introduces waste reduction and recycling measures. The need to enhance the visitor's experience in the reception building, with the Omnimax theatre and otherwise, is pointed out to the Ministry.	OSC Annual Report for 1992-93.
1993	J. Tuzo Wilson, the Centre's longest-serving Director-General, dies. (In the summer of 2000 a monument in his memory was uveiled in front of the redesigned entrance to Building A.)	
1993	There is a washroom retrofit.	Drawings dated 1993, MBS Phase 3.
1993, Nov.	The Stores area of Building C is to be renovated. The project includes closing one (of the original two) van docks.	Drawing dated Nov. 1993, MBS W-33214.
circa 1993	Harold Kalman writes: "Raymond Moriyama . . . is highly adept at manipulating both exterior and interior spaces, as he first showed in his design for the Ontario Science Centre, which opened in 1969. The natural surroundings of this three-building complex . . . are brought inside through many glass walls."	Harold Kalman, *A History of Canadian Architecture* (Toronto: Oxford University Press, 1994), 842-843.
during1 993-	"The Living Earth" exhibit opens in the valley building. A marketing campaign gets underway. A planning team for the	OSC Annual Report for 1993-94.

1994	Omnimax theatre is set up.	
1994	The Corporate Plan 1994 looks ahead: "The year is 2001—a time of accelerating cultural, technological, and environmental change. Science-based issues surround society and demand public awareness. Science centres, now evolving into their next generation states, have emerged as a vital public service because they promote a science culture and increase science literacy."	OSC Annual Report for 1994-95.
1994, July	Rogers Communications is involved in the installation of fibreoptic cables.	Drawings dated July 1994.
during 1994-95	The Centre launches its Virtual Science Centre at <http://www.osc.on.ca>. Zeidler Roberts Partnership/Architects is selected for Omnimax theatre and front entrance renovation. Zeidler says, "The concept is to create a vibrant fascinating entrance space which invites the public in." David Bloom of Shoppers Drug Mart heads the capital campaign for raise $7.5 million of the estimated $15 million needed.	OSC Annual Report for 1994-95.
1995, 2 March	Visitors and guests carry away concrete members of the bridge at the Centre's main entrance, being demolished to make way for the 320-seat Omnimax theatre: a "two-storey glass pavilion [that] reveals life and excitement inside."	OSC Annual Report for 1994-95; Joseph Hall, "Metro to get domed theatre," *The Toronto Star*, 3 Mar. 1995.
by 1995, Apr.	Design of the Omnimax theatre is being finalized, with Zeidler Roberts Partnership Inc. as architects, Yolles Partnership Inc. as structural engineers, and Guild Electric. Ltd. on mechanical, electrical, and communications. The drawings call for architectural (Renaissance) stone; brick; painted metal fascia; and PVC roofing.	Various drawings dated April 1995, MBS W-75061.
1995, Oct.	Design of a Restaurant in Building C, and a banquet hall and a small restaurant in Building A, is underway. Julian Jacobs Architects Ltd. is architect, with Exsen Engineering Ltd. as structural engineers, Leipciger Kaminka Mitelman & Partners Inc as consulting engineers, mechanical and electrical. The drawings call for buff brick on the exterior, with steel for the structure and deck.	Various drawings dated Oct. 1995, CCR-33355.
1995, Oct.	Various drawings for ORC by Paradigm Engineering Group Inc. (PEG) involve plans documenting finishes to doors/floors/walls in listed rooms in buildings A, B, and C (AMIS N-00382 B-14175).	Various unnamed drawings dated Oct. 1995, MBS-WO-33297.
1995, Dec.	An emergency services upgrade is initiated, with ECE Group Ltd. as consulting engineers.	Various drawings dated Dec. 1995, MBS W-75061-2, ORC W-55423.
1996	Morden Yolles writes an article about collaboration between architects and engineers.	Morden Yolles, "Simple Gifts," *Canadian Architect* 41, 111 (Nov. 1996): cover, 16-27.
1996, Mar.	Life Cycle Study.	
1996, 1 Apr.	The "Human Body" exhibit, featuring the "Visible Human Explorer," opens for a long run.	Web source (accessed 06/03/03).
1996, 31 July	Emlyn Koster's service as Director-General and CEO ends.	OSC Annual Report for 1995-96.
1996, Dec.	The Shoppers Drug Mart Omnimax Theatre opens. The *Toronto Star* publishes a special section that includes a favorable critique by Christopher Hume. *Canadian Architect* [article not yet found] is less enthusiastic.	(Photocopy in Toronto Reference Library, Special Collections, vertical file); Interview with Raymond Moriyama, 10/03/03.
during 1996-1997	Dr. Sid Katz, who becomes Director-General in March 1997, articulates a new vision for the Centre: more corporate sponsorship; less dependency on government. In addition to the revitalized front entrance, he envisions a banquet-hall facility for up to 320 corporate and/or private guests; expanded, revenue-generating restaurants; an expanded Mastermind shop; and "ScienceExpress," a special exhibition near the front entrance. There is to be a new membership drive and a search for new partnerships.	OSC Annual Report for 1964-97.
1996-1997	The bridge between buildings A and B is repaired.	Drawings, June 1996, ORC Design Services, MGS #W-33570.
1996	The Centennial Fountain is decommissioned because the water supply piping had to be cut to accommodate the new entrance	

	road and entry plaza to the Omnimax theatre and the Centre.	
1997	Lever Pond's Science Plaza, featuring a new crystal-design fountain opens. Fountain design is by Denjner-Locke (OSC); landscape design is by T. Krawano (OSC). The Valley restaurant and the Galaxy banquet hall and Bistro in Building A are completed and opened.	Title blocks on various drawings dated Sept. 1996 (fountain) and Jan. 20, 1997 (plaza).
1997, 20 Sept.	The Ontario Heritage Foundation unveils as provincial plaque in North York commemorating the Model Town of Don Mills.	<www.clickintodonmills.com.provincial_plaque.htm> (accessed 04/04/03).
during 1997-1998	Dr. Katz resigns as Director-General. There are 500,000 visitors to the Omnimax Theatre. Ms Lesley Lewis takes over as Director-General in May 1998.	OSC Annual Report for 1997-98.
1998	The Solar Aquatics evaluation project started in 1995 in a new linear greenhouse on the west façade of Building C is completed.	
during 1998-1999	The Centre celebrates its 30th anniversary in 1999. For a contribution of $1.5 million for construction of new restaurant and food service facilities, the Centre enters into a Food Services Agreement that extends to 2006. For leasing and servicing the Omnimax Theatre, the Centre enters into an Imax Dome Projection System Maintenance Agreement that extends to Dec. 2006 with an automatic ten-year renewal.	OSC Annual Report for 1998-99.
1999	The life-safety system in the Great Hall is modified, with Venneri as Consulting Engineers, Mechanical and Electrical.	Title block of drawings dated March, 30, 1999.
1999 1999 Oct.	Profac Management Services Inc. (SNC-LAVALIN takes on the job of Facilities Management for OR.C, and uses offices in the valley building.	
1999	The life-safety system is retrofitted, with The Mitchell Partnership and Mulvey & Banani International Inc. as consulting engineers; and Allan N. Young as architect.	Title block of drawings, no date. MGS W-55399.
During 1999-2000	The Centre has over one million visitors. Attraction Canada calls it the "Best Indoor Site in Canada for 2000."	OSC Annual Report for 1999-2000.
2000	The Solar House exhibit is demolished	
during 2000-2001	The Centre has 2.4 million on and off-site visitations. Lesley Lewis works to create a new expression of purpose; to define an OSC "brand" and bring new focus to partnerships.	OSC Annual Report for 2000-2001.
2001, 3 May	The Dr. J. Tuzo Wilson Geodetic Monument, designed and fabricated by OSC staff, is officially unveiled at the main entrance to the Centre. It has been made possible by a memorial fund established in Wilson's honour over seven years ago, to which 37 individuals and corporate donors have contributed.	http://www.canadianrockhound.com/news_2001_tuzo.html (accessed 01/04/2003).
2001, 16 Oct.	A.J. Diamond, Donald Schmitt and Company completes the "Draft Phase 1 Report" of its "Ontario Science Centre Masterplan/Innovation Project."	
during 2001-2002	The "Circus" exhibit opens July 4, 2002. The "Candy Unwrapped " exhibit opens in 2002, to run until March 30, 2002, and then travel. The Innovation Project Concept aims to spur significant architectural renewal including that of 25% renewal of the public space by 2005. New areas include the Garage, Grand Central Information, Kidspark, and Hot Zone.	OSC Annual Report for 2001-2002.
2003	Frommer's comments: "While most of the Ontario Science Centre's offerings are fun for the small fry, one area that adults will appreciate is the re-creation of a rain-forest environment. On the bottom level of the building, it's large enough that you can wander a bit and forget the noise and blinking lights of the science arcade just beyond. One caveat: Roam in here for long and you'll feel as if you've hit a sauna."	*Frommer's Toronto 2003* (as quoted on Web).

2003	Heritage Significance Study of OSC and site commissioned by Ontario Realty Corporation.	
2017	2017 will be Canada's Sesquicentennial: the 150th anniversary of Confederation.	

APPENDIX

2.0 INTERVIEW WITH RAYMOND MORIYAMA

Date: March 10, 2003 – Abridged – August 8, 2003

Place: Moriyama & Teshima Architects, 32 Davenport Road, Toronto

Present: Raymond Moriyama, William Greer, and Pleasance Crawford

In the opening conversation, William Greer (WG) explains that he and Pleasance Crawford (PC) are preparing a heritage significance study of the Ontario Science Centre for the Ontario Realty Corporation, and reads a few of the requirements.

Raymond Moriyama (RM) asks if he should begin at the beginning and WG and PC say yes.
PC asks about the firm's work for Metro Parks at the time of the Science Centre project.

RM explains that the firm had done some previous work for Metro Parks: "We became famous for outhouses." He says their park "outhouse" design became known well beyond Toronto, and that when the City of Philadelphia wrote Metro Parks Commissioner T.W. (Tommy) Thompson for permission to reproduce it there, Thompson agreed.

About Ernest Thompson Seton Park, he explains that Hurricane Hazel led to increased concerns about flood control. In designing a series of pedestrian and maintenance bridges for this and connected valley parks, his office considered whether they should stand up to another 800-year flood. Because this would have been too expensive, however, the compromise was to design low-cost bridges that, if wiped away in a flood, could be easily replaced. [See, for example, AO, F 2187, Box A-2, Job 6470, "Construction of 3 Bridges, Ernest Thompson Seton Park."]

WG asks for permission to tape the interview.

PC says she will do the transcription and send RM a copy for checking. RM agrees.

Recording

WG: Starting at the beginning.

RM: Starting at the beginning, and this is as I remember. It started in latter part of August 1964. I had just come back from Vancouver. And I was commissioned by Crothers [George W. Crothers], the Caterpillar people, and Caterpillar itself [Caterpillar of Canada Ltd.] to look into how they could strip paint off this big equipment and to do it efficiently and quickly. So I was in Vancouver looking at one chemical that could do the job and then I had come back and— We had a small office then—four, five people—and I was really immersed in this problem of stripping paint quickly because the chemical was really strong. Well, to cut the long story short, I was just totally immersed in trying to solve this problem and I had just come up with the idea of turning up the heat on this equipment, on the chemical, and passing it through the equipment; and then as it turned around to come back, we would just pour water on it. And the chemical, it was expensive so we had a tube of wood that saved all the chemical.

When I received a phone call from the minister, Connell [T. Ray Connell, M.P.P., from Dundas, ON]. Do you remember him? . . . The Minister of Public Works then, Connell. Was it McConnell? Connell? His family was contacting me [recently]. . . . His family was trying to write a story about him and they were trying to contact me about that first meeting. I guess they must have heard it was interesting. I received a phone call and . . . when I am immersed in something, I wasn't going to let anything else to get in the way.

[Note: Connell was re-elected in fall 1967. He had a heart attack in early 1968 and was succeeded as Minister of Public Works by J.R. Simonett in mid-1969: shortly before the opening of the Science Center.]

WG: How long had you been out of school then?

RM: Started this? Well, that was the interesting part of this whole beginning, and I'll tell you about it. (If I forget, remind me.) This is '64 and I had started in 1958 so it wasn't that long after. And so I told—I didn't know a minister from a hole in the ground and I had never been to the Parliament Building so I didn't know the government complex at all. So he said, "Would you come down to a meeting right away?" So I told him, "I cannot." I was too busy. And that was the end of the first conversation. So I went back into the drafting room—we had an open space where we worked together [in the firm's first office, at 711 Church Street]—and I told the other people in the office that the minister called and I'm sure it was a mistake. And I chuckled and said something like, "Well, I'm sure they phoned me instead of Marani [Ferdinand H. Marani]." Well, in those days— . . . You don't go to a young guy or [a] non WASP. And so, and I also said, "Well, maybe they're after a washroom, [or the] outhouse that we became famous for." So it had to be a small job. So anyway, I went back trying to solve this problem and then I received a second phone call from the minister and he said, "Mr. Moriyama, I think you should come in. It may make a total difference." In fact, he insisted I come in and so I thought I'd better go in; I can't be totally impolite.

So that was 1:30 in the afternoon and, looking outside, a storm was gathering. It was dark and by the time I got to the building and— I didn't know where it was. I ran around and I was maybe a few minutes late because I didn't know where the room was. By the time I got there it had started to storm, *big*, so I'm saying, "Oh, God, this is ominous." So I finally got to the minister's office and there wasn't anybody waiting because I said it was one of three things. One was there'll be 15 people waiting for this, to see the minister about this small job. And there wasn't anybody there, and then the secretary pronounced my name correctly, so I thought, "It's gotta be an outhouse." With that the secretary took me through a pair of those, well, you know, those, the way the doors are. Well, I've never gone through a pair of those like that. And, then I met Connell; he was there.

Connell is a wonderful man. He's small in stature, kind of muscular, always had the sleeves rolled up, and a cigar, and down to earth. So he said to me, "Mr. Moriyama, you know about our Centennial project." So I said, "I'm afraid"—I kind of blurted out, saying—"Oh, I didn't know about this Centennial project." So he said, "Oh, I guess that's why you're one of the very few architects who didn't write to me about the job." And I said, "Oh, I never write to anybody." And so he said, "Are you interested?" I said, "No." And there was kind of a stunned silence, you see, and he said "Why not?" "Well, it's too much responsibility and, you know, I'm trying to solve a problem right now and so my hands are full." And so, he didn't stop there, and kept pushing me. And so finally I said "Why me?" and he said, "Well, we phoned many architects and asked them, 'If you were not doing it who would you suggest?'" . . . So anyway, he said, "Well, the most often mentioned name was yours." Well, I was what? 33 or something. And so he said, "We wanted somebody young, with guts and good design sense, and that's you." And at this same time, I'm . . . my head's kind of going into a fantasy and I could see the minister phoning John C. Parkin and, "John, if you're not doing it who would you recommend?" and John was thinking, "Gee, who's the most obscure guy who has no chance of getting this job?" So he said, "Okay, ring Moriyama." He [Connell] phones [Gordon] Adamson and the same thing happens. I had this kind of fantasy.

And so he said, "Are you willing to take it on? All these architects claim you're good." So I said, "If that's the opinion I guess maybe I should at least listen to what it's all about." That's when Connell pushed a button and in jumped Creba (Glenn Creba, do you remember Glenn Creba?) He came in. I had never met Glenn Creba. He was Chief Architect and he was a nice guy. And he just went through it very quickly and he then said, "Well, what's your fee?" So I said, "What are you offering?" So he said, "Well, it'll be, well, maximum of eight percent." So I said, "Well, that's too much." Then he said, "Well, what about seven? I hope that's okay." And that was the end of the fee discussion.

And then I was taken into the next room and Jack Crean—do you remember Jack Crean?—he was chairman and, at the same time—do you remember how it was structured? There was Davis, on one side, representing Education, and there was Tourism, represented by—what's his name? It starts with a T. Oh, I can see his face . . . It was a ridiculous organization, and they had to come to battle.

[Note: John G. (Jack) Crean was Chairman of the Board of Directors of the Centennial Centre. William Davis was Minister of Education. James A.C. Auld was Minister of Tourism and Information.]

So the next room, you know, shelter from all of this stormy rain; but while the storm was raging outside all these people went through all the requirements that they knew and timing and all of this. And basically—and this was Thursday? Thursday or Friday before the Labour weekend—by Tuesday they wanted a design. So the agreement was that I'll do something but that they're not to stick me with a design that we'll have to change. The mandate that came from Premier Robarts was really fantastic. It said that this is to be an . . . institution of international significance. That was the basic requirements we received. That was the total….there was no [number of] rooms or anything, which was great. And, well, there was suggestion that we work with Project Planners and others who would help us to do master design. [Note: Project Planning Associates Limited was Macklin Hancock's firm.]

So I went to see the Project Planners. On the way I phoned my wife and I said, "I'll come home as soon as I can and give [you] the bad news." And so, I went to see the Planners and then I phoned the office and said, "Tomorrow morning we're going to get together and we'll go out to the site and look around. And so that arrangement was made. I went home and told my wife that it's going to be a *disaster*, but a big challenge.

. . . The title that these people gave me was "the Centre of Science and Technology," and I thought "That's really stupid." You know, the public is going to jump. I have a pretty good intuitive sense, which has always been a help for me, that the initial is C.O.S.T. and they're gonna just…. the Government will be struck with this sort of a noose. So I guess it took at least two years to get it changed to Ontario Science Centre because the concept had to get worked up, worked out. And fortunately, the structure was such that Crean was with Tourism and chose the Board of Trustees and Chairman and then the staff was with Bill Davis of Education. They had to come to a blow and people couldn't understand the situation. It was a very difficult time for an architect. And at the same time, the challenge was, "Why science and technology?" I kept asking, "Why?" And of course the answer is really simple: that for the Province to prosper you have to get into technology and be one of the most advanced provinces in Canada, if it was proper to go in that direction. But the question was, "How do you do it?" It's not as easy as, well, give them science and technology and prosper. It's not that simple.

So the wonderful thing was that the Province gave us just a mandate so simple. We had to work out the requirements. The requirements were much bigger, as it turned out, than the mandate. It was the budget first. He said it was five million dollars. And so I said, "Well, why don't you just set up a booth assembly point and then use the whole city as a resource?" "Oh, no, no. can't do that." The second thought was, well, I was thinking about-- I don't know if you were aware. At the time we were experimenting with Air Structure—that's Peter Goering—aerospace people, and the whole idea of looking at the reverse side of a hovercraft, of the air just converging. So we thought maybe doing that, but couldn't get it done in time. The research time was not enough. So then the there was a third idea of doing a roof structure, use an air curtain so that it's totally open and using air as a curtain to enclose this science and technology assembly space, more than anything else. These were quickly presented but canned. The desire on the part of the Province was to make something *concrete*: Make it out of concrete.

WG: They wanted something that was monumental.

RM: Well, they wanted something that would last at least hundred years or more, and they asked for concrete. And they didn't even speak of stone or anything because, I guess, at the time, Bill, if you remember, it was a concrete brutalism period.

WG: Oh, definitely, that was the sixties style.

RM: And so, even the client just was on that bandwagon. Nobody said, "Well, build it out of stone cladding."

WG: Well, it was a period when it was felt that concrete would last forever, and it was replacing small-sized bricks that had to be hand-laid; so this is the beginning of technology in pre-cast and pre-stressing.

RM: Yeah, and pre-cast. And Ontario was pretty good at pre-casting.

WG: Very well. As a matter of fact, it shows how well those wall panels were pre-cast, because they're still in excellent condition today.

RM: Well, it was amazing the— Well, it was really fast tracking. They did it very well.

WG: Who did it, actually? Was it Maple Pre-cast or one of those people? [Note: The contractor for structural pre-cast concrete and architecural pre-cast concrete was Pre-Con Murray Limited Pre-cast Concrete Manufacturers, Toronto.]

RM: Can't remember. I cannot— there was a post-tension beam, as well, at the front [Entrance Building], and there were a lot of innovations. The bridge as I was telling [you]: We were approached on having Yolles as structural engineer, and Roly Bergmann. Roly Bergman and I sat . . . and we sketched and Roly would just do almost working drawings right at the table. He said, "Can't we make it?" I said, "You know, if the bridge is like a big hand holding this bridge—" and that's the way it was conceived. [RM moves his forearm into a vertical position, with palm facing upward.] Because, you know, the stress and strain is very much like that. . . . So I really appreciated Roly Bergman's involvement. [Note: Roland Bergmann, P. Eng., Dipl. Eng. was at the time Vice-President and Secretary of M.S. Yolles and Associates Limited.]

WG: You went from the lightweight structure kind of design into a concrete building. Then how did you end up dividing it into three sections? Was that, surely, something to do with the site?

RM: Well, what happened was, we were fortunate, we had Taizo Miake. Taizo was a kind of a guru, who brought along the young industrial and exhibit designers, and every Friday we used to get together for a beer session, and it was a close working together.

WG: Did you bring him on the job or was he already there?

RM: No, he came on together with the administration, and how he got here I'm not too sure. But the others were maybe a bit insecure and bureaucratic, but Taizo was quite a different guy. He was a philosopher. Maybe he thought about things too much for an architect. You gotta think but you gotta act.

What we started to say was, "How do people learn? How does one learn?" So we went, really, back to an old saying of Confucius, many hundreds, thousands of years ago, when he said, "When you hear, you forget. When you see, you remember some. But when you touch and do, it becomes part of you." So we updated that to contemporary terms: kind of a "touch me" or "hands on." And that was the beginning. And it was a new concept. We had such a hassle from other curators and especially from the ROM. They tended to ridicule us. I was at a conference in the States and I sat on the edge of a stage, facing about 200 people, and just fought them off. They thought I was Disneyland, Coney Island, all this junk. And so I sat there defending what the whole concept is. And it went on - the battle went on - until the day that they [the doors at OSC] were open.

WG: Well, the concept actually was unique at that time, was it not?

RM: Oh, it was a first.

WG: Because they hadn't done anything like that in the States or anywhere else?

RM: And no museum has done that. The thing that got closest was that Exploratorium in San Francisco [founded in 1969 by physicist and educator Dr. Frank Oppenheimer].

WG: But that came after this?

RM: It was about the same time. I never tell people that we were first or they were first because it was almost simultaneous. And they opened in an old structure [the historic Palace of Fine Arts]. I found the old structure really wonderful. It had holes in the roof and all that, but it was part of this whole hands-on idea and I found that really wonderful there. But as a new structure, it [OSC] was a first. And I have to hand it to the Cabinet and the politicians because I was asked to come out and explain the thing and I had no way of, really; I didn't have the

vocabulary. Now . . . it's so easy because it's so normal. I find it almost kind of ironical when ROM talks about all this type of thing. And to look for the language was really part of the difficulty I had explaining it. And a couple of times I don't know how anybody could have accepted what I said: Like talking about the total gestalt being more important than the parts. But they seem to have understood the idea, or maybe it was a leap of faith.

PC: Absolutely, very much so, for a politician.

RM: So they allowed us to do it. And the reason for all the texture was to urge touch. And we were criticized for being overtextured and all that, but the idea was to do that to free people. So even the bridge, of being able to run 260 feet, was to free them up, see nature. And the basic message we were trying, or *I* was trying, to get established [was that] with all the emphasis on science and technology, man was still intrinsically related to nature: that nature is [the] base, that we have to be a part of nature and understand its limitation. The idea may not have taken hold as much as I hoped for.

WG: In the bridge, why were there two levels? Why did you divide the children from the regular attendees?

RM: Well, first of all, the programmers, or the PR people, came to see me. And the first round, they said, "Well, there's going to be 200,000 people a year." And I told them to go away and they said, "Why?" I said, "The number's too low. What's it based on?" And it was based on the basic projection of what's existing, and there's nothing existing so that number has to be low. And so I said, "Go away, think about it a little more. I'll see you next week." Next week they came back. They'd raised it to 400 [thousand]. Then I knew I had them. And I said, "Now go back. That's way too low." "Well, what's wrong with it?" "You haven't used the imagination. Imagination's the thing that's going to make a difference between this being far more successful in terms of number. The number isn't the most important thing but it is part of the way the Province comes to it." And so they said, "Well, what's your number?" "$1.4 [million]." And that's what we had. And if I had based everything on their number, it would have been just impossible. It would have restricted the flow.

WG: So you felt that the double layer was part of the flow.

RM: Well, and at the same time, the more we talked to Bill Davis, the more we felt that it really has to be tied into the educational system for the thing to work. And the numbers that were talked about plus the numbers coming in from the States, and other cities, North Bay and all that, was going to jack it up. Although even at that particular stage we talked about a traveling Ontario Science Centre on a tractor trailer and all that, because it's not bringing people together but, as I used to say, well, we have wheels and waves: waves to send information out, wheels to bring people in. So you've got to use both.

And so we split the entry so that the students could be a little more free, they could run around, they could trip up each other, and there was space for brown bags and carousels to put their coats in. At the bottom of the exhibit they could be picked up. They could come back. They were a little more flexible. --

WG: So basically, the idea of separating the buildings with bridges was partly philosophy but partly the site? I mean, the centre building was really built on a knoll across a valley.

RM: That's right. And what struck me and the people here [in the office] at the time was if you look at the topography map of that whole valley, that knoll is about the only one that's there. So we said, "There's a good reason. It's solid. Maybe we should respect it and not touch it. Maybe we should touch it and glorify the location." We ended up touching it. The DPW at the time—and this is related to almost an average attitude and not specifically Glenn Creba [Chief Architect] or George Mann [Director, Design and Construction Branch] or some specific people; but the tendency was to think, "Oh, yeah, we can wipe everything out and we'll be able to replace it." That was quite a philosophic disturbance for me—having lived up in the Rockies and built a tree house and watched nature—for a man to tell you that, oh yeah, you could wipe anything out and we could plant seedlings and saplings. So trying to fit into nature was really quite a thing. An hydraulic study: we did that on our own because they thought it was a waste of time. And there was a lot of hydraulic pressure going against the entry building and if we didn't handle it properly, we would lose the trees on the opposite side. So that was carefully studied and responded to, and my attitude was we are stewards to maintain nature and pass it on to future generations.

Break

During a short break, PC asks RM about Bon W. Mueller, whom he credits in *The Canadian Architect* in 1969 for "landscape" on the Science Centre project. RM replies that Mueller was the landscape architect in his office; trained in Germany; and an extremely good technician. By this time, 1969, George Stockton (a landscape architect who's been with the firm ever since) was there; so he and Mueller overlapped slightly. Most of the work on the OSC project was Mueller's, however; Stockton became involved with the project only at the very end. The "General Site Development Plan" for Ernest Thompson Seton Park and the Ontario Centennial Centre of Science and Technology, dated Feb. 19, 1965, was done by RM, with Bon Mueller as technical detailer.

Recording

RM: … Precast concrete, when it's hardened, it's really hard to break up. So . . . I left it [the rib of the concrete panels on only for a while] and I think that there was an exact hour—I think it was seven hours—then it was checked, because it was stiff enough, but at the same time soft enough, to peel off [and carry out the rough finish that you see].

WG: It's in excellent condition today.

RM: Well, it's amazingly good and sometimes I wonder, you know, "Gee, we were pretty good."

WG: Well, I think that's great, because they [the concrete wall panel cladding] were structural in themselves. And then what's behind them, though, is interesting; because they're changing it in part of the building now. Where there was *Styrofoam* and then the . . . *Tectum* [a cementitious wood-fiber acoustical panel introduced in 1949]. And they plan to reinsulate that one area.

RM: Which it deserves.

WG: Well, and today, the technology's has changed. I mean actually, what you did was quite advanced.

RM: Well, I don't know about advanced, but we thought, "We'll add a little more insulation to cut down the energy consumption." But the greatest thing was to keep it as solid as possible.

WG: One interesting thing is that the central building was built after the lower building and the upper building, and that there was a road: There's a picture with a construction road, going up the hill. There's a person at the Centre, called John MacDonald, and he was there when the place opened and he's still there. He was telling me that when he started working there the centre building was under construction and . . . they'd occupied the lower building, at least for exhibit assembly, but not occupied the whole site as a Centre, but just for the staff to start working in the workshops.

PC: Was there a little bit of testing in advance of the official opening? My son-in-law told me he came as a kid from Kingston by bus in June of '69 for a school tour. I wondered if they were pre-testing the exhibits.

RM: I think there was some pre-testing that was done. I didn't realize it was as early as that.

WG: They did test some out at the [Canadian National] Exhibition grounds [in the Ontario Government Building].

RM: Oh yeah, he may have gone to the Barber Green [a road equipment company] factory where they had space during construction for exhibit design and assembly.

PC: He says it was to the Science Centre. He just thought it had always been there.

RM: Yeah, there was a lot of testing because a lot of the exhibits were totally new and they weren't sure whether it's going to stand up to the pressure of thousands of people; so there was a lot of testing. Well, we used to go out and test them, too, and sometimes kick it and do all kinds of things. But that's interesting…….
……..Well, talk to my children …….

I used to get concerned because there was one little boy. I used to go, after it's opened, I used to go there a lot to see how it was managing, standing up; and I used to see this one boy all the time. So one day I sat down with him and he . . . was telling me—he must have been about 12—he was there almost every day. And oh, he was going to be a scientist, and I said, "It's good and bad," and so I talked to him. I don't know what he's doing now.

PC: He must have lived nearby.

RM: He was living across the street in that [Flemingdon Park] complex. So he may be one of the ones . . . that got elevated out, I don't know. I was saying later that we should have kept track of some of these youngsters, to see how they were doing.

. . . There was another factor that really was critical in *my* mind. While we were travelling to different museums I noticed that the handicapped people were not usually seen and so when I got back I did some checking and found out from Sunnybrook that at *least* 14% of our clientele—patrons—will be physically challenged, either by old age or a physical challenge, injury, blindness, wheelchair. But that 14%: that's a large percentage. It could be larger, as we start to include lots of seniors, because people are living longer. So I borrowed a wheelchair and strapped myself in and we wrote out regulations as we observed; and Bill, you know, I used to and talk to developers and I became kind of a nice hero to the physically challenged people, for speaking up on behalf of the physically challenged. And some of our findings are now part of regulations, which is kind of satisfying.

The question was, "How do we get busses and transit to look after this, so that the whole city becomes [barrier] free?" It's still not there, but . . . it's slow.

WG: It's coming. I had another question. I wanted to ask you about the centre building [at the end of the bridge]. It seems to me it's an extremely important space, and particularly the staircase, which . . . was it part of your original scheme that you went down the steps to get into that space from the upper level? The lower level flowed right into it. They have one problem now, that you have to go in through the round circular area to get to the elevators from the upper level, or you have to go down the stairs. I feel very strongly that the split staircase is an integral part of the design intent of that overall space . . .

RM: Yes. Can I give you an explanation?

WG: I feel it is part of the heritage significance of that space, because I think the whole space is one integral design.

RM: Well, there were a lot of discussions about, and maybe you've heard this, about—what do they call it? [Pause.] At one point there were two turning, like a rotating platform, talked about: like an orientation machine.

WG: In the middle of that space?

RM: No, in the barrels, in the two adjacent barrels. And you would get on and within whatever minutes, maybe half hour, you would get a view of, maybe, science and technology from beginning of time, or whatever it is. And the other one [is] making some other sort of orientation. And that's how the circle started. They never got built. It was quite an exciting idea, because there was to be smell equipment and all kinds of things that would enhance the experience . . . and all that. [Note: At the time these were referred to as "the orientation platforms."]

It never happened and then, in a funny way, I was stuck with the barrels. And then the thought of a trillium came to my mind, so that was a kind of a rationale and as much as splitting it makes the straight function less aggressively effective but, I thought, "Well, maybe it's not as bad; maybe symbolism is in." And that's when the idea of this, psychological adjustment from our daily lives to this world of science and technology. That bridge was a two hundred and sixty-foot dimension that was going to change the way one feels about coming into the science and technology, and it was to expose this in the very top. The Great Hall could have whatever exhibit that would sort of express what the Science Centre people wanted to express at that particular year or moment. Well, the Great Hall itself was to also sort of show nature, outside, and because it's such a wonderful site *that*, as time goes on, is going to get more and more precious.

WG: Why the split staircase, though?

RM: Split staircase? Because I had thought that it was a natural way to use the barrels, if I may call it, rather than coming down [another way]. We did schemes where we came down straight but we lost too much space in the Great Hall. But then we wanted to keep it [the staircase] away from the wall because there may be several classes of students coming in and we wanted them to, if they wanted to, go right down to the valley floor and to go by the left-hand side, and so on. And so that's why the split stair came about.

But if you remember the first colour scheme, the bridge was blue.

WG: The inside of the bridge?

RM: Yeah, yes, and because I was constantly working with the idea of the opposite: what the eye sees, the afterimage is different. And that the trip right across that bridge would take several minutes and you're bound to have afterimage. So when you got out of the bridge and looked into the open space, you not only saw nature and all the other things, but you would see it golden.

WG: Well the blue was actually just the carpeting, wasn't it?

RM: No, the walls. . . . And because it was on the wall, it reflected on the ceiling. And obviously you were constantly looking outside, your afterimage is going to be yellow-gold.

WG: I feel that the centre building [and its Great Hall] is a key area in the whole building. I think it's a heritage element of considerable importance, particularly the sense of light from the upper level, around this soft ceiling [pointing at an early photograph] and I don't know whether that was your idea or not, but it's very much like a cloud with light around it. I think a great deal of the character of the building comes from skylights in all areas of the building.

RM: Well, light was an important part. I think I learned a lot, though, on that building. I'm now much better at it.

WG: We *all* get better, I hope. [Laughter.]

RM: The softness is quite true. The trillium idea, like in plan, was, is, obvious; well, maybe *too* obvious. But the Great Hall, I think, is a very important area. I was hoping that a lot of important functions could take place: fundraising, receptions, openings, special exhibits, significant ceremonies.

WG: I think there are a lot of very interesting things in this building. The fact that the lighting all relates to structural elements is also a very delicate design feature.

RM: The interesting thing, though, is that this was all done so quickly, and [by] a guy thirty-three and—well, I guess I was thirty-four by then. But it was a terrible time . . . You'll see, I don't know if you've—
There are a couple of drawings where there's blood on it, and I kept drawing, nosebleed and all. And that was the bleeding from the other end, as well. It was really pressure cooker.

WG: Well this really was your first big job, wasn't it?

RM: It was.

PC: What about the bridge: Was there a time when you thought about having views to both sides or was it always the one, north-facing [side]?

RM: No. Well, simply because—it's, I used the word "striptease"—if I opened it up on both sides you'd see everything. And I thought we'd just tease people. . . . The other thing was that the solar gain was so big and that bridge is so long that by the time we pumped enough air conditioning in, it would just . . . virtually destroy the space.

WG: What were these symbols on the roof [of the valley building]?

RM: Oh, I *knew* you would ask. I bet you've heard stories, eh? . . . Well, the stories are very true. At first I was planning to water the whole place, just like a big pond and use the water to keep the temperature down.

WG: On the roof.

RM: Yes, but then we found that the seagulls were just—and even before we even thought about it, there were seagulls in the ponds. So we thought, "That's not a very good idea." But it was such a massive roof, looking down on it. So what I did was just created a pattern using "Moriyama" in Japanese. So I used to joke that people looked down on the roof, thinking it's all kinds of important symbolism and all that, but one day some Japanese will come over and look down and say, "It says MO RI YAM A!" Now you can't read it.

WG: It's gone now, unfortunately. They've put a new roof on…. Now looking at the plan…..

The bridge: Obviously you designed the building so that you could look at the things you wanted to see and here you are very clearly looking out on something that's very natural. If you looked out this [south] side [of the bridge] you'd be looking at this [woodland] but you'd also see all of this [valley building], which in some ways is not really the building that you want to see.

The terraces: One of the things [viewed] that adds intrigue is the wetlands there [in the valley].

RM: Yeah, and I was hoping eventually that this [fourth building] would go around [the hillside]. It never did happen.

WG: No, and the berms along here [south and west of the valley building], are the high-flood-level barrier.

RM: Well, and it's designed to look after the floor conditions. The other thing that was critical and that shaped this dimension is the pipeline. There's a long pipeline.

WG: Oh , the gas main.

RM: It goes across here. And I think you'll find drawings with the pipeline in. . . . In fact, I had planned to expose the pipeline, if we went to the next stage. But then, a pipeline is not very exciting; it just looks black.

WG: Say a little bit about the fountain. The fountain has been dead for quite some time and, in fact, they've taken out all of the equipment and it no longer functions for its original purpose. How important do you think that is? And how did it become the symbol of the Centennial?

RM: Well, talking about the hundredth year—and I guess because the client was putting so much emphasis on the hundredth year--that, I was thinking that, maybe it needs to be expressed aside from a concrete building: some sort of a natural form that expresses "hundred." So the cooling tower, and the fountain is really a cooling tower, and was one source. It got worked out a little clumsier than I wanted, and it didn't have the elegance of a nice gentle spray. And I think it got over-engineered; and so I wasn't happy, but the number hundred was there.

PC: Was it Fodor's [Nicholas Fodor and Associates Ltd.]…. firm that conceived the way it was built . . . ?

RM: You know, technically, yeah. I'm responsible for thinking about the hundred.

WG: Well, *now* it becomes a problem because as you come in you no longer see the entrance at all. Everything is down; it looks as though the building had sunk; and you've lost the whole sense of arrival.

RM: Because I just at the time felt that there should be a sense of clear arrival for VIPs or every-person-is-a-VIP kind of thing. And now it's like a back door.

WG: People coming from TTC have to walk all the way around either one end [of the former fountain] or the other, now, to get to the entrance, whereas before—

RM: At one point, the agreement was that the TTC was going to drive in and, yeah, on the upper floor [level]. I never followed through so maybe they didn't.

PC: Vast open spaces. Who was landscape contractor for the Centre?

RM: Landscape contractor? Now that….. hmmm…. I cannot remember.

WG: But the landscaping was done in your office, though.

RM: Oh yes.

PC: Including—I always liked the plantings in the parking lots. I learned some of my trees and shrubs by studying those plantings. . . . So that was from your office, too?

RM: I think, unless they changed things without our knowing it, we were responsible.

[To WG] Now earlier, while you were out, we talked about Bon Mueller, and— [Pause]

[Note: "Drawn by BWM; checked by BWM/RM" appears on each of the planting plans dated Nov. 4, 1965.]

PC: Also nice was the fact that the parking lots were sunken.

RM: The front ones? Well, yeah, that was, I thought it important to be able to see from the road and—

WG: Not see cars.

RM: And if anything, if it really got popular, or one of the parking lots disappeared, you could double stack the parking on the north end.

WG: I wonder what else we need to ask. I'm sure we'll think of other things when we're through.

PC: Some of the correspondence I have looked at suggests that there was some conflict between the work going on at the Science Centre and the landscaping already completed in the park.
There seem to have been a few arguments about "your landscaping contractor" versus "ours." These were letters between Tommy Thompson [Metro Parks Commissioner] and the DPW.

RM: Is that right? . . .

PC: So I gather it wasn't the *same* landscape contractor.

RM: I guess maybe they didn't even let me know. . . . because I can't think of any *major* problems. There were, you know, "Why don't you do this? Why don't you pay for that?" . . . There was a clean line drawn, eventually.

PC: But then there was supposed to be flow; people could go from one [property] to the other.

RM: I remember that now. Yeah, the Ontario Government, or the Ontario Science Centre people, didn't want people entering the complex without paying; and so the connection at the valley floor was a no-no to them. . . . I remember that now. At the time I was thinking that there couldn't be *that* many people who's going to sneak in.

PC: Well, especially in the beginning when the entrance fees were— It was free for children and seniors and fifty cents for adults, I think.

RM: Yeah, it was a very low fee. . . . I was saying at one point, "Well, maybe you just charge a big fee for parking and get rid of the cars, but, well— It's one of those very interesting kind of a struggle that goes on between two different parties. The motivations for access or no access are so different in attitude. I guess that's why people go to war.

PC: It looks as if on this [south] side [of the escalators] the trees really survived, and that there's some clearing that had to be done here [on the north side] and then some replanting. Is that a correct impression? This [photo] seems to be quite early, before things are finished. And, well, here too [in another early photo], these look like newly planted trees, just in that area north of the escalators.
RM: I'm not too sure whether you looked at the specifications.

PC: I haven't found them yet. I mean I know where they are.

RM: We snuck a clause in there which irritated the Province, the DPW people, at first. We said that anybody working on the project who cuts a tree down without our permission, or a tree not marked by us, will be fined a thousand [dollars] a tree. At the beginning, some of the technical people at the DPW were really upset that we were being so arrogant, and of course my point always has been that you don't cut a tree older than yourself. So . . . we didn't lose any trees, which is fascinating. Then later, the people who, [the] managers, came along and cut some trees down. But by the time that happened the Department of Public Works knew it was a more popular thing to just tell them that we saved all the trees. So they took credit for saving the trees, which was fine with me.

WG: As long as the trees were saved.

RM: Yes, exactly, and so— the most wonderful picture is a picture, the first October or so, when it has snowed and the trees are still in colour.

PC: So that's of '69?

RM: It's '69 or '70. It's somewhere in that neighbourhood. . . . There's got to be a copy. If not, let me know because you should be able to get one.

PC: Okay. Well, we went through the photograph files at the Science Centre and I don't remember that one. . . . It would have caught the eye, I'm sure. So we'll keep looking. . . .

RM: Well, it's a photograph of a closer looking at it this way and it really looks quite Ontario, with snow on the wonderful colour, sort of yellow and red.

WG: And this [the surrounding landscape], of course, is totally grown up now but the [outdoor patio #4] is mostly gone and this is where they built the new cafeteria. [It's] fairly sensitive, it's just open glass. The patio to the west is mostly lost too but [the landscape on the hillside] has all been maintained and they've worked it accordingly.

WG: These [outdoor] benches [in photo] here were your benches, weren't they?

RM: I think so.

RM: But the other [indoor] ones, you said, were so heavy that they got rid of them all; and they were the ones that you see, in this [photo] here.

RM: The wooden ones.

WG: These were wood, I think. We were told they were so heavy that they couldn't move them around and I haven't found one in the place so far. I was hoping I could have found one in their storage area, but none of these things are left. [Note: The furnishings, including seats of firply with attached pads, were designed by the architects and manufactured by Cameron-McIndoo Limited, Don Mills.]

RM: Yeah, we…..let's see…they were partly seat, partly sort of a stand for exhibits. They were not *that* heavy but heavy. . . . But they were asking if we could make it out of plastic. Well then it wouldn't support any heavy weight sitting on top, and the client didn't want anyone carrying them away.

WG: Plastics in those days weren't exactly what they are today either.

RM: Yeah and, well, they would turn yellow and, after a while, become brittle. . . . And, of course, in a funny way I liked it that way because they're biodegradable. [Pause]

PC: What could we possibly be forgetting? . . . I'll transcribe this and send it to you; and then if we've missed things or if I've misworded things—

RM: If I see anything that I should tell you then I'll discover it then.

PC: Then you can scribble it on—

WG: And if you have any unusual or significant photographs, we would like to have—to be able to get copies—so that we can properly record them. We hope this document is going to be a significant document, in that it will guide people in the future as to what is important to preserve of the buildings' heritage.

RM: Well, I think that's important because it's not necessarily important for the future generation to follow what we've *thought* of, but they should at least have a base.

WG: Ray, I think you've been very good in talking to us.

RM: Well, it's as I remember it and I'm kind of surprised myself. I didn't even prepare for this but when you ask the right questions it triggers all kinds of memory.

PC: Details….. wonderful! We have really appreciated your time.

RM: Well, it was, as I said, a good time and a real struggle. It was a challenging time.

End of recording

POSTCRIPT:

Raymond Moriyama summarizes the essence of the Science Centre as

- Hands on; Touch.
- Fun that leads to Revelation.
- Self-Directed Learning.

APPENDIX

3.0 INTERVIEW WITH MACKLIN HANCOCK

Date: April 2, 2003 – Abridged - August 8, 2003

Place: Royal Canadian Yacht Club, Canadiana Room

Present: Macklin Hancock, William Greer, and Pleasance Crawford

In preliminary conversations, William Greer (WG) has explained that he and Pleasance Crawford (PC) are preparing a heritage significance study of the Ontario Science Centre for the Ontario Realty Corporation and want to know more about the role played by Macklin Hancock (MH) in selecting the site and preparing a preliminary concept.

WG: So to start this, you're going to tell us who started you off on this and how it went.

MH: Well, here goes. Well, first of all, thank you for inviting me to do this. It's going to create a big memory in our family and elsewhere, because it's one of the beginning points of my work, and our work, of all the people I've worked with; and I think it's the way to go, isn't it. I mean, we need to have the memory of our past in order to go forward.

I think I have to start with George Challies [in charge of Energy] because he was the beginning point….. He was the first person to think that the Seaway should come up in a natural route rather than onto the Carp River, which also had an access to be able to get up to Lake Ontario, past Cornwall. Cornwall, he thought, was the perfect place to put a very large facility for electricity. And George Challies was a very far-seeing person - a visionary. And when the time came to think about the energy, he thought, along with others in Ontario, that there ought to be a means of doing a Niagara Falls and be able to come up a natural way by having ladders space [?] which ends up here in Lake Ontario so they could get enough energy. I think it was 2.7 . . .

And he, before I was leaving Don Mills, he knew Tony Adamson very well (they were both Tories) and Tony Adamson (I'm trying to think: what was his name: Arthur? Anyway, I'll come back to his name.) But he was the major advisor on planning to the Government of Ontario and he knew all about Don Mills. And actually, the Ministry had hired Tony Adamson to do the planning for Upper Canada Village. It just turned out that-- Arthur Bunnell was his name; he was a wonderful man. He was the reason I got to design the Don Valley Parkway. Arthur, in 1915, he had done a plan for the expansion of Ottawa as the capital city. [Arthur E.K. Bunnell was a planner. During the '20s and '30s he was a partner in the firm of Wilson, Bunnell, and Borgstrom. Later, as Hancock mentions, Bunnell was a key figure in the Ontario Dept. of Planning and Development.]

George Challies said, "Look, we've got a problem. The main thing that Adamson can do is to do the buildings, to refurbish them for the development of Upper Canada Village." But, he said, ". . . It's not his field, the idea of an holistic group to carry out this; it's just too big for him, he can't. But keep him together with it because he's a great devotee of old buildings."….Anyway, so I got a call one day from Arthur Bunnell. . . the person that recommended me to George Challies.

WG: First of all, when did you work on the Don Valley Parkway?

MH: I laid it out in 1952.

WG: And when did it open?

MH: 1958, the lower part. The upper part-- See, I designed it in 1952 because they wanted to put a roadway right across [the Don Mills development lands], from Don Mills Road through to [the 401]. Don Mills Road had a kink

in it at York Mills, so they wanted to straighten that out and to put it through the middle of the Don Mills project. Well, I thought, "That's going to spoil the place." So I made a drawing to show how it could be bypassed and gone up through that way….and crossing at Lawrence Avenue. Well, nobody had thought about that. And then subsequently I thought, "Well, there's something going very wrong here. I'd better deal with the municipality, not the municipality but the Country of York." And they had Harvey Rose was the man in charge; he was the head of handling Traffic and Transportation for York.

So . . . I got in touch with Arthur Bunnell and he said, "Well, Harvey Rose is going to have a meeting shortly, and why don't you come with me to meet Harvey Rose and explain why you think this is a bad thing?" And I said, "Okay, now at least I've got a chance to deal with the problem of running the highway, rather the Don Mills Road, right across." See, the Don Mills Road was an isolated place then. Then I went to the meeting with Arthur Bunnell, and I made a sketch of what I thought should happen, that was really going to be better than just extending Don Mills Road. That was, I made a big drawing and drew it all the way from Highway 401, down the valley, through the Don Mills lands, and on the east side of Don Mills, bring it on down, and give it the umbilical cord to the City of Toronto. So that's what it is. It was a parkway: There's another story about that, too.

WG: When did Don Mills Road go in the area of the Science Centre?

MH: Well, 1962 was when the last picture I've got shows Don Mills with still some work going on up to 401. But it was 1964 when the idea of the development that should take place for each of the provinces would be given money by the Federal Government to celebrate a hundred years of Confederation

WG: From the top of Broadview Avenue, then, there's a road [Pottery Road] down into the Don Valley, and then did that road extend back up anywhere near?

MH: No. It wasn't anything. You just went down in the valley and came back.

WG: So Don Mills Road connected to Thorncliffe Park . . . right at the top of the hill there.

MH: Yes that's the way it was. . . . No, that came after 1960. . . . See, at that time, the connectors to Don Mills Road-- I drew the location for where there would be cloverleaves but I didn't extend that back into the terrain surrounding the valley. So that, 1962, I've got the drawings and everything. It was 1962 when I had an aerial picture taken from the aircraft that I hired and it shows the whole development of Don Mills *and* Flemingdon Park.

WG: It would be nice to have that photograph . . . for the context.

MH: Yes, I shall get you a copy of it. . . . Now this other aspect … then is something like this . . . . I was still with Don Mills when this happened, but I was going to leave within about another month. So I asked my boss, who was not the original president but the second president (the first one had died tragically just of a heart attack a year and a half before). So out of the blue I got a call from George Challies: "Arthur Bunnell recommends you to come down and see me." And so I had an appointment at twelve o'clock noon with Angus McClaskey, who [had] stepped into the shoes of Karl Fraser. So I said, "How am I going to do this, because I've got to be here at twelve. This means I have to meet Mr. Challies at nine. What will I do?" So I went down to Toronto Island; no, I went up to the other one . . . Buttonville Airport and I rented a plane and-- It was bad weather here but not there; so we took off. And I met George Challies by going to Ottawa and then driving the 35 miles right down to the Seaway, the future Seaway; and had my meeting--it only took three-quarters of an hour-- and went back into the car, the rented car, and picked myself with the airport; flew in *very* bad weather, 200 feet ceiling, all the way back to Toronto; got off; and was 20 minutes late for my next meeting. And of course he always berated me for time, I was never on time. . . But he said," Well, you should have been here earlier, but okay; so let's go on."

So then, having left Don Mills, I was ready to go to work for Mr. Challies. That was July the first of 1956. So I went again (this time I went by car) and I went to see George Challies and he said, "Oh, you're ready to go to work. Come on over here and we'll make an agreement." And I did, and hence the starting up of the St. Lawrence Seaway development project was underway. It had already been underway. They just wanted somebody to do the overall planning of what would happen to the Seaway after it had hydroelectric power start to produce the dam at Cornwall. Well anyway, that was that.

WG: Was Frost premier at that time?

MH: Yes, Frost.

WG: And Challies was part of his cabinet?

MH: Yes that's correct. It was Leslie Frost, who was an erstwhile friend of my father. So what happened next was we went to work for that [project], and then they had to have a new board of officers for the corporation that had been set up; they called [it] . . . the St. Lawrence *Parks* and Development System. So the person was [James A.C.] Jimmy Auld [later, Minister of Tourism and Information under John P Robarts], and so he saw to it that I would see from one end [of the seaway] to the other exactly what the job would entail: 150 miles long from . . . right up against Montreal running all the way through to Kingston. . . . So that's when I met Auld, and that was back in the second tier; because he was then being made one of the directors. I think that goes back to Brockville days and that was round about 1958.
WG: Is he the person you referred to [in an earlier phone conversation] as "The Hat"?

MH: Ah "The Hat"! No, no, no, that's another guy. He was a hat*maker*. It starts with "C." . . . In between, now, I talked to somebody who mentioned the right name, but it was not Cole, not Capp, not Cohen, but it's an old English name. . . . [It was John Gale ("Jack") Crean, president of the old Toronto hat-making firm of Robert Crean & Co. Ltd.. Crean chaired the board of directors of the Ontario Centennial Committee from 1964 thru 1967.]

MH: Anyway, he [Crean] was the man put in charge. He was a Conservative. He was put in charge of the committee to set up . . . what became the gift to Ontario from the Federal Government to create the science system. It wasn't a science system then. Nobody knew what to do. So Jimmy Auld then said to me, "Can you give me some ideas, *new* ideas, about what we should have to commemorate, in Ontario, some kind of thanking for 100 years of life of Ontario?" And so I said, "Fine, I'll think about it." And the reason that we *did* think about it is because we were thinking *new*. Okay. Then I was talking with one of our best people about it and we tried to figure out, "What should we do, really, to have something memorable. And he was German, had memorized just about everything, and [could] always innovate more than anybody else, and sooner. That was Walter Meier, who had been [on the German side] during World War II, and I was supposed to shoot at him. . . . He and I decided, well, we would have to go to Chicago, because that's the best place where there would be a science centre. So I went [with Walter Meier] and then wrote a report and said, "This is what it should be. This is what it should look like (not look like but, so much, be designed like)." It hadn't been designed. And then James Auld received this report and it said, "Instead of doing a park or something like that, it would be a science centre."

We'll, he commissioned us [Project Planning Associates Limited] to, of course, carry on. . . . And we said we were very happy about that. We've got the kind of organization that could tackle the whole thing and we've done a good job on the St. Lawrence Seaway. Why not carry on? So he then brought us back to talking about, "How do you design and build, create, a science park, not science park, science museum…. ….science *centre*.

WG: In the first place, it was a museum of artifacts; that's what it started out to be. That was the thinking?

MH: That was part of it. That wasn't *it*.

WG: It was partly to fulfill the role that the ROM was not fulfilling?

MH: Yes, it would have been a science museum like Chicago, which is the best in North America, and [always] had been.

PC: What was the date of that report?

MH: Well, it's in the annals of the Province. I think it's probably pretty simple…. You see, it's got to be there, because anything I ever drew or wrote about is bound to be there. It should have my name on it, in fact.

PC: *Should* be there, yes. So the Feds announced those gifts of a quarter million at the end of 1963. Would your report be just after that? . . .

MH: It was the beginning of '64, as I remember it. But I can validate that. . . . I mean I've got all my drawings; I've got all my diaries and everything right up to that.

1964 was when we got active under the direction of Mr. C [Jack Crean, first chair of the board of directors of the Science Centre]. So we started making drawings. First of all we did the report, and it's available to you I'm quite certain, and then we started to make drawings of what this should look like.

WG: That was by your other firm, really: Hancock Little Calvert.

MH: Yes. And Dharam Malik was involved with it; also another very good man, Alan Graham, I don't know if you've ever heard of Alan Graham. . . . Unfortunately, he's gone now. Alan Graham and Dharam were on the project . . . around about the same time as Expo 67. So these [projects] had to coalesce on the year 1967 in the spring. So we made drawings; I've still got some of these drawings; some are lost, but they're around. That's because now I have all of the documents and designs and everything we have because I'm no longer with *that* Project Planning. So I've got all the stuff available.

WG: It's not in the Archives [of Ontario] then.

MH: No, no, in my *own* archives. We've got bushels and bags . . .

MH: Because I think it would be very interesting to have an early sketch of the concept from you.

MH: I think you can see it, yes. I'll try to find it. Dharam Malik has a copy; I have a copy. We should be able to find it……Now, what goes next? . . . Oh yes. I wanted it to be *in* that area because it was for Ontario, not for the City of Toronto. So I thought, "Where do you put the thing that's close to Toronto but also enables people to think it's theirs from North Bay."

WG: Does that look familiar to you? [WG shows MH the small area map, entitled "Ontario's Centennial Project," that was part of the press kit given out when John Robarts announced the project on August 31, 1964.]….because that's really what you were saying.

MH: I'm just wondering if we *made* this. I don't know. I don't think so. I think a press agent must have done this. Let's see, Toronto. Well, it's probably one of the things we drew. Where did you find this one?

WG: That was . . . in the files at the Science Centre in the Library.

PC: You were talking about selecting the site for the Science Centre.

MH: Exactly. So I selected that site because we had been doing Flemingdon Park and this was next to Flemingdon Park and it's a modern idea [that] all the cars go underground and so. So I said, "Here's the place for it." Now of course we had to have a highway going across there . . . at Eglinton but we'd only just, that had only just been finished--

WG: That was when?

MH: Eglinton . . . about '58-59. When it was actually built it was probably '60.

WG: And that was after the Don Valley Parkway had opened.

MH: The Don Valley Parkway was still being built at that time. So, knowing this network that should happen in order to get people from the north down to the south and into Toronto from above, that's where the idea of 404 was put together.

So let's see, what happened next? Yes, design! I wanted it to be an holistic design: nature, the river, the environment, and I also wanted it to be, on the upper level, the museum that would represent what was going to be in the future but also what was in the past….and so we drew the drawings accordingly. Meanwhile, time had gone on. Ray Moriyama was doing the Japanese Canadian building *in* Flemingdon Park [north of Eglinton Ave. E.].

WG: The initial idea was to have everything on top, on the tableland?

MH: No, that was the second idea. No . . . I wanted it to be in the valley, to be a nature place, you see. It was in the valley. And then up on top would be modern science, modern people, modern way of living, and Flemingdon Park. That's why it was sited there. It didn't make sense to go any further north because the highway systems weren't, didn't have the capacity to take large numbers of people at the time. The design therefore reflects the bi-level arrangement and the bridge across and then . . . It turned out to be pretty nearly what I had imagined and so I felt good about that. But what they really ended up with was all the science down at the bottom, and nothing to *do* with the environment, you see. However, life goes on; and I'm very happy about it, and it's a terrific job, and now they want to put another building to it.

WG: No, they're not adding a building; they propose doing everything within the existing framework, the existing footprint.

MH: Well then, it'll still have the character.

WG: It still will have the character. The difference at the present time is that it has a whole new façade.

MH: That's it…quite different. It's not as good as the old one, I don't think.

WG: Well, the old one was understated and somewhat mysterious, whereas the new one is right up front.

MH: Well, the new one is okay as far as I'm concerned.

WG: Actually, it works really quite well.

MH: Don't forget, they didn't have much money the first time; they had to be pretty careful. I've forgotten about the amount but it was--

PC: It ended up being $38 million.

MH: [Re a plan showing the Omnimax Theatre] Oh, this is there? What year was this built?

PC: 1995-96. . . .

WG: And Eb Zeidler was the architect [Zeidler Roberts Partnership, Architects].

Break

Because the tape ran out unnoticed, the next several minutes of the interview were not recorded. According to PC's very sketchy notes, MH commented on the Olympia & York buildings at the southeast corner or Don Mills and Eglinton, which were the first built at this intersection. He also mentioned appearing in *Flemingdon Park: The Global Village* (2002), a 48-minute National Film Board documentary directed by Andrew Faiz; the development of Flemingdon Park north of Eglinton; Sheppard Avenue; and Fairview Mall. Finally, he spoke about Tommy Thompson (who had been a student of MH's father Leslie Hancock when he taught at Ontario Agricultural College in Guelph) and Thompson's role in creating the valley parks system that includes Ernest Thompson Seton Park.

Recording

PC: Would you describe . . . the site that you chose for the Science Centre? What was it like before it was developed?

MH: Oh . . . it was a dump. It was the city dump for Leaside.

WG: They were actually dumping garbage in there?

MH: Oh, for sure. . . . Right down from top to bottom…from the Leaside end, northern Leaside. Well, by that time [1960] I'd created Eglinton Avenue, designed it, I mean, and, because I insisted that the road system for Don Mills would *have* to be having a bottom end to it: You could get connected to Scarborough and you could get connected to the City.
. . . . The first dump was right opposite, actually, do you know right opposite … I put the . . . Inn on the Park. Well, I thought, "This is just awful." So, it was [Murray] Koffler [founder of Shoppers Drug Mart and a co-founder, with Isidore Sharpe, of the Four Seasons Hotels].

WG: So they were really using the valleys and ravines [in the area] to dump, basically, up to that point in time.

MH: From Pottery Road, from everywhere. It was a dump.

WG: So in actual fact the valleys and the configuration of Eglinton Avenue and Don Mills Road created [parklands] and the Science Centre site.

MH: Well, the primary idea [for valley parks] was [Fred] Gardiner's but was shifted into the hands of Tommy Thompson and Tommy Thompson made it grow. And that's how all these park systems that are on the east side of Toronto *and* the west side of Toronto got consideration.

WG: Initially, was the Science Centre site part of the farmland? There is a picture in one of the annual reports of a house, which was on the site.

MH: Yes, I think that there was a dam down there [in the valley] at one time. That would be a small mill, probably not a grist mill, [but] a timber mill, I should think.

WG: Farmland extended all the way from the valley over to the East Branch of the Don: between the East Branch and the West Branch of the Don….and that all became Flemingdon Park.

MH: You got it.

WG: You said Flemingdon Park went north of Eglinton as well.

MH: There's a piece of Flemingdon Park that runs right up to the CPR [tracks]. . . . We turned that piece into … the industry part. So it would be like Don Mills, and you'd be able to walk from your work to your home….[the west side] was Don Mills Road . . …. and all north of Eglinton Avenue was part of Flemingdon Park.

WG: That's when some pretty interesting architecture was built[in the area]. John Parkin's Imperial Oil Building was on the [northeast] corner, [of Don Mills Road and Eglinton] but unfortunately it has been demolished.

PC: Let's go back to that intersection [of Don Mills and Eglinton]. I like the underpass that takes the cars to the north side of Eglinton, there, that's part of the bridge; and is that all part of what you did? . . . If you're heading east on Eglinton Avenue, just before Don Mills, there's a turnoff, it's curvilinear…. It used to go to the IBM building on the north side.

MH: The IBM building was one of the first buildings in Don Mills: Jackson Perkins [and Wills] were the designers, from Chicago. They did the IBM building. It was a rather nice building. At least, it wasn't greatly modern but it was simple and good looking and that's what happened there. That's why they built the IBM Country Club up on the upper end of Leslie Street.

But anyway, I laid out Leslie Street, and we actually built that: the Don Mills team built that, right down to the crossing of Eglinton Avenue and encircling . . . Inn on the Park. . . .That's where Koffler came in. He . . . got a property rented to him at York Mills and Bayview and came over to say, "What's going over here in Don Mills?" because I had done work over there that encompassed his stuff. And I said, "Well, this is going to be the layout of a shopping centre; and this is going to be the way the roads will go; and down here, this is an industrial area and we've gotta have people coming and going from the United States and what better place to put this hotel, Inn of the Park. . .?" And he said, "Oh, what for? I mean, we've got plenty of hotels in Toronto."

WG: For much the same reason that you picked the area for the Science Centre, really.

MH: Yes…exactly the same. So I said, "Look. This isn't the way it's going to be in the future. When people travel on business, they want to take their wife, and they don't do that now because you don't have the systems for it. You want to put a proper, resort-type hotel on the edge of this beautiful valley." And he said, "Yeah, well yeah, but you've got trains running right behind here." I said, "Well, what's the matter with that? All you have to do is put up a tall wall and you won't even know it's there. You won't hear a sound." So he said, "Say, this sounds interesting." And I said, "Well, why don't you buy it. There's a plot there. Why don't you buy it?" "Oh. Oh, that's a good idea. Pencil me in for there," he said. So he put an option on the land, got hold of Izzy Sharpe, a builder, and said, "Let's go." That's the starting point of that episode.
WG: [He shows a site plan of Science Centre and valley parkland scheme.] This is one of the other drawings. This was Ray Moriyama's early scheme.

MH: Oh, yeah, it's not the same, but it has aspects about it that are similar.
…. Well I think what we had here, if I remember correctly, is, we had it [the building] coming here. We had an element here [on the knoll] and then we had another element. We thought we were going to have an elevator down but the escalator's better . . . and then out here was the environment. That's the way it worked.

WG: These are the wetlands now.

MH: That's right. Well you see, I wanted it to be a wetland, because it would echo the requirements of human need, and animals, and . . .

WG: [following a brief digression to other topics]: Well, I think that that's been an excellent afternoon with you.

MH: Well, we've bumped around a lot of territory.

WG: Well actually, I think it's very interesting; because a report like this needs to cover what was, at the time, happening around the site …area history.

PC: And that certainly is the story of this particular site, so clearly, that it would be remiss not to pull it all together.

WG: I think it's interesting because it's part of the reasons for selecting the site and it's also how it's developed since then. The one thing that's been really missing at the site has been rapid transit . . . ….. Ray said that he felt that the TTC was supposed to drive into the site initially, but at the present time they just stop outside. It's not too satisfactory because they [TTC users] have to walk around everything [in the forecourt]. They have 100,000 people a year that arrive by TTC.

MH: That's the way it [TTC bus service to the building entrance] should be. It should have been *long* ago…….

…..… Anyway, it's been overcome. We've got the GO train going there [on the CPR track line], and that's what I predicted should [happen]. . . . Things get destroyed unless they have some people who follow this connection of building cities. Design and building of cities is very important to their whole life from ancient times to future times.

WG: That's absolutely true. I think in the fifties and sixties we really were thinking about the future a lot. . . .

MH: It's a *very* great city. It's a beautiful city. Mr. Chretien says it's the best in the world, or something along those lines. Well, it was the OECD [Organization of Economic Co-operation and Development] that said so.

End of recording