

= McLaughlin Planetarium =

The McLaughlin Planetarium is a former working planetarium whose building occupies a space immediately to the south of the Royal Ontario Museum in Toronto , at 100 Queen 's Park . Founded by a grant from philanthropist Colonel R. Samuel McLaughlin , the facility was opened to the public on October 26 , 1968 . It had , for its time , a state @-@ of @-@ the @-@ art electro @-@ mechanical Zeiss planetarium projector that was used to project regular themed shows about the stars , planets , and cosmology for visitors . By the 1980s the planetarium 's sound @-@ system and domed ceiling were used to display dazzling music @-@ themed laser @-@ light shows . The lower levels of the planetarium contained a gallery called the " Astrocentre " that featured space @-@ related exhibits , related artifacts on the history of astronomy and was also home of the world 's first commercial Stellarium

Starting in 1978 , there was a decline in attendance that lasted for four years while major construction was being undertaken at its sibling institution , the adjacent Royal Ontario Museum . This work also entailed the demolition of part of the planetarium 's facilities . Though attendance picked up when the museum reopened in 1984 , the planetarium was forced to close on November 5 , 1995 , due to provincial budget cuts to the museum . The planetarium 's exhibits , artifacts and theatre facilities were subsequently dismantled and dispersed . For a brief period it housed the Children 's Own Museum . It is now used solely for offices and as a storage facility for the museum .

Early in 2009 , the R.O.M. announced that it had sold the building and site to the University of Toronto , which plans to demolish the existing building to make way for additional facilities . In September , 2014 , the university announced preliminary plans for new facilities to be built on the site .

= = Beginnings = =

Proposals for building a planetarium in Toronto date back to 1944 , but serious planning only started in 1962 , thanks to a bequest made by a former member of the Royal Astronomical Society of Canada (RASC) . In May 1964 the Chairman and the President of the University of Toronto gave their support for the idea to the RASC , and suggested a site near the existing Royal Ontario Museum , adding that significant financial support would have to come from outside the University to make it possible .

In November 1964 Canadian businessman Colonel R. Samuel McLaughlin announced plans for donating money directly towards establishing a planetarium in Toronto . He was inspired by the recent construction of the Hayden Planetarium in New York , named after Charles Hayden , who had been a friend and associate on the board of International Nickel . McLaughlin donated \$ 2 million for the building 's construction , and gave an additional \$ 1 @.@ 15 million as an ongoing endowment . The University of Toronto , which owned and operated the Royal Ontario Museum prior to becoming a separate , provincially funded body , donated land adjacent to the museum . The building was constructed in an area that had formerly been a park belonging to the museum , and also required the demolition of a mansion at 86 Queens Park that had been the residence for the President of the University of Toronto .

The building was designed by architects Allward and Gouinlock and by the engineering firm Stone and Webster Canada , Ltd. in 1965 . Colonel McLaughlin unveiled a model of the building at his 94th birthday celebration , which was held in his honour at the museum in September of that year . It was hoped that the building would be open by Canada 's centennial in 1967 , but construction delays forced the opening to October 26 , 1968 .

In addition to what was built , the original plans also called for a multi @-@ story parking garage , a 550 @-@ seat conventional movie theatre , and a direct underground link to the Museum subway stop . These features were deemed too costly and were never built .

The building contained four floors :

a basement containing a lecture hall that hosted meetings of the Toronto branch of the Royal Astronomical Society of Canada , as well as some general storage rooms ;

a ground floor that featured a small store selling space @-@ themed merchandise , a small library , coat @-@ check room , a prominent bronze bust of Colonel McLaughlin , and the box office and staff lounge (not accessible to the public) ;

a second floor , called the " Astrocentre " , which featured various astronomical exhibits and a line to the adjacent R.O.M ; and

a third floor , called " The Theatre of the Stars " , was devoted wholly to astronomical shows , and featured a Zeiss planetarium projector along with 85 slide and video projectors used to recreate starry skies , along with two back rooms that housed computers , cooling systems , and audio / visual controllers . The public theatre could seat 340 people at a time , and contained a sound system of approximately 25 @, @ 000 watts .

= = The Building = =

The dominant feature of the building is the dome , which rises 25 @. @ 3 meters (83 ft) from the ground , and has an outer diameter of 27 @. @ 7 meters (91 ft) . The dome structure is layered , with an outer waterproofed casing of reinforced concrete 4 centimeters (2 @. @ 5 inches) thick , and an inner concrete dome that is insulated by a layer of urethane foam .

The projection dome was separate from the outer dome , and was 23 meters (75 @. @ 4 ft) in diameter . Made of curved aluminum sheets , it was lap jointed to create a continuous spherical surface . The sheets were painted white and perforated with 2 @. @ 5 @-@ millimeter (0 @. @ 1 inch) holes , which were designed to let sound through and reduced echoes in the cavernous space .

The building had two main entrances : a main entrance at ground level that faced east onto Queen 's Park Drive , and a connecting passageway from the Royal Ontario Museum from what used to be the Mineralogy Gallery . Admission to either facility allowed visitors to see exhibits in both buildings , though a planetarium show cost extra .

= = Zeiss @-@ Jena planetarium projector = =

The planetarium projector was the focal piece of equipment at the planetarium . It was a Universal Projection Planetarium type 23 / 6 , made by Kombinat VEB Carl Zeiss in Jena , in what was then East Germany .

The planetarium projector was a 13 @-@ foot (4 @. @ 0 m) -long dumbbell @-@ shaped object , with 29 @-@ inch (740 mm) -diameter spheres attached at each end representing the night sky for the northern and southern hemispheres . Connecting the two spheres was a framework that held nearly 150 individual projectors , including those dedicated to the planets , the Sun , and specific stars .

Improvements were made to the original planetarium projector over the years , allowing for special effects that could show close @-@ up displays of specific planets , and the Sun and Moon projectors could replicate the experience of a solar or lunar eclipse .

The projector could be controlled by a console where an individual presenter would provide specific talks or lectures . By the mid @-@ 1970s , automation features were added , which led to the creation of prerecorded shows . Most visitors to the facility would have seen an automated 40- to 45 @-@ minute audio / visual show on a particular space @-@ related topic . Two types of shows were typically alternated on a daily basis : one aimed at families with young children and another aimed at older children and adults . Typical shows aimed at both audience types were built around themes such as space travel , the mythical stories behind the constellations , and around Christmas @-@ time , a show that investigated theories on stellar explanations for the Star of Bethlehem . A listing from 1970 includes shows titled The Story of Eclipses , which looked at how solar eclipses occur and their scientific importance , Man and the Zodiac which explored the history of mythology and astrology with regard to the night sky , and The Planet Venus which surveyed the history of the planet in mythology , the planet 's motion across the sky and featured imagined views from its surface .

= = Renovations in the late 1970s and early 1980s = =

When plans were drawn up for a major expansion of the adjacent Royal Ontario Museum in the mid @-@ 1970s , it was initially assumed that the planetarium , then still a comparatively new facility , would be left untouched . As the scope of the expansion increased , it was realized that its north annex would need to be demolished in order to make way for the museum 's need for a wing devoted to curatorial facilities . As a result , a theatre entrance , sound studio , workshop , passenger elevator and a third of the existing gallery area of the planetarium had to go . The remaining gallery area was removed in March 1978 to make space for temporary space to replace the workshop and studio .

Significant changes to the planetarium were made during this time , including the addition of a new spiral staircase that led straight to the Theatre of the Stars , an adjacent elevator for the elderly and disabled , and a larger gallery space on the second floor .

The planetarium remained at normal levels of service during this renovation period , but attendance dropped significantly , particularly when the adjacent museum was closed for a period of two years during the most intensive phase of its second major expansion . In all , the construction phase lasted for four years , from 1978 to 1982 . In particular , some school groups that could justify the expense of seeing the museum and a planetarium show in a single day 's outing had difficulty justifying a visit solely to the planetarium .

= = The 1980s and early 1990s = =

Some of the automated " star shows " that appeared in this time interval include : " Planets , Stars , and Galaxies " , a general show about our knowledge of astronomy at the time ; " Mars , the Journey Begins " , the story of the exploration of Mars (from prehistory to the then @-@ present) , and possible future plans for terraforming Mars ; " Beyond the 4th Dimension " , which explored , in layman 's terms , the 4 dimensions of General Relativity , the Big Bang and inflation , and the new (at the time) theories of physics that postulated that space has up to 11 dimensions ; some of these shows featured creative and novel sound tracks composed by composer @-@ in @-@ residence Mychael Danna .

While the main attraction continued to be the astronomical shows put on during the day , in the early 1980s , regular laser light shows became a staple evening 's entertainment in the city . Typical shows included " Laser Floyd : Dark Side of the Moon " , " Laser Zeppelin " , " Sgt. Peppers Laser Light Show " and later , such shows of more contemporary musical artists such as " Laser Depeche Mode " , " Laser NIN " and " Laser Nirvana " . These shows were held under the name " Laserarium " rather than that of the planetarium , though the laser @-@ light and star shows were held in the same building . The laser shows were created by the Florida @-@ based firm Audio Visual Imagineering , whose shows are also seen at other planetaria .

Corporate events were promoted through The Planetcorp and included such events as a CTV Fall season launch as well as corporate AGMs of Sun Microsystems and product launches from NEC and other companies .

Other exhibits in the revamped Astrocentre included a new 50 @-@ seat mini @-@ theatre , wall murals illustrating the phases of the moon , plus an increasing number of hands @-@ on exhibits and interactive computer @-@ driven displays . There were also displays of astronomical globes , an orrery and pictures of the planets , many taken by contemporary space probes . The Astrocentre also featured the world 's first commercial Stellarium , a slowly rotating display containing a 3D representation of almost a thousand stars in our immediate stellar neighbourhood .

= = Closure = =

The McLaughlin Planetarium was closed on November 5 , 1995 . The president of the ROM stated that the closure of the planetarium was due to a combination of falling attendance and a declining

interest in space , and that the closure was necessitated by provincial budget cuts . The decision came as a surprise to many , as attendance had rebounded in recent years , and the planetarium was one of few in North America at the time that was turning a profit . The closure meant that 40 people lost their jobs .

Despite the ROM citing lowered attendance figures , proponents of the planetarium have alleged that the Conservative Ontario provincial government of the time , led by Mike Harris , was looking for an instant and visible \$ 600 @, @ 000 cut to the ROM 's operating budget . No succeeding provincial government has shown an interest in reversing this decision .

Shortly after the announcement , the exhibits , seating and wiring were dismantled or removed . Some of the signs and paintings were recovered by the RASC , which had a permanent workspace located within the facility , and are now on display at the E.C. Carr Astronomical Observatory and at David Dunlap Observatory . The original Zeiss @-@ Jena projector was bought as a museum piece by York University for the sum of \$ 1 , subsequently dismantled , and placed into storage . More recently , the University has offered the mothballed projector to other planetaria seeking parts to repair their existing electro @-@ mechanical planetarium projectors .

= = After the closure = =

The planetarium has been reopened for other purposes since it closed its doors as a planetarium in 1995 . On March 5 , 1998 , an initial three @-@ year agreement was signed that brought the Children 's Own Museum to the second floor of the planetarium , where the Astrocentre used to be . Due to impending construction at the adjacent Royal Ontario Museum , the contract was not renewed in late 2002 , and the Children 's Own Museum has been looking for a new location ever since . During its three @-@ year tenure in that building , it hosted nearly a half @-@ million visitors . The institution still exists , though it currently (as of 2009) has no physical home . It is currently seeking suitable space to use in future endeavours . In the meantime the organization has participated in various children 's events around the city .

Later in 2002 , a traveling exhibit of costumes , props and models used in the making of Peter Jackson 's Lord of the Rings trilogy ran for four weeks at the planetarium . This was the last public exhibition housed in the building . Up until 2007 , the building has primarily served as office space and storage for exhibits that have been moved out of the R.O.M. while the Lee @-@ Chin Crystal wing was under construction .

Ever since the planetarium 's closing , there have been groups that have lobbied for its reopening . At first , efforts concentrated on reopening the existing facility , but in more recent years , the focus has shifted to establishing a wholly new permanent planetarium facility elsewhere in downtown Toronto . Smaller educational planetaria still exist in the Toronto region . At some time after 1995 , Seneca College closed their Roberta Bondar Earth and Space Centre planetarium . The Ontario Science Centre on Don Mills Road operates a high @-@ resolution digital planetarium with funding from CA , Inc . , and the Royal Ontario Museum also offers a small , portable , inflatable planetarium for school groups .

Since the closing , the Ontario Science Centre has taken over the McLaughlin Planetarium 's role as Toronto 's public planetarium , though using a much smaller facility .

= = = Planned redevelopment = = =

On April 14 , 2004 , the directors put out a call " for expressions of interest " to redevelop the space occupied by the planetarium . Seeking additional funding to cover the costs of the second phase of the expansion and redevelopment of the museum , the directors of the museum had planned on erecting luxury condominiums on the space currently occupied by the planetarium . This proposal was dropped on November 7 , 2005 , due to extensive public opposition to the construction of a tall residential building in a district of low @-@ rise public buildings . , though it was reported that R.O.M. director William Thorsell was planning to revive the scheme to place a residential tower on the site .

On January 26 , 2009 the R.O.M. announced that it had sold the building and the site for \$ 22 million to the University of Toronto , who originally planned to demolish the existing building and build additional facilities for its law and business faculties .

On September 9 , 2014 the University of Toronto announced a new museum and academic complex . It was to include the Jewish Museum of Canada , a Faculty of Music performance hall , research centres and History department academic space . In its early stages of planning and approvals the project lacked complete funding at the time of the announcement . In January 2016 , the university announced it would proceed with construction of what is now to be called the Centre for Civilizations and Cultures , without the participation of the Jewish Museum of Canada because the UJA " needed to focus on more pressing funding priorities . " The project is to be designed by Diller Scofidio + Renfro of New York in collaboration with architectsAlliance of Toronto . The centre is to house the university 's Department of History , its Department of Near and Middle Eastern Civilizations , the Institute of Islamic Studies and the research arm for the Tanenbaum Centre for Jewish Studies , and a new 250 @-@ seat performance hall for the university 's Faculty of Music .

= = Curators = =

Henry C. King (1968 ? 1976)

Dr. Thomas R. Clarke (1976 ? 1995)

= = Literary references = =

In the eponymous short story in the collection The Moons of Jupiter by Alice Munro , the protagonist visits the planetarium and takes in a show , and then goes on to visit the Royal Ontario Museum . She reports to her father , who is on his deathbed in a Toronto hospital , that she enjoyed the show but found the planetarium to be " a slightly phony temple " to the stars .

In the opening chapter of Robert J. Sawyer 's science fiction novel Calculating God , an alien spaceship lands directly in front of the McLaughlin Planetarium , prior to going on a tour of the exhibits in the Royal Ontario Museum .

= = Affiliations = =

The museum is affiliated with : CMA , CHIN , and Virtual Museum of Canada .