

Project 2: Housing: Montreal's Habitat '67



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ENVS 634

February 3, 2004

Green Design and the City

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"originality in itself cannot
be the criterion for
measuring excellence in
architecture."

--moshe safdie



History

- ▶ Canadian Government agreed to build his design at the 1967 World's Fair in Montreal
- ▶ Expo's Habitat '67 is among the strangest housing developments Montreal has ever seen. Moshe Safdie's creation - a four-block long row of 158 prefabricated rectangular houses stacked seemingly randomly in a pyramid - is both highly praised and harshly criticized by architects, planners and politicians.

Construction

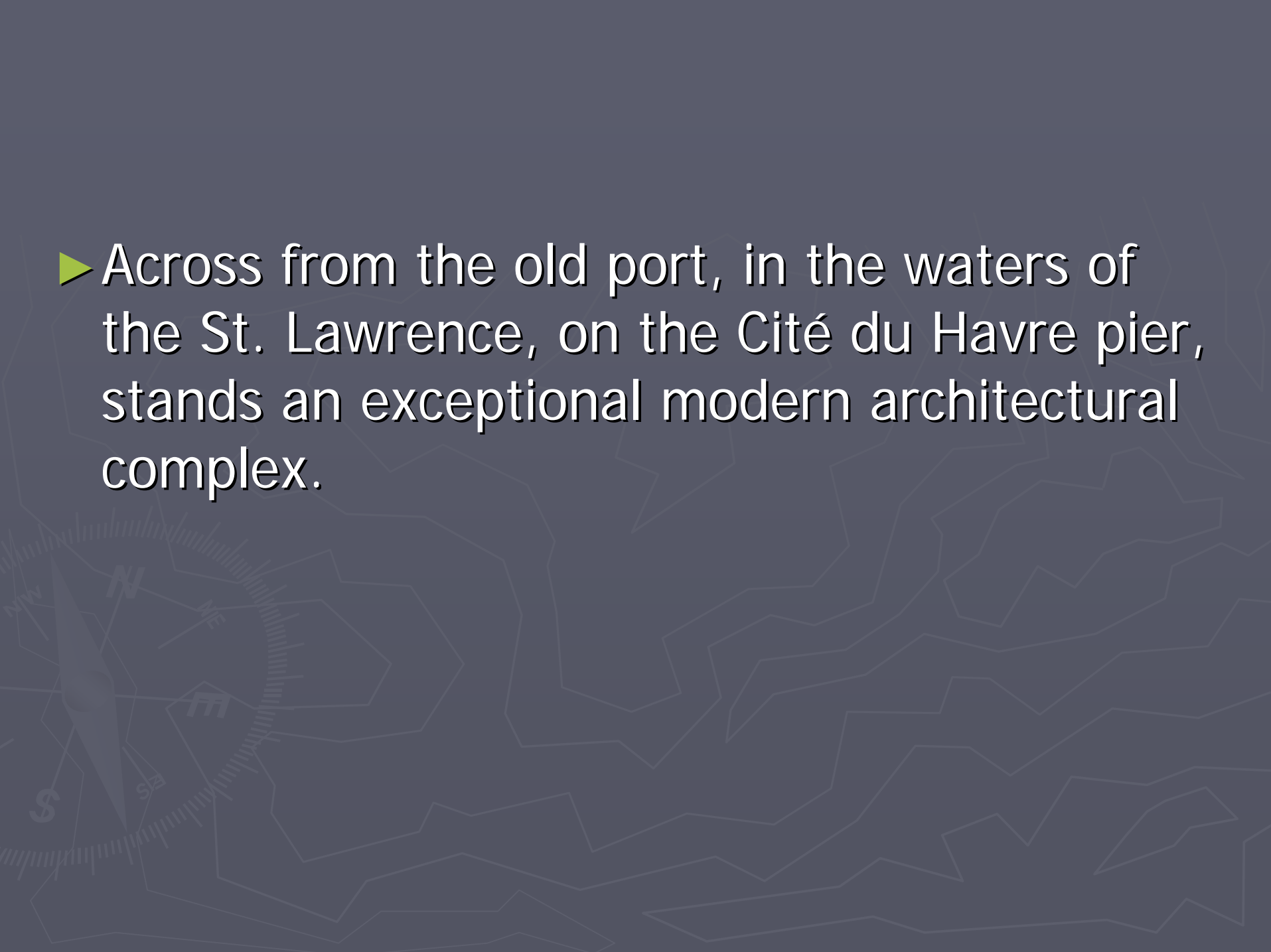
- ▶ The Canadian cement industry suggested this innovative idea to the organizers of Expo 67, who called on a young architect named Moshe Safdie, trained at McGill University. He in turn worked with other Montreal architects and several engineering firms.
- ▶ The building process began in 1965 and was completed in 1967. The final result was an indisputable architectural and engineering tour de force, one that enjoys worldwide recognition. Habitat '67 consists of a complex assembly of prefabricated concrete blocks, assembled on site. All in all, 354 boxes of different shapes make up 158 dwellings. Walkways on the 6th and 10th floors, with visible elevators, also play a structural role.



- ▶ The project was marked from the very beginning by a strong desire to **innovate**, in both the approach to construction and the approach to living. Habitat '67, to use Le Corbusier's expression, is a unique "machine for living in." Indeed, the project very quickly became a **symbol** of modern architecture. Its concrete boxes, resembling containers, and its location in the port across from the historic city centre and the new downtown, show how a city that has always been so closely connected to its river has contributed to modernism.

Expo '67

- ▶ Habitat's apartments were made from 354 boxes or "modules". Apartments were built from between one and eight boxes, depending on the size. The original plans called for 1,000 units.
 - Safdie was commissioned to design other Habitats around the world: New York (1967), Puerto Rico (1968), Israel (1969), Rochester (1971) and Tehran (1976). None was ever completed.

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- The background of the slide is a dark blue-grey color with a faint, light-colored map of the St. Lawrence River region. A compass rose is visible in the lower-left corner, showing cardinal directions (N, S, E, W) and a scale. The map features various landmasses and water bodies, with the river flowing through the center.
- ▶ Across from the old port, in the waters of the St. Lawrence, on the Cité du Havre pier, stands an exceptional modern architectural complex.

► The Port of Saint Lawrence



Facts

- ▶ Originally designed to be a city, not a complex.
- ▶ Experimental apartment complex.
- ▶ 158 unit community comprises 354 prefabricated concrete boxes stacked in a staggered pattern: a Modern version of an Italian Hill town.
- ▶ Habitat is the only Expo 67 building still being used for its original purpose.

- ▶ For each home, the design incorporates a garden located atop the roof of the unit below.
- ▶ Covered walkways weave throughout the project and contribute to the sense of community, which was one of Safdie's primary goals.

About the Architect

- ▶ Moshe Safdie.
- ▶ Born in Haifa, Israel in 1938.
- ▶ Trained at McGill University in Montreal from 1955 until 1961.
- ▶ After working two years in the office of Louis I. Kahn, he started his own practice in Montreal.
- ▶ Designed Habitat at age 25 for his Graduate Thesis Project.

About the Architect cont...

- ▶ Later, he moved to the U.S. where he established an practice and taught at Harvard.
- ▶ Influenced by his graduate thesis, Safdie refined a series of "Habitat" designs which revolved around a cellular housing scheme.
- ▶ Initially his ideas proved expensive and difficult to construct, but Safdie introduced the cellular scheme in several areas including New York and Puerto Rico where his ideas were successfully initiated.
- ▶ His Israeli period also produced a number of impressive urban insertion projects and various town-planning schemes.

Other Habitats

- ▶ NYC
- ▶ Puerto Rico



Commentary

- ▶ "Safdie's dwelling complex 'Habitat' was designed to give 'privacy, fresh air, sunlight and suburban amenities in an urban location.' It was designed as a permanent settlement and consists of 158 dwellings, although originally it was intended to provide 1,000 units. The resulting ziggurat was made up of independent prefabricated boxes with fifteen different plan types."

—Dennis Sharp. *Twentieth Century Architecture: a Visual History.* p281.



- ▶ "Of the 900 apartments planned for this gigantic building block, 158 were completed. 354 prefabricated individual containers are stacked in a confused order and connected by steel cables. Projections and recesses are organized in such a way that each apartment has a balcony on the roof of the apartment immediately below."

—Peter Gossel and Gabriele Leuthauser. *Architecture in the Twentieth Century*. p265.



- ▶ "This extraordinary housing development comprising 158 units of from one to four bedrooms, with many small gardens and decks, was planned as a prototype for a system that would streamline the building process and cut costs. It was assembled from 354 reinforced-concrete building modules, ingeniously stacked so as to give privacy and views to each unit. Unfortunately, construction costs proved to be prohibitive."

—from Sylvia Hart Wright. Sourcebook of Contemporary North American Architecture: From Postwar to Postmodern. p118.



- ▶ "Habitat is a model community constructed along the St. Lawrence River in Montreal, composed of 354 prefabricated modules which combine to form a three-dimensional space structure. The modules, or 'boxes' as they are known, are connected in varying combinations to create 158 residences ranging from 600 ft² to 1,700 ft². Pedestrian streets serve as horizontal circulation throughout the entire complex. Habitat '67 was the realisation of Moshe Safdie's thesis titled "A Case for City Living, A Study of Three Urban High Density Housing Systems for Community Development" and was also the major theme exhibition of the 1967 Montreal World Exposition. "

—from the Moshe Safdie Archives at McGill University, Montreal.



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- ▶ Moshe Safdie (Editor), Irena Zantovska Murray (Editor). Moshe Safdie : Buildings and Projects, 1967-1992. Montreal: McGill Queens University Press, May 1996. Inventory (on CD-ROM) by Laura E. Dent and Percy Johnson. ISBN 0-7735-1510-0. — Book and CD-ROM combo, produced by the Moshe Safdie archives.
- ▶ Moshe Safdie. Beyond Habitat. ASIN 0-0021-1580-8.
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- ▶ Kenneth Frampton and Futagawa Yukio. Modern Architecture in Color. New York: The Viking Press, 1971. color photo of exterior, p493, plate 107.
- ▶ Photo courtesy of Graetz. PCD.2286.1012.0904.078.
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- ▶ Johnson Architectural Images. Copyrighted slides in the [Artifice Collection](#).
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- ▶ Lawrence A. Martin, University of Oregon. Slide from photographer's collection, September 1993. PCD.3235.1012.0545.008. PCD.3235.1012.0545.009. PCD.3235.1012.0545.010. PCD.3235.1012.0545.015.
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- ▶ Moshe Safdie. For Everyone a Garden. Cambridge, MA: The MIT Press, 1974. plaza level plan, p66. section, p68. plan of one bedroom unit with terrace, p74. plan of three or four bedroom unit, p75. exploded axonometric, p75.
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- ▶ http://archives.cbc.ca/IDCC-1-69-100-543/life_society/expo_67/

Habitat Today

- ▶ Some units have been remodeled to combine neighboring apartments; 150 households now call the complex home.
- ▶ 2002 marked the 35th anniversary of Safdie's achievement.