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By Jon Krakauer

A new vision for a museum on the Mall

Architect Douglas Cardinal hopes to realize his plan for making the National Museum of the American Indian into a Washington landmark



In the heart of Washington, D.C., tucked between the National Air and Space Museum and the U.S. Capitol, lies a wedge-shaped vacant lot that goes largely unnoticed by the crowds on the National Mall. But this patch of trampled grass won't be vacant—or overlooked—much longer. Six years hence, if the preliminary plans are approved and Congress provides funding, a dazzling new edifice will stand on the site: the National Museum of the American Indian (NMAI). The museum presents the first opportunity to create in Washington a place that honors the Native inhabitants of the Americas. It also promises to be one of the most unusual and talked-about buildings in the country, an assemblage of sweeping curves and gravity-defying planes unlike anything seen before in Washington.

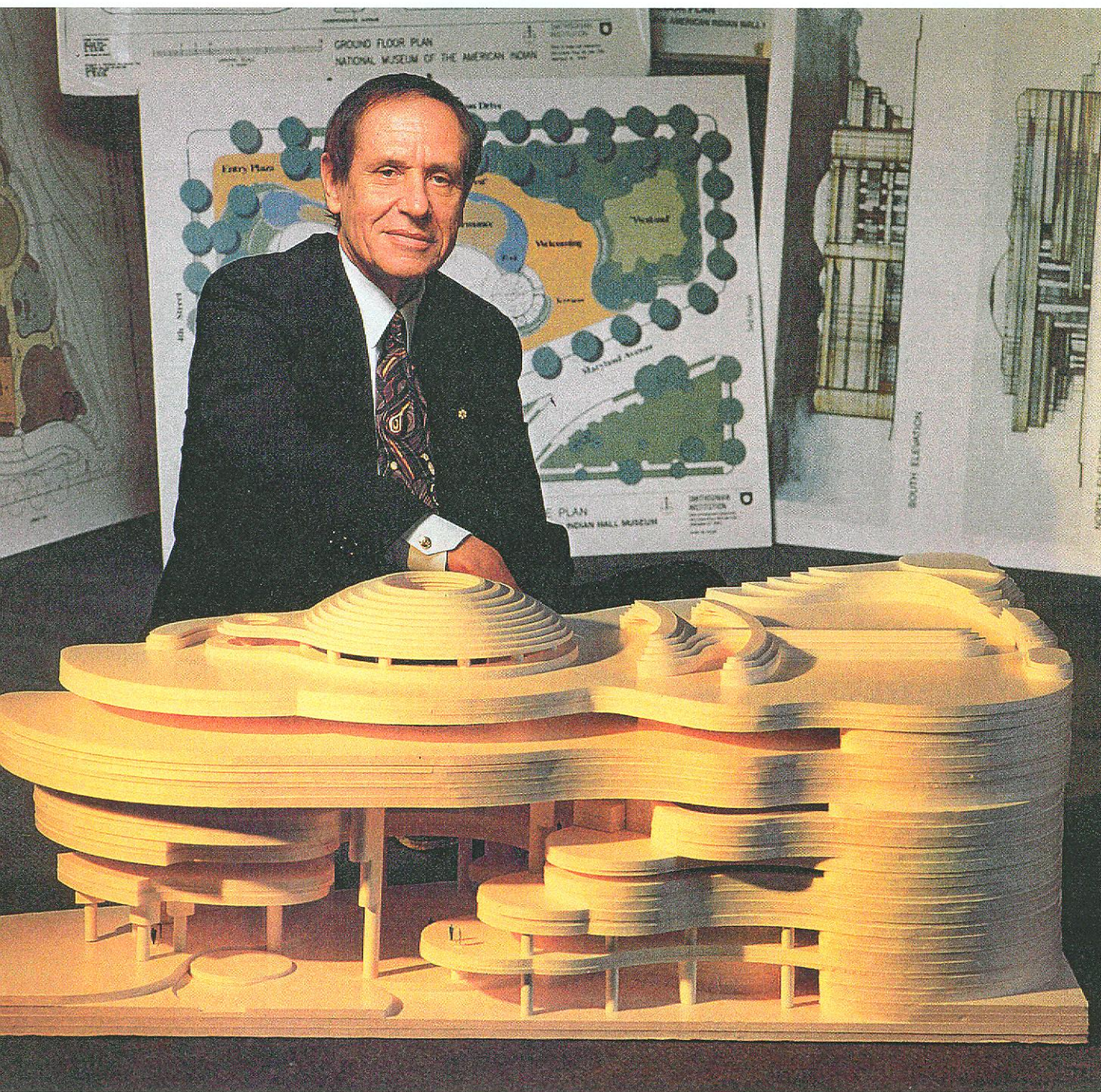
Much will be riding on the new museum's cantilevered shoulders. Slated to occupy the last scrap of available real estate between the Capitol and the Washington Monument, the NMAI will in a very real sense consummate the Mall. The buildings lining this strip of hallowed soil are architectural monuments—icons of American culture and history. Tinkering with their collective visage is not an act to be undertaken lightly.

Douglas Cardinal, the 62-year-old Canadian architect chosen as project designer for the NMAI, is quick to admit that he and the rest of the design team have their work cut out for them. "There is no getting around the fact that this museum is supposed to be the keystone of the Mall," muses Cardinal, a trim man with close-cropped dark hair framing a high forehead. "It has to complete the Mall as an architectural composition. But the NMAI also has to stand on its own as an expression of the Indian voice. Indians want it to look like it belongs on the Mall, and they want it to be functional, but they also want it to be more than just a building. There is a widely held feeling that this museum should be a powerful statement."

Fittingly, Cardinal is himself Indian, descended from Blackfoot and Métis. But it was his reputation as an architect that won the NMAI commission for him and the Philadelphia architectural firm of Geddes Brecher Qualls Cunningham. Although his name is familiar to relatively few Americans, north of the U.S. border Cardinal is widely known for designing the colossal Canadian Museum of Civilization in Hull, Quebec (SMITHSONIAN, March 1990). Covering nearly a million square feet, it has been called the most significant building in Canada after the Parliament buildings.

A surprising number of Cardinal's buildings—indeed, almost all of them—were commissioned by government agencies or other public entities. One might reasonably assume, therefore, that his designs would be conservative, conventional, exceedingly bland. In fact, nothing could be farther from the truth. Take, for ex-





Douglas Cardinal, lead architect for the proposed National Museum of the American Indian, which would

complete the Mall (opposite), developed preliminary plans after extensive meetings with tribal groups.

ample, the Edmonton Space & Science Centre, a Cardinal design erected in the early 1980s that the locals immediately adopted as one of that city's signature buildings. Among the most recognizable landmarks in the province of Alberta, at first blush it looks as though an immense flying saucer has touched down on a swath of northern prairie: round in form, clad in white metal, the building sprouts all manner of fins, antennas and futuristic embellishments. The effect is striking.

Searching for words to describe Cardinal's singular style, architecture critics have relied heavily on such ad-

jectives as "organic," "free-form" and "curvilinear." The Canadian magazine *Observer* describes one of his first buildings—St. Mary's Church in Red Deer, Alberta, completed in 1968—thus: "From the outside it resembles a decaying castle buttressed by brick silos. Its sinuous walls move up and down like hills. Inside, a winding brick corridor leads to the building's core, revealing a spacious altar room with pews that radiate out from the altar like ripples of water. . . . Visitors variously compare the building to the catacombs, a huge seashell or a cave."

The architect traces his fondness for organic shapes



The Edmonton Space & Science Centre, built in the early 1980s, has become a landmark in Alberta, Canada.

Cardinal wanted the building, with its circular plan and metal cladding, to convey the idea of a spaceship.

to a rural upbringing on the Alberta plains. One of eight children, Cardinal was the son of a game warden who, he says, "instilled in me a great respect for nature, and the importance of living in harmony with the land. When I became an architect, I wanted to create buildings that were more compatible with the natural environment—and the nature of man—than the demeaning boxes that most people are forced to live in and work in."

Cardinal's radical notions of what a building should look like have not always been well received. Although he graduated with honors from the University of Texas at Austin in 1963, a decade earlier he had initially enrolled at the University of British Columbia School of Architecture. The prestigious Canadian school, however, asked him to leave after a single year, ostensibly because his predilection for voluptuous, curvilinear forms didn't mesh with a curriculum rooted in the rectilinear logic of Walter Gropius and Ludwig Mies van der Rohe.

Cardinal remains committed to his belief that the best architecture is modeled on forms found in the natural world—a realm where precisely executed rectangles are in notably short supply. Just off the Mall in Washington, in the suite of offices where the design for the NMAI is coalescing, the walls above the architects' worktables are hung with photographs of waterfalls, sandstone canyons, ancient petroglyphs, rugged alpine escarp-

ments, Anasazi cliff dwellings, Haida totem poles, Navajo rugs. When Cardinal and his design team seek inspiration, it is to these images of the timeless and the sublime that they turn. Indeed, studying the most current model of the museum, rendered in 1:100 scale, it is obvious what Cardinal means when he calls the building "an abstraction of natural rock outcroppings."

"My team and I designed the museum from the inside out," Cardinal explains, "until a shape evolved that began to fulfill the building's fundamental requirements. We took that basic form and placed it on the site, working with the design until it fit in with the surrounding environment: the topography, the prevailing winds, the relationship to the sun." Cardinal's team paid particular attention to the museum's orientation to the axes of the summer and winter solstices, and other celestial points of reference, which have tremendous significance in the cosmology of many Indian cultures.

The museum began as a sketch rendered by hand, but the architect's pens and pencils were quickly supplanted by the most sophisticated computer technology available. Two decades ago Cardinal helped pioneer the use of computer-aided design, and he continues to rely on it to an enormous degree. "It would be pretty damn hard to design a building like the Space & Science Centre or the Canadian Museum of Civilization or the NMAI without it," Cardinal argues, "maybe even impossible. Before computers we had to rely on hand-calculated coordinates and descriptive geometry, and for the type of buildings I design it was just exhausting. Now the com-

Jon Krakauer wrote about Gates of the Arctic National Park in June 1995; his book Into the Wild was published this year by Villard.

puter will automatically dimension everything in 3-D, which allows complicated organic buildings to be competitive—in terms of design and construction costs—with ordinary boxes.”

There are some design problems, however, that even the most powerful computers can do nothing to solve. Cardinal has had to confront an abundance of such conundrums in the NMAI, which, he acknowledges, “is the most challenging project I’ve undertaken to date.” The crux of the matter, he explains, is that there are so many different clients who must be satisfied and disparate interests that must be reconciled: the United States Congress, the Smithsonian Institution, various bodies concerned with preserving the architectural integrity of the capital and the Mall, the American public, Indians across North and South America.

“Simply satisfying the Indians is a huge challenge in its own right,” Cardinal observes, “because Indian people are so different, and we love to emphasize our differences. Furthermore, given the way they have been treated in the past, most Indians are very suspicious of anything having to do with Washington or museums.”

W. Richard West jr., the director of the NMAI, does not deny that Cardinal faces formidable obstacles, but he has no doubt that the architect will prevail. “Among the fine architects who sought this commission,” West

explains, “Cardinal was selected for several compelling reasons. He was a Native architect of international repute. His organic approach seemed especially well suited to a museum concerned with Native art forms. Equally important, the selection committee was confident that he could deal with the immense challenge of building this particular museum in this particular setting.”

For an architect of such iconoclastic reputation, Cardinal has had an uncanny ability to please the staid public agencies for whom he has so often worked. This architectural renegade in fact turns out to be a gifted conciliator and diplomat, a brilliant manager of people.

Pondering the Canadian Museum of Civilization, architecture critic Grant Gustafson has written that what Cardinal accomplished in Quebec “is even more impressive when one considers that the client was an octopus of fifty government departments; and that thirty subconsultants participated in the design; that the construction schedule was ‘fast-tracked’; and that two hundred subcontractors simultaneously built it. Riding herd over such a daunting bureaucratic organism seems impossible, yet Cardinal managed to produce a magnum opus of great spirit and dynamism.”

Now, as the millennium draws near, hopes are running high that Cardinal will accomplish no less in the American capital. ■

Backlighted by the moon, the baptistery of St. Mary’s Church in Red Deer, Alberta, rises like a natural rock

formation. Arches, free-flowing curves and circles make up the essential lexicon of Cardinal’s oeuvre.

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