

I. M. Pei

Works of I. M. Pei

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RENOVATION OF LOUVRE

Information Contributor: Tauheed

Location: Paris, France

Architect: I M Pei

For all the architect's insistence on the origins of the pyramid solution in Le Notre, it was vintage Pei. In fact, variations on the forte had been with him since the early schemes for the Kennedy Library, which was to have included a truncated version. It had all the qualities that most appealed to the architect: it was geometrically pure, minimal, and sculptural. According to Theodore Musho, Pei's long-suffering collaborator on the Kennedy Library, the Louvre pyramid was for Pei "a form waiting to get out." Nevertheless, it had a special appropriateness in the new role Pei proposed for it. In addition to satisfying the practical requirements of the program, it had direct links to the French Beaux-Arts tradition in its strict symmetry and unshakable rationality. (Despite his Harvard training under a Teutonic Modernist, Pei had never entirely lost touch with what he had learned at MIT, which was the last of the major American architecture schools to abandon the Beaux-Arts.) And while there were obvious links to Egypt, they clearly had provided confirmation rather than inspiration for the design. As Pei pointed out, the Egyptian precedent was about mass and impenetrability, while his pyramid was about lightness and transparency. As for the proportions, which turned out to be the same as the Egyptians': We decided experimentally that they had been right 4,000 years ago. A few degrees steeper, and it's too aggressive; a few degrees less, and it seems to melt away."

While the positioning of the pyramid at the center of the Cour Napoleon may have satisfied the demands for symmetry imposed by the Louvre itself, it created a conflict in the larger Parisian scheme. The Louvre lies at the eastern end of the Voie Triomphale, the triumphal way that extends westward in a straight line through the Tuileries Gardens and the Place de la Concorde, up the Avenue des Champs-Élysées, and through the Arc de Triomphe. It is the most famous urban axis in the world. But the open arms of the Louvre wings are slightly off this grand axis, meaning that the pyramid, which Pei planned to position symmetrically in response to them, would seem askew when viewed from the west. (The problem had existed since the late nineteenth century, when the Tuileries Palace, which had terminated the axis from the west, was destroyed.)

This discontinuity had bedeviled many French architects, but having settled on the pyramid, Pei had virtually no choice about its relationship to the museum. The sense of order that dominates within the Cour Napoleon required that the new structure be aligned with the old. In any case, to align the pyramid with the grand axis would have put a corner of the structure inside the Louvre's south wing and disrupted the organization of the underground spaces on which the entire design was predicated. With a wry appreciation of the axial conundrum, Pei came up with a way to camouflage it. He proposed that a cast be made of an equestrian statue of Louis XIV by Bernini and that it be installed west of the pyramid. By aligning the statue with the triumphal way, Pei

hoped that "it would ameliorate an incoherent composition."

A section through the reorganized museum shows the Seine at right. The excavation provided room not only for a main public space, but also for the support facilities the Louvre sorely lacked.

Image(sketch): For all its notoriety, the pyramid was only the "tip of the iceberg." The rest spread out in all directions below the surface of the courtyard.³

Images

View 1

Model

Internal space 1

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OVERSEAS CHINESE BANK

Location: Singapore

Architect: I. M. Pei & Partners

Structural: Ove Arup & Partners Engineer

Completion: 1980

Height: ca 200 m 660 ft)

Volume ca 300 000 m³

Use: Services, office

Urban context

Over the past ten years, the shortage of land has induced Singapore to increasingly develop upwards on the basis of an overall-planning strategy. In the city centre, small colonial-style office buildings constructed under Chinese influence have given way to sky-scrapers. When the Overseas Chinese Bank was completed in 1980, its fifty-one storeys made it the highest building in Singapore. It was erected in the historical Chinese trading centre where it replaced the old company headquarters. The building made no attempt to adapt to its surroundings, demonstrating instead that it was part of a future skyscraper skyline in the megapolis of Singapore.

image:site plan

image: Section

Structure

In order to create a clear-span bank hall, a system was chosen that would transfer the load of the fourteen office floors above the hall via a transfer storey on the fourth floor, and then into the ground through four solid concrete columns. On the nineteenth and thirty-fifth floors, transfer storeys carry the loads into the semicircular core at the side. This load-bearing system permitted the construction of a clear-span conference floor and a penthouse on the roof

Circulation / Installations

To attain maximum flexibility in the arrangement of the office floors, all of the service units, comprising nine lifts each together with wet rooms, are situated in the two semicircular concrete cores at the side. The supply shafts for the equipment rooms, which are located on the roof and in the transfer storeys, are also located in the core areas.

image:Plans

Facade

"As solid as a rock" was the bank's motto. The load-bearing system manifests itself in the external appearance of the building. Both the concrete cores at the sides and the transfer storeys are clad in white Sardinian granite slabs, creating a smooth surface. This provides a striking contrast to the three cantilevered office-floor units. To avoid excessive heating in Singapore's tropical climate, the windows were set back slightly from the facade, giving this part of the skin a rough surface texture