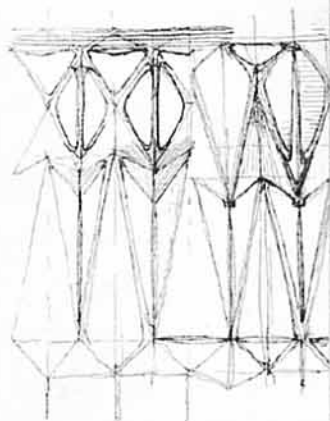
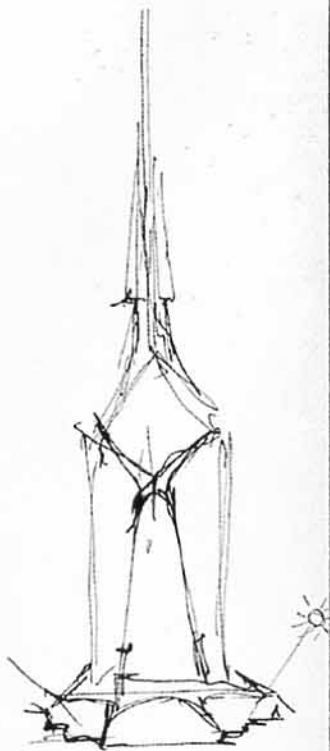


Santiago Calatrava



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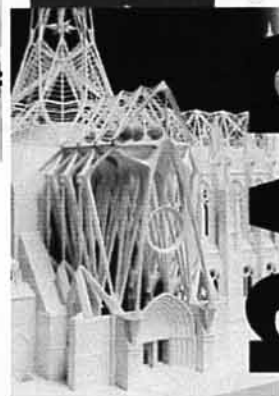
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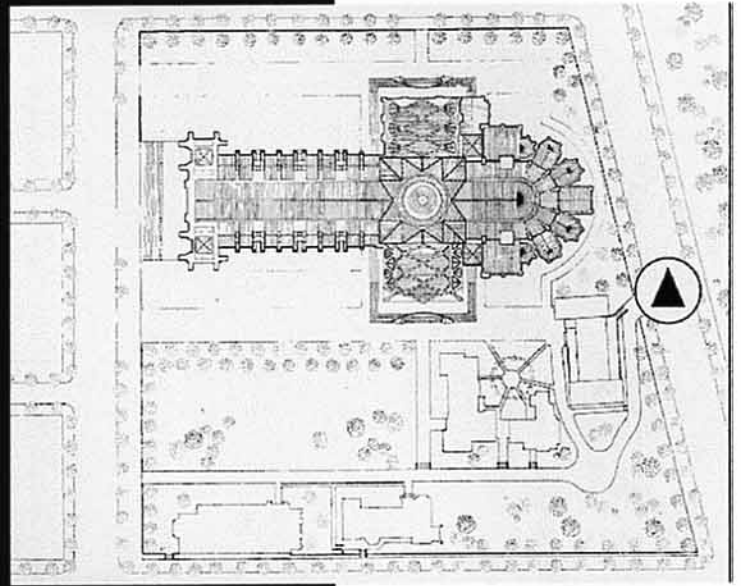
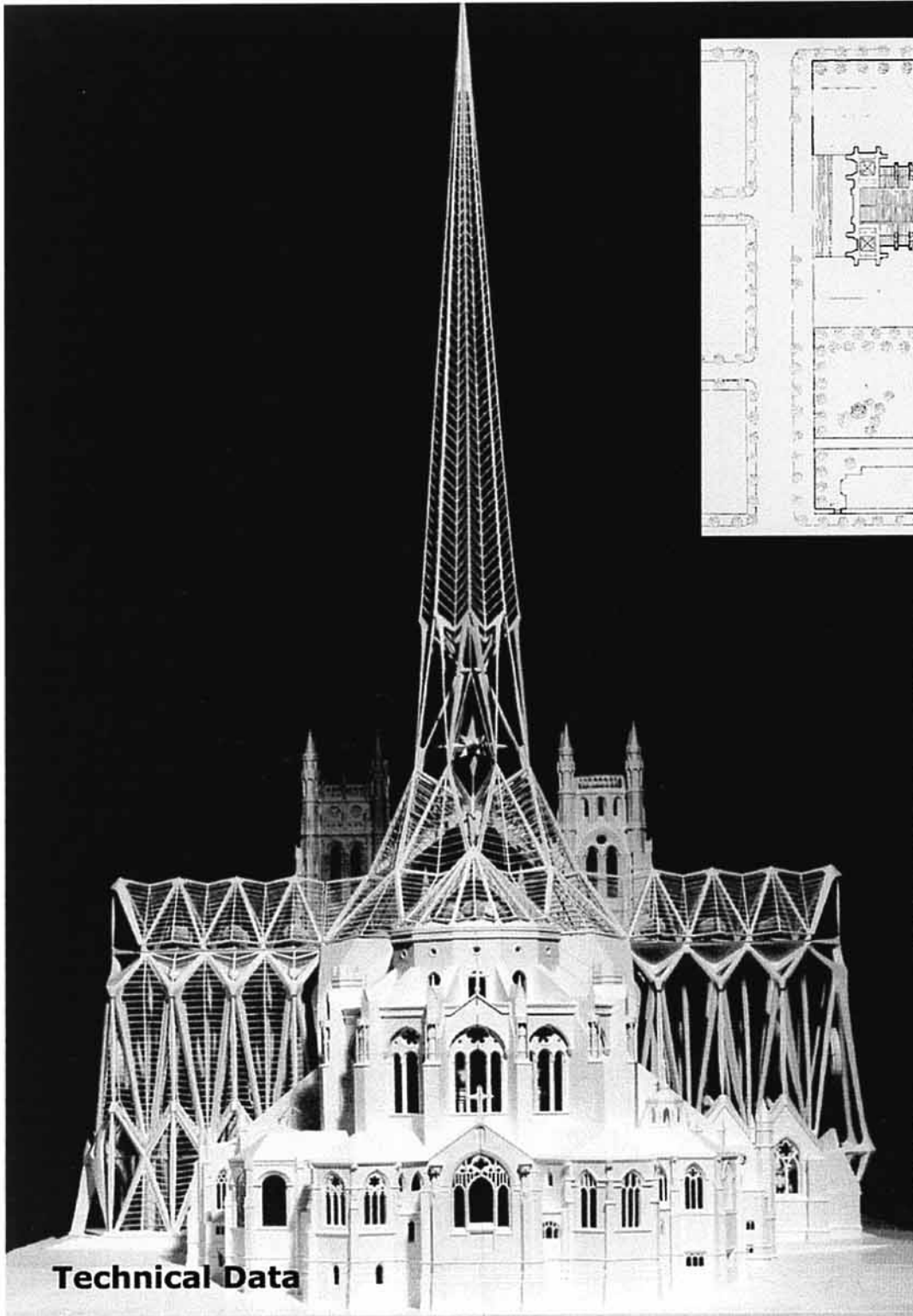
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Sharp, D., *Santiago Calatrava* London: E & FN Spon, 1994

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Technical Data

Architect: Santiago Calatrava

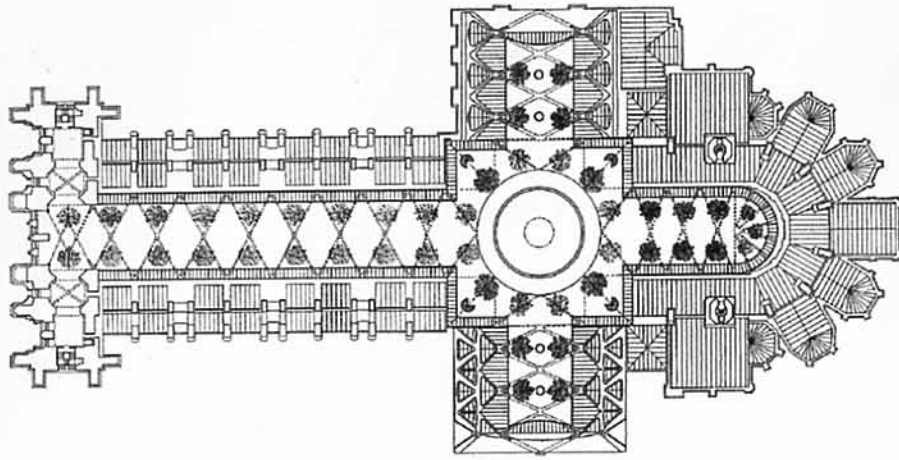
Project: Cathedral of St. John the Divine

Location: Amsterdam Ave. and W. 112 St. New York, U.S.A
" upper west side"

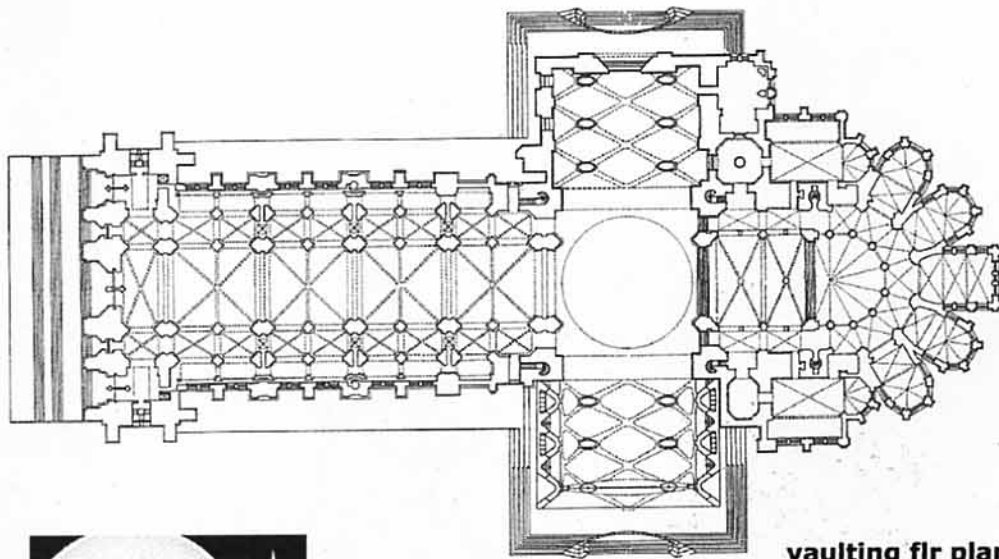
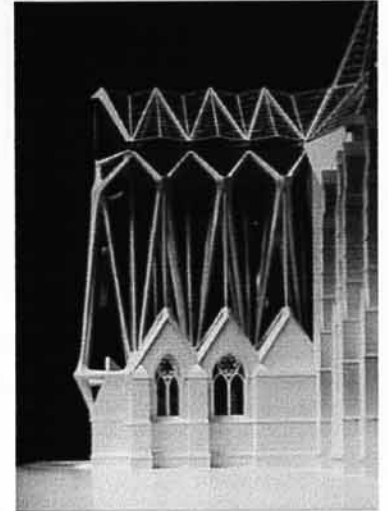
Type of Project: completion of the cathedral

Completion: remains unbuilt due to lack of funding

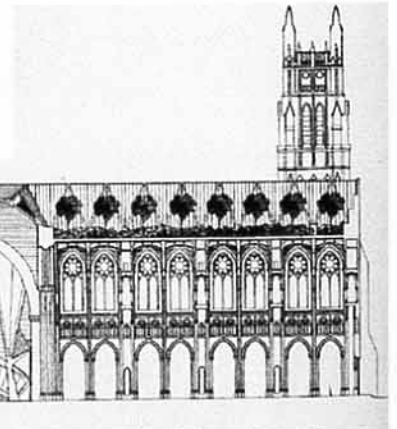
Structure: granite, limestone pillars, steel construction



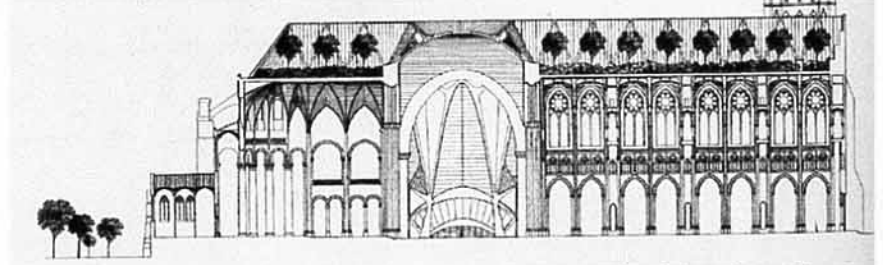
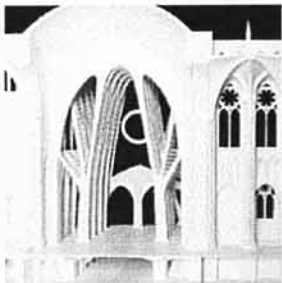
bio-shelter plan



vaulting flr plan



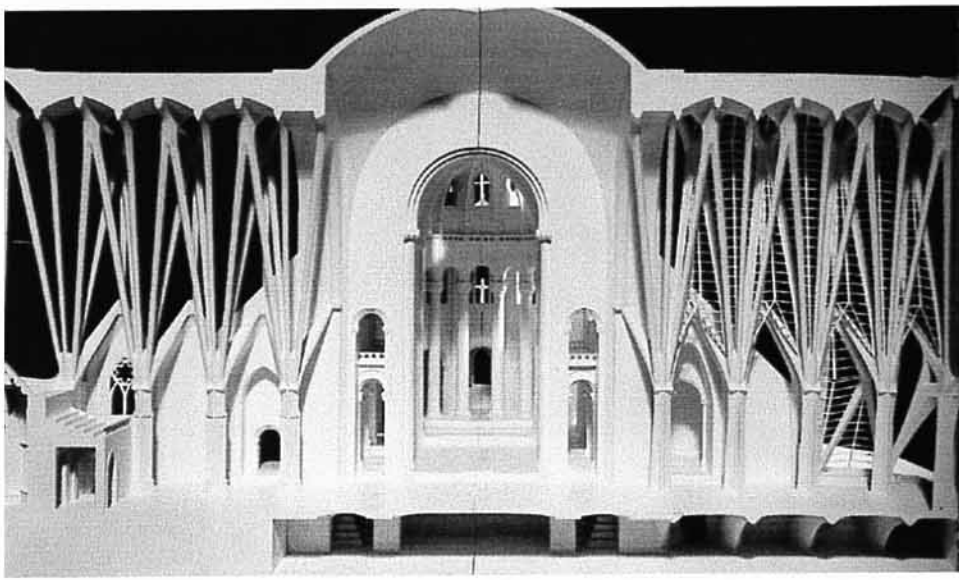
north side elevation



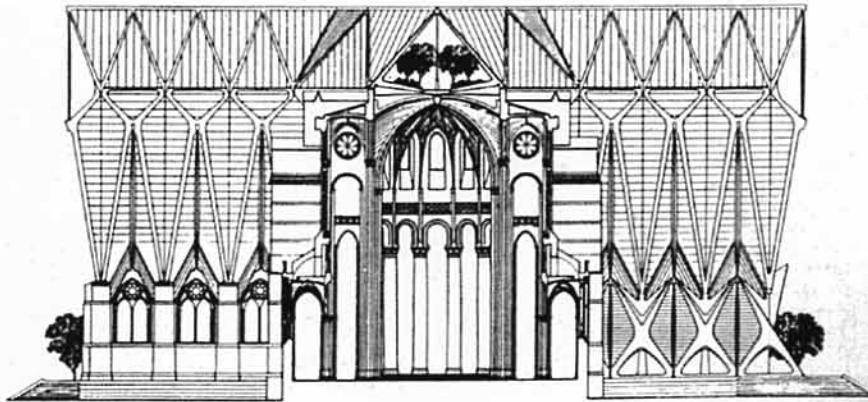
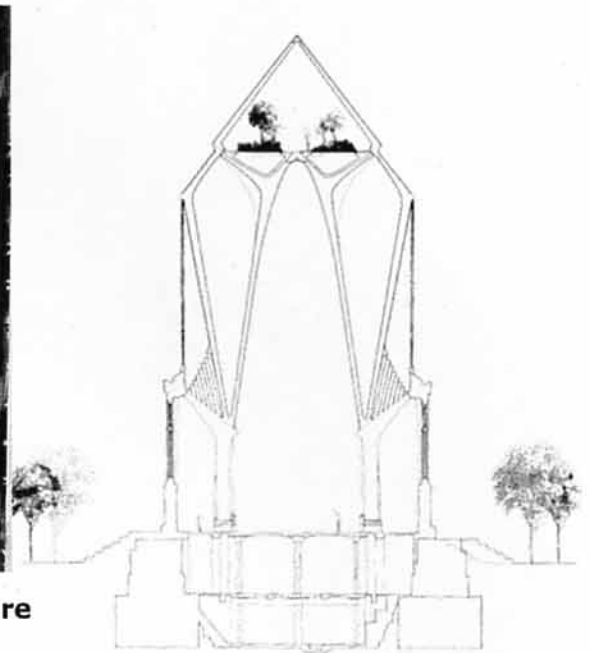
History

Began in 1892, the two west towers did not reach their proposed height, the crypt and piers of the north transept didn't go further than the foundation and the plinth stage. The spire and tower were never built. The south transept existed in plans only. Heins & La Farge started this cathedral on Neo-Romanesque ideals. St. John is later "gothicized" by Cram & Ferguson in 1911. Calatrava wins an invitation only competition finishing the building. The project proposes to add an south transept and a "bio-shelter". Philip Johnson commends Calatrava by saying "the project reconciled the past and future".

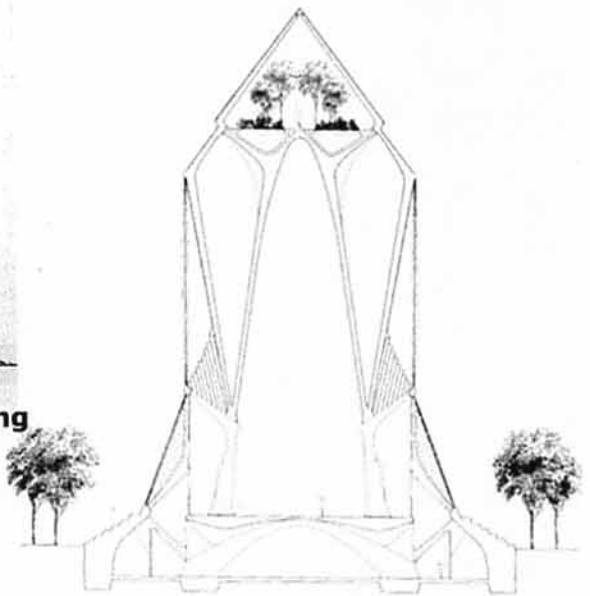




section cut through the new structure

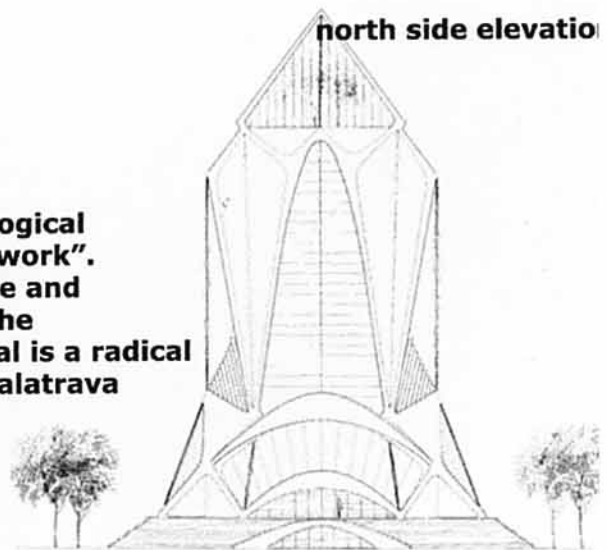


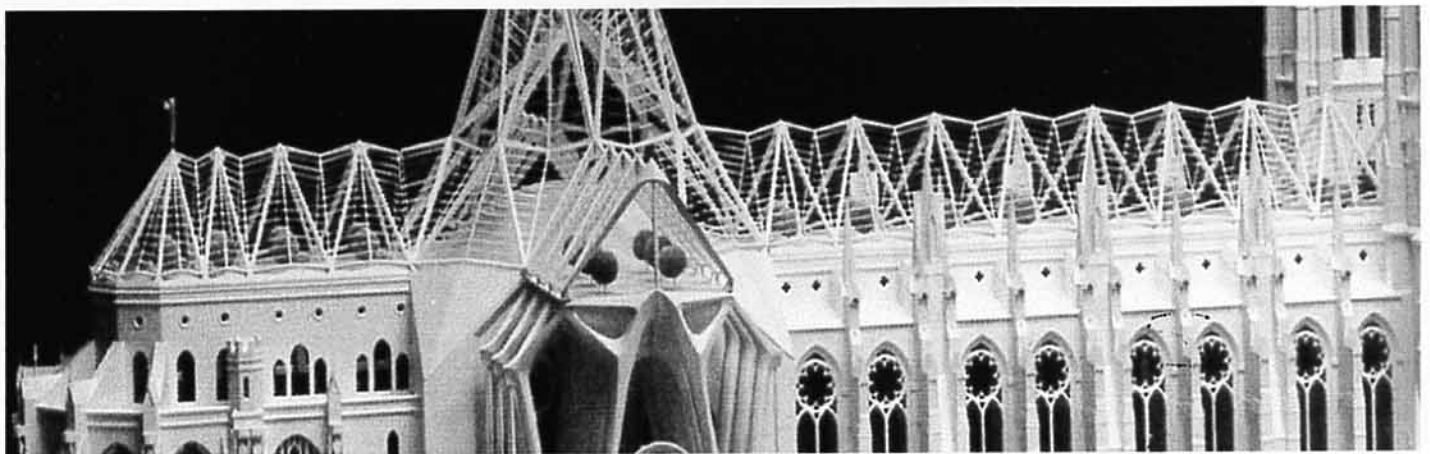
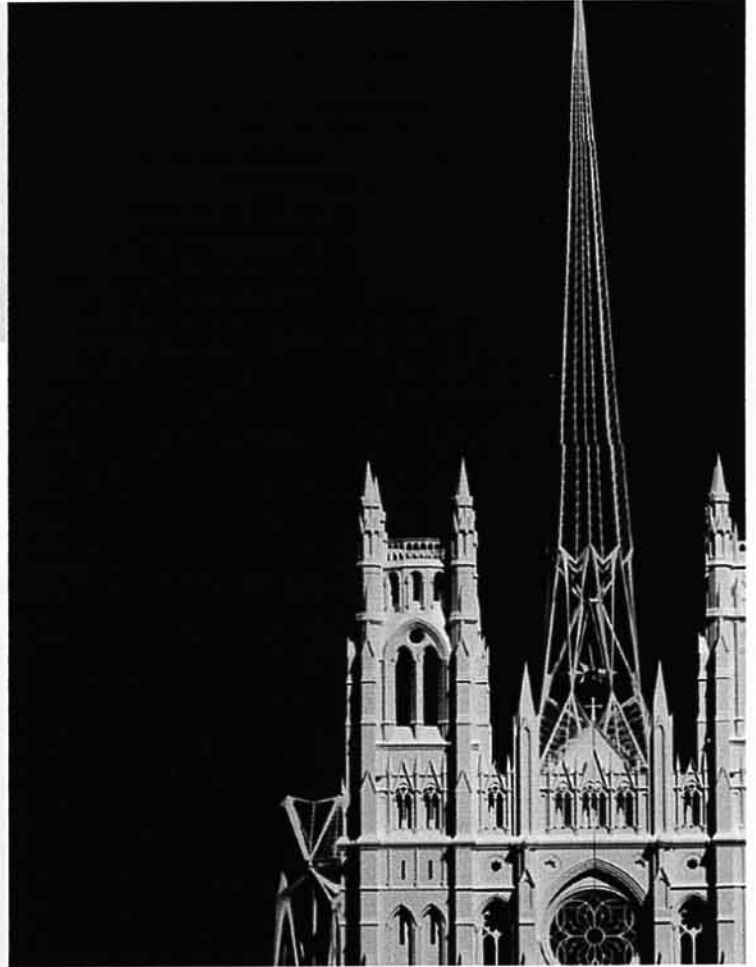
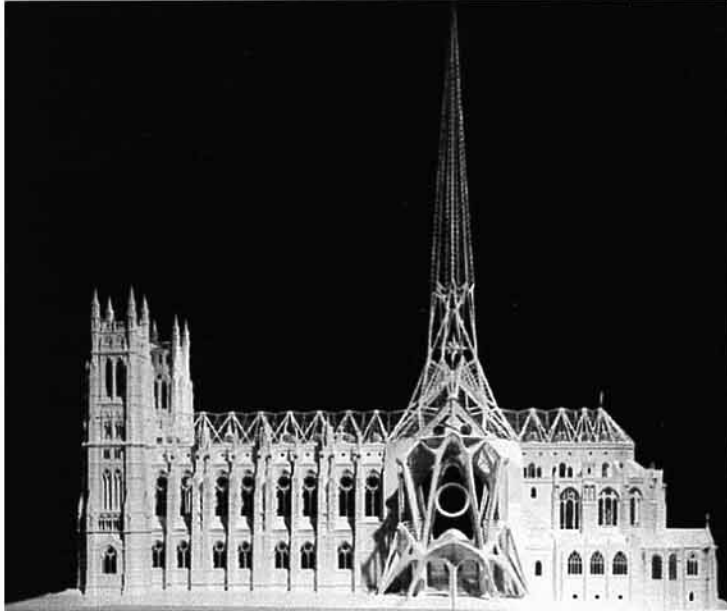
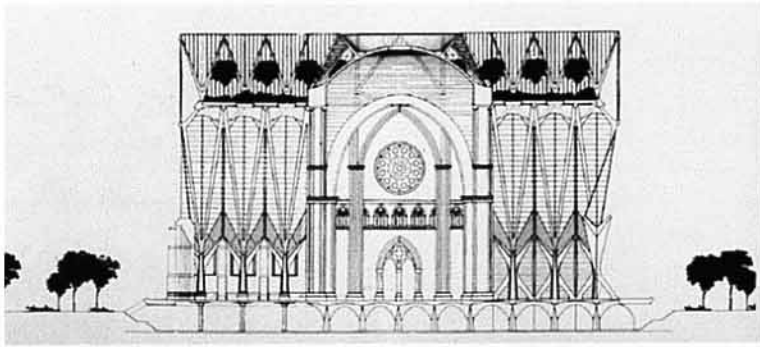
elevation drawing



History

" our proposed bio- shelter... would help us complete the building of the cathedral and most importantly, bring ecological principles into a space devoted to both worship and daily work". Calatrava tries to represent a new marriage of architecture and material system that is destined to become the norm for the 21th century... " building a bio shelter in a Gothic cathedral is a radical concept..." Of the 65 architects invited to compete, only Calatrava believed in the idea of the bioshelter imagined by the cathedral's funding organization.





Bio- shelter

The original and defined theme of the cathedral is transformed into a modern idiom, while the bio shelter is transferred to the roof space. Calatrava has opened the roof to the sky, replacing the existing, very poor timber structure with steel and glass, of course following the exact cruciform plan. Light weight construction is created with triangular panels. These panels can rotate about the longitudinal axis to allow opening of the roof, while preserving its overall shape. Rain, light and air enter directly into the garden. The raised green house is fundamental to climate control of the cathedral. Warm and fresh air that is generated in the roof space can be drawn down into the nave and crypt. The bio- shelter offers views of NYC and the cathedral can be viewed like a gallery space. This oculus not only visually connects the garden to the cathedral, but from the ground floor.

