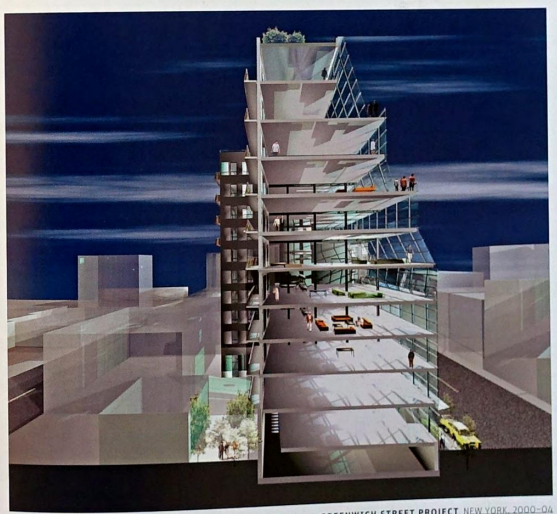
WINKA DUBBELDAM/ARCHI-TECTONICS New York

Winka Dubbeldam, b. 1960, Strijen, The Netherlands

Winka Dubbeldam's Greenwich Street Project (2000–04), located at the edge of New York's SoHo district, is a renovation of a six-story brick warehouse with an addition of a four-story penthouse that extends next door, where it becomes part of a new eleven-story residential loft building. The hallmark of the project is the new building's dramatic crystalline façade of insulated glass panels, which form a horizontally pleated skin that subverts the traditional flat surface of the modernist glass curtain wall. A vertical crease in the façade creates a transitional zone between the steel-and-glass and brick structures. The crease is studded with cantilevered balconies, allowing the building to meet setback requirements mandated by the New York City building code while juxtaposing the new and the old, the urban and the private. Three-dimensional modeling software facilitated the complex design of the undulating façade. The blue-green glass panels—which actually bend where the façade "pleats"—were fabricated in Barcelona according to two-dimensional shop drawings that were derived directly from a three-dimensional computer model.

After completing her undergraduate studies at the Academy of Architecture in Rotterdam, The Netherlands, Dubbeldam relocated to New York City in 1991 to pursue a master's degree in advanced architectural design at Columbia University. As the principal of her New York–based firm Archi-Tectonics (founded in 1994), Dubbeldam is committed to integrating theoretical and functional aspects of architecture in her practice. Archi-Tectonics specializes in creating projects through a team-based laboratory approach that converts high-tech research into innovative built work using cutting-edge software, hybrid materials, and "smart" building systems. The firm's Maashaven project in Rotterdam (unbuilt, 1999–2002), aspires to revitalize the city's harbor site through the ambitious conversion of a grain-silo into office and living spaces and the construction of three apartment towers with folded-glass skins that are cantilevered from the pier's edge.



GREENWICH STREET PROJECT, NEW YORK, 2000–04

opposite: EXTERIOR; top: EXPLODED SECTIONAL DIAGRAM SHOWING BUILDING ELEMENTS; bottom: TRANSVERSE SECTION

right column: CUTAWAY DIAGRAMS SHOWING RELATIONSHIP OF INTERIOR TO SKIN