

The obliqueWTC

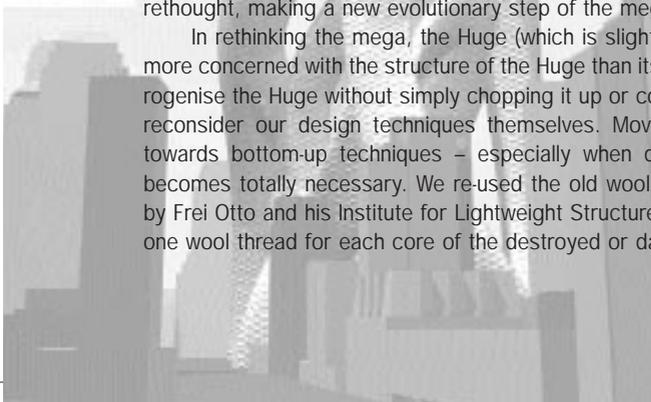
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We decided to respond positively to the request of Max Protetch and Architectural Record to design a “new World Trade Center” not because we are ‘optimists’, but because we thought the work and the exhibition can help stimulate a public discussion about what to do with the Ground Zero site.

Obviously we should first of all consider if anything should be built, and when answering this positively, whether it should be large or small, especially whether it should be larger or smaller than the first WTC. There will be many emotional, social, socio-political or even economical reasons to narrow the number of options down to a certain type of solution: an absent building, or a not-so-high building (at least lower than the former WTC towers), or even a higher building. All these are possible, but somehow they go beyond the range of what architects can contribute to the discussion. Architects put social matters by definition into productive concepts. In this case the question becomes: what can architecture do (here), and how does architecture do it? What can architecture contribute in a rethinking of how the global loops back into the city. In that sense Absence or Lowness can never be architectural answers, and seem more like evasive solutions. I think we should realise there is a difference between the USA and America, where the USA is still a nation-state and America its global effect, at least an effect that rejoins in a global atmosphere where all forces, especially cultural and economic forces, return to earth manifold and hardly controllable.

We should try to find urban strategies to deal with the Huge, with global forces working on local situations. We should find ways to work against the homogeneous and find other ways, more open to life, the changes and unpredictability of life. Now, undeniably the skyscraper is the most successful building type coming from the twentieth century. However, we feel its generic reductionism, its passive stacking of human behavior, its manic monoprogramming will and should become obsolete, and as a type it will have to be rethought, making a new evolutionary step of the megabuilding possible.

In rethinking the mega, the Huge (which is slightly related to the High), we should be more concerned with the structure of the Huge than its size. Developing techniques to heterogenise the Huge without simply chopping it up or collaging it together means we have to reconsider our design techniques themselves. Moving away from top-down techniques towards bottom-up techniques – especially when dealing with superlarge structures – becomes totally necessary. We re-used the old wool thread modelling technique invented by Frei Otto and his Institute for Lightweight Structures in the 1970s. In our case we used one wool thread for each core of the destroyed or damaged buildings on the former WTC



site. As an inverted model the wool threads hang straight down under the sole influence of gravity. When dipped in water and taken out again all threads reorganise themselves into a complex network (with the cohesive lateral forces of the water now added to the gravitational system) comparable to bone structure. The structure is not formed any more by a simple extrusion of a plan, but self-organises into a networked megastructure where the whole is larger than the sum of its parts. We thicken each of the wool threads into a lean tower that merges and splits up as it moves upwards. This enables the structure to comply with the New York zoning law that only allows high buildings to occupy 25% of the total site surface area. In this case, however, the 25% is always positioned somewhere else, making it both into one single Megabuilding with many (structural) holes in it or many thin towers that cooperate into one large structure. The towers sometimes act as a bridge, sometimes as a counter-structure for another one, and sometimes free themselves to become a smaller subtower. Most of the loads are transported through a honeycomb steel structure of the surface which is helped by an interior column grid, which follows the diagonals of the towers. Also the elevators form a highly complex structure of diagonals, where at some platforms more than five or six different cores come together to form larger public areas. It is this network of elevators which makes the building not just a new type of tower but more like a new type of urbanism. The elevators become an urban extension to the subway system: a punctuation of the street by a technological system to intensify its public functioning. Generally all interactions of a Manhattan block (with its programmatic diversity that should at least be rivalled by this new building) only happen on the street, while all buildings blindly tower away from that level into a non-interactive side-by-sideness. Here we re-network the street into the tower. We read the wool thread diagram both structurally and programmatically, where the structural 'diagonals' become a re-emerging of Virilio's oblique: lateral, horizontal street forces are multiplied with the vertical stacking model of the skyscraper resulting in an oblique tower.

We included a Memorial Hall inside the building. High up in the structure several floors are taken out to form a large open space that gives an open view over the city, but the space will also be visible from most areas around New York. The Hall should not be a monumental petrification of mourning but should be a projection space where visitors can interactively request for home videos, photographs and web sites of the all people lost, and meet them.

Rotterdam, 14 December 2001.

