



vertical
architecture

edu

University of Sydney
Faculty of Architecture

text

Chris Abel

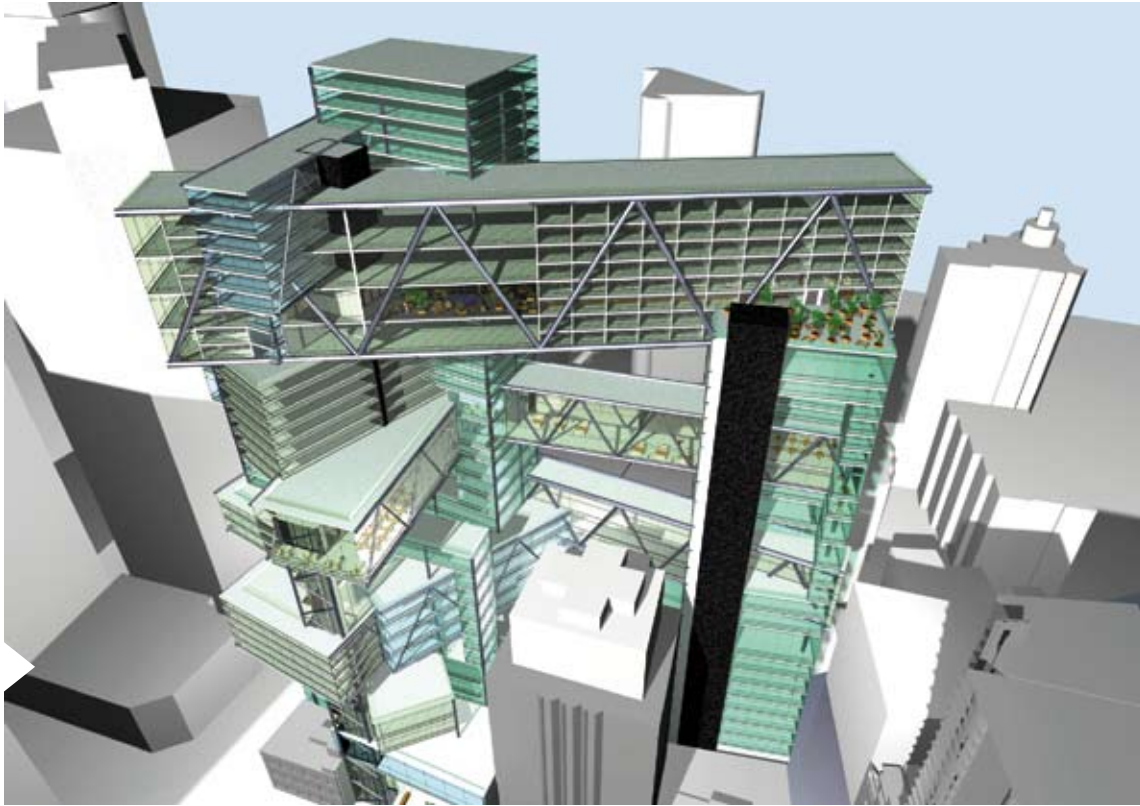
The Vertical Architecture Studio at the University of Sydney's Faculty of Architecture, which was run for the first time this year within the graduate Open Studio program, marks a departure from conventional high-rise studies. Following the pattern established in the early 20th century in the classic skyscrapers of Chicago and New York, most tall buildings are still generally designed as simple upward extrusions of the lower floor plates, with minor modifications to comply with setback regulations and related constraints.

Spurred by recent advances in digital technologies of design and production, alternative models of high-rise design that feature several large, joined-up elements and asymmetrical structures, like the World Trade Centre competition entry by United Architects and the CCTV building in Beijing by the Office of Metropolitan Architecture (OMA), are only now taking shape. Recalling the visionary vertical cities portrayed in Fritz Lang's 1927 sci-fi movie *Metropolis* or in the later schemes by the Japanese metabolists, these projects hint at a radically new, dense urban matrix of greatly increased spatial and functional complexity. Like many other radical designs currently in gestation, most of which include bridged structures of one kind or another, such works are better described by the broader term of 'vertical architecture', or what Ken Yeang has called 'vertical urban design', rather than as simply towers or skyscrapers.

Opening up new kinds of spatial and functional relationships between tall buildings, such developments challenge both architects and planners alike to rethink traditional concepts of high-density urban design. In a similar spirit, the Vertical Architecture Studio was purposefully created to explore the wider possibilities and implications of the new movement for urban form, as well as for the design of high-rise architecture itself.

The site chosen for the project, Regents Place, comprises two linked pockets at the end of a block in the centre of the city, covering the former Regents Theatre site adjacent to Sydney Town Hall and the underground railway station, one of the city's main transportation hubs. Currently under construction by Greenway Developments as a mixed-use, high-rise project with both residential and commercial components, it is one of the most important sites to be recently developed in Sydney. Bounded by George Street, Bathurst Street and Kent Street, it threads between several existing structures, presenting special problems of integration as well as opportunities for public access from three directions, including direct connections below ground with the railway station.





02

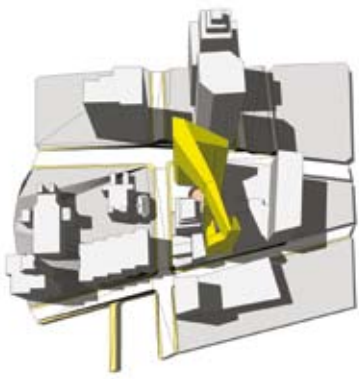
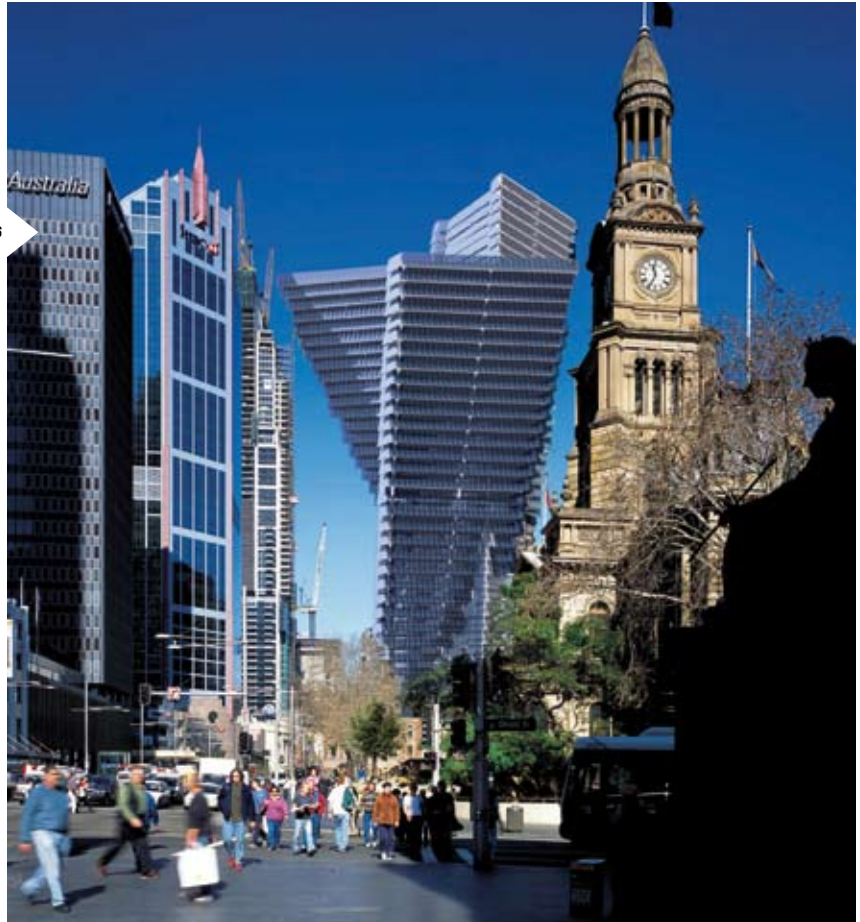
01.
 Regents Place. Scheme by
 Holtham and Westgarth.
 Montage from George Street.
 Twin towers zig-zag skywards.

02.
 Regents Place. Scheme by
 Hallihan, Pham and Polyhron.
 Ariel view from north-west.
 Bridging elements provide
 multiple escape routes as well as
 extra usable space.



03

03.
 Regents Place. Scheme by Ip
 Renn, Waterman and Wrightson.
 Ariel view from north-east.
 The design incorporates an
 upper level plaza or 'secondary
 ground'.

04**06****05**

For the purposes of the program, the architects for the development, Foster and Partners, generously supplied students with copies of their brief, site details and designs. The students, however, who worked throughout in small teams, were also given creative licence to depart where appropriate from the original brief in pursuit of the wider goals of the studio. All teams subsequently took the opportunity to offer a broader range of functions and public amenities, especially in the upper levels of their schemes, including, in one case, a public library (the architects themselves came into the project at a relatively late stage, after the brief and configuration of elements had already been determined). Ross Palmer of Foster and Partners, Peter Bailey, John Hewitt and Haico Schepers of Arup Australasia, and Tom Jones of Planning Workshop Australia (PWA), also lent vital personal support and expertise at different points in the program.

Given that all students were working initially from the 'same script', what is most striking about their designs is the extraordinary diversity of approaches across the various teams' work. Two of the schemes, by Holtham and Westgarth and by Coorey, Howieson and Nakano respectively, have iconic forms composed of linked towers with innovative, inclined structures. Another, by Marsh, Moussawel and Nguyen, joins the two main pockets of the site together with a single bridged structure, the irregular form of which visibly twists around the

existing buildings. By contrast, the scheme by Hallihan, Pham and Polyhron is composed of rectangular blocks stacked one on another at odd, dramatic angles reminiscent of the dynamic compositions of Russian Constructivists. Similarly, the project by Ip Renn, Waterman and Wrightson comprises conventional rectangular elements arranged in a wholly unconventional manner, creating public open spaces and terraces at different levels overlooking the surrounding city.

Beyond these more obvious divergences, however, all the teams adopted one or more common spatial and functional strategies, confirming the emergence of new high-rise typologies. All schemes, for example, feature horizontal, multifunctional elements tying the vertical elements together at the upper levels, both structurally and spatially. Virtually comprising a raised ground plane, the same continuous spaces house various public and commercial attractions, providing a social focus for the development as well as transfer levels for movement systems, refuge centres and alternative escape routes. In some schemes, as in the latter design by Ip Renn, Waterman and Wrightson, the creation of a secondary ground plane takes the form of a suspended plaza of impressive proportions. Describing their approach in their final report, the team succinctly summarise the aims of the studio: "We are creating urban spaces, not just a tower."

04.

Regents Place. Scheme by Marsh, Moussawel and Nguyen. Site model showing linked configuration of two towers situated at each end of site.

05.

Regents Place. Scheme by Marsh, Moussawel and Nguyen. Upward view showing bridged structure and vertical circulation between towers.

06.

Regents Place. Scheme by Coorey, Howieson and Nakano. Montage from Queen Victoria statue. Inclined towers are tied together, structurally and spatially, around the centre.