Tectonic Landscapes:
An Analysis of Place-Making Strategies in Two Projects by Renzo Piano Building Workshop

PAOLO TOMBESI
University of Melbourne

"The architect who is sensitive to his site is not content with merely digging a foundation as a means of securing adhesion between the building and the ground. As a further means of site anchorage he may send out tentacles of structure to catch or hook some surrounding feature of the land...

...Just as the building may root itself in Nature by outward reaching tentacles, so the site may be tied into the building by pleasant infiltrations... Unlike the man who depends on fashion, the man who invites the genius loci into his place has made a permanent alliance."
Richard Neutra, *Mystery and Realities of the Site* (New York: Morgan and Morgan, 1951)

INTRODUCTION

In most cultures, land and building are intimately connected and in need of each other. Just as no one lives in ideal or cyber spaces, very few live on the land as given. In fact, it is almost impossible to imagine an architectural setting that is neither built nor located somewhere.[1] Yet despite their inevitable entwining, architecture and landscape are treated as different areas of thought and responsibility, in professional practice as well as disciplinary discourse.

Without discounting the specificity of landscape-versus-architecture concerns, this paper advances the hypothesis that cultural divisions may be partly informed by established semantics. There is little doubt that, in its most general use, the term 'landscape' carries and reflects a natural (or un-built) connotation, which makes it difficult for built architecture to be considered, conceptually, as part of it.[2] Topographic synergies notwithstanding, building has been traditionally seen as placing visual marks upon the land rather than within the land — an

idea that may have been further strengthened by the Twentieth century's insistence on architectural machinery in the garden.[3]

The marking of the land, of course, conjures up images of conquest, appropriation, and eventual erasure of pre-existing territories, as Paul Carter's criticism of the act of settlement powerfully sums up:

"No one appears to worry about what was cleared away when the streets were laid out according to a two-dimensional plan, when the natural topography was neutralized and in its place artificial vistas were carefully mortgaged. At no point in the process of arrival, survey, settlement and residence does the ground make any claim upon our attention... Our relationship to the ground is, culturally speaking, paradoxical: for we appreciate it only in so far as it bows down to our will. Let the ground rise and resist us, let it prove porous, spongy, rough, irregular — let it assert its native title, its right to maintain its traditional surfaces — and instantly our engineering instinct is to wipe it out: to lay our foundations on rationally-apprehensible level ground... Our homes are tumuli erected over the slaughtered body of the giant ground; only our nervous decoration, our attention to monumental detail, our preoccupation with property, give us away. The monumentality of the places we create — our cities, harbours, highways, even our provincial cottages — is an attempt to arrest the ground, to prevent it slipping away from under our feet."[4]

A possibility exists, however, that the oppositions evoked by Carter — natural vs. artificial, old vs. new, rural vs. urban — are largely rhetorical. As Leatherbarrow points out: "Were the land in itself (always) an adequate setting for the purposes of life, architecture would be entirely unnecessary."[5] Thus, I wonder whether such irrevocable distinctions could be overcome on the
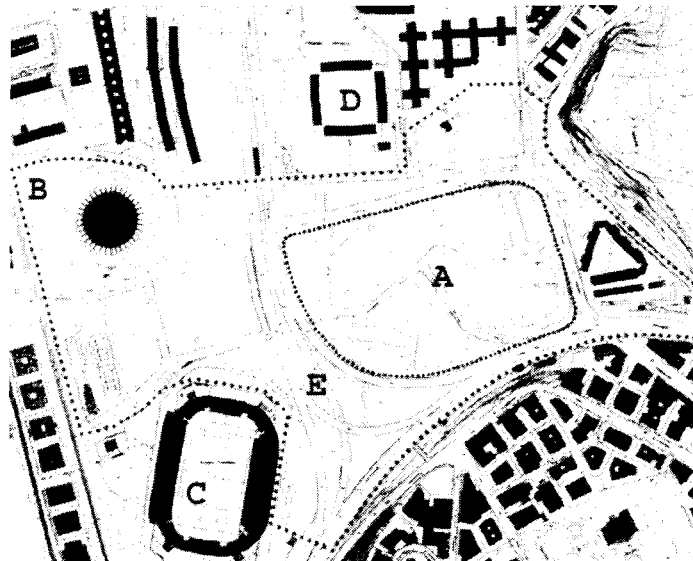
Fig. 1. Augustus Mausoleum.

Fig. 2. Auditorium competition site.

ground. through empirical analysis. by focusing on the terms of the physical relationship between architecture and landscape rather than the abstract definition of their differences. The critical question. in this case, is an operative one: Can buildings work systemically with their surroundings. be set to perform within ecologies that are not entirely self-determined but also reliant on meaningful exchanges with other contiguous elements? The thesis of this paper is that paradigmatic examples can be found, in practice, of approaches to building that use architecture as field-work, to structure the land rather than just marking it. Moreover, strategic connections with the surrounding environment are useful. They help strengthen the narrative of the project, build internal coherence, and achieve urban cohesion.

One of these examples is the work of Renzo Piano Building Workshop. Proactive planning does not immediately come to mind when thinking of Piano's contributions to the large-scale fabric.[6] Except for the open plaza of the Plateau Beaubourg in Paris. we tend to associate Piano's work with the production of artifacts. a rigorous approach to construction detailing and building craftsmanship. the integration of engineering and architecture, and the application of technological innovation to traditional materials.[7] The emphasis on making. and particularly object-making. may have contributed to keeping the urban dimension of his buildings in the background. It is hoped that. in moving the description away from the expression and celebration of construction technology per se, the strategic function that landscape and urban design have in Piano's approach to built form will become apparent. To this end, two recent projects will be analyzed: the new music auditorium in Rome. opened in 2002, and Aurora Place. a private office-residential development on the fringe of Sydney's CBD, completed in 2001. In both cases, an argument will be made

that the image of the building artifact is closely tied to the functioning of the site and the development strategies of the project. One cannot understand Piano's buildings without tying them to the manipulation of the urban context.

THE AUDITORIUM PARCO DELLA MUSICA, ROME

The new music auditorium. opened in 2002. is an important project for Rome. It marks the end of a long history of political and cultural battles started in 1934, when the Fascist regime decided to raze the Augusteo concert hall in the centre of the city because it was guilty of sitting on the remains of Augustus' mausoleum.[8] Archaeological bulldozing brought little new imperial Romanity to light: in the process, however, the hybrid structure developed over centuries of use and adaptive reuse – and housing the acoustic jewel of the turn-of-the-century capital – had gone forever. (Fig. 1)

At that point, planning and designing a new auditorium for Rome became a political staple. And. indeed. two major architectural competitions and several siting proposals were organized over the years. But with none of these initiatives producing concrete results. Romans grew accustomed to temporary and often inappropriate music spaces. The saga of the auditorium. in turn. became the symbol of administrative paralysis and lack of architectural values in the city.[9]

In 1993. a new administration put the construction of a flagship auditorium at the top of its electoral agenda: as a physical sign of change. Rome would shortly have an internationally significant institutional building. A large central but residual parking area already owned by the city council and derelict for several years was swiftly identified as the development site: an

ambitious brief was promptly developed (that brought building and urban renovation together, possibly leaving important details of the actual program, such as the realistic needs of the auditorium, unchecked or open to interpretation); and an invited international competition was launched, which Renzo Piano Building Workshop won.[10]

Though unencumbered and relatively well positioned, the area selected was a complex one from both a topographic and urban point of view. (Fig. 2) It lay at the fringes of a floodplain less than two kilometers north of the Piazza del Popolo, along the eastern side of the Via Flaminia, at the bottom of the densely built Parioli hill and the more natural slopes of the park of Villa Glori. (reference A in Fig. 2) Besides, the bend of the Tevere river of which it was part contained some of the most significant architectural objects built for the 1960 Olympic Games: the Palazzetto dello Sport (1956-58) by Nervi e Vitellozzi (B), the Stadio Flaminio (1957-59) by Nervi (C), and the Villaggio Olimpico (1958-60) by Cafiero, Libera, Moretti, Monaco, and Luccichenti (D). Last but not least, the area was traversed by the Corso Francia viaduct (1958-60) also by Nervi, one of the very few civil engineering works in Italy with clear landscape aspirations (E).[11] Although the brief did not state this condition explicitly, the future building complex would have to organize the difficult junction of three adjacent landscapes: the natural topography of Villa Glori, the repetitive stilted fabric of the athletes' housing scheme, and the public tableau with Nervi's monumental artifacts on display.

The challenges related to the insertion of the Auditorium into the urban fabric have not featured very prominently in the critical discussion surrounding Piano's work, nor during the design neither upon building completion. Most of the attention has been directed at the iconic elements of the concert halls' shells — three giant zinc-clad beetles lightly resting on open parkland — which effectively combine architectural rhetoric and technical solutions. (Fig. 3)

Fig. 3. The theatres from Corso Francia.

Their bio-morphic image, however, is largely disentangled from the organization of the actual program: the highly visible three-dimensional objects of the roof shells herald the presence of the theatres, but all the functional areas of the complex are lodged beneath the park surface — under the rug of an artificial hill — according to a pattern that radiates out of its excavated center, where an outdoor orchestral space is located. (Fig. 4)

Indeed, the success of Piano's proposal is to be found in the mimetic, ground-morphing aspects of the podium, which manages to draw all the neighboring landscapes onto the site. (Fig. 5) The lie of the building base connects to and extends the slopes of the Villa Glori (and the city beside) while the funnel-like cut into it ties its pedestrian circulation to the residential enclave of the Villaggio Olimpico. At the same time, the boundaries of the mound follow and strengthen existing road infrastructure and access to public transport, leaving the roof shells on its top isolated, in a position similar to that of the other public containers scattered across the plain.[12]

The upholstering of the land employs sensible planning and site delineation strategies: on the south-east, a multilevel car park structure fills the natural gap between the building site and the baseline of the two hills that bound it (Fig. 4). To the south-west, the other ancillary spaces of the auditorium are laid out to form a thick curved edge that can be serviced by a road in the shadow of the suspended motorway. To the north, this edge is streetscaped into the institutional, commercial face of the building complex, so that it can respond to and address the residential area across the road whilst delineating a spatial connection with Nervi's stadia. (fig. 6)

The only element that seems to contradict the adaptation of the building to the existing lie of the city is the side flanking the Corso Francia viaduct (Fig. 7). Here, the vast retaining wall of the building plateau follows the sweeping curve of the elevated road, reaching the same height and only a few metres from it — in a way that is reminiscent of Piano's design for the shopping centre at Bercy. The elevation of the podium not only interrupts the purported continuity of the terrain but also compromises Nervi's original idea for the Corso Francia as a suspended ribbon of concrete floating over the landscape. Piano's solution, however, presents uncanny similarities with the original section of the seventeenth-century elevated garden on which the building's historical precedent — the Augusteo theatre — was built (Fig. 8). It is possible to read it as a cultivated reference to its direct but no longer standing ancestor.

The limitation of the program within a podium or a slab, and the concentration of the architecture to a gestural device surmounting it may not be entirely attributable to the genie of the place, since Piano has frequently employed similar strategies. Projects as diverse as the housing next to the National Gallery in Berlin (1981), the Schlumberger factory in Montrouge (1981-84), the IBM traveling pavilion (1983-86), the
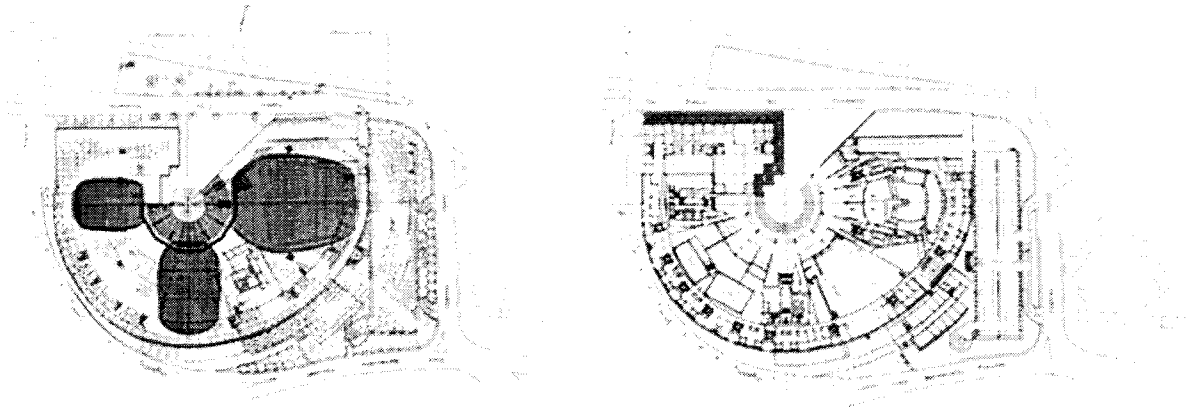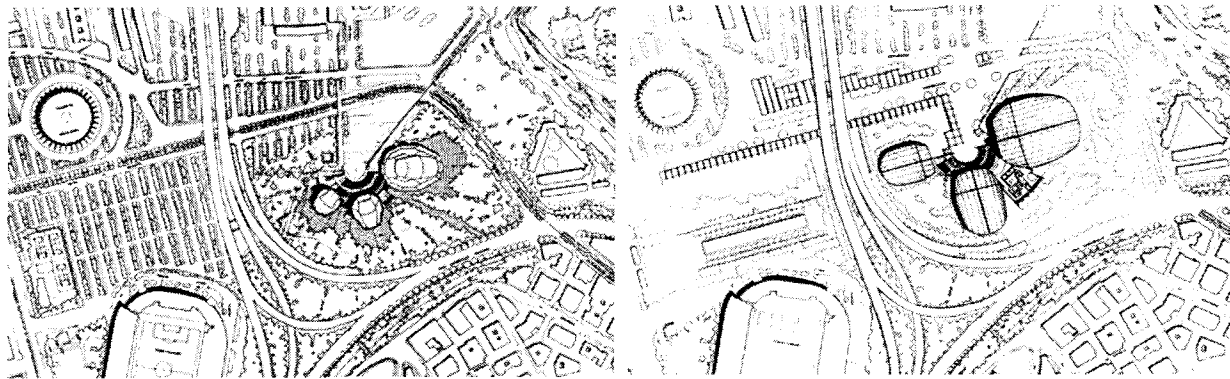
Fig. 4. Final roof and ground floor plans.

Fig. 5. Competition site plan.

Fig. 6. Final site plan.

Menil Collection buildings in Houston (1982-86), the Bercy II shopping mall in Paris (1987-90), the San Nicola Stadium in Bari (1987-90), the Kansai airport near Osaka (1988-94), and the Kanak cultural centre in New Caledonia (1991-98) exemplify various scales and various forms of the same 'sheltered ground' design heuristic.

At least in the case of Rome, the decision to organize the bulk of the building as a neutral topography had clear practical advantages: the hypogean volumes of the complex provided the architect with a great deal of flexibility both in arranging the internal program and in absorbing the possible modifications of a hurried and politically sensitive enterprise.

Indeed, the division between podium and shells proved its real worth during the construction process. At one point, when site excavations uncovered a VII-century B.C. villa of great significance — given that the area was not thought to have been inhabited in Roman times — Archaeology seemed to resurface as the nemesis of modern local auditoria. The excavation of the remains demanded the cessation of site activities and a major reorganization of the project. By playing with the ground poché, Piano was able to modify the orientation of the three halls and
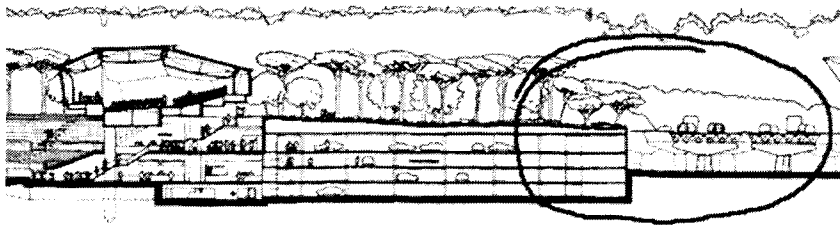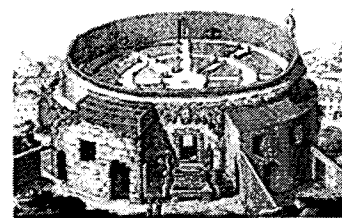

Fig. 7. Cross section detail.

Fig. 8. The Soderini garden.

increase interstitial areas, relocate some of the production spaces, insert a sunken archaeological patio containing the villa, annex museal facilities, and expand the podium towards the (northern) front of the complex: all without compromising the main topological relationships of the initial scheme or altering perception of the architecture. (Fig. 5-6)

In fact, the architecture of the building in operation today is significantly different from the one envisioned in the competition proposal, and not only because of the changes inside the podium. Although some of the initial construction concepts of the theatre roof shells — such as the laminated timber structure and the metal skin – have been maintained and honed, the family of armored beetles featured in the original scheme has been replaced with smoother volumes that exploit toroidal geometries similar to those used at the Kansai airport and the Bercy mall, and which shield three altogether different performance spaces.[13] None of these modifications, however, undermines one's experience of the building or affects its urban logics. With the nature of the place relying on the basic elemental distinction between heavy podium and suspended shells, the whole theatre complex never seems to lose touch with its former self. (There is a strong position suggested here: a building project can change or develop, but it ought to nurture and reveal specific connections among the various components of its landscape.)

For an architecture such as Piano's, largely self-referential from a construction point of view, using areas of the building to establish, accommodate, or redefine the 'landscape' is both programmatically savvy and in fact necessary to negotiate the grounds of the project — e.g. to provide it with enough space to set up its internal relations while orchestrating its contacts with the city. By treating certain functional parts of the program as almost pre-existing elements — ideal extensions of the physical territory that surrounds the site and actual connections between this territory and the project — Piano creates a buffer zone which helps him establish the autonomy of the theatrical buildings, his true technological laboratory. In this case, urban manipulation becomes the tactic that allows the architectural strategy of the building to be successfully developed. The few moves that situate the three concert halls into the landscape of that part of Rome may appear less architecturally glamorous than the details of the shells. And yet they are crucial in revealing the uncelebrated complexities (and possibly some of the hidden pragmatics) that an architecture normally praised for its constructional qualities – but seldom analyzed in urban terms – entails.

AURORA PLACE, SYDNEY

The auditorium's symbiotic relationship between tactical and strategic decisions – i.e. urban design and building design – is reversed at Aurora Place in Sydney, a double office/residential tower development on the fringe of the city's central business district, built on the narrow but prominent site originally

Fig. 9. *South-west view of the State Office Block.*

occupied by the State Office Block (1959-67), a remarkable government structure in the history of Australian architecture, which had fallen victim of the public debt-balancing policies of the 1990s. Designed by Ken Woolley and the office of the Government Architect of NSW, the State Office Block was a significant example of late Australian modernism, with a sculptural, deep tri-dimensional façade treatment, elegant interiors, and a sensitive relationship to the streetscape and surrounding development. (Fig. 9) Yet it also featured an insufficient floor-to-area ratio – approximately 15% less than what allowed under current regulations – and a deep, less-than-ideal office floor plate. (Fig. 10)[14] The site was sold without heritage protection to developer Lend Lease in 1996, which hired Renzo Piano Building Workshop to redevelop it under a core-and-shell arrangement.

In this case, Piano was faced with a double challenge: design a commercially competitive building whilst celebrating the history and the historically public use of the site. And in order to do so, he switched his Roman priorities. Whereas the planning of the auditorium uses horizontal topography to give space to and isolate the architecture, the development of Aurora Place manipulates the architecture of the towers to maximize their market value while emphasizing and celebrating the limited grounds on which they sit.

The right-angled layout of the State Office Block left most of the southern triangular portion of the site open. Piano's proposal, by contrast, brings the eastern built edge of the block all the way to the intersection of Kent Street and Macquarie Street. (Fig. 11) Surprisingly, however, Piano's intervention is
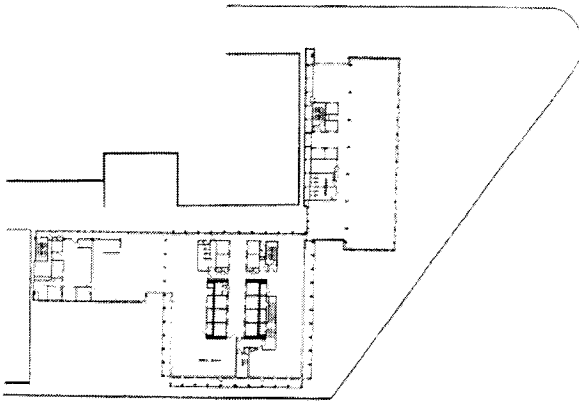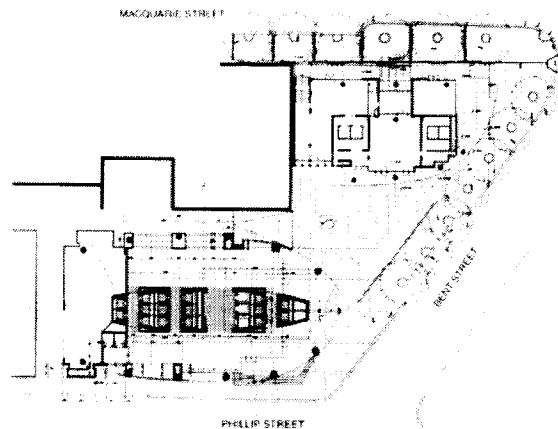
Fig. 10. State Office Block.

Fig. 11. Aurora Place.

hardly noticeable when walking out of Sydney's botanical gardens, on the other side of Macquarie Street. (Fig. 12-13) The façade of the lower tower, the residential block at the edge of the park, seems to defy the usual function of environmental protection and visual screening. Its surface is described by a fully-glazed but entirely transparent membrane of operable louvers, which reveals a continuous full-height loggia providing the real separation between the private space of each flat and the public space of the street. As a natural extension of the flats, the loggia can be opened onto the park by tilting the horizontal panels, or integrated with the interior space by sliding and rotating the walls of the second facade until they almost vanish.

Piano's device, halfway between the art deco solarium and the colonial verandah, two of the classic features of the Australian built environment, allows the resulting interiors to catch the prevailing south-east breezes that blow across the park and reach the building practically undisturbed. The visual and psychological abolition of the façade is made possible by a meticulously patient when not obsessive attention to the construction details of the air space described, which uses non-

deforming low-iron content glass, vanishing frames, steel cast opening-and-closing mechanisms.

If the open shelter offers a viable metaphor for the kind of housing envisaged here — at least from the park — the height of the building, with the rhythm of its window mullions and its terra cotta cladding, expresses a clear relationship between the block of flats and its immediate urban surroundings. Texture and tone of the elevation adapt to the vertical pace of the street it belongs to, eventually blending into it. (Fig. 12)

The mimetic ambitions of the residential element are facilitated by the strategic division of the whole development into separate vertical layers. Although still adjacent to Macquarie Street, the other part of the complex, a 44-storey office tower 212 meters
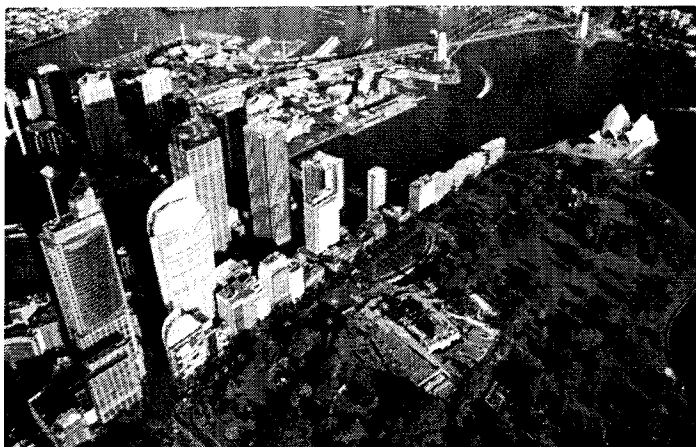

Fig. 12. Macquarie Street.

Fig. 13. Main facade detail, Residential block.

high, is positioned (inside the CBD) at the other side of the lot, leaving an open space in between the two volumes and allowing the consistent outer edge of Sydney's financial hub to run uninterrupted. Setting the office tower away from this low skyline produces a double benefit: it allows Piano to maintain the scale of the city wall along Macquarie Street, while meeting park overshadowing regulations with a taller building volume. (Fig. 16)[15]

Once inside the city of commerce – on the other side of the block – things are quite different. Here, volume and instant visibility are imposed as necessary elements for buildings to emerge out of their urban jungle. Piano uses the plot of land available shrewdly, by devising a lean tower organized around a cuneiform core with the two end corners open, hollowed out and occupied by naturally ventilated winter gardens. (Fig. 14) The flattening of the solid maximizes natural internal lighting whilst emphasizing the visual scale of the elevation on the longitudinal axis, and conferring it a mass akin to that of the larger towers next to it – in particular the Chifley Tower designed by KPF and Travis (1988-1993) immediately to the south. Considered together, Aurora Place and the Chifley Tower form a monumental gateway to the city from the east. (Fig. 15)

But different from the other office towers, the envelope of Aurora Place strives to be as ethereal as possible. And not only through the milky, ceramic-fretted rendering of its curtain wall but also through its tri-dimensional massing: while the west side has a perfect cylindrical shape, the eastern one tapers towards the bottom at the south end, and cantilevers upwards at the north. The building's skin heightens these irregularities: on one side by twisting, and on the other by following diagonally the overhang of the façade's surface. (Fig. 15-16) This way, its profile stretches beyond the limits of the volume proper, accentuating not only its thinness but also its closer relationship

to the urban space outside than the enclosed office space behind.

By modulating the light, the curvature of the building's surface creates chiaroscuro effects impossible for its neighboring parallelepipeds. The changing tonality of the wall contrasts with the precision of the corner shadows that surround it. The result is that the office tower at Aurora Place remains very visible from afar, but almost disappears from close up.

This is instrumental to the design of the public grounds. In sheer contrast to what happened in Rome, Piano opens up the base of the tower almost completely. The transparency of its atria, the position of entrances and circulation spaces, and the use of a uniform type of paving for inside and outside, suggest not only a visual but also a functional continuity between the grounds enclosed by the building and the rest of the development. One can walk through the changing levels of the site rather than around it.

The search for both spatial and public-private integration is accentuated with the draping of a transparent glass shawl over the courtyard formed by the two towers. A sculpture by the artist Ken Yasuda serves to underline the function of this canopied area as the possible fulcrum of the project. From here one is struck by the fullness of the façade's torsion movement as it retreats to make room for the small plaza. The contrast between the curved and crooked wall of the offices and the cylindrical one at the back of the apartments creates an unexpected feeling of space, which dilates its otherwise limited dimensions. Once we inhabit the court we realize that its position is not accidental. Unlike the State Office Block plaza, the open space between the towers reveals the presence of, and connects to Phillip Lane, the old service alley running through the entire length of the city block but historically obscured from sight. (Fig. 17) Its recovery redefines the local landscape by
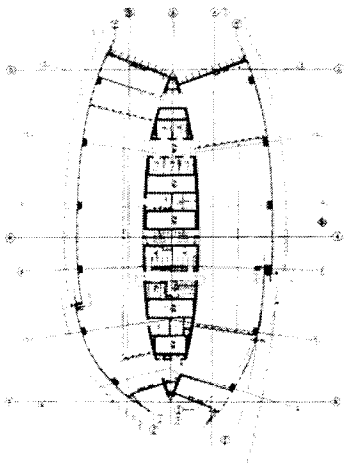
Fig. 17. Overall city block plan.
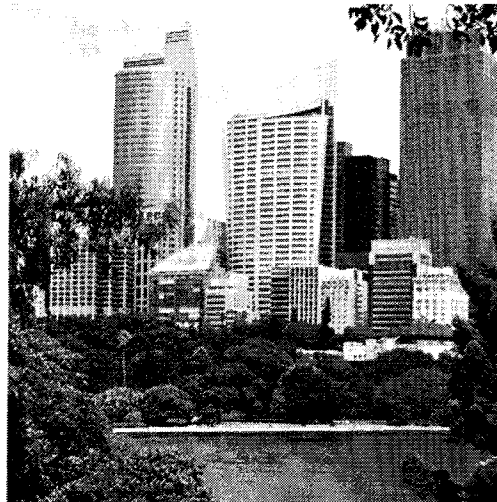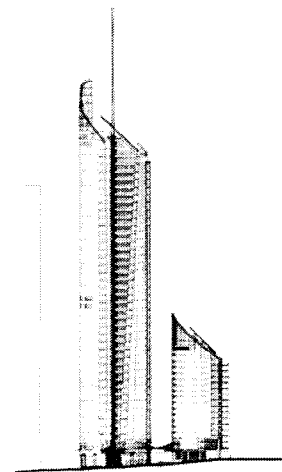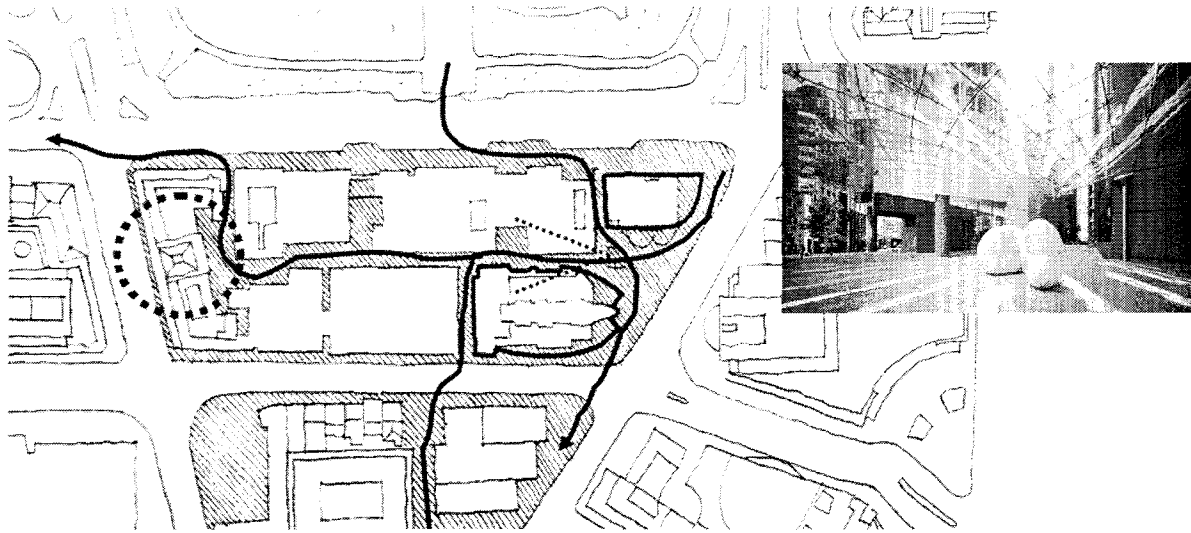
allowing a view of the cupola of the old government house (designed by James Barnet in 1870) at the end of the lane, by suggesting possible new pedestrian links with Circular Quay, Sydney's main ferry station, and by hinting at the possibility of reinventing the ground level use of Sydney's non-residential fabric.

In this case, the importance of Piano's work lies not so much in its construction virtuosity or technological precision – the fruits of a long personal journey that could now perhaps be taken for granted – as in the development of the urban scheme that these moves support. A scheme clever enough as to look natural yet by no means obvious. To a problematic site in the middle of the city, Piano responds with an open, practicable project that affords glimpses of real alternative uses for the existing building stock, starting with the urban reinstatement of those service alleys that seem to be the inevitable product of twentieth-century mono-functional land use.

CONCLUSIONS

This analysis helps us highlight several things. Although the two projects are very different in terms of siting, function and program, they display a similarly integrated relationship between building form (or informing technologies) and urban design. In the case of the auditorium, Piano uses the ground to free the architecture of the theatres from surrounding context and internal distribution constraints: at Aurora Place, he manipulates the form of the towers to inject life into the site. The direction of the design process – from city to building in Rome and from building to city in Sydney – may well depend on the nature of the commission: public in Italy and private in Australia. Yet the double pairing is useful to understand that, contrary to what one would expect with Piano's work, there is no absolute hierarchy between the crafting of construction

details and the planning of the site: each dimension is not only equally important in defining the nature and value of the project but also contributes to the viability of the other dimension by informing the articulation of the building. As the experience of Piano's projects shows, treating architecture as a blend of industrial and urban design produces advantages.

Against the inevitable compromises of building development, the translation of the design problem into a dialogue among strategically positioned parts enables the architect to play with the constraints of the brief, to assign different weights to the various programmatic items, to concentrate semantic value on the more sympathetic elements, and to reduce the architectural role of those elements less open to formal interpretation. In most cases, the pragmatism built into the spatial solutions blends in with the technical elegance of specific architectural systems to make sure that one is enticed to use the outside of the building as much as, or in place of, the inside.

The staged topographies of both the auditorium and the towers may also be instrumental to easing public relations or enhancing the marketability of the schemes. Yet they also enable a level of public circulation and fruition that is largely independent of the building's function and property boundaries: with the public park on top of the theatres and the spaces between the towers. Commercial and institutional clients' expectations are met and occupants' needs satisfied without foregoing the inevitable experience of the occasional or indirect users of the site - passers-by, local residents and eventual customers. In mastering these infrastructural strategies, Piano turns development limitations into design opportunities, seamlessly meshing external constraints and architecturally autonomous decisions.

This is an important lesson at both a professional and academic level. Urban design helps the construction of the architecture and vice versa, yet neither one can be completely trusted

without the other. The terms of the urban landscape equation are such that spaces are as important as walls, private indoor areas as precious as public outdoor rooms, and ground activities as critical as overshadowing diagrams.

NOTES

[1] This is a personal editing of one of David Leatherbarrow's points in *Uncommon ground – Architecture. Technology, and Topography* (MIT Press, 2000): 211.

[2] Landscape: "a tract of land with its distinguishing characteristics or features, especially considered as a product of modifying or shaping processes and agents, usually natural." *Oxford English Dictionary*, 2nd Edition, vol VIII (Clarendon Press, 1989): 629.

[3] Landmark: "an object in the landscape which, by its conspicuousness, serves as a guide in the direction of one's course; hence any conspicuous object which characterizes a neighbourhood or district." *Oxford English Dictionary*, 2nd Edition, vol VIII (Clarendon Press, 1989): 627.

[4] Paul Carter, *The Lie of the Land* (London, Faber and Faber, 1996): 2.

[5] Leatherbarrow (2000): 211.

[6] Kenneth Frampton's short preface to *The Renzo Piano Logbook*(Thames and Hudson, London, 1997), "Placeform and Producktform," is the possible proverbial exception.

[7] The citation of the Pritzker Prize awarded to him in 1998, describes his architecture as a "rare melding of art, architecture, and engineering in a truly remarkable synthesis... deeply imbued with a sense of materials and a craftsman's intuitive feel for what they can do... a celebration of structure in a perfect union of technology and art..." (http://www.pritzkerprize.com/main.htm).

[8] For a history of the 1930s demolitions in Rome, see: Antonio Cederna, *Mussolini Urbanista: Lo sventramento di Roma negli anni del consenso* (Bari: Laterza, 1979); and Leonardo Benevolo, *Roma dal 1870 al 1990* (Bari: Laterza, 1992). For a history of the Augusteo, see: Maria Angelini, "I luoghi della musica a Roma." *Concorso per l'Auditorium di Roma* (Universita' degli Studi La Sapienza, Rome, 1995): 26-29.

[9] For an account of the three competitions for the auditorium, see: Francesco Ghio's essay in *Concorso per l'auditorium di Roma* (1995): 20-25, and Matteo Agnoletto's "Sinfonia in tre movimenti." *Parametro*, 240/241, XXIII (July/October 2002): 128-147.

[10] The other competitors were: Busmann and Haberer (Germany), Garcia de Paredes (Spain), Herman Hertzberger (Netherlands), Kjaer and Richter (Denmark), Percy Thomas Partnership (UK), RWHL Partnership (UK), and Shoichi Sano (Japan).

[11] Nervi was the structural designer. Cafiero, Libera, Moretti, Monaco and Luccichenti, the same architectural team of the Villaggio Olimpico, authored the urban design proposal.

[12] Herman Hertzberger's was the only other competition proposal, besides Piano's, which privileged topography over building.

[13] In the old theatres, the number of cladding facets of the roof was based on the size of the hall; in the new version, the size of each auditorium no longer dictates the number of roof elements; the upper part of the three shells conforms to the same four-quadrant organization. Yet, while the exteriors perfect a common language, each hall has in fact become typologically different. The large hall for 2700 maintains the tribute of the competition scheme to Hans Scharoun, with its seating arrangement encircling the orchestra. The second hall for 1200 has a more traditional layout resembling Piano's Lingotto theatre in Turin. The third space for 500 follows quite closely the highly flexible organization of the underground music box at the IRCAM in Paris. For comparable sets of images, see: Peter Buchanan, *Renzo Piano Building Workshop – Complete Works*, Volume 3 (London: Phaidon Press, 1999): 102-113; or *Concorso per l'Auditorium di Roma*(1995) and *UME* magazine's coverage of the building – *UME* 9 (1999): 36-49.

[14] For a critical description of the building, see: Peter Tonkin, "State Office Block," Jennifer Taylor editor, *Tall Buildings, Australian Business going up – 1945-1970* (Sydney: Craftsman House, 2001): 200-207. Also: "State Office Block," *Architecture in Australia*, 57/1 (February 1968): 75-87.

[15] The articulation of the State Office Block relied on the adoption of a similar strategy but with a different floor print.