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# The Agency Interview:

June 26 2010  
October 31 2010  
New York

## Nader Tehrani

## Three Schools of Architecture

### **Georgia Institute of Technology**

College of Architecture  
Hinman Research Building

#### **Student Population:**

144 graduate  
92 other (Ph.D, research)

#### **Project size:**

35,800 ft<sup>2</sup> (3,325 m<sup>2</sup>)

#### **Program elements:**

- \* Graduate studios
- \* Crit spaces
- \* Computer lab
- \* Exhibition space
- \* Classrooms
- \* Faculty offices / facilities
- \* Research labs

### **University of Toronto**

Daniels Faculty of Architecture,  
Landscape and Design

#### **Student Population:**

362 graduate  
60 undergraduate

#### **Project size:**

New—35,600 ft<sup>2</sup> (3,300 m<sup>2</sup>)  
Total—104,340 ft<sup>2</sup> (9,700 m<sup>2</sup>)

#### **Program elements:**

- \* Graduate studios
- \* Undergraduate hot-desks
- \* Crit spaces
- \* Student lounge
- \* Exhibition spaces
- \* Café
- \* Classrooms
- \* Faculty offices / facilities
- \* Fabrication / research labs
- \* Library

### **University of Melbourne**

Faculty of Architecture, Building  
and Planning

#### **Student population:**

950 graduate  
950 undergraduate

#### **Project size:**

154,100 ft<sup>2</sup> (14,300 m<sup>2</sup>)

#### **Program elements:**

- \* Design studios
- \* Seminar rooms
- \* Lecture theaters
- \* Library
- \* Workshops
- \* Faculty offices / facilities
- \* Outdoor workshop
- \* Café
- \* Research labs
- \* Exhibition spaces
- \* Student lounge
- \* Computer labs
- \* Outdoor workshop building spaces

(NADAAA in Association with  
John Wardle Architects)

**Describe your agency.**

My agency is to establish more significant relations between the academy and practice, recognizing that students are not merely being prepared for practice, but rather being prepared to change practice as we know it.

The design of schools, then, sets a framework for this agency, creating material, spatial, and formal mechanisms that sponsor the possibility of research, speculation and interaction with a fore of practice that has yet to become.

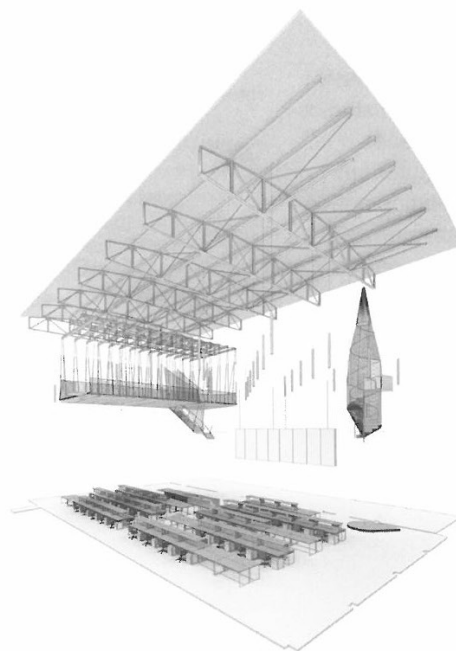
**Give us the basics of each school. Let's begin with Georgia Tech...**

The Hinman Research Building was originally home to the Georgia Tech Engineering Experiment Station, later renamed the Georgia Tech Research Institute. Architecturally, the building is dominated by the high-bay laboratory, a huge space within which they first developed helicopters, huge turbines—aviation technology—beginning in the 1930s. The building was designed by P.M. Heffernan, one of the great American modernists, who later directed the Georgia Tech School of Architecture for twenty years. As a result, one of our central tasks was to repurpose the building in a way that underlines its characteristic features, while bringing to them key transformations.

The physical elements of Heffernan's building—a unique hybrid structure of steel, concrete and brick, along with the enormous truss and the terra cotta tile infill—these materials speak to each other in complex ways and are thus essential to preserve. Programmatically, however, we reimagined the way the space was to be used. Previously, the north wing held many offices, studios and support spaces, while the southern wing was atrophied. We proposed a promenade that connects the north and the south, using the high-bay as its main link. Also key was the insertion of two stairs, which serve to complete the promenade through the building, and reinforce the civic mission of the monumental interior.

For the high-bay, we established a very distinct relationship between ground and sky, something we have done in previous projects. Given the way people work today—as individuals, as teams, as an entire student body—the ground has to be

flexible. At all costs, it must kept fluid. On the other hand, the ceiling is usually thought of as a fixed element, whether it's a dome or a truss, or a purely mechanical zone. For this reason, we asked, "Why not think of the ceiling as an active program? Why not hang all the infrastructure from above, and free the ground to transform and adapt to varying curricular and extracurricular needs of the school?" At the same time, there was the question of preservation and intervention. And there are two classic strategies for approaching this relationship. The first is integration—identifying a language, adopting it, and extending it—a tactic undertaken strategically by Venturi in London's National Gallery. But there is also the Scarpa strategy—to radicalize differences between the existing and new, and to objectify those differences. If the Scarpa approach is didactic in its binary organization, the Venturi approach is a bit literal, however self-conscious, in its adoption of the classical language. If the Scarpa strategy is like boxing, we asked what it would mean to play Judo—to extend the logic of the building, as does Venturi, but less so for its linguistic virtues—instead, for its performance, its payback, and its pedagogical motivations—a kind of strategic opportunism. We worked with Heffernan's materials and language, but in ways totally alien to how the building was originally meant to work, giving new purpose to the gantry crane and the trusses. Shy of two or three installations, everything is hung from the ceiling, thus keeping the floor of the high-bay intact.



Georgia Tech. Image courtesy of LAS/Office dA.

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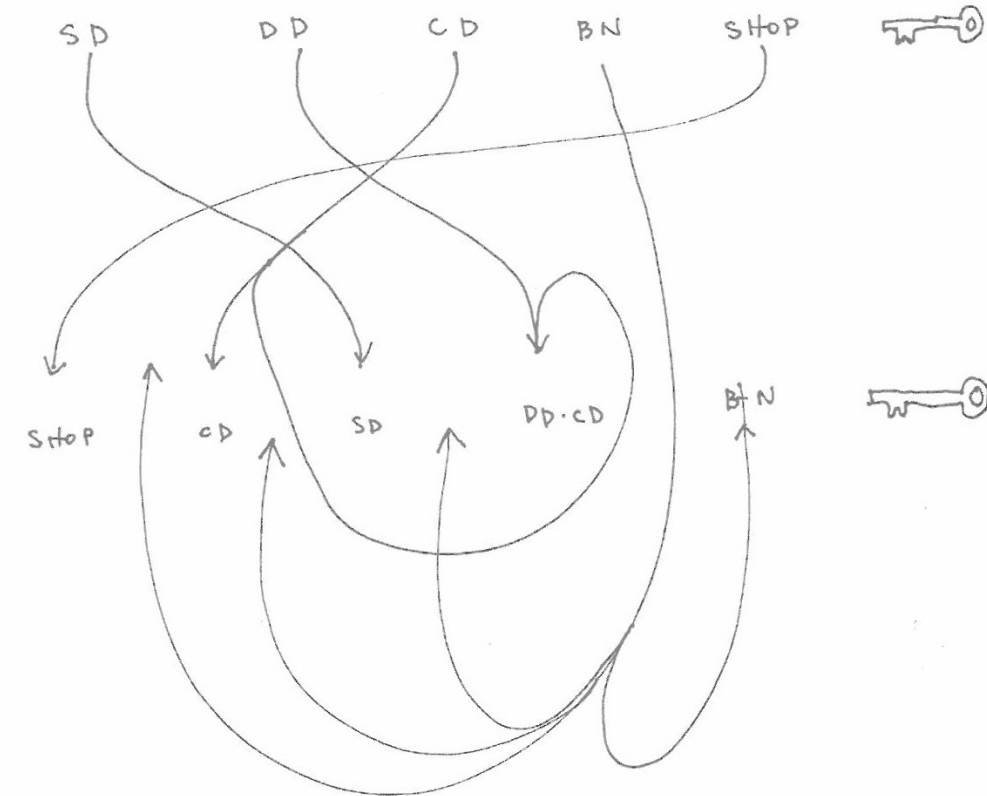
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Name: *NADER TEHRANI*

**Agency**

A means of exerting power or influence; the state of being in action or of exerting power; an organization, company, or bureau that provides some service for another.

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Location: *EASTERN TIME ZONE*

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**DRAW YOUR AGENCY:**



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### How about Toronto?

The Toronto project revolves around two key strategies. The first deals with the predicament of how to create continuity in a building that is organized vertically. The second strategy deals with the introduction of a new skin over the building—a kind of helmet that at once enlarges its area, ameliorates its environmental performance, and gives a new civic identity to what was previously a relatively banal building.

Sectionally, we anchored the building with the auditorium. In some respects, it is very similar to Piper Auditorium at the GSD, but with a more porous relationship to the street. Sealed off as a black box for lectures, it can also remain open and lit for symposia, reviews, crits and conferences, making it a more public room.

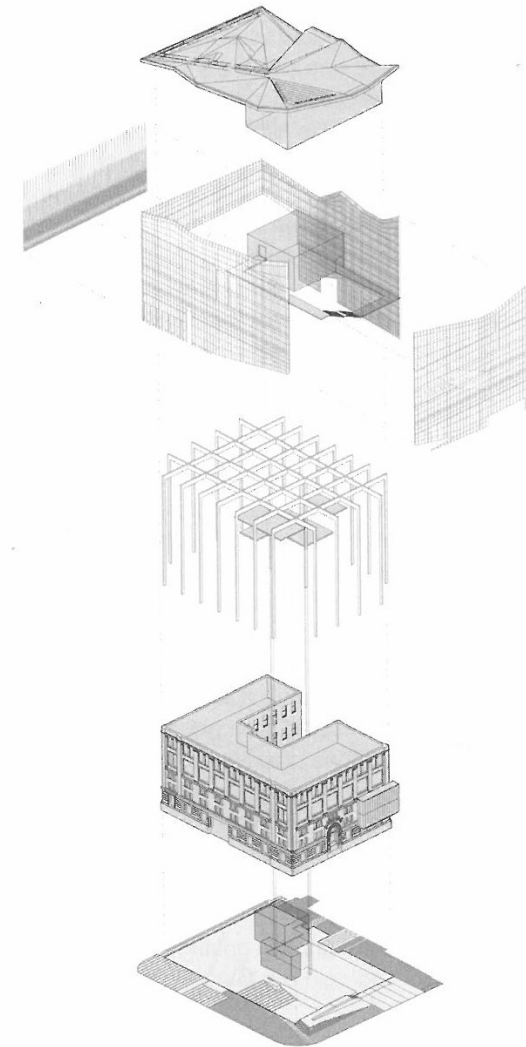
In the center of the building, above and below the studios, you have the student center, café and lounge. At the top, the library forms a scholarly cap to the building, while the roof garden is a horticultural gift back to the city.

To connect it all, we developed a series of staggered public volumes nested within the core of the building, linked by way of a vertical promenade that flanks each of the double-height spaces. The idea was to extend the city into and up the building, all the way onto its roof, where one can reconnect with the skyline.

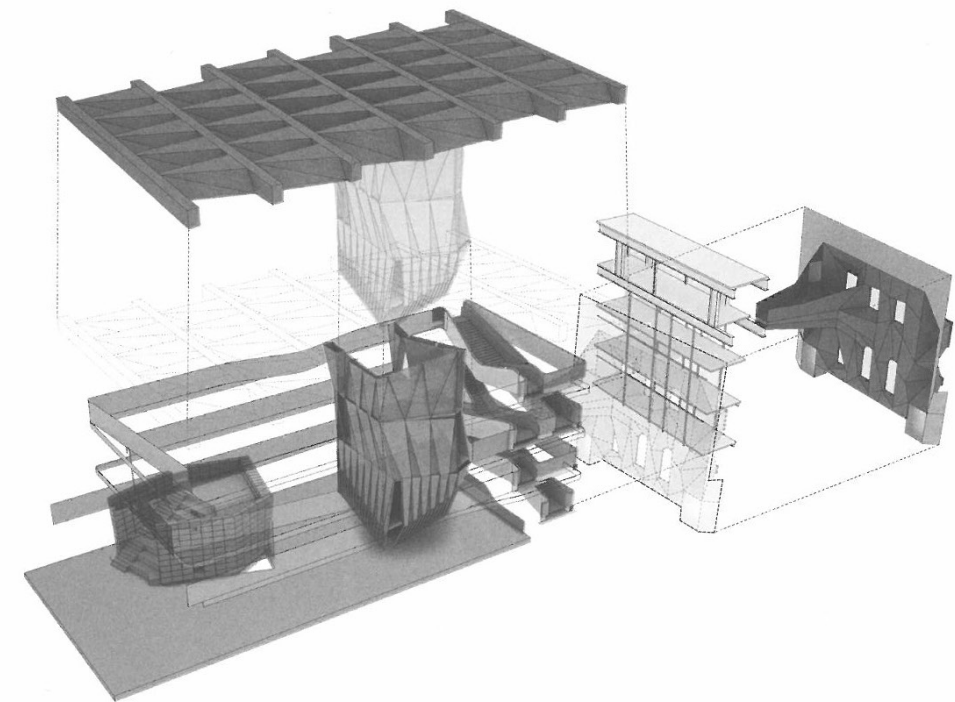
### And Melbourne...

Unlike the Hinman Building, in Melbourne, we are responding to the production of a completely new building, yet encumbered with the presence of a historic façade on its western edge—the Joseph Reed façade—relocated to this site from downtown some decades ago. While an exemplary artifact, the sheer magnitude of the new program and requirements of the school of architecture make it nearly impossible to establish integration of the two—a tail wagging the dog, essentially. At the same time, given the façade's prominent relationship to the Concrete Lawn, the main quad of the campus, it became a de facto organizing element of the parti.

Academically, Melbourne expects to introduce into its halls some of the 'studio' structure of the Ivy



League schools, albeit with significant differences. In part, given the current emphasis on research, their mission is to make the studio a more central aspect of their pedagogy. At the same time, their intentions for the studio model are quite different. With a student body of more than 1,500 in constant flux, it is simply unfeasible to provide every student a dedicated desk. As a result, the balance between dedicated and transient spaces of work is one of the central challenges of the school. The idea of the 'hot-desk' arose in response to this very motion, wherein students share desks on alternating schedules. But equally important is design's relation to many evolving research phenomena, whereby new alliances can be formed between spaces for design and other programs. Thus, linking the studio with the fabrication lab, library and auditorium—new



collaborative and interactive environments—are key concepts in resolving the program. The studio is seen as the glue that holds the building together.

With these urban and academic conditions in play, the key question became clear:

How does one urbanize the building by way of the studio—the core of any architecture building—and connect it with the city, the campus and the ground?

In response, our building must be understood as a threshold. By elevating the studio hall above the street level, the spaces of the Concrete Lawn and the Elizabeth Murdoch building are allowed to extend through the Architecture building—an internal street of sorts—at once public and accessible to the greater university community. In turn, the street offers vertical views into the studio hall above, a more controlled public space around which many of the programs revolve.

**The architect building a school of architecture is akin to the writer writing a book about how to write—both employ one's expertise to foster its very study. At Yale, Rudolph embedded elements/devices of architecture directly into the**

**walls of the A+A (now known as Paul Rudolph Hall). Corbusier's Modulor is even inscribed against Rudolph's own bush-hammered concrete. To that end, does the building have to teach?**

With this program or type invariably comes a heightened responsibility. That responsibility is a major theme in Melbourne—the notion that in a building whose audience is almost all architects, how does the architecture become a didactic instrument? And in what sense does it become a pedagogical device? In the initial design presentations to the university, we made a conscious effort to explain the building as an extension of its educational mission. Urbanistically, this entails dissolving the relationship between the campus and the building—engaging the larger community, exposing its culture and framing its activities.

In the same way, the programming of the building is manifest in the organization of the plan and its impact on the elevations—ultimately what is underlined or suppressed as part of the representational task.

Most importantly for us, however, is at the tectonic level—how materials elicit an understanding about their nature through the behavior of their



Georgia Tech. Image courtesy of LAS/Office dA.

differences, their mode of assembly and the way in which they might challenge conventional details.

Additionally, the site at Melbourne is dotted with existing historical fragments—a Japanese room, certain archaeological debris, a historic façade, among other artifacts. Here, the task of re-purposing and framing is central—curating the fragments as if on exhibition, providing new meanings and associations and arranging them as part of a larger narrative within our proposed building.

In Georgia Tech, the dialectical thinking of existing and new—history and present—took on a didactic role in an analogous way—an existing building as archeological site, yet continuing to serve a public.

Toronto also dealt with an existing structure, but one of no particular historical significance. Here, the new glazed enclosure actively demonstrates its repertoire of architectural functions.

Typologically, it interfaces with street in a variety of forms—as storefront, as arcade, as threshold. Simultaneously, in its mid-riff, the enclosure exhibits its performative aspects—climate controls, rainwater management, lighting dynamics. Where the new addition extends to its full height, the enclosure offers an iconic figure to the skyline of the city.

So the answer is yes, but in three different lessons—three very different ways.

**It's very rare, if not unprecedented, to tackle three schools of architecture at once. Was this overlap an opportunity to explore what architectural education should be?**

Absolutely. But it was also coming to terms with the fact that architectural education varies a great deal from culture to culture, even within the same country. In turn, the spatial and organizational models

that give them form do have an impact on the ways in which the schools 'work'—enabling certain conditions while preventing others. Georgia Tech, Toronto and Melbourne all offered a good deal of commonalities, but even more so, great differences.

There is also another important perspective to consider—that we are here to provoke emerging conditions of design, and in many ways they vary a great deal from when we ourselves were educated. Computation, fabrication and broader architectural research have changed the way we use the space of the school. Resultantly, there is an enormous opportunity to imagine alternative typologies, organizations and programmatic scenarios to unleash these emerging pedagogies. Flexibility was the key factor in all these schools—how to be specific about its defined program(s), while leaving room for transformation, evolution and change.

Melbourne provoked much of this thinking. How do you conceive of a studio as a flexible venue, one that expands the alliances both within and across disciplines? In the Media Lab at MIT, for instance, we found an open agent for thinking—not only through the core of a discipline, but also at its fringes. That spectrum is very much at stake in all of the schools.

**How do the three schools reflect on Office dA and NADAAA's trajectory of work, especially given your own role as an educator?**

The connection between practice and pedagogy has been very important to our work. In the early work, that manifested itself in the way in which materials and methods of construction became vehicles for innovation and transformation. In many ways, we rooted our practice in addressing that difficult discussion between construction and rhetoric—what's absolutely necessary to hold up the building, and how it is expressed.

As the practice evolved, it also dealt with ways in which the various allied disciplines, engineering, for instance, could function to advance or even radicalize our architectural preoccupations in integrative ways. As the office professionalized, and as we dealt with the eventual threats of value engineering, this became an even more pressing imperative. Eventually, we confronted systems of integration as vehicles for form—to ensure that

the opposition between form and function did not become an excuse to eliminate design features. By embedding design strategies within an integrative approach, we could predict and protect their realization.

At the same time, one cannot think of the school as a repository for all of one's fetishes about architectural details and finishes. Rather, it's possibly the opposite. The architecture school at best is an infrastructure for other people's work. It's like a factory—a piece of infrastructure that should not overshadow the work being done by others, but remain exemplary nonetheless. Factories of inconsequential expression, and yet they still must unleash the potential for strategic collaboration.

Given the budgets and imperatives of these three buildings, they have also forced a great deal of editing of critical decisions and have imbued a sense of priority—they have been healthy for us, squeezing the added rhetoric to its bare features. Ultimately, these schools perhaps become a reflection—maybe a frozen reflection—of systems, technologies and relationships of a certain era. But the lessons we have learned and continue to learn from them are not reducible to this era. And if they are comprehensive in their thoughtfulness, they will fall into the larger trajectory of our work.

**Certainly one central preoccupation of your work is the ceiling. How has this thinking evolved in the university setting?**

There is a new, smarter form of intelligence one can bring to the space from above—not just technical, but expressive and architectural.

At Georgia Tech, we suspended the entire scheme from its ceiling.

At Melbourne, a new building is being conceived from the ceiling down, with the structural skylights as the trigger. Strategies first inaugurated in our Upper Crust and *Immaterial/Ultramaterial* projects were important to the evolution of this thinking. Later projects—Villa Moda, Banq Restaurant—were all preoccupied with the notion that the ceiling offers a mode of figuration in a way the floor never can. But also embedded in these

projects was the idea that each, in their own way, needed to house the majority of the services—mechanical, structural, fire suppression, illumination and other life safety systems. In turn, this has opened up a different kind of planning for the ground—to program various scales of inhabitation under the big roof. The individual, the studio of 12, the Beaux Arts Ball and the graduation procession can all be imagined and accommodated within these spaces.

Precedent to this discussion, I am reminded of a particular history of spaces—spaces rooted in certain technologies that formed the bi-axially symmetrical conditions of the hypostyle hall and their transformation over the centuries—Karnak, the Mosque in Cordoba, Labrouste's Bibliotheque Nationale, Wright's Johnson Wax Headquarters. Each demonstrates spatial flexibility lodged within a field of columns. Of course, in Karnak, the immensity of the stones left very little useful space around them. It is only after the advent of steel and reinforced concrete that we come to understand the potential of this type of space to elicit multiple uses within the field condition.

Of course, there is a second chapter to this history that offers a different level of flexibility for the programming of events below, augmented by the advent of long-span structure. With the upturned girders of Crown Hall, we come to appreciate not only the unmediated span of an open hall, unfettered by columns, but also Mies's rhetorical emphasis in this act—the concealment of the very structure that permits it.

Our Hinman building belongs at the end of this lineage, where the ground is left completely free. On the other hand, our ceiling escapes the neutrality posed by Crown Hall, and is instead highly programmed itself.

**Of course, these precedents are indebted to technological advancements in building materials and structural innovation. Today, so-called 'universal space' is further enhanced by the efficient transfer and translation of information—the advent of social networking, widespread software compatibility and team-based educational models—all of which radically impact the workflow of the design studio.**

And the notion that the studio space and crit space are stable, or even distinct places, is no longer applicable. The reality is that students are working everywhere and anywhere.

This puts the possession of one's desk completely in question. When you have a school of 1,000 students or more, as is the case with Melbourne, it's anybody's desk. And schools of architecture are using the inevitable economic crunch—the diminution of table quantities and sizes—to their advantage. Schools are developing infrastructures of work such that the café is as much a place to enjoy a cup of coffee as it is the social space of the crit. In a sense, the desk is fast becoming a first-come, first-served phenomenon. In turn, schools are providing another level of infrastructure altogether—web access, plug-and-play workstations, production space—the places of collaboration to compensate for this transformation.

Of course, there can never be a substitute for dedicated studio spaces. The larger challenge is to situate social programs in productive adjacency, while simultaneously creating personal spaces to be 'owned' by the individual student.

**Is this about cramming more designers into less space? Or is this the reality of design education today?**

It's probably both. There are educational possibilities that emerge with new technologies. They drive the way we learn—certainly far differently than the way we used to learn 20 years ago. The triangulated relationship between individuals, their peers and the Internet presumes another model of learning altogether. But the economic pressures on spaces of education are overwhelming, also. From above, huge looming fiscal and political constraints are filtering down. Meanwhile, at the pedagogical level, there are genuine educational and technological opportunities arising in the same spirit the dot-com era generated for business culture.

At the same time, the question of space also concerns interdisciplinarity. The link between architecture, landscape, urbanism, planning and industrial design, among other engineering ranks, are all shifting, so the spatial distribution of their traditional domains may only be the final manifestation of this change. My worry is that much of the

Melbourne. Image courtesy of JMA/NADAAA.



emphasis on interdisciplinarity overlooks the irreducible forms of knowledge, debate and technique innate in each of these disciplines when viewed from within their own histories. To attempt to eradicate their substantive differences is to trivialize some of the key contributions they offer to cultural production, and for this reason, if we are to 'spatialize' any models of learning, I would argue for a form of flexibility that is aware of our own historical moment, and by virtue, its limitations.

**In some sense, interdisciplinarity-as-pedagogy implies an increasingly professionalized approach to architectural education. But there will always be core characteristics of an architect's training that demand exclusivity. How do you balance these?**

It all comes down to negotiating the collective mission of the allied disciplines versus what can be construed as irreducible for architecture. Of the distinct challenges for the discipline today, the issue of specialization is paramount. From one perspective, it is precisely the advances of the

allied disciplines that have formed architecture into a more sophisticated, technologically-complex, environmentally-responsive, and materially-advanced artifact. At the same time, it is this very specialization that has come to marginalize the role of architects as the main agent of practice—as engineers, real estate professionals and decorators come to overwhelm the design process with their own allied 'expertise.' The architect then is inherently on the defensive.

Meanwhile, the architect's education is still unique in its orchestration of numerous disciplinary techniques toward a singular vision, far greater than the sum of its parts. As architects, we not only design, but also mediate, create consensus, construct parameters and synthesize disparate constituencies. Part of the key intellectual and strategic advantage of our education stems from our ability to direct, conduct, and imagine links where others cannot.

With the advancement of specialization, with the proliferation of information on the internet, and with the globalization of architectural knowledge, much of what was exclusive about the architectural

discipline has been eroded. With this predicament, two extreme poles require attention in architectural education, one of depth and breadth. On the one hand, a renewed focus needs to be cast on the discipline's history, techniques, debates and forms—this, as a way of extending the need for those irreducible aspects of the discipline that maintain alliances with spatial, formal and material studies. On the other hand, with the erosion of the discipline and its equal expansion, a new emphasis must be placed on the cultivation of critical faculties, intellectual curation and the strategic identification of relevant debates in the current context. With these two extremes, we may yet be able to bring the technical advancements into some kind of alignment with intellectual and critical thinking, something that I find somewhat lacking in the current academic scene. At the same time, it is precisely this opportunity that is unique to our time, and something that promises to catapult the discipline towards completely unprecedented levels of advancement.



Melbourne. Image courtesy of JWA/NADAAA.

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PERSPECTA: THE YALE ARCHITECTURAL JOURNAL

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