

ACSA Distinguished Professor

2016-2017 Winner Submission Materials

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Portfolio in support of nomination

ACSA Distinguished Professor in Scholarship

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This portfolio is submitted as a snapshot of my work about the role of architecture and architects in political, social and cultural change. As a thinker, researcher, writer and educator, I engage issues of spatial politics, political agency, and the symbolic nature, as well as cultural and political ramifications, of an architect's practice and of specific buildings. These investigations extend not only to visual language, design process and cultural context, but also to very specific building practices, materials, costs, sourcing, labor contexts, and so on. This work extends beyond writing to include lectures, panels and serving as a juror and referee.

For ease of navigation, this portfolio of work is divided into three sections: Introduction, Writing Samples and a final section that documents the "ripples" from this work: how it shapes and informs my teaching, how it generates invitations to participate, teach, write, and a snapshot of reviews of the work.

INTRODUCTION

I describe myself as a journalist: a term that, when I began to regularly use it in 1996, disconcerted many of my PhD history/theory colleagues. But I use this term deliberately.

My grandfather was an old-fashioned newspaper man who worked for the Associated Press during the Great Depression and World War II, then inherited from my great-grandfather a stable of small town Iowa newspapers. During summer visits as a child, while my sister and cousins played outside, I hung out with him in his messy, rushed, and ink-scented world. One humid August afternoon, as we sat in his cluttered office at the Webster City Daily Freeman Journal, I asked him why he had spent his life as a journalist. As I played with the type in my great-grandfather's type case and the mammoth printing press roared in the basement, Granddad squinted at me through the smoke of his pipe and said simply; "Journalism is writing history on the fly".

These words were not his own. Indeed, I have found they are a kind of mantra among journalists of all stripes. They efficiently define the work of the journalist as exciting, tricky, and important: writing quickly for the historical record, but without knowledge of what might follow.

Journalism about architecture, then, is just-in-time writing that does not have the luxury of hindsight. It takes on ideas beyond the standard reporting seen in most architectural magazines today: the old "what, when, where, why, who" formula supplemented by program requirements, square footages, physical attributes and so on. Journalism adds a specific framing, a particular point of view driven by the journalist's interests, and, indeed, actual criticism. It's conclusions may sometimes turn out to be factually wrong, or just plain wrongheaded, but it plays a critical role in architectural history, and in our discipline. Historians of practices, architects, projects, types, styles and topics routinely draw upon journals and essays to help flesh out the cultural context and response of contemporaries to their subject.

At this point my once-skeptical colleagues have become convinced of the value of my writing practice. In part this is because of the way I have integrated the work into my studio and seminar teaching. In part it is due to the topics I engage entering the mainstream. And, of course it helps that the type of writing practice I began pursuing twenty years ago is now more common in our discipline as it expands its interests, redefines its territory and multiplies its platforms for discussion.

WRITING PRACTICE

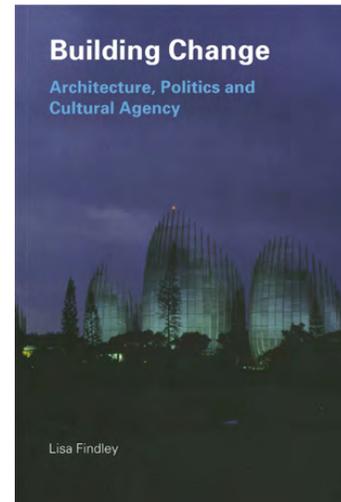
How can architects and architecture be productively engaged in social change? What are the opportunities, challenges and limits for such engagement by a discipline that is inherently bound up in systems of power? Are there rich possibilities in the very aspects of producing architecture that seem to limit us? These questions trouble not only me, but also our students, who are facing being architects in an environmentally, socially, and politically precarious world, fueled by a mind-numbing gap between those who have and those who do not. My writing practice seeks to formulate some kind of answers to these questions. As such, there are two broad major threads of writing: **Building Change** and **Local Modernisms**.

The first set of threads is most clearly laid out in my book *Building Change: Architecture, Politics and Cultural Agency* (Routledge, 2005). It has been adopted as course readings in many schools and continues to generate invitations to lecture and pursue further writing. This summer (2016), Routledge has invited me to propose a second edition.

South Africa is a particularly rich locale for the **Building Change** research. One of the case studies in the *Building Change* book was the Red Location Museum in New Brighton, South Africa. However, my research, interviews, building visits and conversations led me to numerous other buildings and practices, contexts and this has yielded a number of recent essays: various versions of the essay “Red and Gold: A Tale of Two Apartheid Museums”, have been published, including in *Places Journal*. *Places* also commissioned the essay “South Africa: From Township to Town”, (with co-author Liz Ogbu). After the success of this collaboration, Liz Ogbu and I co-authored an invited essay, “Becoming Visible: Appropriating the Spaces of Apartheid South Africa”, that was published in the Routledge book *Consuming Architecture: On the Occupation, Appropriation and Interpretation of Buildings*.

<https://placesjournal.org/article/red-and-gold-a-tale-of-two-apartheid-museums/>
<https://placesjournal.org/article/south-africa-from-township-to-town/>.

My writing on the Red Location Museum also drew the attention of Field Architecture, who designed the Ubuntu Education Fund buildings in a former township close to Red Location. The architects invited me to contribute an essay, “Realms of Impact: Ubuntu and the Politics of Space”, to their book about the project.



“*Building Change* provides a vision of a revitalized role for architecture as a critical cultural and spatial practice....Findley finds that within the agency of architecture itself, there are numerous opportunities and strategies to actively support the goals of social change”

Building Change cover blurb



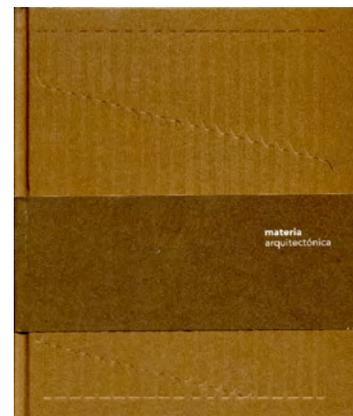
A recent sabbatical allowed me to begin to focus on the second set of threads: **Local Modernisms**. This work builds on the *Building Change* issues and themes, and on some papers I wrote in 2000 on architecture as a cultural tool to combat the homogenization of globalization. The new research focuses these early ideas to look at specific contemporary architects and architectural practices outside of Europe and North America. These architects seek robust locally derived building technologies and formal, spatial and contextual building strategies to form a response to the cultural and physical homogenization and the capital-intensive technologies of globalized practice. This work is situated historically and theoretically as well as physically, and will lead, eventually, to a book. The short form proposal for this book, *Radical Local: Architectural Resistance to Globalization* (working title), is under review by Bloomsbury Press and Routledge Press.

To date, I have published two essays that begin to address this localization. The first of these is an essay on “Productive Public”, a project by South African architect Jo Noero in an exhibition titled *Energy: Oil and Post-Oil Architecture and Grids* at MAXXI_The National Museum of XXI Century Art in Rome. (2013)

The other essay, “Materia: the Subject is Material”, is a profile of a small a Mexico-city based architectural practice, Materia. The essay is part of a bilingual book, published by Arquine Press, about the strategies, approaches and interests of the practice. The book was launched by a panel discussion hosted at the Tamayo Museum in Mexico City in 2014.

The following pages are included to give a glimpse of my writing:

- Introduction from *Building Change*
- Last pages from *Building Change*
- The full text of the catalog essay, “Productive Public”
- First pages of essay on “Materia”



Introduction

embarking on this assignment, I saw the building differently now that William had given it a context within the specifics of the experiences and perspectives of the Kanak. That afternoon, sitting on the shady terrace of the Centre's café, I realized that this building was not only technically inventive and formally poetic, but that it was also a glimpse of an expanded possible future for Architecture as a whole.

The discipline of Architecture has, for most of its history, been at the service of those in power. Indeed, it might even be argued that it was *invented* by those in power. Yet, here in remote New Caledonia was a world class building, by one of the planet's premier architectural practices, for the indigenous people who only received the right to vote in this still French-controlled island group in 1957. The entire project, like its context, was fraught with complex tensions, both cultural and political; evolving, but far from resolved. While the particular history of the project explains how the building came to be, I wondered how that history was also tied to fast-paced and profound changes in the larger political and cultural arena of the globe – changes most often explored through the lenses of geography, anthropology, and cultural and postcolonial studies. Recent work in these fields has emphasized that the processes and formal qualities of space are a location and indicator of power relationships just as surely as are historical events and social and economic dynamics. It is obvious to apply this thinking to the field of architecture where it has the potential to be more than simply an analytical tool. How might it also be applied to the process of design and the making of buildings – single buildings in particular circumstances?

It also struck me that while architects are certainly tangled in the web of power, the entanglement has both positive and negative implications. In the case of the Tjibaou Cultural Centre, the Renzo Piano Building Workshop (RPBW) had used its position, and the cultural power and prerogatives of the architect, to support the progressive social change agenda of the Kanak and the Centre. This was possible in part due to the shifting location of power in New Caledonia. The RPBW could certainly have made a building that essentially responded to the French government (who was paying for the building) as the client, but they did not. Instead, they made the Centre their client, leveraging the power, abilities and production of the architect to enhance the cultural agency of the Kanak. In this way, the building became a significant addition to the emergence of the Kanak as serious and important cultural participants in New Caledonia and in the Pacific region. It made them visible in a profoundly new way – a way understood in a global context and in the global language of architecture.

These realizations, jotted in my notebook while sitting on the terrace in the cooling sea breeze, framed my review of the Tjibaou Cultural Centre for *Architecture* magazine. However, it was clear that an abbreviated

After twenty-two hours in transit it was hard to tell if the apparition before me in the tropical twilight was real or a figment of my jet-lagged imagination. Rising out of the dense vegetation was a line of giant gently curving forms reaching tapering fingers toward the deepening sky. I had never seen a building that looked like this. It was like a dream of a distant planet, or a glimpse of a different future. And yet, its uncanny beauty persisted as I approached and only became muted as I entered and began to wander through the exhibition rooms with the crowd of other awestruck visitors. Something about the place made everyone speak quietly.

It was June 1998, and the first night of the public opening of the much-anticipated Tjibaou Cultural Centre for the indigenous Kanak people of New Caledonia. I had just arrived via Sydney from the US to write about the building for *Architecture* magazine. After a quick stop at my hotel to change, I had hurried to the site for my first look at this latest project by the Renzo Piano Building Workshop. While I had seen photographs of the building before coming, I was not fully prepared for its reality. That first evening I turned off my critic's voice – there were several days left for that – and simply wandered, enjoying and joining in the bewildered and delighted reactions of the other visitors. I left with that immense happiness and satisfaction an architect feels after experiencing a masterfully done building.

The following morning I was met at my hotel by William Vassal, the young French architect from Piano's office who had spent the previous three years overseeing the construction of the project. He had proposed an agenda for the day that left the Cultural Centre for last, after visits to the countryside, villages and traditional buildings that served as important inspirations for the project. This was, for me, a perfect introduction. My interests in architecture, and as an architect, rest heavily on the relationship of buildings to culture, politics and landscape.

Hours later, after an enthusiastic introduction to the history and culture of the Kanak people that included lessons at deciphering the Kanak landscape, stops at three rural Kanak villages and a seaside lunch of traditional Kanak food, William and I returned to the Centre. While I had read several things about the history of the French colonization of the Kanak people before

participate actively and constructively in the reallocation of cultural agency and power.

Architecture, like no other form of cultural production, can manifest renewed cultural agency by making it spatial, material, present and, in that sense, undeniable. This is a sobering responsibility. While many architectural projects may happen in less dramatic and less tense circumstances than those in this book, there are often opportunities for architects to leverage their production for social change and the goals of a larger cultural good. This provides a new arena for architects willing to use their own cultural power strategically and, perhaps more importantly, it suggests a revitalized role for architecture as a proactive cultural practice.

piece for a professionally oriented architecture magazine could never contain the complexity of this bigger picture. Clearly these ideas needed further exploration in order to understand the implications of this unique project.

Within months of leaving New Caledonia, I encountered two other architectural projects that seemed to me caught up in similar circumstances of evolving political and cultural agency: the Uluru-Kata Tjuta Cultural Centre for the Anangu people of the central desert of Australia and the Museum of Struggle, a project memorializing the struggle against apartheid in South Africa. While profoundly different in their particulars, both projects contain programs that address a range of unresolved cultural and historical tensions. The architects of each project took on these tensions as an essential part of their approach and solution, using their position as *architects* to support the emergence of previously marginalized people. And, in both cases, the resulting building is simultaneously bold and modest and defies format expectations. At the same time, both projects raise unique issues related to the question of cultural agency and its relationship to architecture. These projects, along with the Tjibaou Cultural Centre, formed the beginnings of this investigation.

Yet, it seemed to me that something was missing from the range of case studies. I wondered how a project on the margins of power, but where race, ethnicity, and a cultural gap between architect and client were not so prevalent, might stack up against the three already selected. I wanted to use such a project to understand how the dynamics of building within a climate of cultural and political tension would change if race and colonial history were not pivotal to the reason for the project. The new office for the Southern Poverty Law Center is an ideal project in this sense. The non-profit SPLC and its work are supported by a huge loyal coalition of small donors, yet it pursues its national agenda in the often-hostile local environment of Montgomery, Alabama.

Spatial transformation and social change are at the heart of this book: architecture, as a vital spatial practice, has the potential to be a key player in the re-calibration of space when power shifts. This may not be obvious since architecture, by virtue of its patronage and resource requirements, is intimately entangled with political, economic, social and cultural power structures and their widespread strategies for encoding that power onto physical space at multiple scales. This book begins with a look at this intimate relationship between built physical space and power. It looks at the spatial strategies those in power use, as well as the historical and cultural conditions that have justified such strategies. The discussion then returns to architecture and architects and, ultimately, to detailed studies of the four architectural projects. These projects demonstrate that, in this world of shifting power dynamics, architects do not have to be servants to any cultural hegemony. They can, through their role as imaginative producers of culture,

edge where the building meets the sky. At the Centre, the vertical ends of the silver-gray glulam that make up the cases meet the sky in a feathered edge – one that transforms from strong silhouettes when backlit to fuzzy when lit from in front. This front light condition makes the ends appear to melt into the bright sky. Piano seems delighted with this uncanny effect. He has since pulled it into two high-rise projects, where the edge of the building against the sky is more dramatically observed: Aurora Place in Sydney (2001) and the upcoming building for the *New York Times* in New York.

Piano happily admits to this carrying over of ideas, strategies and technologies from project to project. The work of the Building Workshop shows, however, that this carry-over is not the conservative practice it might suggest. The startling forms, tectonic exploration, and strategy in relationship to the ground of the Tjibaou Cultural Centre would not have been possible without what Piano thinks of as one of architecture's central allures: that each project presents a set of unique opportunities. "Architecture is an adventure. It is a challenge to measure one's self with each new problem" (Piano 2002, interview). Working with the Kanak in New Caledonia, the problem was much larger than a set of spatial and technical needs. Here Piano discovered an additional set of inspirations and opportunities in the political and cultural history and tensions of the project.

For Greg Burgess, the lessons of the Uluṛu-Kata Tjuṛa Cultural Centre are part of an ongoing exploration of a process, geometry and materiality for cultural buildings for Aboriginal people. This process was begun in previous projects, most notably the Brambuk Living Cultural Centre for the five Aboriginal communities in the southeastern part of Australia (Victoria). However, Burgess has also used these same geometries and methods for high-end single family houses. The Cultural Centre gave him a chance to apply these in collaboration with the Anangu who brought an overarching site sensibility to inform the decisions about form and space.

The founding attorneys of the SPLC, Joseph Levin and Morris Dees, seem to have infected the brand new practice of Erdy McHenry Architecture with boldness. A close look at the evolution of the building design shows that each time the architects were sent back to the drawing board the design became clearer, more focused and much more contemporary. The confident aesthetic that emerged continues on into the other buildings the firm is designing.

Building Change

Just as architecture fixes materials in time and space, it also fixes meaning. This is one of the most difficult parts of the projects in the previous chapters.

When ongoing political and cultural tensions are part of what must be translated in a building through architecture, as with all four of these projects, a critical problem arises: the architect is responding to a moment in the evolution of dynamic relationships between groups of people with different visions of what the future is to be. While the siting of a building, its materials and their organization and the built space and form may have a particular meaning at the time they are conceived, that meaning may alter rapidly as circumstances change. These are impossible to predict. Despite this, the architect must, by fact of the physical reality of architecture, make decisions. In such cases, the architect exercises agency by selecting which future he or she hopes for, supports, or, perhaps, believes is most likely.

Along with changes in meaning, buildings also change at the more straightforward and pragmatic level of space and programmatic needs. This is difficult even in the most stable of institutions and contexts; however, in the situations where a building is involved in a charged social or cultural situation, or being made for an entirely new institution, change is inevitable. While the change itself is predictable, what the change will entail or how soon it will be needed is not. So, while certain kinds of specificity are crucial in making such buildings work culturally, the more specific a space is for its function, the less likely it is to be easily adapted to another use.

Each of the buildings in this book must be thought about from these perspectives of change. For instance, while the technological experimentation in the Tjibaou Cultural Centre appeared advanced in 1998 when the building opened, in thirty years' time it *may* look dated. This means that the optimistic freshness of the building would be lost, leaving the visitor to instead wish for the innocence of the time when the project was made. On the other hand, an alternative possible future would be that in thirty years' time the Centre is an established and mainstream institution engrained in the Kanak (the likely new name for post-independence New Caledonia) national psyche. This scenario would unfold with the scheduled independence from France laid out in the Noumea Accord of 1998.

However, we know that building construction is a very conservative practice. It usually takes years for any new technology to enter common and routine use. In the relatively remote circumstance of New Caledonia, where concrete frame with terra cotta block infill is the standard construction method, this may be particularly true. Indeed, it is likely the Centre will retain, as a handful of buildings per decade do, its cultural and visual freshness despite continually evolving architectural investigations and the huge number of buildings that will adopt the building's technology or be inspired by it.²

This hope for a future where the culture represented in the Tjibaou Cultural Centre is no longer isolated and separated from the mainstream of national culture is also an inherent hope for the Uluṛu-Kata Tjuṛa Cultural

Centre. The political intention would be that neither the Kanak nor the Anangu cultures will any longer need a designated place where they can be explicitly present. Instead, they should simply be routinely present, visible, respected and effective within their places. Such a shift would change significantly the meaning of the buildings. They would, like the indigenous people they represent, cease to be exotic in their locales, and instead be seen as obvious and integral parts of their place.

In the meantime, however, the Anangu struggle with how to most effectively use the Uluru-Kata Tjuta Cultural Centre. Almost as soon as construction was completed, uses of spaces were changed. Within a few years, the toilets were moved to separate structures outside of the building, with the space they occupied being remodeled to accommodate Park Service personnel working with the Anangu. The multipurpose room became the Winkiku Exhibition space where the Walkajara Art Centre artists work, display and sell their painted ceramics. The now unused dance ground changing rooms have become storage and offices for the Walkajara Art Centre. Other changes will no doubt occur as the Anangu need the Centre to be different things at different times in the evolution of their growing agency in the context of the Park and the tourists.

The Museum of Struggle, with its saw-tooth factory roof and its humble materials may remain a kind of prototype of South African post-apartheid architecture. Or it may become a transitional architecture that bridges from the rough and tumble "make-do" aesthetic of the townships to another sensibility about making public buildings in the country. Or it may get fondly set aside as a lively example of post-apartheid township architecture by globalized architectural sensibilities. Any of these are possible futures as the meaning of the Museum changes. This meaning, like the meanings of the other buildings here, is intimately tied to the political, cultural and economic future of its place.

Nbero Wolff Architects were clearly aware of these possible scenarios when they were designing the building. Since the Museum has been conceptualized from its earliest design as a place of change, it may be a place of meaningful dialog about the past and present for decades to come. The primary exhibit space, with its twelve memory boxes, is very specific in certain ways: the diffused south light coming from the skylights above, and the fixed column and memory box grids. However, these spaces are otherwise neutral, allowing for their content to be adjusted and changed as history evolves and as needs shift.

As for the SPLC, they look forward to a time when neither the building nor the Center's agenda are seen as confrontational to the mainstream culture of Montgomery. In such a future, the elaborate security needs of the building would be obsolete, and the funneled entry and small front door would

happily have to be redesigned to be more welcoming. This would be a triumph for the Center and its aspirations for the social, political and cultural future of Montgomery.

For each of these projects, the future expansion and integration of the cultural agency of the client may significantly shift the meaning of the building, and perhaps many of its uses. However, despite the implications for these changes on the architecture, such changes are a welcome thing for the clients. For these buildings demonstrate that the ongoing redistribution of the cultural power around the world has altered who has the right to express themselves in space through the products of contemporary architecture. They show that when a building project is explicitly embedded in a process of political and cultural change, it demands a heightened kind of engagement by its architects. And the resulting buildings remind us that architects and architecture can contribute actively and positively to social change. This contribution is possible precisely because buildings are material objects of cultural production that are both pragmatic and symbolic.

These buildings also show that David Harvey, Ian Low and Kim Dovey – authors drawn upon in the first chapter – were right in their assertion that the human imagination is the key to both architecture and cultural change. As such it becomes pivotal when contemplating the possibilities of architects, through the making of individual buildings, to engage in explicit political, cultural and social agendas. As Peter Zumthor suggests in the quote that opens this chapter, all architecture is, by definition, change. It is an essential participant in the necessary reorganization of the physical world to match changes in the political world. Because of this, it is urgent that architects recognize their own agency, and the powers they serve in the way they deploy it. As demonstrated by the architects who designed the projects in this book, this agency is not fixed in its relationship to power. Since architecture is already based upon the assumption of change, it is to a large extent up to the architect to have the courage and imagination to be explicit about what power agenda their agency serves.

Architects know that to make good work is not a matter of instantaneous insight, or raw talent, or good luck – though all of these may be useful at some point. Instead, architecture is an optimistic and, yes, imaginative activity of focused daily effort sustained over long stretches of time. It is an underdog's fight against the basic laws of physics, against both inertia and entropy. Toward the end of his life, even the great master of modernism recognized the simultaneous poetry and humility in this. Le Corbusier said, when accepting the AIA Gold Medal in 1961:

There is not a breath of victory in daily life. Great things are made out of a multitude of little things, and the little things follow one

upon another every day from morning till night. . . . Daily life is a matter of perseverance, courage, modesty and hardships.³

In this daily-ness and in the spatial reality and cultural agency of architecture, lies the power of buildings to participate in political and social change. This power is found in re-imagining the ordinary activities of architecture and in leveraging these activities so that the changes they produce are consciously in service of a progressive agenda. While this potential for architecture is easier to see in the projects in this book, it does not only exist at a heroic scale or in the process of working on an explicitly political or cultural building. When actively and imaginatively engaged, every architectural project offers an opportunity to build change.

Appendix

Project Credits

Tjibaou Cultural Centre

Client

Agency for the Development of Kanak Culture (Agence pour le Développement de la Culture Kanak (ADCK)) (www.adck.nc)

Architects

Renzo Piano Building Workshop (www.rpbw.com); Renzo Piano (principal); Paul Vincent (associate-in-charge); William Vassal (architect-on-site), Antoine Chaaya, Alain Galissian, Marie Henry, Charlotte Jackman, Robert Keiser, Gianni Modolo, Joost Moolhuijzen, Jean Bernard Mothes, Marie Pimmel, Sophie Purnama, Dominique Rat, Anne Héléne Téménidès (design team); Oliver Doizy, Andrea Schultz (modelmakers)

Consultants

Competition Phase (1991): A. Bensa (ethnologist); Desvigne & Dalnoky (landscaping); Ove Arup & Partners (engineers); GEC Ingénierie (cost control); Peutz & Associés (acoustics); Scène (scenography)

Design Development and Construction Phase (1992-1998): A. Bensa (ethnologist); GEC Ingénierie (cost control), Ove Arup & Partners (engineers); CSTB (climate control); Agibat MTI (engineers); Scène (scenography); Peutz & Associés (acoustics); Qualinconsult (security); Végétude (landscaping); Intégral R. Baur

General Contractor

Glauser International

What if the answer to our energy future, and the future of our climate-altered planet, lies not in inventor's workshops, university labs or petroleum company research facilities? What if it is not to be found in places with the greatest infrastructure for energy delivery, the largest oil reserves or the most advanced energy science? What if, instead, our energy future is found in unexpected places: places where infrastructure and capital investment are exceedingly poor; places where providing energy services does not enhance the bottom line; places where almost no one owns a car; places occupied by the 40% of the world's population that live on less than 1.50 Euros a day?

South African architect Jo Noero's contribution to the conversation initiated by this exhibition provokes such questions. Just as mobile phones and Wi-Fi have leap-frogged over landline and Ethernet technologies in developing countries, Noero suggests that future energy networks can leap-frog over conventional and commercially controlled energy infrastructure and sources to provide inspiring and productive models for the energy future of all of us. This future is one of small scale, evenly owned and distributed, renewable systems. It rejects the definition of energy as simply conventional fuels. It rejects the control of energy by multinational corporations or nationalized energy consortiums. And it relies primarily on the ultimate renewable energy: human beings.

To test this provocative idea, Noero has turned to the small South African township of Hangberg, nestled on a slope just above the fisheries processing plants edging Hout Bay Harbor. Just 20 kilometers from downtown Cape Town, this now mixed-race community of 25,000 sits at the end of the road on a compact slice of land. Housing consists of a cross section of the kinds of housing found in most townships: government constructed brick row houses, old workers hostels, a few small concrete block homes, and tightly packed informal settlement shacks. This density is in stark contrast to the stunning

The current rate of energy consumption in the world is untenable.

The free market mechanism of the global economy is also unsustainable, unfair and unjust.

As a counterpoint we seek to find ways of liberating the single most renewable and sustainable energy resource in the world namely human energy, imagination and creativity.

The model that we have chosen to investigate this idea is the informal sector in Africa in which, despite massive difficulties, people are free to operate in a spirit of untrammelled exchange free from all forms of state control such as licenses and taxes. We do not support an autarchic society - rather we

support ways to maximize the freedom of people whilst recognising that the state has an important role to play in ensuring equality of opportunity and equitable access to resources.

The area of investigation is a small fishing village outside Cape Town called Hangberg. The project explores the possibility of new spatial realms embedded with productive infra-structures at both household and community scales. These infra-structures are designed to use locally generated systems of energy production which in turn will create autonomous, robust and self-sustaining communities. This energy infrastructure opens up ways of

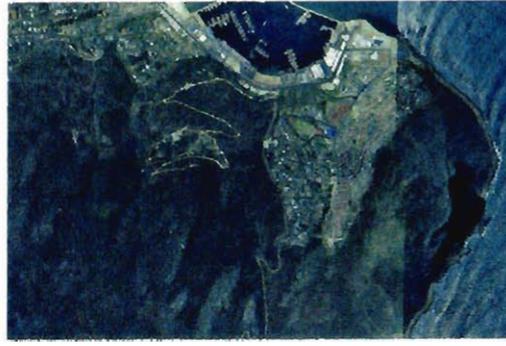
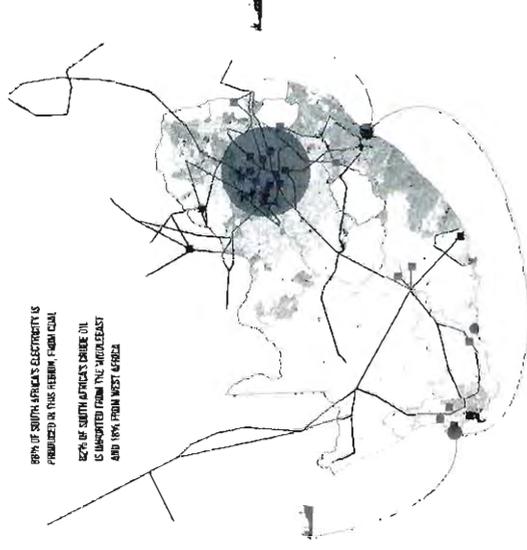
addressing new forms of locally produced energy as well offering up a different way of thinking about a productive public space which grows vertically. This in turn offers up new ways living in the world which is both liberating and sustaining at both the individual family scale and at the larger community level.

Noero Architects productive (re)public

sweep of Hout Bay and the sprawl of middle class, almost entirely white, neighborhoods that edge the beach and creep up the flatter valleys a few kilometers away.

As Hangberg is a microcosm of a township, Hout Bay is a microcosm of the continuing inequalities embedded in the social, economic and spatial fabric of South Africa put into place by the fastidiously racist apartheid regime. Secured by a series of laws rapidly put into place when the Nationalists took power in 1948, the thrust of this flurry of legislation was to secure the political, economic and spatial dominance of the tiny white minority while rendering powerless and invisible the vast non-white majority of the country. Racial segregation at all levels of life was essential to this effort. It required the careful racial classification of each person, the breaking apart of mixed-race communities, elaborate schemes of mass relocation, draconian pass laws and carefully wrought planning to ensure a segregated future. Architects and planners were put to work designing white utopian cities of the future and laying out distant suburban street patterns with optimal minimum dwellings for the non-white bedroom communities that would serve them and the industrial production of the nation. Jo Noero was born and came of age in this apartheid South Africa. Like all white South Africans, Noero benefited from apartheid. Unlike most white South Africans at the time, however, he realized early in his life that the apartheid government was profoundly unjust, even evil. Noero says there "was the sense of normalcy... And yet, at the time, the sense of impending terror in the country was undeniable." He became politically active quite young and his study of architecture was undertaken with a clear understanding that the field is not neutral, that those who design the physical and spatial future are inextricably involved in the dynamics of power. He was adamant that his work as an architect would not in any way support the apartheid regime. Such a

South Africa Energy Infrastructure
Hangberg, aerial view
City of Cape Town Strategic Development Information and GIS



stance was not an easy thing to maintain in the full face of the authorities – it required extreme ethical clarity, daily doses of courage, and an abiding optimism about the future. There were no half measures, no middle ground, very few shades of gray. The strength of mind, forcefulness of opinion and unwavering character developed during this era endures in Noero and in anti-apartheid activists like him across the nation. And a suspicion of those in power, with power, controlling power (energy?), became second nature. In the early 1980s Noero, along with some of his colleagues, signed a pledge to refuse architectural work from the current government. While dramatically limiting his access to commissions, this stance set him on the course he continues to follow today: an investigation of the potential of architecture to enrich the lives of those with the least access to conventional forms of societal and economic power. During this time, Noero worked for NGOs in the townships, and also designing township community buildings, modest houses, and a scattering of commercial buildings. He was also appointed as architect for the Transvaal Diocese of the Anglican Church by Desmond Tutu, who later became the Anglican Archbishop of South Africa and Nobel Peace Prize Laureate. This post meant that Noero had the honor of designing churches, chapels, administrative buildings and school projects for the diocese – and for

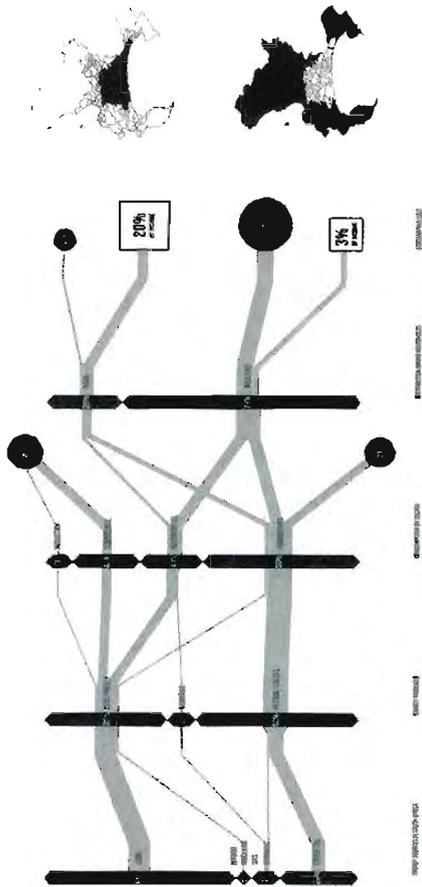
this abiding moral authority of the anti-apartheid struggle. Working in the townships in this era, Noero began developing the architectural spatial and material palette he still taps into today. He admired the creative and resourceful uses of recycled and mundane materials procured by township residents for their self-built homes. Noero speaks passionately about wanting to demonstrate that these modest materials – including corrugated tin, concrete block and cement board – could be used in beautiful ways, that they could be elevated to become the materials not only of making do, but of choice. Inexpensive and readily available, often with prefabricated systems of attachment and waterproofing, these materials are locally produced, and readily available. Their adoption also helps to ensure that maintenance and repair to Noero's township buildings were straightforward activities able to be accomplished by local residents – a crucial aspect of the sustainability of the projects.

The use of this material palette could easily have led to a "poverty chic" aesthetic – one that mimics without transforming. However, Noero's formal inventiveness, serious intentions, careful husbanding of every resource (spatial and material) and creative detailing pull the buildings into a entirely new realm. They are lively and surprising, colorful and beautifully made. They have strong forms that reflect the strength of Noero's convictions forged during the Struggle.

Given the impoverished energy circumstances in the townships, Noero's building have always been "sustainable". They use architectural and material strategies that provide natural ventilation, shading in the summer, and solar gain in the winter. Ceilings often soar so that daylight can pour down from above. And they seek to leverage program spaces to do more than they were assigned to do – often to add to spaces for community gathering, entrepreneurial activity, and public uses. For instance, in one high school in the Cape Flats, Noero's firm designed two-faced industrial arts and home economics classrooms to line the township street edge. They are opened from the secure inside of the campus during the school day, then, when the students are gone, become adult training and micro-business locations in the evenings and on weekend. Roll-up windows, counter height sills and built-in benches on the street side of the classrooms offer the opportunity for selling items made by local adults to the community. Even when the windows are closed, the benches and paved sidewalk invite sitting in the sun, socializing and playing.

South Africa Energy Flows

Cape Town. The city divided by wealth, density, and opportunity



Noero's post-apartheid buildings continue these explorations. However, as the townships slowly become towns, as the buildings in these places become larger and house cultural programs, his material palette is expanding to include steel, concrete, plate glass and wood. These are appropriate to serious cultural buildings, regardless of location. The works at Red Location – a museum to the anti-apartheid struggle, an art gallery/center, and a library (with a theater complex in development) – was won in a competition where Noero's team envisioned a lively public intersection formed by the buildings. The award-winning museum is an exquisitely detailed work using the township palette and spatial references to the factories across the nearby railroad tracks in combination with robust poured-in-place concrete. Completed in 2005, it soars far beyond its humble spatial and material roots to make an iconic building that straddles the dire past and the unforeseeable future.

Noero's use of architecture to develop edges that invite public use is a key leveraging of the township projects. Photos of the townships always show lots of open space – ungrazed empty lots where children play soccer, crisscrossed by paths tracing the shortest route to transport, plastic bags tangled in the weeds. But these are not public spaces, these are expanses of no-man's-land. They are unsightly, unseen and dangerous places in low-density suburban-like sprawl. Indeed, during apartheid non-white people in South Africa had no real public space in the townships and were prohibited from lingering in any developed spaces in the white cities. Even now, the very notion that an outdoor space might be designed to invite people to gather informally (and safely), to interact, to be used as a collective resource, is still surprising.

Since the end of apartheid formal public space in the some townships has been slowly appearing, but with no cultural tradition of using piazzas and parks, these often fall into disrepair unless diligently maintained. Much more successful are smaller public spaces like the ones Noero makes with the street edge of his projects. The investment to make such places is low—requiring only benches and perhaps an overhead covering for shade or rain protection. At Red Location, the Museum provides a shaded verandah with places to sit along one street, and the Library hosts a poetically long bench along a smooth blue-purple wall. These occupiable edges create an additional public amenity: they bring down the scale of these new building types at the street and within the almost entirely one-story townships. The intersection and streets are clean concrete surfaces where children can play out of the dirt and under the tolerant gaze of the museum security guards. These places of being outdoors, away from home but in community, maintained by the buildings they are outside walls to, provide critical ingredients to a civic life.

While apartheid ended in 1994, from the window of an airplane it is easy to see how deeply the system is still written into South Africa. Even the smallest towns

appear as two towns. One consists of a grid of tree-lined streets and comfortable houses surrounded by lawns. Its shriveled twin, always some distance away, but connected by a well-travelled road, has a much lighter grid of dirt roads lined with tiny houses or shacks. Here trees are a rarity and lawns non-existent. This pattern appears no matter the size of the population: here, the white town and, over there, the black or colored "township". The implications of this separation are compounded in large cities: huge distances continue to separate the black and colored townships and the "white" city. While no longer prohibited from living inside these cities, most working class blacks and "coloreds" cannot afford the move, and many do not want to leave their communities. So they remain in the township locations that continue to grow as the government builds new housing and as new residents add to sprawling shack neighborhoods. This is a world where car ownership is rare and the transportation so essential to modern life remains inconvenient, expensive, and overcrowded.

Cape Town is the embodiment of this South Africa split between developed and developing worlds, it is a world-class city with numerous poor townships clustering around it. Hangberg, tiny in comparison with many of the other townships, was founded in 1956 when the apartheid government forcibly moved all the colored people who had been living in Hout Bay onto just 2% of the habitable land edging the steep-sided bay. Here they were close to the fisheries jobs that needed cheap and readily available labor. Apartheid officials ignored the lack of transportation and the kilometers of empty dusty road between the township and the nearest commercial amenities. And the fact that the township has a million-dollar view escaped their attention.

After apartheid ended, Hangberg grew in size and slowly became a mixed-race community. The shack settlement expanded and was eventually sanctioned by an overburdened government unable to provide decent permanent housing for the residents. And the land adjacent to the historical edge of Hangberg, in the little valley that runs up from Hout Bay Harbour was subdivided into a neighborhood called The Heights, and sold to middle class buyers willing to pay for the view, even if they had to drive along the edge of Hangberg to get to and from home.

But Hangberg is still at the end of the road, where the poor and impoverished citizens are keenly aware of the extreme beauty of their place, but where they struggle every day with limited infrastructure and cut off from commercial and civic life. Most rely on carpooling, hitch-hiking, overbooked informal taxi vans known as kombis, and dilapidated public buses to get to work or to go shopping for essentials. Electrical lines are tapped by a tangle of illegal wires tacked on telephone poles, skipping across house eaves and running along improvised fences. The famously fierce Cape Peninsula storms often cause this fragile



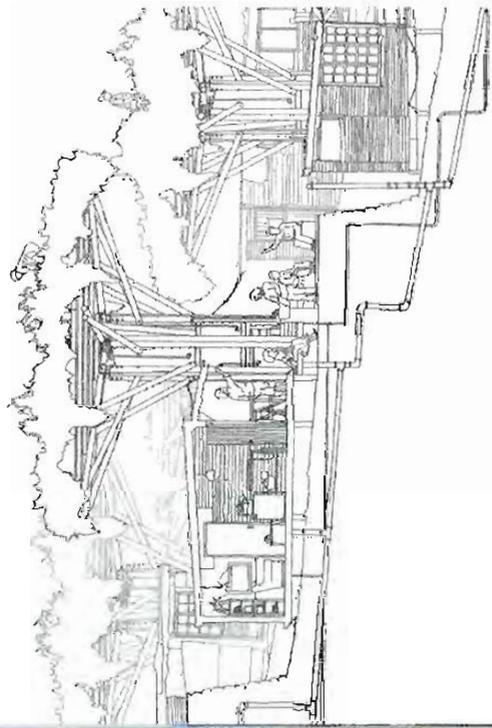
Hangberg (photo by Uno Pamera)

electrical arrangement to fail. This is clearly not a place – economically, socially, and historically – where conventional centrally-controlled, commercially-based solutions to energy make any kind of sense at all. Nbero, as he always has, seeks to discover through his project for this exhibition, ways that energy infrastructure can empower the citizens and the community and help them to wrest their energy future from the vagaries of capital markets and corporate greed.

And so Nbero and his team have conducted careful scientific research into what kind of energy systems already exist, or have the potential to emerge from the landscape, the informal organization and the human energy of Hangberg. And they have asked themselves what more the residents need in terms of "energy", in terms of replenishment of the hope and courage their lives require. The result is *Productive Public*, what Nbero calls a "new public realm embedded with productive infrastructures" that provides not only energy solutions but also responds to the need for networked public spaces in the community.

To be clear, this is an abstract utopian project. While Nbero and his team have had some conversations with residents of Hangberg, the project is not a "real" one. "We wanted to see what would happen if we separated this research out from local politics and community dynamics", says Nbero, who has spent countless hours of his practice life involved in just such conversations. "What we have found," he continues, "is that it is completely feasible for Hangberg to be an autonomous settlement free from the city grid, using only the energy that is available to them locally. But, and here is the utopian part, it requires a cooperative spirit and people have to work together. Look, we only rely on these externalized energy sources because we operate in atomized ways and don't care at all about each other. But the current situation is actually like a noose around our neck that is getting tighter and tighter and tighter."

In recent years there have been examples of architects using impoverished communities as fodder for advancing particular research agendas or careers, for displaying to the world a version of poverty pornography in the guise of architectural exploration (think Rem Koolhaas in Lagos, Nigeria). This is not the case with Nbero's proposal for Hangberg: not only has Nbero spent the majority of his thirty years of practice working in the townships of South Africa,



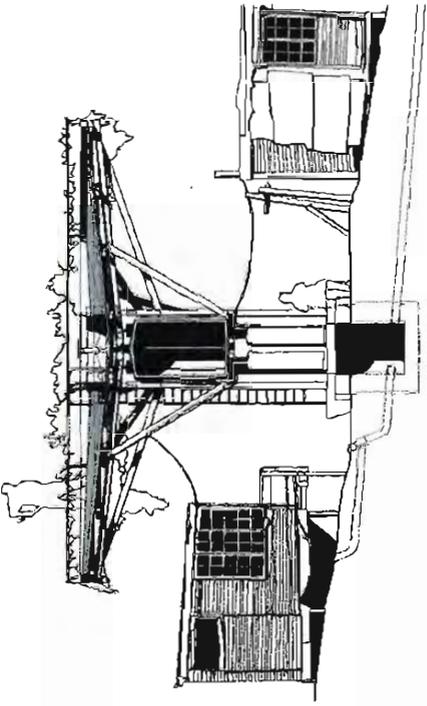
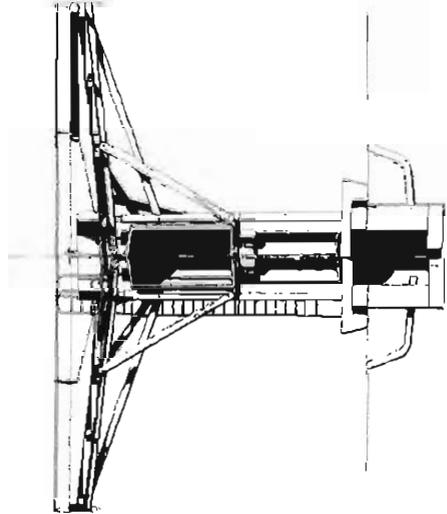
but ten years ago, he built his family a modest house in The Heights. He is a resident of Hout Bay Harbour, and as he did during the apartheid era, Nbero daily witnesses the dispiriting inequities that continue to plague Hangberg, South Africa and, indeed, vast swaths of the humanity.

The future of energy for the kilowatt-guzzling global middle class is indeed grim. As the world continues to develop and this middle class expands into the billions, we will quite rapidly meet the end of the petroleum era. In this future, energy costs will spiral to dizzying heights and, as a result, we will live in energy-reduced circumstances that require profound shifts in our behaviours. Many find this a terrifying idea. But what if, as Nbero asks, this is not the end of life as we know it, but rather an invitation to a decentralized, locally-sourced, community-based energy future for us all? What if we never again have to buy petrol for our cars, or pay an electric bill, or write a check for refilling the propane tank? What if, what if?

productive public realm
Section through the small-scale energy infrastructure in the existing village

Typical section through small scale energy infrastructure

Typical section through public energy infrastructure



materia: el tema es material
materia: the subject is material

Lisa Findley

Cada material tiene sus características específicas que debemos comprender si es que queremos usarlo... Esto es así para el acero y el cemento (así como para la madera, el ladrillo y la piedra). Debemos recordar que todo depende de cómo usamos un material, y no del material en sí... Los materiales nuevos no son necesariamente superiores. Cada material es lo que hacemos de él... Debemos familiarizarnos con las funciones de nuestros edificios así como con nuestros materiales. Debemos entender lo que un edificio puede llegar a ser, lo que debería ser así también lo que no debería ser. Y así como nos acercamos a los materiales, así como comprendemos funciones, también debemos familiarizarnos con los factores psicológicos y espirituales de nuestra vida. No hay actividad cultural que sea posible de otra manera, porque desarrollamos el espíritu de nuestro espacio...

Mies Van der Rohe, fragmentos editados,
Charla inaugural en el Instituto de Tecnología de Illinois, 1938

Aquí, en 1938, Mies nos habla no de un estilo de arquitectura sino más bien de un compromiso con los materiales: su manufactura y su relación con el contexto cultural, temporal y espacial. Este tema fundamental de la arquitectura trasciende el tiempo, el lugar y la tecnología... Revela además que el pensamiento de Mies sobre la arquitectura es más complejo de lo que se suele considerar. Sus tendencias humanistas que mantuvo a pesar de la ortodoxia del CIAM y la necesidad de los historiadores por categorizar, se dejan ver claramente: se manifiestan de manera concisa en edificios como la Villa Tugendhat o el Pabellón en Barcelona, y veinticinco años después se expresan con la característica precisión mexicana de la fórmula "Dios está en los detalles".

Presentar a un joven taller de arquitectura contemporánea con citas de un icono fundamental del modernismo del siglo XX es quizás algo extraño. Sin embargo, estas ideas sobre los materiales en la arquitectura hacen eco a través del tiempo y, como un lema en el jazz, han sido elaborados, transformados e improvisados por toda una línea de arquitectos. El taller de arquitectura que se presenta en esta monografía pertenece a la corriente humanista del modernismo. La creación del espacio que responde a un contexto, el arte del detalle exquisito y preciso y el despliegue poético de materiales es crucial en la obra de los modelos (Kahn, Scarpa, Zumthor, Siza, Barragán) y de los mentores (Wendell Burnett, Nataniel Fuster) de este taller arquitectónico, Materia Arquitectónica.

1 Mies Van der Rohe, entrevista en el New York Herald Tribune, 28 de junio 1938.

Each material has its specific characteristics which we must understand if we want to use it... This is no less true of steel and concrete than of wood, brick, and stone. We must remember that everything depends on how we use a material, not on the material itself... New materials are not necessarily superior. Each material is only what we make of it... We must be as familiar with the functions of our buildings as with our materials. We must learn what a building can be, what it should be, and also what it must not be... and just as we acquaint ourselves with materials, just as we must understand functions, so we must become familiar with the psychological and spiritual factors of our day. No cultural activity is possible otherwise, for we are dependent on the spirit of our time.

Mies Van der Rohe, edited excerpts,
1938 inaugural address at the Illinois Institute of Technology

Here, in 1938, Mies is talking not about a style of architecture but rather about the engagement with materials—their crafting and their relationship to spatial, cultural and temporal context. This fundamental subject of architecture is one that transcends time, place, and technology. It also reveals Mies' thinking about architecture to be more complex than is often characterized. His humanist leanings, not yet stripped away by the orthodoxy of CIAM and the urge of historians to categorize, show clearly: leanings that are most clearly manifested in buildings like the Tugendhat Villa and the Barcelona Pavilion, and that are condensed with characteristic Miesian precision twenty-one years later as "God is in the details."

To introduce a young 21st century architectural practice with quotes from a fundamental icon of 20th century Modernism, is perhaps a bit odd. However, these ideas about materials in architecture resonate through time, and, like a theme in jazz, have been elaborated, transformed and improvised upon by a lineage of architects. The practice displayed in this monograph is of the lineage of the humanist strain of modernism. Context responsive space-making, the art of exquisite and precise detailing, and the poetic deployment of materials is essential in the work of the role models (Kahn, Scarpa, Zumthor, Siza, Barragan) and mentors (Wendell Burnett, Nataniel Fuster) of the young architectural practice, Materia Arquitectónica. "Materia" is a lovely Spanish word whose meaning shifts with context. It can mean subject matter, substance, or the material of

1 Mies Van der Rohe, interview in New York Herald Tribune, 28 June 1938.

which something is made. This triple meaning—on one hand conceptual and potentially philosophical and, on the other, profoundly and profanely physical—is precisely why it was chosen by Lisa Beltrán and Gustavo Carmona in 2006 for their newly launched practice. Based in Mexico City, Materia is among the young firms sprinkled around the globe that eschew style and willful form-making in pursuit of a different, more craft-based humanist agenda. This new generation gives hope to the future of architecture.

Beltrán and Carmona met in graduate school at Arizona State University (ASU) in the United States in 2001. Spanish is the first language for both of them; Beltrán came from Puerto Rico where she did her undergraduate work at the University of Puerto Rico, and Carmona came from Mexico City and his studies at Anahuac. As a result of getting to know each other in the context of school, the very DNA of their relationship is intertwined with architecture. At ASU, it was the differences in their work that stood out. According to Beltrán, she would look at Carmona's work and "it would be very precise, with sharp and clear corners, very regular and carefully controlled. Beautiful lines, careful proportions." Then Carmona would look over and see Beltrán's projects, which were almost the exact opposite, he says. "There was not a corner in sight, one project was all dark blue, very phenomenological, very magical. I was so thrilled by her project. It was so much about experience."

Ten years out of graduate school, these differences are still there—and they provide a crucial dynamic for the work of Materia. In conversations about architecture, the two bounce ideas back and forth, picking up a thread or direction the other has stanned. The fact that they do not always agree does not cause either pause; they exchange ideas rapidly, modifying their individual stances—and still, not always agreeing in the end. In all of this, they are at ease, respecting what each brings to the conversation and trusting each other and the process of refining an idea. It is a glimpse of how their design process works. This process has evolved over time and within the demands of the practice and their busy shared daily life. "We end up having a lot of project conversations in the kitchen and during meals. Our daughters just roll their eyes," Beltrán laughs. "It is so important that we have each other to constantly remind ourselves of the key ideas. In this way we keep each other honest and are able to maintain our intentions for the projects."

Materia believes that there is no perfect architecture, and they revel in this (for it is the imperfections that make us human. There could hardly be a more humanist agenda for an architectural prac-

"Materia" es una hermosa palabra en español cuyo significado varía según el contexto. Puede referirse al tema en cuestión, a la substancia, o al material del cual algo está hecho. Este triple significado, por un lado conceptual y potencialmente filosófico, y por el otro profundo y profanamente físico, es precisamente la razón por la cual en 2006 Lisa Beltrán y Gustavo Carmona eligieron esta palabra para nombrar su estudio. Con base en la ciudad de México, Materia está entre las empresas jóvenes desparpadas por el mundo que reinventan al estilo y a la creación descuidada de la forma, en busca de una creación diferente, artesanal y humanista. La nueva generación le da esperanza al futuro de la arquitectura.

Beltrán y Carmona se conocieron en 2001, mientras estudiaban en la Universidad del Estado de Arizona (ASU) en Estados Unidos. Los dos son hablantes nativos de español; Beltrán es de Puerto Rico, donde se graduó con estudios de la Universidad de Puerto Rico, y Carmona es de la ciudad de México, donde completó sus estudios en la Universidad Anahuac. Como resultado de conocerse en el contexto universitario, el mismo ADN de su relación está entrelazado con la arquitectura. En ASU las diferencias entre su trabajo sobresalían. Según Beltrán, cuando estudiaba el trabajo de Carmona veía que era "muy preciso, con esquinas nítidas y concisas, muy regular y meticulosamente controlado. Líneas bellas, proporciones cuidadosas." Luego Carmona, al estudiar los proyectos de Beltrán, casi opuestos a los suyos, diría: "No había ni una esquina visible, un proyecto era todo azul oscuro, muy fenomenológico, muy mágico. Era más que nada acerca de la experiencia."

Diez años después de graduarse, estas diferencias aún subsisten y brindan una dinámica crucial para el trabajo de Materia. En charlas sobre arquitectura, ambos intercambian ideas y entre los dos completan sus respectivos hilos de pensamiento. El que no siempre están de acuerdo, no los pausa. El intercambio de ideas es veloz, modificando sus puntos de vista originales, y aún así, no siempre concordando al final. Pero siempre están tranquilos, respetando lo que el otro trae a la conversación, y confiando entre sí, así como en el proceso de perfeccionar una idea. Este proceso ha evolucionado y se ha ido transformando dentro de las demandas de la práctica y de la cotidianidad activa que comparten. "Terminamos con muchas conversaciones sobre proyectos en la cocina y mientras comemos. Nuestras hijas simplemente ponen sus ojos en blanco", dice Beltrán entre risas. "Es tan importante que nos tengamos el uno al otro para recordarnos constantemente de las ideas clave. De esta manera, hacemos que el otro sea siempre honesto y capaz de mantener nues-

Materia cree que la arquitectura perfecta no existe y se jactan de ello, porque la imperfección es lo que nos hace humanos. No podría haber concepción más humanista para un estudio de arquitectura y Materia lleva adelante esta idea con la inteligencia, diligencia, gracia y el buen humor necesarios para una pareja con dos hijas y un estudio exitoso. Esta humanidad se profundiza con el nivel de conciencia, raro en una empresa joven, a la que en general le lleva años llegar a tener cierto dominio de la arquitectura y, en particular, cierto control del detalle. Es un juego de larga duración. La voluntad de dejar de lado la perfección no significa que no se busque. Sin embargo, sí implica una liberación que les permite experimentar con las cosas que funcionan, descartar las que no. Como resultado, para Materia cada proyecto es una plataforma para el aprendizaje, una especie de laboratorio para expandir su vocabulario espacial y material, desafiar las tendencias locales de construcción y para probar detalles. Esto lleva a una versión arquitectónica del juego y, como toda gran actividad lúdica, el miedo no tiene cabida.

Beltrán y Carmona hicieron el miedo a un lado cuando trasladaron a su familia de la bahía de San Francisco a la ciudad de México donde abrieron un nuevo estudio. Su primera comisión fue típica de una empresa recién establecida: la extensión de una casa. Luego consiguieron algunos proyectos de diseño interior para compañías locales. Con dos hijas, los gastos de una oficina y un trabajo que apenas cubría sus costos, los primeros dos años no fueron fáciles.

En 2010 se abrió un nuevo horizonte cuando fueron contratados como arquitectos locales para el diseño de una tienda de una marca internacional de lujo en México. Materia se encargó de realizar la etapa final de la supervisión de la construcción. Sin saber realmente si este tipo de trabajo tendría valor alguno para la empresa que estaban lanzando, Beltrán y Carmona se encontraron en lo más profundo del desafío arquitectónico, enfrentándose a diario con nuevos retos. A menudo se sintieron abrumados pero a la vez entusiasmados y animados. "Queríamos impresionarlos," dice Beltrán, "así que trabajamos muy pero muy rigurosamente." Carmona se ríe. "La lista de pendientes estaba tan empapada de notas en rojo que parecía que desagrababa." Pero el resultado de este proyecto fue sorprendente. Y el alto cuidado con el que se encargaron del proyecto, brindó tan bellos resultados que establecieron esta forma de hacer las cosas, como el modo de operar del taller.

Y es así que comenzó el romance de Materia con materiales y detalles. Y, basándose en el éxito de este primer proyecto, también

tics, and Materia pursues it with intelligence, diligence, grace and the good humor necessary for a couple with two children and a thriving practice. This humanity is deepened by the conscientiousness, rare in a young firm, that it usually takes years to gain a command of architecture; and, in particular, to master detailing. It is a long game. The willingness to forgo perfection does not mean that they do not strive for it. However, it does free them to experiment with their work, to play with ideas, take risks, make mistakes, refine the things that work, discard things that do not. As a result, for Materia, each project is a platform for learning, a kind of laboratory to stretch their spatial and material vocabulary, challenge the local building trades and to test out details. This leads to an architectural version of play—and like all great playful activity, it is underpinned by fearlessness.

Beltrán and Carmona were certainly fearless when they moved their family to Mexico City from the San Francisco Bay Area and opened an office. Their first commission was typical of a newly established firm: a house extension. Then they landed a few retail interior projects for local companies. With two children, office overheads and work that just barely paid for itself, the first two years were a struggle.

In 2010 they had a big break: they were hired as the local architects for a Mexico store build-out of an international luxury brand. The store was designed by an American architect, and Materia was tasked with doing the end-stage construction supervision and punch list for the project. Not sure if this kind of work had value for the practice they were launching, Beltrán and Carmona found themselves in the architectural deep end, confronted every day with new challenges they had never dealt with before. They were often overwhelmed—in a kind of thrilling, enlivening way. "We wanted to impress them," says Beltrán, "so we were very, very rigorous in our work." Carmona laughs. "The punch list drawing set was so covered with redline notes that it looked like it was bleeding." But the result of doing this work was surprising: the partners found themselves, fascinated by the way things were being put together to achieve the final surfaces and intersections of materials. And the high degree of rigor with which they approached the project yielded such beautiful results that it became a key mode of operation for the practice.

And so began Materia's love affair with materials and details. And, based on their success with the first project, it was also the beginning of a body of work for various luxury international brands.

For Beltrán, this working out of the finest level of detail is more challenging—but she brings to the details an essential overall sensibility, even poetry: “I find it very difficult to balance the two things—the emotion and the reality of architecture—at the same time.” Even before she came to architecture Beltrán was designing and making jewelry and clothing. This work continues. In these endeavors she is making the thing itself; there is no intermediate step of documentation. She is designing while making, refining the ideas in process. Architecture is a scaling-up of her design sensibility—from jewelry and clothes to buildings. She understands extreme needs of craft at a most intimate level, and the pitfalls and potentials in the way things come together. However, for her, the process of documentation in architecture creates a kind of divide between designing and making. Her collaboration with Carmona bridges this divide.

The two partners admit to an addiction to details. “There have been times,” Carmona says, “when we have designed a detail section at the beginning because we had an idea in mind, or wanted to play with certain materials. Beltrán finishes the idea. So the part is sometimes an excuse.”

“Other times,” says Beltrán, “the detail is the last expression of the idea. It reinforces the poetry of the experience we are looking for.” This interest in the experience of the building was not readily available when Materia was only designing retail spaces. With the retail work, the experience of entering and moving through the project was essentially pre-determined. With the houses, the overall hierarchy and relationship of spaces (the *part*) and the movement into and through the site and the building, is an opportunity in design. The house projects have allowed Materia to explore not only a vocabulary of details, and also to carefully craft other aspects of architecture. These range from negotiating the intersection of brand new materials and program with a 300-year-old former Quinta in the north of Portugal to creating a courtyard for a house on a very steep Mexico City slope.

In general, when Materia receives a new project, both partners start thinking about the overall *part*, including issues at the building scale like program, site and context. At the same time, they explore ideas of materiality in the smaller scales. In bridging between these two scales of architectural thinking, they carefully compose episodes and experiences of the site using the craft of the section to bring out the qualities of place. In this way, the details are not deployed as acrobatics, but rather in the service of the intentions of the architecture to make space, evoke moods,

más diminutas, disfuntado de la precisión, trabajando y volviendo a trabajar las formas en las que los materiales se unen. Dice: “Pienso que los documentos de construcción son lo más divertido en el diseño, por ese ajustar las cosas y cómo se vuelven un mismo conjunto. Aunque hacemos cambios en el lugar, preferimos detallar hasta lo más mínimo en los dibujos.”

Para Beltrán esta elaboración del nivel más fino del detalle es más desafiante. Sin embargo, ella aporta una sensibilidad, incluso cierta poesía esencial para el detalle. “Se me hace difícil equilibrar ambas cosas, la emoción y la realidad de la arquitectura”. Incluso antes de acercarse al mundo de la arquitectura, Beltrán solía diseñar y producir joyas y ropa. Esta labor continúa. En estas tareas, Beltrán crea el objeto en sí mismo; no hay un paso intermedio para la documentación. Dueto mientras hace, refinando las ideas en el proceso. La arquitectura es un avance de su sensibilidad en el diseño: de la joyería y la ropa, a los edificios. Enlinda las necesidades más extremas del arte al más íntimo nivel, así como las desventajas y posibilidades en las que todo converge. Sin embargo, para ella el proceso de documentar la arquitectura crea cierta división entre el diseño y la producción. Su colaboración con Carmona fusiona esta dicotomía.

Los dos socios admiten ser adictos al detalle. “Otras veces”, dice Beltrán, “el detalle es la última expresión de una idea. Subraya la poesía de la experiencia que estamos buscando”. Este interés en la experiencia del edificio no estaba al alcance en sus inicios. Con el diseño de tiendas, la experiencia de entrar y moverse a través del proyecto estaba prácticamente determinada con anterioridad. Con las casas, la jerarquía general y la relación de los espacios (el *partido* o los criterios arquitectónicos), y los movimientos hacia y a través del lugar y el edificio, son una oportunidad para el diseño. Los proyectos de casas le han permitido a Materia no solamente explorar el vocabulario de los detalles, sino también profundizar en otros aspectos de la arquitectura. Estos aspectos van desde el análisis de la intersección de materiales y programas totalmente nuevos, en una ex Quinta de 300 años, en el norte de Portugal, hasta crear el patio para una casa en una profunda pendiente en la ciudad de México.

En general, cuando Materia recibe un nuevo proyecto ambos socios empiezan por pensar sobre el partido en general, incluyendo la escala de la construcción, el programa, el sitio y el contexto. A su vez, exploran ideas sobre la materialidad en las escalas más pequeñas. En la acción de unir estas dos escalas del pensamiento arquitectónico, componen cuidadosamente episodios y experiencias

del sitio, usando el arte de la sección para destacar las cualidades de lugar. Así, los detalles no se despliegan como acrobacias, aparecen al servicio de las intenciones arquitectónicas: por crear un espacio, evocar ciertos estados de ánimo, dirigir transiciones y celebrar el movimiento del cuerpo humano y sus sentidos.

Los precedentes para este aspecto de su trabajo se basan en la experiencia, los viajes, cosas de las que han gozado, lugares que traen consigo recuerdos de plater y espacios que explicita y poéticamente se involucran con el cuerpo y sus sentidos. Se interesan más que nada en desarrollar una experiencia, una actitud, un sentimiento, más que un estilo. Beltrán alude a sus experiencias en los energéticos ambientes de Puerto Rico, en la radiante luz tropical y en los espacios complejos del viejo San Juan. En su época de estudiante trabajó con un arquitecto especializado en la remodelación de edificios en la ciudad vieja. Allí, se enamoró de los edificios monumentales de gruesos muros en cuya interior se escondían pequeñas habitaciones.

La primera vez que Carmona contempló el espacio como una experiencia fue en su niñez, visitando la fábrica de procesamiento de madera que su padre tenía en el estado de Veracruz. Mientras su padre trabajaba, Carmona recorría el patio y jugaba solo, trepando aquellos espacios creados por las pilas de madera procesada. Los rayos de sol se filtraban entre las pilas y se hacían visibles en el aserrín que flotaba en el aire. Carmona dice: “Siempre me tocaron más los recuerdos de ciertos momentos, dentro de la arquitectura que ciertos arquitectos en particular, lugares o espacios específicos. Algunos edificios se quedan contigo, otros no. Así que, cada vez que comenzamos un proyecto, siempre hablamos sobre los momentos. Nos interesa la forma del momento más que la forma de un objeto. La forma final del objeto es la suma de esos momentos.”

De esta forma, así como el detalle es poético en su arte intencional y meticuloso, las cualidades especiales y experienciales del trabajo de Materia emergen de una cartografía de ficción. Como la danza, esta cartografía depende del tiempo, así como de las características físicas y artísticas de la arquitectura. Uno se deja llevar de lugar en lugar, explorando y sintiendo. El intelecto se desmonta y se reemplaza por el placer casi infantil de existir en el cuerpo propio. Beltrán y Carmona explican sus intenciones en una conversación. Dice Carmona: “Lo que buscamos es realmente un espíritu más que un estilo.” Y Beltrán: “Sí, una experiencia muy humana”. Carmona: “Es un tipo de ejercicio de la construcción, sobre la idea cómo hacerlo: economía, material, arte”. Beltrán: “Realmente es un proceso

orchestrate transitions, and to celebrate the movement of the human body and its senses.”

The precedents for this aspect of their work are layered and based on experience, travel, things that have delighted them, places that evoke enduring memories of delight and spaces that explicitly and poetically engage the body and its senses. They are most interested in developing an experience, an attitude, a feeling, rather than a style. Beltrán cites her experiences in the lively environments of Puerto Rico, in the brilliant tropical light, and in the complex spaces of Old San Juan. While a student there, she worked with an architect who refurbished buildings in the old city. She fell in love with the thick-walled monumental buildings that hid surprisingly small rooms inside.

Carmona first thought of space as an experience when he was a child, visiting the wood processing factory his father owned in the State of Veracruz. While his father was working, Carmona would wander around the yard and spend time alone playing and climbing inside the tall spares created from the stacks of milled wood. Sunlight would enter through the spaces between these stacks and made visible by the sawdust in the air. Says Carmona, “I have always been touched more by memories of moments within architecture rather than by specific architects. Specific places and spaces. Some buildings stay with you, others do not. So, when we start a project, we always talk about moments. We are interested in the form of the moment rather than in the form of the object. The final form of the object is the sum of these moments.”

In this way, just as the detailing is poetic through intensive and careful craft, the spatial and experiential qualities of Materia’s work emerge from a careful choreography. As with dance, this relies on the element of time as well as on the physical characteristics and craft of the architecture. One is drawn from place to place, exploring and experiencing. Intellect falls away and is replaced by an almost child-like delight in being in one’s body. Beltrán and Carmona explain their intentions in one of their back-and-forth idea-building conversations. Carmona: “We really seek a spirit rather than a style.” Beltrán: “Yes, a very human experience.” Carmona: “It’s a kind of exercise of edifying—from idea to how to do it: economics, material, craft.” Beltrán: “It’s really a very emotional process.” As often happens, Carmona sums up: “You can say we have a very perceptual aim for spaces but it is done with a very rational way of documenting and designing the details or design of that space. It is a kind of crafting.”

RIPPLES: SEMINARS @ CCA

THE POLITICS of SPACE

Politics and space are intimately bound. From the scale of the body, up through the scale of buildings and cities and on to the scale of the landscape, those with political, cultural, economic and social power exercise explicit and implicit control over the shaping and occupation of space. As architects, it is critical that we understand this physical and spatial manifestation of power relationships. This seminar will explore the ways that power, politics, economics, and social and cultural hierarchies are made physical and will survey and analyze resulting building, public space, urban, and landscape patterns around the globe. Of perhaps greater importance, we will also be exploring architectural and urban design tactics, strategies and practices that challenge, subvert or seek to reverse these hierarchies.



LOCAL MODERNISMS

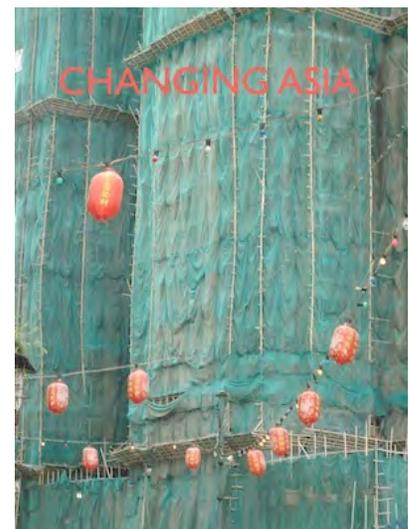
This seminar investigates a new generation of architects who practice within a critique of globalization; a disdain for the impacts of "flat world" labor, material supply and environmental impacts; and an exploration of both form and architectural production that is profoundly local in material, construction craft and technique, capacity building and sustainability (environmental, social, economic and cultural). In the hands of the most talented of these architects, these attitudes lead to fresh, elegant and leading edge architecture. These practices provide an insight into a shift of the international conversation around architecture away from Europe and North America.



These are the third of the three generations of architects we will explore. We begin with the Modernists and the thinking, context and work of the rogue "other modernist" architects—a first generation. This leads to a second generation: one that often spanned new independence movements within their own countries, seeking an architecture that broke with the colonizer and yielded both sophistication in the eyes of the world and identity for those at home.

CHANGING ASIA

This seminar explores contemporary issues in architecture and urbanism in Asia. The first seven weeks of the class will be devoted to the behemoth of China and its myriad architectural issues: staggering urban growth, abandoned towns, and the associated double edge of a growing lively contemporary architecture and the wholesale decimation of architectural heritage. We will look not only at Beijing, Shanghai, Guangzhou and Hong Kong, but also the "smaller" cities and struggling towns and villages. Along with urban issues, contemporary Chinese architectural practices, as well as those of foreign firms working within the country, will be introduced and examined from both formal and critical cultural views. After Spring Break, we will take on Southeast Asia with its rich historical complexities and myriad issues that range from strategic post-colonial vernacular identities to an embrace of global architectural culture on par with Dubai. Contemporary practices within the region will also be introduced and discussed. Running through the semester will be an exploration of the idea of "Asia" and its position within global architectural imagination and discourse. At the same time we will also be looking at the role architecture plays in ideas of culture, cultural history and memory, and in symbolic notions of progress.



RIPPLES: OPTION STUDIOS

BOOM + BUST: Architectures for Uncertain Futures Co-taught with Inaqui Carnicero Fall 2016

BOOM+BUST cycles are in the very DNA of capitalism and are experienced all over the world in varying degrees and for a wide range of reasons. However, these cycles create highly unsustainable and unstable built contexts that raise complicated and intriguing challenges for architecture as unpredictable futures lie in wait. This studio embraces these challenges by seeking architectures that anticipate unknowable future uses different from their initial programming. Given the intense energy and material investment in buildings, how do we design productively for such unusually dynamic cultural and economic situations? We will be testing our work with likely future scenarios: radical switch in uses, evolution over time, and significant additions. We will investigate the architectonic, programmatic, spatial and aesthetic opportunities of flexible, adjustable, open-ended and/or explicitly unfinished buildings. Our explorations will include the implications of these ideas and strategies on program allocation, spatial ordering, form, tectonics, systems, and material and technical choices.



This studio taps into the research and thinking of the **Building Change** thread.

LOCAL FUTURES: NorCal Wood Co-taught with Aidlin Darling Design Spring 2016

This advanced studio explores reasons (ethical/ideological/ historical/pragmatic), strategies (theoretical/spatial/formal/collaborative) and techniques (process/material) for making architecture that is explicitly Local. This investigation springs from a critique of globalization, including myriad undesirable and unintended impacts of “flat world” labor, the unsustainable trans-national material supply chains, and the unacceptable environmental, human and cultural impacts of contemporary building production. This studio seeks, instead, an alternative approach to architecture that is highly local in response to place and climate, in material, construction craft and technique, and in capacity building and sustainability (environmental, social, economic and cultural). While the approach of this studio can be applied wherever in the world an architect is working, we will be using the Bay Area (and northern California) as an ideal place to carry out our research. Of specific interest to our studio is the intensive use of a locally available building material that is currently seeing a renewed focus among architects everywhere: Wood.



This studio taps into the research and thinking of the **Local Modernisms** thread.

RIPPLES: KEYNOTES/PROJECTS/TEACHING

(see CV for others)

KEYNOTES/PANELS/LECTURES: (selected)

“Building Visibility: DeafSpace Meets the City”
Keynote address: DeafSpace Colloquium, Gallaudet University, Washington, D.C. (2015)

“The Subject is Material”,
Roundtable panel hosted by Arquine Press, Tamayo Museum, Mexico City (2014)

“Negotiating Space: History, Memory and Politics in Building Cultural Visibility”
Keynote address, “Practices, Processes and Politics of Indigenous Place-making: A Symposium”, Melbourne, Australia (2010)



Photo: Louis Parry
PRACTICES, PROCESSES & POLITICS OF INDIGENOUS PLACE-MAKING: A SYMPOSIUM
Melbourne Conversation: BMW Edge, Federation Square, June 24
Symposium: Prince Philip Theatre, Melbourne University, June 25-26

PROJECTS: (selected)

Consultant: Longling Valley Agricultural Museum, Jitou, Yunnan, China (2015-present)

Consultant: Setswana Cultural School, with Sharp Shop Architects, Johannesburg, South Africa (2014-2016)

Consultant: Vanuatu Supreme Court Building, WMCQUA Architects, Melbourne, Australia (2010)



TEACHING: (selected)

“Conservation Planning in Malaysia”, co-teacher, lead workshops on spatial agency for Malaysian and Myanmar Urban Planners, Getty Conservation Institute, Penang, Malaysia (October 2013), (May 2012)

“From Township to Town: Civic Space and the Transformation of South African Black Townships”
Workshop, African Studies Department, Emory University (2006)

“Mapping Spatial Power” with M’Phil Architecture students, University of Queensland, Australia (May 2004)



RIPPLES: REVIEWS

“.....*The Green Braid* is not a book to be read from cover to cover as a coherent thesis or manual, but rather as a kind of collection to be kept on hand for inspiration. Just when I thought I had a handle on what the book was all about, I would turn the page, discover another gem, and feel my expectations challenged and my mind stretched to encompass other perspectives. I found myself surprisingly moved by a critique of Renzo Piano’s Tjibaou Cultural Center for the Kanak people of the French South Pacific territory of New Caledonia. **Lisa R. Findley’s** thoughtful treatment of the complexities involved in the postcolonial project of designing a cultural center for a marginalized indigenous communities after centuries of French colonial rule complicated my own initial response to the soaring beauty of Piano’s formal choices. Piano’s use of double-skin wall systems, thermal chimneys and louvered panels in this project make me think of the Menil campus in Houston. It reminded me that a few world-class architects have been developing technological and aesthetically stunning innovations in green architecture for decades, and Findley’s hard-hitting essay re-instilled my faith in architecture criticism.”

From “Linking Systems of Thought”, a review by Kayte Young of *The Green Braid: Towards and Architecture of Ecology, Economy and Equity*, In *Cite*, magazine of the Rice Design Alliance, Spring 2012

“***Building Change*** manages a delicate balance by overlapping overt political content with more oblique or probing theoretical constructs to deliver an urgently needed reading of power relations in the production and reception of architecture. Unlike social scientists such as David Harvey or Mike Davis who regularly feature architecture in their analyses but use buildings as diagrams that *illustrate* rather than *embody* social and political formations in concrete and specific term, Lisa Findley’s primary investment is in the architectural *object*. Her close interrogations of buildings dig deeply into the very material of architecture to tease out the content sedimented in form. Her readings yield critical insights that are provoked rather than merely illustrated by architecture—an important distinction that sets her work apart from the more pervasive critical genres. This book, clearly written and free of jargon, is slowly but surely becoming a must-read in academic circles.”

Rodolphe El Khoury, review of *Building Change: Architecture, Politics and Cultural Agency*

