

Global Cultures and Architecture Education: The Case of the India Initiative

Phoebe Crisman

University of Virginia, Charlottesville, Virginia

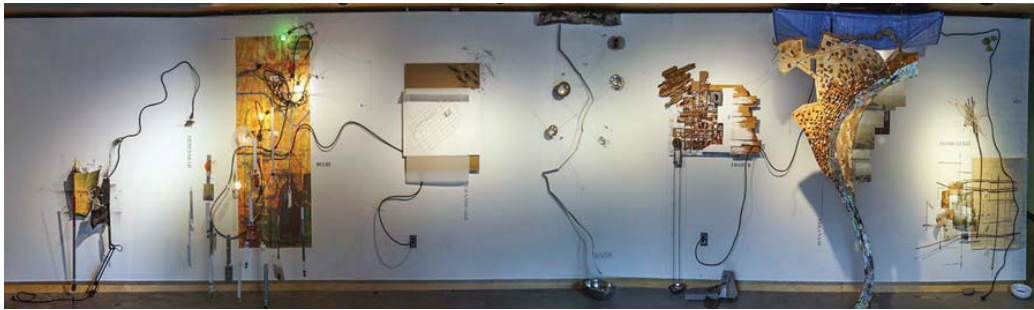


Figure 1: India Initiative exhibit 2012: student reading of seven cities

ABSTRACT: How is architectural education enriched by the seemingly peripheral voices of diverse global cultures? How does the process of creating design propositions within unfamiliar cultures and sites unknown encourage students to question their own assumptions and methods? In order to explore these questions, a research project methodology was created to shift the normative architecture studio pedagogical structure, content and location to specifically examine transformations in student learning. Several theoretical concepts support this work, including spatial dislocation, experiential learning and the bodily senses, reflection, and constructed knowledge. University of Virginia Professors Phoebe Crisman and Peter Waldman established the India Initiative as an interdisciplinary research and teaching program to study environments constructed by the diverse cultures of India and develop sustainable strategies for future development. A complex mix of religions, ethnicities, languages, geographies, arts and architecture, India is a crucial location for the contemporary study of architecture and urban sustainability. India is the world's largest democracy with a burgeoning population experiencing massive rural to urban migration and growing economic disparity. Widespread environmental degradation and natural resource depletion plague the country. Nevertheless, there is much to be learned from a close study of effective practices that have emerged from a combination of necessity and ingenuity in the Indian built environment. Each year of the five-year study will focus on one of Hindu elements or *panchabhuta*: earth, water, air, fire and ether. From the enduring village to the emergent megacity, and across scales from city to the architectural detail, the research seeks a deep and synthetic understanding of sustainable approaches to infrastructure systems, landscapes and architecture. The long-term research goal is a study of the intertwined aspects of environmental design and social equity. This paper formulates findings from the first year of the India Initiative.

KEYWORDS: culture, education, India, sustainability, dislocation

INTRODUCTION

How is architectural education enriched by the seemingly peripheral voices of diverse global cultures? How does the process of creating design propositions within unfamiliar cultures and sites unknown encourage students to question their own assumptions and methods? In order to explore these questions, a research project methodology was created to shift the normative architectural studio pedagogical structure, content and location in order to examine the effect on student learning. Professors Phoebe Crisman and Peter Waldman established the India Initiative at the University of Virginia as an innovative research and teaching program that examines the physical environments constructed by the diverse cultures of India and develops sustainable strategies for future development. The long-term goal of this research is to develop a deeper understanding of the intertwined aspects of environmental design and social equity. Several theoretical concepts support this work, including the educational value of spatial dislocation, experiential learning that

engages the bodily senses, reflection, constructed knowledge and other ways of knowing. A research methodology was created that intentionally shifts the normative architectural studio pedagogical structure, content and location to examine the effect on architectural education.

1.0 RESEARCH QUESTIONS AND METHODOLOGY

1.1 Why India

In seeking a rich and relevant place to study global sustainability issues in architecture and urbanism, India emerged as the ideal location for several reasons. The complex mix of religions, ethnicities, languages, geographies, arts and architecture of India produces hybrid and rapidly transforming cultural conditions. India, as the world's largest democracy with the second largest national population, is experiencing massive rural to urban migration and growing economic disparity. Widespread environmental degradation, pollution, deforestation, a declining and contaminated groundwater supply and natural resource depletion plague the country. There is much to be learned from a close study of locally developed sustainable practices that have emerged from a combination of necessity and ingenuity in the Indian built environment. For instance, the natural cooling systems of the medieval Indian settlement of Jaisalmer keep residents comfortable in the scorching Thar Desert summers. Several urban and architectural strategies are combined to achieve this outcome: arranging buildings in dense clusters, orienting buildings to reduce solar income, creating ornamental stone fenestration to cool sunlit surfaces, using massive stone construction for roof and walls to absorb heat, and providing cross-ventilation with complex courtyard configurations. (Gupta 1985) The exquisite fountains and water channels found throughout the arid states of Rajasthan and Gujarat use intelligent evaporative cooling strategies to create pleasant microclimates in the courtyards of both civic and residential buildings. These are just a few examples of sustainable strategies for infrastructure, landscapes and buildings that the India Initiative research seeks to understand in a deep and synthetic way.

1.2 Content and Structure

A design research methodology was developed to immerse both undergraduate and graduate architecture students in the diverse cultures and places of India at two scales of dwelling—the enduring village and the emergent megacity. Directed by University of Virginia Architecture Professors Phoebe Crisman and Peter Waldman, each year of the five-year study focuses on one of the five Hindu elements or *panchabhuta*: earth, water, air, fire and ether or space. The first year (2012) focused on water as a spatial generator of highly particular forms of infrastructure and architecture that support the occupancy of water itself and those that use it. The research team studied the formal, material and cultural significance of enduring and contemporary water architecture in India, while proposing new design strategies. The second year (2013) will consider fire—the most sacred of the five physical forces according to Vedic philosophy. Fire is associated with the Sun as the primary source of life and energy. Fire represents light, heat and energy manifest in architecture through spatial configurations and places of gathering, symbolism, materials, and apertures that regulate light and heat. Shade and shadow, days and nights, enthusiasm, passion and mental energy are all qualities of the force of fire. As we have done in the first year, each year the India Initiative will produce an exhibit and publication of research findings and speculative projects that will establish an important body of work. This paper formulates findings from the first year of India-based research, as well as written student reflections gathered six months after completion of our travels and coursework.

1.3 Pedagogy

The India Initiative builds on several years of pedagogical experimentation structuring design research studios to explore individual agency in challenging places and with underserved populations. (Crisman 2010) That research focused on the revitalization of contaminated and underutilized industrial sites in Eastern seaboard cities of the United States. (Crisman 2007) By critically engaging students with social and ethical considerations in difficult *real world* places, those studios provided students with hands-on experiences with architectural agency. In the past two years this research has expanded to include the global sustainability challenges for Indian cultures and built environments. The India Initiative emerged as a multi-faceted research investigation that includes my own theoretical and praxiological research, as well as three intertwined courses co-taught with Prof. Waldman. Students in the spring *India Research Seminar* begin to engage Indian culture by exploring literary, historical and philosophical foundations through a diverse selection of historic and contemporary Indian texts, films, art and architecture. They also develop a research proposal that will guide their independent summer research. During six summer weeks of intense travel and immersive learning, students are enrolled in the *India Summer Studio* and an *Independent Research Seminar* that provides a unique lens for their work, while enriching the shared studio investigation. For instance, the fourteen independent research projects in 2012 expanded the focus on Water as a Spatial Generator to the symbolism of water in India, microclimates created with evaporative cooling and more. In this way, both the individual and the collective research are furthered by reciprocal exchange and critique.

This format differs from most *home-based* studios, where students are either enrolled in a studio with a prescribed focus defined by the instructor or left to develop their own thesis or independent research with limited group interaction and instructor guidance. This pedagogical experiment combines the benefits of both models and develops synergy between them. Compared to most study abroad programs in the School that are based in one location for a four or six-week period, the India Summer Studio studies several diverse urban and rural locations using a comparative method that also values the spatial act of travel.

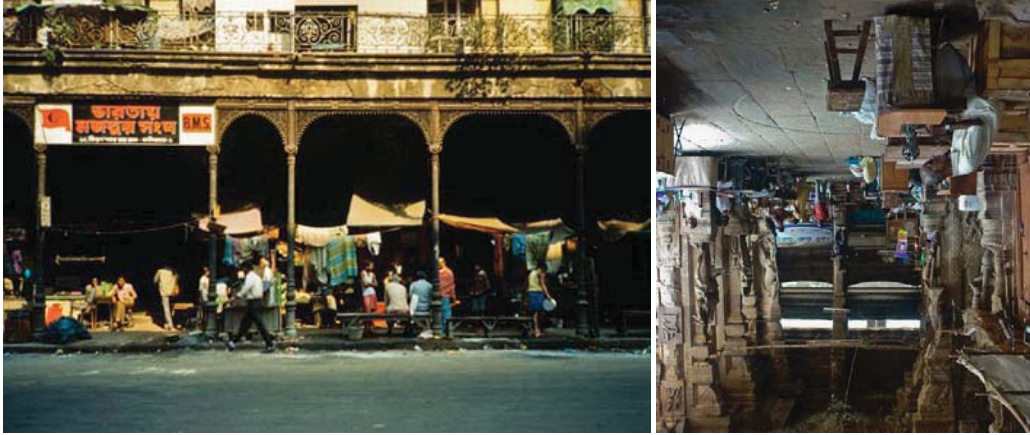


Figure 2: Public microclimates for work and respite

2.0 THEORETICAL CONCEPTS

2.1 Travel and Spatial Dislocation

What is the role of travel and spatial dislocation in the construction of both architectural knowledge and self-knowledge? Many architecture study abroad programs often occupy their own permanent facilities or those of a host university in a city such as Rome or Paris. For instance, graduate student Catharine Killien had participated in a twelve-week study abroad program based in Rome that she described as “much like a typical architecture studio that I would have back home.” Reflecting on how it differed from her India experience, she realized that “the design I developed for that [Rome] studio did not necessarily have anything to do with the Roman context or the peculiarities of that site. I had relied on design strategies and representation technique strategies I already knew.” Unlike these programs, a significant amount of travel is essential to the India Initiative. Testing the value of travel as extreme dislocation requires a different pedagogy and program structure. Student Sarah Buchholz described her India studio experience this way.

Instead of just researching sites from books and using computer tools to analyze spaces, the India studio gave me a firsthand experience of the site, culture, people, and traditions. It allowed me to observe how people use spaces and how architecture influences daily routines and rituals. Being in such a foreign place also affected my way of learning as I suddenly became much more aware of the types of spaces I was in and how architecture has such a huge affect on all senses. The intense summer heat combined with a variety of smells and sounds changed the way I think about spaces and environments and how they are created.

Scholars such as Theology Professor Frederick Ruf have focused on the multiple values of travel. In his book *Bewildered Travel: The Sacred Quest for Confusion*, he argues that we often travel to unlearn, to challenge and rupture the surface of the known and expected. Ruf recounts poet Mary Oliver’s use of particular disruptions and difficult memories obtained while traveling to remind her “you can creep out of your own life and become someone else.” (Ruf 2007, 16) Dislocation that challenges our thinking and our very being is quite useful to learning about global culture, architecture and nearly anything else. Georges Van Den Abbeele’s metaphor of travel to thought is relevant as well.

When one thinks of travel, one most often thinks of the interest and excitement that comes from seeing exotic places and cultures. Likewise, the application of the metaphor of travel to thought conjures up the image of an innovative mind that explores new ways of looking at things or which opens up new horizons. That mind is a critical one to the extent that its moving beyond a given set of preconceptions or values also undermines those assumptions. Indeed, to call an existing order (whether epistemological, aesthetic,

or political) into question by placing oneself 'outside' that order, by taking a 'critical distance' from it, is implicitly to invoke the metaphor of travel. (Van Den Abbeele 1992, xiii)

In addition to comparing of the different types of study abroad programs that she had experienced, Catharine Killien reflected on spatial dislocation and studying architecture in an unfamiliar place.

In some sense, spatial dislocation isn't just about physically being somewhere outside of the familiar; it's a complete breaking of the way you typically do things. You give up your schedule and daily routine and the way you typically do work. You find new ways to represent new experiences, and can't rely on techniques and design strategies you typically rely on in the past.



Figure 3: Working while spatially dislocated

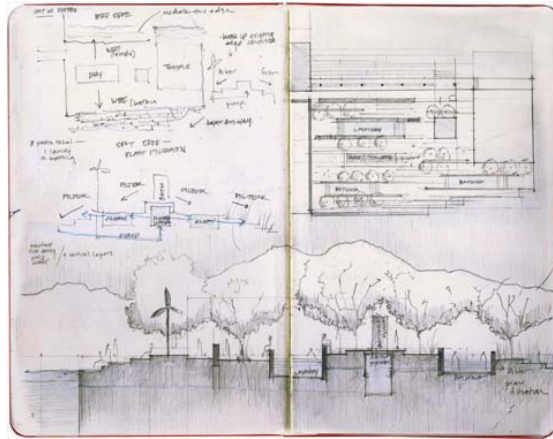


Figure 4: Sketchbook (Catharine Killien)

Both students emphasized how spatial dislocation changed their experiences of place and also their work. The book *Travel, Space, Architecture* raises relevant issues of how "physical and metaphorical dislocation affect spatio-architectural practices, and how these conditions redefine the parallel notions of place, culture and identity." (Traganou 2009, 2) This dislocation may be the result of travel, immigration or other types of forced and self-initiated movement in space. The author argues that architecture theory and practice seen through the lens of travel can "move beyond the centrality of static, place-bound principles into an understanding of more open-ended networks of relationships (or subjects and sites)." (Traganou 2009, 3) This is a powerful argument for conceiving of travel as an essential element of architectural education. While scholars in anthropology, geography and religious studies have theorized travel within their disciplines, architectural education lags behind.

2.2 Experiential Learning and the Bodily Senses

When experiencing spatial dislocation our bodily senses are heightened as well. This is an ideal time to learn as we see, hear, smell, touch and taste new things. Travel stimulates us with places, people and images that generate new ideas. During the India studio, students see and experience by making drawings and collage, photographs, sound sampling, video and journaling. Student Nicholas Knodt noted: "The spectacularly layered Indian cities and villages present juxtapositions between a variety of cultural, historical and architectural influences. Only through on-site drawing, mapping, recording and observation were we able to fully analyze these incredible relationships." Several other students commented on the importance of sketching. When asked "what was your favorite design project and why," student Rebecca Hora replied:

Each city introduced a new and exciting milieu to draw from and build on. Rather than one specific project, it was the overall process and culmination of sketches that most intrigued me. Designing from only my sketchbook and found materials meant expanding beyond superficial solutions and examining more contextual and site-specific considerations.

The students were fully aware of the complex cultural, formal, spatial and constructional Indian context as they designed. Sensory engagement and experiential learning predominated over the abstract analysis that occupies so much of their time in studio at home. In her essay "Unpacking the Suitcase: Travel as Process and Paradigm in Constructing Architectural Knowledge," Kay Bea Jones noted that "experiential means of learning are underdeveloped compared to studio fabrications and representational inventions developed in isolated school environments." (Jones 2001, 128) She refers to the prevailing objectification and production

focus of many architecture schools. Although students travel abroad to study architecture, few faculty have theorized the educational value of these excursions or adequately examined how they are structured. Active learning and “site-based travel pedagogy” are essential to the India Initiative approach, which concurs with the claim that “by observing primary site, architects can use original insights built on past knowledge to inform critical new thinking.” (Jones 2001, 146) Traveling to fully engage buildings and places is more crucial than ever for architecture students, as they are bombarded by slick digital images of global architecture rarely shown in its broader context. Student Liz Kneller reflected on how a heightened awareness of the senses provoked her new design research focus the following semester.

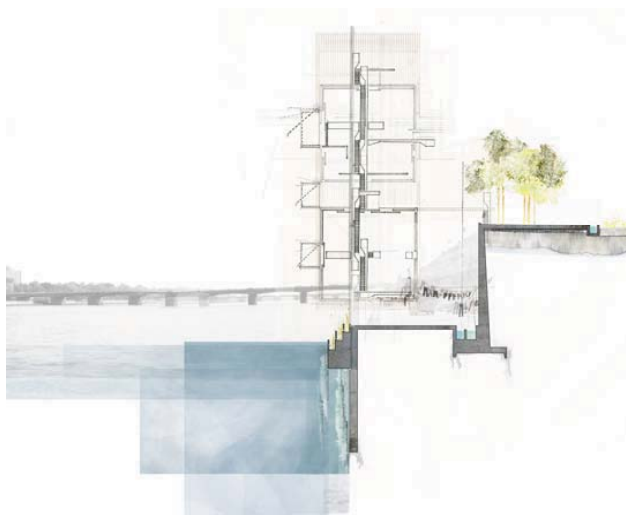


Figure 5: Sketch (Rebecca Hora)

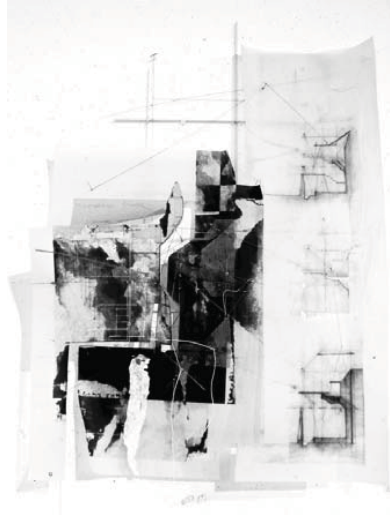


Figure 6: Sketch (Whitney Newton)

While in India, my most profound experiences were those that engaged all five of my senses, particularly that of touch. While I was previously interested in sustainability, I never knew how to incorporate that notion into my own work, and found that the focus of my studio projects was too often based solely on aesthetic concerns. In India, climate extremes require material, spatial, and geometric knowledge to create comfortable environments without the extensive equipment of typical modern mechanical systems. I was particularly struck by the wind tower at Fatehpur Sikri, the jharokhas of Udaipur, and Le Corbusier’s brise soleil on the Millowner’s Association. The firsthand experience of a cool breeze or shaded alcove in the midst of a hot Indian summer convinced me to rediscover the importance of designing explicitly for place. This led to a semester of research into how to design a building in my own climate that rejects energy consuming modern mechanical systems for passive systems that use less energy while providing greater thermal comfort to inhabitants through appropriate fluctuations in interior conditions.

The imprecise knowledge gained in a “shaded alcove in the midst of a hot Indian summer” is quite different than the systematic knowledge acquired through abstract analysis, quantification and mapping. Rather than study buildings as isolated artifacts, they see architecture as part of a larger cultural context and construct knowledge through exploration. By emphasizing constructed knowledge¹ in combination with Paulo Freire’s theory of critical pedagogy, the goal is to educate future agents of change that understand the inextricable connection between the social and the environmental as a crucial consideration of architecture.²

2.3 Slowness and Reflection

Taking time to experience a place cultivates our ability for careful observation and contemplation. Through the concept of slowness and the possibilities for reflection that it provides, writer Rebecca Solnit critiques efficiency, convenience, profitability and security as she considers those things that cannot be measured.

The conundrum is that the language to describe the ineffable splendors and possibilities of our lives takes time to master, takes a certain unhurried engagement with the tasks of description, assessment, critique, and conversation; that to speak this slow language you must slow down, and to slow down you must have some inkling of what you will gain by doing so... Ultimately, I believe that slowness is an act of resistance, not because slowness is a good in itself but because of all that it makes room for, the things that don’t get measured and can’t be bought. (Solnit 2007)



Figure 7: Taking time

This way of working and understanding the world embraces the differences between the normative classroom or studio and what can and must happen differently abroad and in the field. Traveling and learning in sites unknown frees students from these constraints and provides time to experience, to absorb, to understand and then to make. Student Catharine Killien noted: “You tend to remember a place far more if you draw it than if you photograph it. Drawing makes you slow down and truly see and experience the space you are trying to record. I remember making every drawing from India—I certainly don’t remember every photograph.” Students described how their understanding of *studio* changed because of their experience in India or how they were able to learn in a different way.

Learning about architecture in India expanded the definition of my education. It meant that studio was not only a place where everyone has their headphones in and are building perfect 3D models in Rhino. But rather studio, and learning about architecture, is everywhere. Anywhere can be a place of learning and you don’t need a desk and fancy tools to create inspired designs. (Phoebe Harris)

Even though I’ve spent nearly my entire waking life inside of them, I don’t believe the key to learning lies in classrooms. My most memorable and breakthrough academic experiences have been on the road. I believe that the best way to learn is to push us outside of our comfort zones... In architecture school (and I’ve attended three of them by now) we’re forced to sit in a chair indoors and go through the motions in front of a computer for hours on end. We can’t help but get stuck and churn out projects that go nowhere. The India studio is a catalyst, and it was the best thing that’s ever happened to me. (Christopher Barker)

2.4 Constructed Knowledge and Other Ways of Knowing

The India Initiative pedagogy builds on Jones’ compelling argument for an epistemology of constructed knowledge as it relates to travel and teaching methods.

If we accept that constructed knowledge offers an important alternative approach that is uniquely characterized by intuition, cross-disciplinary preferences, collaborations, ambiguity, integration, personal and social values, and historic contingencies, we can then consider observation of everyday life within the agency of travel. Traditional pedagogical practices deserve reconsideration, since travel radically alters the conditions of the classroom, the laboratory, and the studio... Teaching methods abroad can substitute techniques of observation and group discussion for typical ‘objective’ examination of learning. Collaborative inquiry strategically located allows subjects to reveal diverse aspects of themselves. Participants who are then equipped to debate differing interpretations provide a model preferable to the usual subordination to definitive authorities or studio masters. (Jones 2001, 153)

Several students noted changes in how they constructed knowledge and their design process. Amidst increasing quantitative analysis in architecture schools, the students have a new appreciation for their own perceptions, abilities to synthesize, and the importance of the self, subjectivity and the social. Sarah Buchholz’ reflection on her transformed design process is an example of these tendencies.

One of the most prominent ways that India affected my design thinking was through attention to detail, specifically materiality, apertures, and awareness of local context and climate. I had never before realized how subtle changes in materiality can change the feelings of spaces. In Chandigarh, the concrete space below the Open Hand Monument was one of the most exposed and hottest spaces I’ve experienced,

while in Golconde every small aperture was well thought out to provide ventilation. In Udaipur, the sudden change in materials and openness along the water's edge created a space vastly different to the chaotic, crowded city streets. Overall, my method of designing now has changed in that instead of relying on computer programs and preconceived ideas about sites, I tend to sketch and work more with my hands to force me to think more about materials and context, and my designs are constantly adapting as a result of personal experiences, senses, and emotions, rather than being fixed and inflexible.

CONCLUSION

The India Initiative seeks to study how student learning might be transformed by strategically shifting the typical architecture studio pedagogical structure, content and location. Though it is too early to evaluate the outcome of the planned five-year research program, there is much to be gleaned from the students' projects and written reflections how the India experience affected their design work after the first year.

Surroundings play a critical role in the development of design, and it is only through exposure of various surroundings that we have the opportunity to know, understand, and relate. The unfamiliar becomes a source of inspiration and curiosity—fueling innovative design. My experience in India allowed me to revolutionize my understanding of the implications of design, and to challenge myself to go beyond my known boundaries. I look forward to stretching my parameters and reconfiguring ideas; vacillating between them and adapting to each encountered environment. (Rebecca Hora)

Half a year after studying with the India Initiative I am still being challenged by lessons learned throughout our travels. The process of confronting preconceptions about culture and the built environment through the lens of India has enriched my design thinking, effectively adding complexity to my understanding about how life is lived through architecture. (Nicholas Knodt)

By providing the opportunity for architecture students to question their own assumptions, ways of knowing and personal design processes within unfamiliar cultures and places, their projects were quite different than they would have been in the studio back home. The students were less convinced of the correctness of their assumptions and their design work was more layered and holistically conceived across scales. As they constructed their own knowledge and understanding of the richness of difference and hybridity in these sites out of mind, their preconceptions fell away and new ideas emerged.

REFERENCES

- Belenky, M. et al. 1986. *Women's Ways of Knowing: The Development of Self, Voice, and Mind*. Basic Books: New York.
- Clifford, J. 1997. *Routes: Travel and Translation in the Late 20th Century*. Harvard University Press: Cambridge.
- Cresswell, T. 2004. *Place: A Short Introduction*. Blackwell: Oxford.
- Crisman, P. 2010. "Environmental and Social Action in the Studio: Three Live Projects along the Elizabeth River." In *Agency: Working with Uncertain Architectures*, edited by F. Kossak et.al., 32-46. Routledge: London.
- Dutton, T. 1996. "Cultural Studies and Critical Pedagogy: Cultural Pedagogy and Architecture." *Reconstructing Architecture. Critical Discourses and Social Practices*, edited by T. Dutton and L. Mann. University of Minnesota Press: Minneapolis.
- Freire, P. 1985. *The Politics of Education: Culture, Power, and Liberation*. Translated by D. Macedo. Bergin & Garvey: South Hadley, MA.
- Freire, P. 1998. *Pedagogy of Freedom: Ethics, Democracy, and Civic Courage*. Translated by P. Clarke, Rowman & Littlefield: Lanham, MD.
- Gupta, V. 1985. "Natural Cooling Systems of Jaisalmer." *Architectural Science Review* 58: 58-64.
- Hartman, J. 1991. "Telling Stories: The Construction of Women's Agency." In *(En)Gendering Knowledge: Feminists in Academe*, edited by J. Hartman and E. Messer-Davidow, 11-34. University of Tennessee Press: Knoxville.
- Jones, K.B. 2001. "Unpacking the Suitcase: Travel as Process and Paradigm in Constructing Architectural Knowledge." In *The Discipline of Architecture*, edited by A. Piotrowski and J. Williams Robinson, 127-157. University of Minnesota Press: Minneapolis.
- Kelly, D. 2009. "Semiotics and the City: Putting Theories of Everyday Life, Literature and Culture into Practice." In *Integrating Study Abroad into the Curriculum*, edited by E. Brewer and K. Cunningham. Stylus.
- Leach, N. 2002. "Belonging: Towards a Theory of Identification with Place." *Perspecta* 33: *Mining Autonomy*.
- Rao, V. 2009. "Embracing Urbanism: The City as Archive." *New Literary History* 40, 2: 371-383.
- Ruf, F. 2007. *Bewildered Travel: The Sacred Quest for Confusion*. University of Virginia Press: Charlottesville.

- Solnit, R. 2007. "Finding Time: The Fast, the Bad, the Ugly, the Alternatives." *Orion Magazine*, Sept/Oct.
- Traganou, J. 2009. "For a Theory of Travel in Architectural Studies." In *Travel, Space, Architecture*, edited by J. Traganou and M. Mitrasinovic, 4–26. Ashgate: Burlington.
- Van den Abbeele, G. 1992. *Travel as Metaphor: From Montaigne to Rousseau*. University of Minnesota Press: Minneapolis.

ENDNOTES

¹ See J.E. Hartman (1991) "Telling Stories: The Construction of Women's Agency." In *(En)Gendering Knowledge: Feminists in Academe* and M. Belenky (1986) *Women's Ways of Knowing: The Development of Self, Voice, and Mind*.

² For more on critical pedagogy, see Paulo Freire (1985) *The Politics of Education: Culture, Power, and Liberation* and (1998) *Pedagogy of Freedom: Ethics, Democracy, and Civic Courage*. For a discussion of critical pedagogy in architecture education, see Thomas Dutton, (1996) 'Cultural Studies and Critical Pedagogy: Cultural Pedagogy and Architecture', in *Reconstructing Architecture. Critical Discourses and Social Practices*.