# Studios Abroad: A Challenge in Innovative Pedagogy

# Joseli Macedo

Curtin University

# Abstract:

Study abroad programs offer a unique opportunity to evaluate pedagogic models. The role of studios in design and planning pedagogy has been examined. However, how the general framework of a studio supports other pedagogic models has not been widely discussed. This article assesses a series of urban planning and design studios conducted abroad to illustrate how studios can be enabling environments for urban planning and design studios expose urban planning students to diverse thinking processes and approaches. The studio environment gives students the opportunity to consider creative alternatives outside of their general planning paradigm. An analysis of learning outcomes supports the conclusion that studios offer a fertile ground for students to develop a deeper perspective on their profession.

#### Introduction

Studios have always been part of planning programs, but their role has varied widely across planning curricula in American universities. Studio pedagogy and the best role for studios in planning programs have been discussed since the 1950s (Perloff 1957); however, most of the literature on studio pedagogy focuses on architectural design studios (Dutton 1991; Salama & Wilkinson 2007; Salama 2009).<sup>1</sup> As such, while some design studios represent a mode of pedagogy with distinct methodologies that combine theoretical and applied concepts, others offer a context for learning that changes from urban planning to landscape architecture to architecture studios. Several scholars have discussed urban planning and design studios according to their main emphasis: studios that concentrate on design projects and simulate practice, usually working with a client (Grant & Manuel 1995; Kotval 2003); studios that offer opportunities for service learning, usually in collaboration with local governments or community organizations (Grant & Manuel 1995; Forsyth et al. 2000; Sletto 2010); and studios that take place in a foreign country (Goldsmith 1999; Abramson 2005; Dandekar 2008). A combination of all three models in one studio has not been analysed yet and this novel analysis is the topic of this article.

The article presents the experience of an urban planning and design studio that took place in Brazil for ten years. These studios offered a unique context for learning, combining theoretical and applied concepts while exposing students to a foreign culture and urban planning environment. The Brazil studios collaborated with local universities and community partners to offer students real-

<sup>1</sup> An entire issue of the journal Open House International dedicated to studio pedagogy and published in September of 2006 (Vol. 31, No. 3) does not include a single article about urban planning studios.

world experiences within a foreign context, oftentimes connected to service learning opportunities. Studios conducted abroad pose problems and challenge students to find solutions in an environment that is unfamiliar to them. Thus, the emphasis is not so much on planning practice per se, but on problem-solving drawing on critical thinking skills rather than practice-based experience. Travel experiences have been identified as a catalyser of curiosity in design education (Smith 2011). The activities conducted in the studio abroad allowed students to experiment with new analytical approaches and to produce planning knowledge that is based on planning notions inevitably altered by the cross-pollination and input from their foreign counterparts.

Research for this article was conducted since the pilot for a new study abroad program was organized in 2004. The article follows a thematic structure, with the literature review weaved throughout and integrated with each theme. An explanation of the model used in the design of this program and the methodology adopted for running the studio abroad are followed by an assessment of learning outcomes. The article concludes with an appraisal of the studio abroad experience and suggestions for future programs of the same type.

#### Studios in Planning Pedagogy

Studios are part of the case study and workshop tradition of planning pedagogy, one of the three basic components of a core curriculum as proposed by Harvey Perloff in the 1950s (Perloff 1957) and still used in most American universities. Urban planning studios offer the opportunity to synthesize theoretical aspects of planning learned in other classes and to hone critical analysis and synthesis, assessment, and decision-making skills during the development of a project. To be sure, this is only true if the studio is designed to do so and the assigned project requires students to think critically, to conceptualize ideas and processes, and to devise knowledge-based alternatives. In addition, studios offer opportunities for 'accelerated learning' (Walliss & Greig 2009).

Although studios give students a unique opportunity to practice planning skills that are integral to the profession (Friedmann 1996), planning programs in North America have all but abandoned studio-based curricula (Lang 1983; Heumann & Wetmore 1984; Frank 2006; Higgins et al. 2009) relegating studios to physical planning specializations. Lang (1983, p.124) argues that '[t]he elimination of the studio obscured some of the basic aspects of the planning process in educational curricula.' Where studios are still part of the curriculum, they take different shapes being used as the base for a capstone project, or an opportunity for service learning, or the integrating unit for interdisciplinary work.

### Studio Pedagogy in Brazil

The literature on studio pedagogy in Brazil is very limited. The few Brazilian scholars whose writings could apply to the role of studios have based their argument on the benefits of dialogic education (Freire [1970] 1986; Gadotti 1996). Freire's pedagogical theory is based on critical thinking, dialogue, and freedom. The studio environment naturally lends itself better than lecture classes to this approach (Boyer & Mitgang 1996). Gadotti (1996, p.7) argues that putting theory into practice 'is to discover and elaborate instruments of social action.' His approach is in line with the way studios are run in Architecture and Urbanism programs in Brazilian universities. Urban planning and design studios in particular are process-oriented and knowledge-based; most projects undertaken by students unite theory and practice.

It is also useful to look at planning studios and the way urban planning is inserted in architecture curricula in Brazilian universities from Perloff's perspective. In most Latin American universities, architecture and urbanism programs are designed according to the 'generalist-with-a-specialty' model used in the US in the 1950s, the 'generalist' being the architect. Urban Planning as a profession is not part of the Brazilian system yet; neither is Landscape Architecture or Interior Design. There are no urbanists (nor landscape architects) in Brazil who are not architects. There is no professional association for urban planners; practicing planners are registered architects, but are not certified as planners. Professionals from other fields such as engineering and economics may come to call themselves 'planners' by virtue of their work experience, but there is no accreditation mechanism or certification process in place that assesses the qualifications of self-proclaimed 'urbanists.'

This professional disconnect is certainly a result of the educational system as in Brazil there are no urban planning programs at the undergraduate level. Urbanism is subsumed under Architecture and 'Architecture and Urbanism' degrees are awarded to students who complete a five-year program comprising disciplines in architecture, landscape architecture, building construction, and urban planning. A few graduate-level urban planning programs are available in select universities; however, unlike urban planning programs in the United States, these are more 'areas of emphasis' or 'specialized knowledge' within Policy and Public Affairs research institutes or a larger program in, again, Architecture. Examples of such programs can be found in the Federal University of Rio de Janeiro – UFRJ (Instituto de Pesquisa e Planejamento Urbano e Regional – IPPUR and Programa de Pós-Graduação em Urbanismo – ProUrb), the Federal University of Santa Catarina – UFSC (Pós-Graduação em Arquitetura e Urbanismo – PósARQ), and the State University of São Paulo – USP (Pós-Graduação em Arquitetura e Urbanismo). None of these programs offers students the same level of training and expertise found in North American universities, and none would meet the minimum requirements of the Planning Accreditation Board.

Given this structure, studios ('ateliers') in Brazilian universities could be considered interdisciplinary by virtue of programs comprising all the aforementioned disciplines; however, all students are in the same curriculum and, other than their personal preference or avocation, do not bring a range of expertise into urban planning studios. Studios in the US, on the other hand, are usually an attempt to bring diverse skills and approaches together and achieve the same holistic results we had before the fragmentation of disciplines and the specialization of departments. In fact, the changes in the educational tradition of planners and architects in the US have been blamed for several shortcomings in both professions (Kreditor 1990). In Brazil, the need to apply distinct pedagogies to architecture and urban planning studios is beginning to be felt, but the proposal is not to separate them, but rather to bring all expertise developed in Architecture and Urbanism programs together under the auspices of a 'Holistic Atelier' (Marques da Silveira 2006). The intention of this type of studio is to take advantage of synergies and frame buildings and other architectural elements of the built environment within the framework of the city.

It is clear that there are fundamental pedagogical differences between the US and Brazil in regard to not only studios but urban planning education in general. Given the characteristics of programs, philosophical approaches to urbanism, and peculiarities of institutional frameworks, adapting a course that would accommodate American planning students within a Brazilian university

context was a challenging but rewarding experience. Before explaining the methodology adopted in the studio abroad used here as an exemplar, it is necessary to describe the background and context within which it took place. The following section also relates the impetus for this studio abroad and some specificities of the several iterations of the program.

#### Course Design and Studio Management

The Study Abroad program, 'Urban Planning & Design in Curitiba, Brazil,' heretofore called Brazil Program, was an annual six-week program offered by the University of Florida's Department of Urban and Regional Planning in the College of Design, Construction and Planning (DCP). This section offers a brief overview of the ten-year history of this program, including how it was initially created and how it has been run. I discuss the institutional context that makes the program possible, and explain why it represents not only a unique opportunity for students, but also an innovative concept in terms of international programs.

There has been a concerted effort at the University of Florida (UF) to internationalize the curriculum and the expansion of international programs is but one of the adopted strategies. According to the most recent data available from the Institute of International Education (IIE), UF ranked 11<sup>th</sup> in number of students studying abroad among top 25 institutions awarding credit for study abroad for academic year 2014/2015 (IIE 2017a). In addition, UF sponsors several programs to bring foreign nationals to study in the US, ranking 23<sup>rd</sup> among the top 25 institutions hosting international students in 2014/2015. During the 2014/2015 academic year UF hosted about 6,100 international students and sent about 2,300 students abroad; in 2015/2016 UF hosted 6,751 international students (IIE 2017b). The incentive to expand study abroad programs was the impetus for the creation of the Brazil Program, which was one of nine study abroad programs in the College of Design, Construction and Planning (DCP).

The Brazil Program, a six-credit summer program open to university students, started in 2005. Students participating in the program receive full academic credit; in the case of non-UF students, earned credits can be transferred to their home institutions. Most of the 105 students who participated in this program had travelled abroad before; 55 per cent were UF students and the remaining were from 24 other institutions of higher education (Table 1).

| Summer                   | Home Institution                   | <b>Disciplines in Home Institution</b> | Students          |  |
|--------------------------|------------------------------------|--|-------------------|--|
| 2005                     | University of Florida              | Urban & Regional Planning *1           | 19                |  |
|                          | Clemson University                 | Architecture                           |                   |  |
|                          | Cleveland State University         | Civil Engineering                      | Civil Engineering |  |
| East Michigan University |                                    | Finance                                |                   |  |
|                          | University of Illinois at Chicago  | Geography                              |                   |  |
|                          | University of Texas at Arlington   | Urban Studies *2                       |                   |  |
|                          | University of Wisconsin at Madison |  |                   |  |
| 2006                     | University of Florida              | Urban & Regional Planning *1           | 11                |  |
|                          | Florida State University           | Art History                            |                   |  |
|                          | Tel-Aviv University                | International Affairs                  |                   |  |
|                          | University of Illinois at Chicago  | Landscape Architecture                 |                   |  |

Table 1. Home Universities and Majors of Students Enrolled in the Study Abroad Program, Urban Planning & Design inCuritiba, Brazil, 2005 – 2014.

|        | University of Pennsylvania   |                              |    |  |
|--------|--|------------------------------|----|--|
| 2007   | University of Florida  | Urban & Regional Planning *1 | 11 |  |
|        | University of California, Berkeley   | Environmental Science        |    |  |
|        | University of Illinois at Chicago  | Finance                      |    |  |
|        | University of Kansas   | Urban Studies *2             |    |  |
|        | University of Texas at Austin  |                              |    |  |
|        | University of Virginia   |                              |    |  |
| 2008   | University of Florida  | Urban & Regional Planning *1 | 12 |  |
|        | Florida State University   | Urban Studies *2             |    |  |
|        | Pratt Institute  |                              |    |  |
|        | Rutgers, The State University of New Jersey  |                              |    |  |
|        | University of Manitoba, Canada   |                              |    |  |
|        | University of Texas at Austin  |                              |    |  |
| 2009   | University of Florida  | Urban & Regional Planning *1 | 7  |  |
|        | Georgia Institute of Technology  | Geography                    |    |  |
|        | University of New Orleans  |                              |    |  |
|        | University of North Carolina, Chapel Hill  |                              |    |  |
| 2010   | University of Florida  | Urban & Regional Planning *1 | 13 |  |
|        |  | Landscape Architecture       |    |  |
|        |  | Architecture                 |    |  |
| 2011   | University of Florida  | Urban & Regional Planning *1 | 12 |  |
|        | University of Calgary, Canada  | Environmental Design         |    |  |
|        | University of Illinois at Chicago  | Latin American Studies       |    |  |
|        | University of New Orleans  |                              |    |  |
| 2012   | Program Hiatus   |                              |    |  |
| 2013   | University of Florida  | Urban & Regional Planning *1 | 12 |  |
|        | Columbia University  | Civil Engineering            |    |  |
|        | Rutgers, The State University of New Jersey  | Landscape Architecture       |    |  |
|        | San Jose State University  | Sustainability and the Built |    |  |
|        | University of Illinois at Chicago  | Environment                  |    |  |
|        | University of Texas at Austin  | Urban Studies *2             |    |  |
| 2014   | University of Florida  | Urban & Regional Planning *1 | 8  |  |
|        | Georgia Institute of Technology  | Environmental Design         |    |  |
|        | University of Central Florida  | Urban Studies *2             |    |  |
|        | York University, Toronto, Canada   |                              |    |  |
| NOTES: | *1 Urban & Regional Planning generally includes Community & Regional Planning, City & Regional |                              |    |  |
|        | Planning, and Community Development programs in addition to Urban & Regional Planning          |                              |    |  |
|        | programs.  |                              |    |  |
|        | *2 Urban Studies generally includes Urban Affairs, Public Policy, Public Affairs, and Public   |                              |    |  |

Administration programs in addition to Urban Studies programs.

This program could be characterized as a partial immersion program since total immersion programs usually have a language instruction component (Kraft et al. 1994) in addition to participation in topic-specific academic programs. Students participating in the Brazil program were in close contact with Brazilian faculty and students within the university environment, but they are not required to learn Portuguese. North American students were fully integrated in activities at Brazilian universities; most conversations and lectures were conducted in English and, when necessary, consecutive translation was provided by instructors and teaching assistants.

Language actually presents less of a barrier in the studio environment; most Brazilian students have a working knowledge of English and generally cherish the opportunity to practice their language skills with native speakers. Opinions on the absence of a language requirement for the program vary. While 70 per cent of participants have said there should be a language requirement, English was the only language spoken by 33 percent of the students who participated in the program (n=105). In addition, while 48 percent of students had varying levels of fluency in Spanish, only two of the 105 students were fluent in Portuguese; an additional six declared basic knowledge, and three conversational level of Portuguese.

The first iteration of this study abroad program allowed students to choose individual research topics and work on them, in addition to attending lectures and field visits. For the two instructors conducting the program that year, it was like advising 19 theses in six weeks. Lesson learned; even if it would be desirable to customize a program like this and allow students to conduct research on their individual topics of interest, this model did not prove effective. Students had ample interaction with university professors, planning officials, and community groups on an individual basis, but they did not get to work as a group nor have much interaction with Brazilian students. In addition, the language barrier does become a problem when texts are not available in English and interpreters are required to accompany individual students on interviews or data collection forays. For these reasons, but mainly to match the studio-based pedagogy of Brazilian Architecture and Urbanism programs, the studio model was adopted in subsequent years. In addition, the average number of participants was maintained at twelve.

The 2010 program was the first to include only UF students, all of them from DCP but from three different units in the College: Urban and Regional Planning, Architecture, and Landscape Architecture. The 2010 studio abroad also presented a new challenge as we incorporated DCP students into a CityLab environment with students from Architecture and Urbanism and from Civil Engineering at the host institution. This was a new, multi-disciplinary challenge, but the fact that all US students were from DCP, albeit from three different courses, gave them the necessary grounding to pursue a healthy collaboration.

The most innovative aspect of this program was the constant interaction among several groups. Students participating in the program were integrated into classrooms at the host institutions and participated in projects with their Brazilian counterparts. Whilst at the university, American students interacted with their peers and were taught by Brazilian faculty. Because most projects this program engaged with had an experiential or service learning component to it, students also had an opportunity to interact with practicing planners; visits to local government agencies, community centres, and private firms were always part of the program. Most US-based international programs that take students abroad are faculty led; they are essentially groups of American students being taught by American professors in foreign countries. This is in no way a criticism; UF offers several such programs and they have been very successful. Even so, it is important to point out this difference as the pedagogical environment, and thus learning outcomes, are directly affected by it.

The six weeks of the program were divided among three to five cities on any given year, but the core component of the program took place in Curitiba, Brazil (Table 2), a city of particular interest to urban planners and designers. Program activities comprised lectures, guided tours, field trips, and

studio-based projects. The order in which cities were visited varied from year to year, and we typically visited at least one mega-city, one large primate city, and one medium-sized city. Each one of these cities was a unique example of urban design or planning theory; also, each activity followed a specific methodology. In all cases, North American students were completely integrated into Brazilian groups in a studio environment. A detailed description of both research and studio projects conducted in Curitiba is better suited for another paper. Here it is important to affirm the value of a studio experience in an international context, particularly when students and faculty from different countries are working together and collaborating in every aspect of program activities. Given the fact that the Brazil Program was not only a studio that engaged in service learning projects, but also a study abroad program with several opportunities for experiential learning, the methodology created to support it had to include all these components. This hybrid methodology is explained in the next section.

| Summer  | Cities Visited | University / Community Partners             | Activities / Products *1         |
|---------|----------------|---|----------------------------------|
| 2005    | Curitiba       | Universidade Federal do Paraná (UFPR)       | Lectures                         |
|         | São Paulo      | Universidade São Judas Tadeu                | Research paper                   |
|         |                | Escola da Cidade                            |                                  |
| 2006    | Curitiba       | Universidade Federal do Paraná (UFPR)       | Studio at UFPR                   |
|         | Maringá        | Universidade Estadual de Maringá (UEM)      | Lectures                         |
|         | São Paulo      | Universidade São Judas Tadeu                | Research paper                   |
| 2007    | Curitiba       | Universidade Federal do Paraná (UFPR)       | Studio at UFPR                   |
|         | Maringá        | Universidade Estadual de Maringá (UEM)      | Lectures                         |
|         | São Paulo      | Universidade São Judas Tadeu                | Research paper                   |
| 2008    | Curitiba       | Universidade Federal do Paraná (UFPR)       | Seminar series & Workshop at     |
|         | Florianópolis  | Universidade Federal de Santa Catarina (UFS | SC) UEM                          |
|         | Maringá        | Universidade Estadual de Maringá (UEM)      | Lectures                         |
|         | São Paulo      | Escola da Cidade / Instituto Pólis          | Research paper                   |
| 2009    | Curitiba       | Universidade Positivo (UP) / TerraNova      | Studio at UP (client: TerraNova) |
|         | Florianópolis  | Universidade Federal de Santa Catarina (UFS | SC) / Open Spaces Studio at UFSC |
|         |                | Quapá SEL                                   | Workshop at UEM                  |
|         | Maringá        | Universidade Estadual de Maringá (UEM)      | Journal                          |
|         | Rio de Janeiro | Universidade Federal do Rio de Janeiro (UFI | RJ)                              |
|         | São Paulo      | Universidade de São Paulo (USP)             |                                  |
| 2010    | Curitiba       | Universidade Federal do Paraná (UFPR)       | CityLab at UFPR                  |
|         | Florianópolis  | Universidade Federal de Santa Catarina (UFS | SC) / Open Spaces Studio at UFSC |
|         |                | Quapá SEL                                   | Journal                          |
|         | São Paulo      | Universidade de São Paulo (USP)             |                                  |
| 2011    | Curitiba       | Universidade Positivo (UP)                  | Urban Design Studio at UP        |
|         | Florianópolis  | Universidade Federal de Santa Catarina (UFS | SC) / Open Spaces Studio at UFSC |
|         |                | Quapá SEL                                   | Journal                          |
|         | São Paulo      | Universidade de São Paulo (USP)             |                                  |
| 2012    | Program Hiatus |   |                                  |
| 2013 *2 | Curitiba       | Universidade Positivo (UP)                  | Urban Design Studio at UP        |
|         | Florianópolis  | Universidade Federal de Santa Catarina (UFS | SC) / Open Spaces Studio at UFSC |
|         | _              | Quapá SEL                                   | Journal (essay & photo)          |
| 2014 *2 | Curitiba       | Universidade Positivo (UP)                  | Urban Design Studio at UP        |
|         | Florianópolis  | Universidade Federal de Santa Catarina (UFS | -                                |
|         | -              | Quapá SEL                                   | Journal (essay & photo)          |

Table 2.Cities Visited, Partners and Activities of Study Abroad Program, Urban Planning & Design in Curitiba, Brazil, 2005 – 2014.

\*1: Activities vary according to conditions offered by partner institutions.

\*2: In 2013 and 2014 the program was run as a four-week program. The number of credits offered and the number of contact hours remained the same; however, only two cities were included.

# A Hybrid Methodology

To develop the methodology used in the studio abroad, I have drawn from both interdisciplinary and international studio-related experiences: teaching urban and regional planning studios in Brazil to Brazilian students in Architecture and Urbanism programs; teaching urban design studios in the US to American and international students in Urban and Regional Planning, Landscape Architecture, and Architecture programs; and leading studios abroad for the last ten years integrating students in Urban Planning and related fields from American universities into Architecture and Urbanism classrooms in Brazilian universities (see Table 1 for majors and specializations of students participating in the studio abroad program).

The qualitative nature of this longitudinal research aligns with grounded theory (Glaser & Strauss 1967; Bryant & Charmaz 2007) and results in a hybrid methodology that draws from interrelated experiments and adaptation of approaches. Grounded theory has been widely used in the practice professions and provides a welcome balance to the "positivist epistemology of practice" typical of the disciplines discussed herein (Schön 1988, p.4). Students participating in the study abroad program filled out pre-departure and post-trip surveys. Together with course evaluations, these surveys were used to document students' preparation and feedback regarding several aspects of the program. The quotes offered throughout this paper were excerpted from surveys and course evaluations. Descriptive statistics help quantify and explain the relative dimensions of the research.

#### Background and Development

In addition to being a product of Brazilian studios in a five-year Architecture and Urbanism program, my experience teaching interdisciplinary studios in the US prepared me to the challenge of leading the Brazil Program. In the past ten years, I have taught urban design studios in the College of Design, Construction and Planning (DCP) at the University of Florida (UF). Three studios were co-taught with colleagues from other units in the College and combined Urban and Regional Planning students with Architecture and Landscape Architecture students. One studio comprised students from Urban and Regional Planning and Finance and Real Estate.

In these multi-disciplinary and vertical studios, I used an approach inspired by the peer resource model described by Grant & Manuel (1995). This model is particularly useful when undergraduate and graduate students are integrated in the same studio. In addition to the inspiration drawn from the peer resource model, the hybrid methodology for the Brazil program was also inspired by what Sanyal (1990, 38) calls a 'mutual learning process.' The exchange of ideas and the experience of learning to look at problems and solutions through a different lens give students the ability to both empathize and to think more creatively. In a recent communication, a former student reported, 'I used my expertise acquired during the Brazil program to assist in fuel projections and policy development of a Renewable Fuel Standard (RFS).' Finally, I also drew from the experiential learning literature (Kotval 2003; Elwood 2004; Sletto 2010) because some of the projects that students worked on required fieldwork and were part of service learning initiatives undertaken by university partners. Experiential learning is appropriate in contexts where social justice and inequity are present, which was the case with Brazil, and it also allows for greater cooperation and practice-

oriented reflection. One student commented, 'It was nice to see that there are places in the world where planners are out there making plans for things in the city, and not constantly relegated to fighting a rear-guard battle to prevent the powers that be from promoting bad plans.'

The implementation of this hybrid methodology proved successful in several ways. First, the Brazil Program groups always comprised students from several disciplines. The peer resource model proved to be an effective approach to coordinating and fostering collaboration, not only among North American students from several institutions and disciplines participating in the program, but also between North American and Brazilian students. Second, not only were students exchanging information and knowledge from their disciplines, they were also exchanging insights into culture and customs through program activities and coaching one another throughout the learning process. Third, students who participated in the Brazil Program shared their learning experiences with fellow students at their home institutions in North America and encouraged them to participate in the program. Thus, the incorporation of the peer resource model into the hybrid methodology created for the studio abroad was both appropriate and fruitful.

The studio abroad offers students an opportunity to not only hone their planning skills but also learn how to work within an academic and professional multicultural context. The program was not solely focused on physical planning and urban design; the projects students got involved in, particularly those that had a service learning component, required that they learn—or at least be cognizant of—a new set of rules and regulations, a new natural environment, a new social and economic system, in essence, a completely different context in which their plans had to fit. The program was operationalized differently throughout the years, depending on partners involved and available projects, but generally, students were directed to solve planning problems by dealing with the built environment in addition to social, economic, and environmental planning issues. Specific analysis, synthesis and evaluation techniques were used according to the type of planning problem identified. The results of this experience, including the learning processes and an assessment of learning outcomes, are covered in the next section.

## The Learning Process and Learning Outcomes

Ideally, before participating in the studio abroad, students would take a course that would prepare them for the linkages between urban and environmental design and urbanization found in emerging countries such as Brazil. This was not the case for the program discussed here, which resulted in some participants being better prepared than others but was not detrimental to the experience. A studio abroad provides a unique immersion opportunity that results in accelerated learning outcomes, similar to those described by Walliss & Greig (2009) in the case of accretive design studios conducted in programs that allow graduate lateral entry.

#### Learning Process

The learning process observed in the Brazil program was grounded by the hybrid methodology described above. Peer-to-peer and mutual learning were well-suited to vertical studios; graduate students tended to encourage undergraduates to excel and instructors coached them to perform at a higher level. The challenges of this multi-level, multi-disciplinary and multi-cultural environment were compounded by potential cross-cultural communication problems. One undergraduate student wrote, 'Being thrown in with the grad students forced me to learn quickly, and provided a group of

peers to consult about planning and architecture. We had some issues communicating with the Brazilian students, but thinking as a group became an interesting challenge.'

Brazilian students reported having learned from their North American counterparts as much as North American students learned from the studio abroad experience. The studio environment allows for constant sharing and conversations develop during the work being done in specific projects. In addition, the Brazilian students were exposed not only to ideas, but also rationales that were different from what they were used to; they reported being impressed by the alternatives and solutions proposed by North American students, particularly because they represented 'such a different vision for our own city.' North American students constantly challenged their own assumptions during the program. For example, a topic that never fails to elicit the most varied reactions is that of land tenure. Most American students, used to the utmost respect we have for property rights in the United States, were mystified to find out that thousands of families build homes on land that does not belong to them. They are further puzzled by the fact that the government not only protects the right of these families to remain in these illegal settlements, but also supplies infrastructure and services. On this topic, a student remarked, 'The Brazilian constitution is the country's own worst enemy. The lack of a cohesive rule of law will drag them down until they get it fixed, and I doubt that they will ever do it.'

Other planning issues, such as urban policy and legislation, housing policy and programs, and economic development strategies, being so different from those they are familiar with in the US, also presented challenges since they could not assume that the alternatives devised in their projects were actually feasible in the Brazilian context. Some comments from North American students include:

By studying in a foreign environment, it is possible to see more clearly the choices and options available to a planner, because we are able to see an environment different from our own.

...planning is a tool that can be wielded with an open mind and for the public good, on the condition that the political leadership is sincerely committed to this type of planning.

...it was very interesting to learn how the planning process may be affected by the political structure.

Undoubtedly, the studio abroad provides students with a great opportunity for mutual learning. For the Brazilian students to share and discover that their 'developing country' and federally-funded public university have something to teach to students from a 'developed country' is an unusually rewarding experience. For the North American students, to realize how different processes can nonetheless yield good results, to recognize that the levels of development and lifestyles in the United States are not standard for the world, and to learn that solutions to urban problems can be simple and affordable, is an awakening experience. One student remarked, 'I think that when we are in our own environment, it can be difficult to see the sometimes subtle planning at work that creates an urban situation that we often take for granted.'

# Learning Outcomes

The focus of professional planning education in American universities does not lend itself well to (and cannot be imposed on) the built environments of less-developed countries (Banerjee 1985,

1990). Planning models based on formal economies, inalienable property rights, and democratic participatory governance may not be readily transferable to other urban contexts. By the same token, planning models adopted successfully in Brazil, may not be appropriately applied in the US. Nonetheless, students learn to compare and contrast the different systems and draw valuable lessons from this process. Examples of participants' reactions to these differences include:

[what] I learned is that culture is a powerful influence. ... In the case of planning, an understanding of the cultural influence is very important to know how people will respond to the implications of planning policies.

I ... left Brazil with evidence of the misuse of case studies in policy development. Having read many academic and industry articles about Curitiba, I was excited to visit the city mentioned so often as the inspiration and justification of many transportation and land use policy prescriptions. ... [T]he Curitiba case should be cited as an example for U.S. policies but, because of unique circumstances in Curitiba and Brazil, should not be used as a predictor or benchmark. People can legitimately state that Curitiba uses 'X' policy to achieve 'Y' ends. However, planners and the public should be critical when people suggest that, 'We should use "X" policy that was used in Curitiba to generate the same results here.' I am afraid that this is done all too often in the U.S. In fact, Curitiba has been referenced often by my hometown Berkeley politicians (who may or may not possess passports) as the city government contemplates implementing a BRT line. Based on my time during the study abroad program, Curitiba seems to be a wonderful place to live but its policies won't make every American city into a Curitiba-like metropolis.

One student had a divergent opinion:

I think the greatest learning outcome of the Brazil program was that much of what you learn in urban planning school in the U.S. is transferable to another culture and a foreign city. ... We were able to draw on our U.S. experiences to have meaningful dialogue and exchange with the local university students.

Comparing Brazilian cities with the North American cities where they live, or with other cities they have visited in other countries, helps students understand better the contexts within which they live, and to value a lot of what they usually take for granted. In this regard, the studio abroad offers a unique experience in that students cannot directly relate their learning-by-doing with practice-based experiences drawn from observation in American planning environments. Some of the comments related to their first-hand experience during the Brazil program include:

It was the seeing, doing and talking with the locals that made the experience more 'real' and left a lasting impression. ... A person could study favelas his entire life but until he's seen one, smelled one, heard the 'buzz' and felt the vibe of the community, he can't truly understand them.

The greatest outcome for me from the Brazil Program is the nuanced appreciation that only comes with having been there. ... There's no substitute for actually seeing the way in which such a [transit] system is integrated into a city.

With legal and institutional systems being so different, students have to shed basic notions of society and government and reflect upon multiple experiences and knowledge acquired both in class

and during the trip to solve the planning situations proposed to them. The emphasis is on problemsolving and critical thinking through analysis and synthesis to produce new knowledge. Being immersed in a foreign environment exposes them to different planning notions. They become particularly adept at perceiving what their Brazil counterparts take for granted and this realization usually sparks deep self-reflection. This reflection elicited comments such as, "That's the kind of insight that you can't get by just being a tourist in a foreign place," and "The program itself was outstanding in exposing me to stuff that I would never have encountered otherwise. That part of the experience was the most critical in my opinion."

The learning process and learning outcomes revealed in this section validate the effectiveness of the hybrid methodology developed for the studio abroad. Reflection-in-action (Freire [1970] 1986; Schön 1985, 1987; Sletto 2010), peer-to-peer learning (Grant & Manuel 1995), and mutual learning (Banerjee 1985, 1990; Sanyal 1990) offer a theoretical foundation necessary to place the studio abroad into the larger context of studio pedagogy both in the US and in Brazil. These approaches provided students participating in the program with several opportunities to assimilate new knowledge, exchange ideas, consider alternatives from perspectives different from those that come naturally to them, and develop creative solutions to new and alien problems. The following section ponders some lessons learned, by both students and faculty, and considers opportunities for future studio-based programs and also for international programs.

#### **Reflecting On Lessons Learned and Future Opportunities**

The lessons learned by both faculty and students during the process of creating, leading, and participating in the studio described in this paper can be synthesized around three main topics: the studio itself and its role in planning pedagogy, the organization and management of studios based on a hybrid methodology, and the studio as the structuring element of a study abroad program. These topics were discussed within the larger framework of interdisciplinary and international education. The narrative around the first two topics suggests innovations to studio-based pedagogy in general, especially because not all studios are interdisciplinary and many are still based on the master-apprentice relationship that Moore (2001) calls 'Cleric' pedagogy rather than peer-to-peer (Grant & Manuel 1995), experiential learning (Kotval 2003, Elwood 2004, Sletto 2010), and mutual learning (Banerjee 1985, 1990; Sanyal 1990). The innovations stemming from the third topic are offered as a model for study abroad programs. The richness afforded by a studio environment in a study abroad program is unrivalled, particularly when students are exposed to other teaching and learning styles. Similar to a design studio experience, studying abroad requires that students set aside the knowledge they consider useful and valuable "in order to grasp a new perspective" (Schön 1985, p.58). Students are involved in experiences that challenge their assumptions; they feel like they are able to make a direct contribution to foreign communities; and they learn not only from new instructors, but also from their new peers.

The experience of leading this studio abroad has reinforced my belief that studios are in fact a particularly powerful method of education (Boyer & Mitgang 1996) and that the studio format is the most effective way to integrate knowledge and action, theory and practice (Lang 1983). Dutton (1987, p.16) argues that 'studios are active sites where students are engaged intellectually and socially, shifting between analytic, synthetic, and evaluative modes of thinking in different sets of activities,' a concept called 'hidden curriculum.' In addition, studios bridge disciplines and countries and offer

fertile ground for interdisciplinary interaction as well as international learning. In studios, there is the opportunity to provoke students to stretch their boundaries, to use their critical thinking skills in not only solving planning problems but also posing the right questions, to synthesize information and transform acquired theoretical knowledge into practical realities that can be put into action. Finding ways to link knowledge and action in the classroom presents its own challenges (Hodge 1980). The collaboration required by the studio format is another challenge. Grant & Manuel's (1995) peer resource model is but one of the several ways in which students, faculty, and other stakeholders can work together.

One opportunity uniquely provided by studios is service learning (Grant & Manuel 1995; Forsyth et al. 2000; Sletto 2010). In the particular case of the studios discussed herein, service learning is important since most Brazilian universities work very closely with local governments, community organizations and civil society. Although students who participated in this studio abroad rarely had the possibility to follow-up with communities that embraced their projects, there was continuity in the service learning component as their Brazilian counterparts often continued to work on the projects they started together. In addition, there were cases in which the American students were incorporated into a group that had a project in progress and their ideas were readily accepted and adopted; thus, they felt like they were an integral part of the teams they joined. The service learning aspect of studios is particularly rewarding for international students. It makes them feel like they made a contribution to their host country, to the communities they interacted with, and to the people they met. Sometimes, simply bringing an idea they have seen tested in another context back to the US can be empowering. Service learning components in studios usually yield rewarding experiences that are cherished by students both in the short- and long-run. These personal encounters are remembered long after concepts and lessons learned in lectures vanish from students' minds.

Finally, the study abroad aspect. Students who participated in this and other study abroad programs often say they have had a life-changing experience. International exposure is probably one of the best experiences a college student can have. It adds perspective, it enlightens, and it opens new doors and shows new opportunities that would not have been seen if students had not left their familiar environs. Whether the experience is that of students from developing countries going to developed countries (Banerjee 1985, 1990; Sanyal 1990) or vice-versa, the cross-cultural contacts and all the learning that stems from them are invaluable. American universities that promote international programs and support both American students going abroad and foreign students coming to the US are to be praised. This is not a simple task, particularly in recent times and given unstable international relations. In addition, the institutional structure that international programs demand is onerous. Rates of participation in international programs at some US universities are low because of lack of flexibility in academic requirements and fear of lengthening education discourages students (Sowa 2002). Despite all hurdles, studios abroad constitute a promising emerging model in planning education.

Perhaps the best argument for maintaining and expanding international programs are the students themselves. Listening to their epiphanies and observing the changes in their behaviour makes one realize the promise of study abroad, student exchange, and any of the several types of programs available to those who seek an international experience. Even this generation who is so

used to having instant virtual access to the world through new modes of communication and who do not see borders as obstacles, needs incentives to embark on the real experience. As one student stated several years after participating in the program, 'I can say it truly changed my professional and personal life.'

In the pedagogical tradition of Paulo Freire, I can say this studio abroad experience has allowed me to learn as much as teach. This program changed every year not only because of the availability of partners and projects, but also because every year students participating in the program taught me something new and I made changes to improve the next program. Seeing my own country and the city I grew up in through the eyes of planners-in-training is always an enlightening experience. But without a doubt, the most rewarding experience still is to observe students from different countries and different backgrounds wake up to the other, and understand, and learn.

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