

Dealing with the Challenges of Teaching Latin American Architecture: A Case Study

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INTRODUCTION

In 1966, the Spanish architect and theorist Fernando Chueca Goitia affirmed that *Christianity, language and architecture* are Spain's major legacy in the Americas.¹ What he didn't mention is that it is precisely this legacy—the common religion, the shared language, and the thousands of grid plan towns and cities populated with Catholic structures—that has significantly contributed to the world view of the Americas *South of the Border* as a single geographic and cultural landscape. Moreover, the single name the area has received since the mid 19th century, *Latin America*, implies that the region's cultures derive from the Greco-Roman tradition. This assumption ignores the westernization of area's millennial Mesoamerican and Andean indigenous heritage, as well as African traditions, making the categorization of this region as occidental, questionable. Surprisingly, regardless of this generalization of *Latin America* as part of the "west", the region's pre-1492, and post-1492, history continues to be marginalized from many "western" historical accounts.

This said, what does the term Latin American architecture bring to mind? The image is blurry. Exotic tropical and sub-tropical landscapes as depicted since the late 16th Century; the emblematic ruins of Chichen Itza and Machu Picchu; grid cities with a main "plaza;" colorful and textured colonial structures, courtyard houses, and haciendas; and the architecture of Luis Barragán, whose work captures the colors, textures, and volumetric compositions of Iberian-American, Spanish (and Moroccan) vernacular architecture.

Pre-instruction quizzes completed by Master of Architecture students registered in "Latin American Architecture," a graduate seminar I have taught at University of Nebraska-Lincoln (UNL, hereafter) and North Carolina State University (NCSU, hereafter), proved this stereotypical image true. Similarly, these confirmed young Americans' limited understanding of the world, as demonstrated in previous surveys by National Geographic.² The results revealed that 90% of students understand that the name "Latin America" encompasses a geo-cultural area rather than a geo-political or a geographical area. However, when asked to identify Latin American landscapes from a selection of images that range from tropical to cold glaciated areas, 40% of the students selected exclusively those of tropical environs. Regarding architecture, 80% of the students identified images of Spanish towns as Latin American sites. Finally, when comparing the Mercator projection map (1569) to Eckert equal projection map (c. 1980), 50% of the students considered the former, with the northern hemisphere occupying two thirds of the map, as a more accurate representation of the world. Ultimately, these preliminary quizzes showed that Latin America, and its architecture, continues to be misunderstood outside its "boundaries."

With this in mind, how much can we expect students to know? What do we need to teach them? If Latin means "derived from western cultures," what content should the course cover? This paper analyzes the pedagogical strategies experienced in the teaching of "Latin American architecture" at two American universities.

CONTEXT OF THE COURSE

On July 10th 2009, the National Architectural Accreditation Board (NAAB) approved its most recent version of the Conditions for Accreditation. According to the performance criteria “Historical Traditions and Global Culture,” students are expected to have an “[u]nderstanding of parallel and divergent canons and traditions of architecture, landscape and urban design [...] from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socio-economic, public health, and cultural factors.”³ The Association of Colleges and Schools of Architecture (ACSA) made a similar proposal in 2008. Under Student Performance Criteria 8 and 9, this association recommends combining Western and Non-Western traditions into “one criterion to evolve beyond the Western/non-Western dyad.”⁴ Likewise, in its 2008 Issue Brief on Education, the American Institute of Architecture Students (AIAS) identifies the urgent need to prepare emerging professionals in the area of human and cultural diversity. Consequently, students should graduate with an “understanding of diverse cultural perspectives, traditions and means of communication [...] and be exposed to] non-dualistic (western/non-western) canons of architectural history and theory.”⁵ Although well intentioned, and without doubt necessary, these institutions aspire for a seamless inclusion of non-Western architecture in the history curriculum. This addition “disrupts the typical historical narrative in ways that demand a fundamental rethinking of the survey’s nature and goals.”⁶ In fact, it requires an in-depth revision of even the most comprehensive texts traditionally used for survey courses.

Despite the challenges inherent in broadening the geographic and cultural scope of the traditional historical surveys, the two universities where I have taught are making commendable efforts to overcome them. Structured in four courses at UNL,⁷ and in three at NCSU, the structure and content of the history sequence are very similar. At both institutions, the sequence begins with a first course that covers western and non-western architectural developments from prehistory to the dawn of the Renaissance.⁸ This course is followed by western architectural history and theory from Renaissance to late 18th Century at UNL, and from Renaissance to late 19th century at NCSU. Modern and contemporary world architectural history and theory are

covered in two courses at UNL—from 19th Century to mid 20th Century and from mid-20th Century to the present—and one course at NCSU.

The first and last courses expose students to the architecture of Latin America. Therefore, at both institutions students study pre-Columbian architecture of Mesoamerica and the Andes, and the work of modern, as well as contemporary, canonical figures such as Oscar Niemeyer and Luis Barragán. Some aspects of Colonial architecture and urbanism are studied at UNL. But, by the end of these courses, how much of the information on Latin America do the students retain? Not much. According to pre-instruction surveys I have conducted among students registered in “Latin American Architecture,” all of whom have completed the required history sequence,⁹ only 40% can identify the geographic location of the region’s two main pre-Columbian civilizations: the Maya and the Inca.

One reason to explain this may be found in the organization and content of the textbooks. It is worth noting that, even in the most inclusive textbook, the information on the architecture of Latin America is limited.¹⁰ For example, at UNL, the first course uses Spiro Kostof’s *A History of Architecture: Settings and Rituals*, a text that dedicates sections of chapters ten “The World at Large: Roman Confluences,” and eighteen “Spain and the New World” to pre-Columbian architecture of Mesoamerica and the Andes. Similarly, Michael Fazio’s, Marian Moffett’s and Lawrence Wodehouse’s *Buildings across Time: An Introduction to World Architecture*—required at NCSU—covers the same building sites in chapter ten “Indigenous Architecture in the Pre-Columbian Americas.”¹¹ When referring to the region’s modern and contemporary architecture, both institutions rely on William Curtis’s *Modern Architecture since 1900* that discusses these developments in chapters twenty-seven “The Process of Absorption: Latin America, Australia, Japan,” and thirty-three “Modern Architecture and Memory: New Perceptions of the Past.” Equally significant to note is the fact that these books generally group Latin America with areas geographically and culturally distant. Although this may appear irrelevant when discussing pre-Columbian architecture, by grouping cultures from two distinct geographic and cultural areas, these texts contribute to students’ construction on a homogenous image of the region. This is particularly problematic if we also take into account that,

with the exception of Francis D. Ching's, Mark M. Jarzombek's, and Vikramaditya Prakash's *A Global History of Architecture*, required at both institutions as a reference, the texts lack general geographic information—i.e. maps, descriptions—that would help the students get a better understanding of the location and context of the cultures and sites they are studying.

Within this context, courses that specifically focus on the architecture of areas until now under-represented are especially relevant if we are interested in efficiently broadening architecture students' understanding of world architecture.

DESCRIPTION OF THE COURSE AND COURSE OBJECTIVES

Latin American Architecture is a graduate seminar designed as an introduction to this region's built environment from pre-Columbian to contemporary times. The name reveals the course's special attention on the sequence of events preceding and following the "appropriation" of modernist architectural, and urban, principles to produce what would be called, for the first time, *Latin American* architecture. The course is directed to students who have completed the architecture (or art) history survey but who may not have prior studies on Latin America.

According to NAAB, ACSA, and AIAS student performance criteria described above, the inclusion of courses that focus on non-Western traditions is intended to offer students a broader range of precedents and a better understanding of other cultures. When teaching Latin American architecture, beyond meeting these organisms' objectives—i.e. an overview of the history of architecture of Latin America—I expect students to learn to look at the built environments of this region as cultural products of their physical, historical, and cultural context, as well as instruments that have shaped, and continue to shape, Latin American societies. Ultimately, students are not expected to focus their learning on the architectural styles but rather interpret the architectural production of this region in order to understand it.

At the completion of this course, students will have an understanding of:

- the diverse geographic and cultural landscapes of the region and the different architectural expressions;
- the indigenous' compositions of space and sensibilities to nature;
- the social and political role Colonial architecture and urbanism had in the erasure of local cultures and westernization—as well as homogenization—of the region;
- the challenges intellectuals faced after their independence from Spain and Portugal in the re-definition of their identities, that for architects meant determining what exactly are Latin American architectures;
- the modes of "appropriation" of Modernist principles to produce architecture more suited to the Latin American region;
- the effects of the recent exchanges of ideas produced by globalization.

In addition to the course objectives directly related to the topic of the course, as noted in the introduction, there are two challenges the course needs to address: students' misconceptions and geographic illiteracy of the region.

TEACHING METHODS AND COURSE CONTENT

In regard to the teaching methods used in this course, these are not much different from those used in other seminars. Each class begins with a lecture (and a slide-show) followed by a discussion for which the students are required to complete assigned readings. The difference resides on the challenges the instructor faces.

An important factor to consider is the inexistence, even in Spanish and Portuguese, of a comprehensive text on the history of architecture of Latin America.¹² Thus, the information is scattered in a series of publications on specific periods, be this Pre-Columbian, Colonial (or Iberian American), or Modern-Contemporary. It is important to note here that some areas are well-illustrated (Mexico is without doubt the best studied country) while others are barely documented (Central America, for example). A similar situation is true regarding

journals dedicated to the most recent work where Mexico, Chile, and Argentina take the lead.

Although it is a challenge, overcoming this “literary” void can also be an advantage. Rather than adapting the course to an existing textbook(s) with a defined perspective, I have been able to define my own framework; a framework that combines stylistic criteria with others that focus on the formal response to landscape (in its broadest sense) as well as social-political investigations of the role of architecture and urbanism. From this vantage point, the course covers both building environments that fit and do not fit within the traditional canons of beauty.

Given that the framework of the course is the study of the relationship between context and architecture, I have had the additional duty to gather the pertinent information for each of the different countries. With this, I have strived to prepare handouts and class presentations that are consistent in content and organization. The handouts summarize geographical, historical, as well as cultural information and list the name and authors of the building sites. The presentations always incorporate maps at different scales to show the location within the region as well as a closer look at the immediate context. Plans, sections, and, if available, perspectives and diagrammatic drawings complement the “walk-through” the building or site.

Similarly, the lack of comprehensive literature has an impact on the availability of reading material for the students. These need to be meticulously selected from a variety of sources and carefully introduced in order to assure the student will thread the totality of them as they would with texts by a single author. This has been so far the most difficult aspect when teaching this course.

To arrive to the objectives the course is divided in the following six major independent but interdependent topics:

Geographic, Climatic, Topographic and Cultural Areas of the Americas - In response to the results of the pre-instruction quiz, the course begins with discussions on the origins of the students’ misconceived images of the region. These topics range from the long lasting effects of the name Latin America; of the images with which the region has been represented since 1492; and of the

land size distortion in the 1569 Mercator map of the world in use until the 1980s. A close look at a variety of maps of the region exposes students to the diverse geography and indigenous cultures. When overlapped, these maps show the relationships between geography and culture. Lastly, by comparing these maps with geopolitical maps, students can gain awareness that the geopolitical boundaries of the continent (from Colonial to current times) constitute arbitrary drawings that in many cases divide geographic and cultural areas.

To underscore that the course is not organized chronologically, the geographic introduction to Latin America is completed by viewing Walter Salles’s *Motorcycle Diaries*. By requiring students to map out Ernesto Guevara’s and Alberto Granado’s road trip, annotate the distances between sites—that add up to more than 8,000 miles, approximately 2.7 times the distance between New York and San Francisco —, students gain a clearer understanding of the scale of the continent. Similarly, the trip exposes them to the regions’ diverse geographies, cultures, and realities.

Pre-Hispanic Architecture - Students are introduced to the series of cultures that populated the region from 2600 BC to the arrival of the Spanish in the early 1500s. Thus, students can grasp the scale and the state of development of the indigenous cultures and civilizations that would later be, to a large extent, completely dislocated by the Spanish colonizers. At the same time, they gain an understanding of the indigenous conception of space, cultures that used massive structures to articulate open spaces rather than occupiable buildings, particular attention to nature, as well as the construction techniques and materials employed.

This exposure allows students to reflect on the role architecture played in the colonization of the Americas, where the Spaniards not only introduced different social and religious organizations, but also alien spatial concepts.

Colonial, or Iberian American Architecture and Urbanism - As mentioned in the introduction, the architecture and urbanism of this period have a significant presence in the region. Nevertheless, interpreting them exclusively as Spain’s legacies would be dismissing the fact that the urban model and the architecture produced during this period

contributed to the erasure, or blurring, of the indigenous cultures and the introduction of a new culture and religion. The process was facilitated by the use of an urban pattern as well as architectural models, thus the similarities between towns all over the region.

Students are expected to question urbanism and architecture as “instruments of change,” that is, as cultural artifacts that facilitate cultural changes, or rather, erasures. Likewise, they are invited to analyze the effects of the use of a standardized model throughout an extensive geographic region.

Independence and Search for Identity - After three hundred years of colonial oppression, the period following independence presented politicians and intellectuals with the ever recurrent question for Latin Americans: who are we? Americans? Europeans? Both? Who do we want to be? These questions were necessary to define the identity of each one of the countries and to strategize on the construction of the new nations. France and England were adopted as the ideal models of Enlightenment and Industrialization, respectively. As in the colonial period, architecture played an important role in this definition and re-building of identities, thus, French and English architecture were perfect models to convey the pursued ideals. For countries that historically have seen a European influx of population (Argentina, Chile, Brazil, Venezuela, and Uruguay) this presented few problems. On the contrary, those countries with a strong indigenous heritage (such as Mexico and Peru), found themselves struggling between their desire to modernize their nations and their attempts to rebuild their native identities. This struggle becomes particularly evident in the national pavilions built at a number of world exhibitions, many of which were European structures wrapped in indigenous decorative elements.

Students are expected to question the impact of the built environment in the construction of new identities. Likewise, they are expected to discuss the processes of selection, adoption, and “appropriation” of foreign structures.

Modernity - As evidenced in the 19th century, the modernist proposals emerging in Europe were initially “borrowed” by Latin American architects. However, the persistent concern to give authentic expression to local identities would become a shared

interest among intellectuals. Thus, intentionally or unintentionally, architects “appropriated” modernism to produce an alternative better suited to Latin America. Four main aspects were taken into consideration: history, vernacular architecture, materials, and technologies. The result was what the Argentinian theorist Marina Weisman called “architecture of divergence,” that is, modern architecture that differs from the European and American models and could, and would, be called *Latin American*.¹³

This shared concern for making “architecture of divergence” went beyond the literal construction of buildings. Architecture schools began incorporating history of local architecture in their curricula in order to help educate the younger generations on their own heritage as well as the already traditional canons. Likewise, local journals, biennales, and particularly, the Seminario de Arquitectura Latinoamericana (SAL – Seminar on Latin American Architecture), became venues in which the work of those who actively participated in this effort was disseminated, analyzed, and discussed, leading to the writing of local architectural theory.

Students are expected to reflect on the effectiveness of the modes of “appropriation” and the new architectural canons exposed to them.

Contemporary - If from the 1940s to the 1980s can be studied as a period in which politicians and intellectuals imagined themselves as part of Latin American community with common challenges and destiny, since the 1990s the perspective has been very different. The region is no longer seen as a single community; instead the countries’ differences have become more apparent justifying pluralistic cultural approaches that range from local to global ideas. The success of the Guggenheim-Bilbao has also had an effect in this area of the world. Since 2000, more than a dozen leading international architects (including Frank Gehry himself) have been invited to design buildings in cities from Mexico to Argentina.¹⁴

Students are invited to reflect on the recent practices and the impact globalization may have in Latin America.

ANALYSIS OF STUDENT LEARNING

Students’ understanding of Latin America architecture was measured at three points during the se-

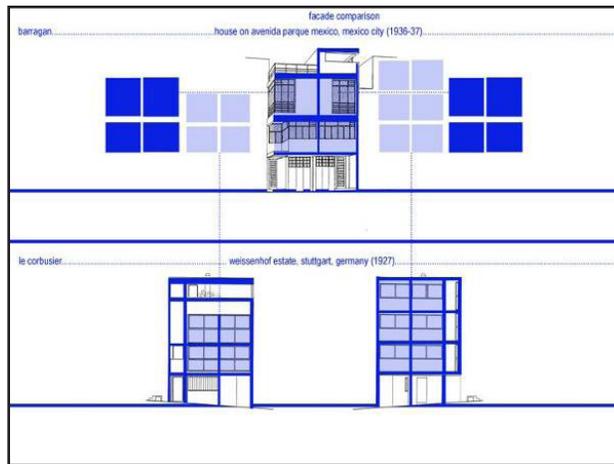


Figure 1

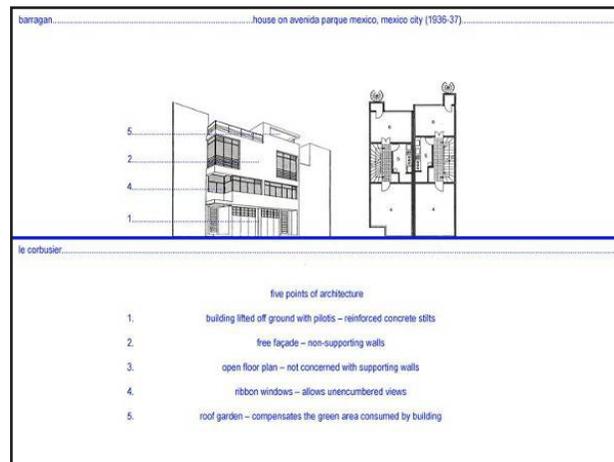


Figure 2

Figures 1-2 - Amy Kraus (UNL, 2007) studied Le Corbusier's Weissenhof Estate (Stuttgart, 1927) and Luis Barragán's Apartments on Avenida Parque México (Mexico City, 1936-1937) focusing on Barragán's adoption of the Five Points of Architecture.

mester: a pre-instruction evaluation (not graded); a final assignment; and, a post-instruction survey (not graded).

The *pre-instruction evaluation* measures students' basic understanding of Latin America and helps me identify the areas I need to discuss further in class. The quiz is composed of ten questions that range from identifying cultures and geographic locations,

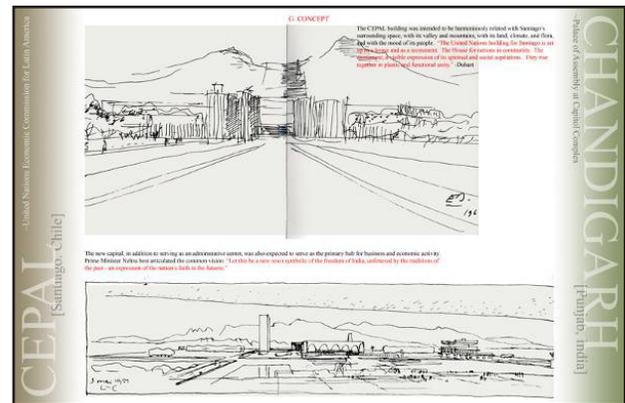


Figure 3

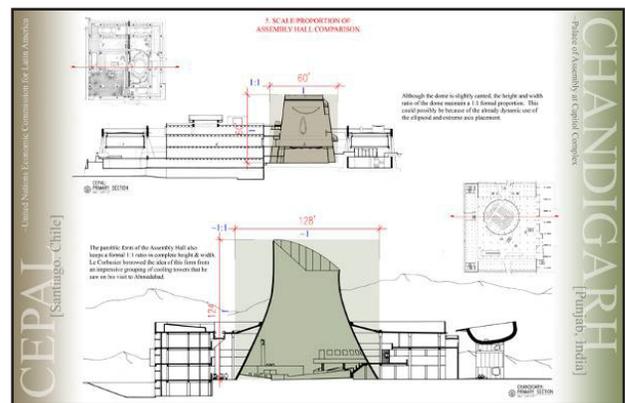


Figure 4

Figures 3-4 - Chris Toothaker (UNL, 2007) studied Le Corbusier's Palace of Assembly at Chandigarh (1952-1962) and Emilio Duhart's CEPAL in Santiago (1960-1966) from conceptual sketches to the building and its compositional elements.

to natural and built environments. As discussed in the introduction of this paper, the responses prove that students come to class with a stereotypical image of Latin America: a homogenous culture, a tropical and subtropical geography, and a built environment of predominantly "colonial" looking structures. Thus the average score has so far been 43.0% (highest score 60%; lowest score 20%).

In regard to the final assignment, the first two times I taught this course, students were required to write a paper on a specific architect or build-

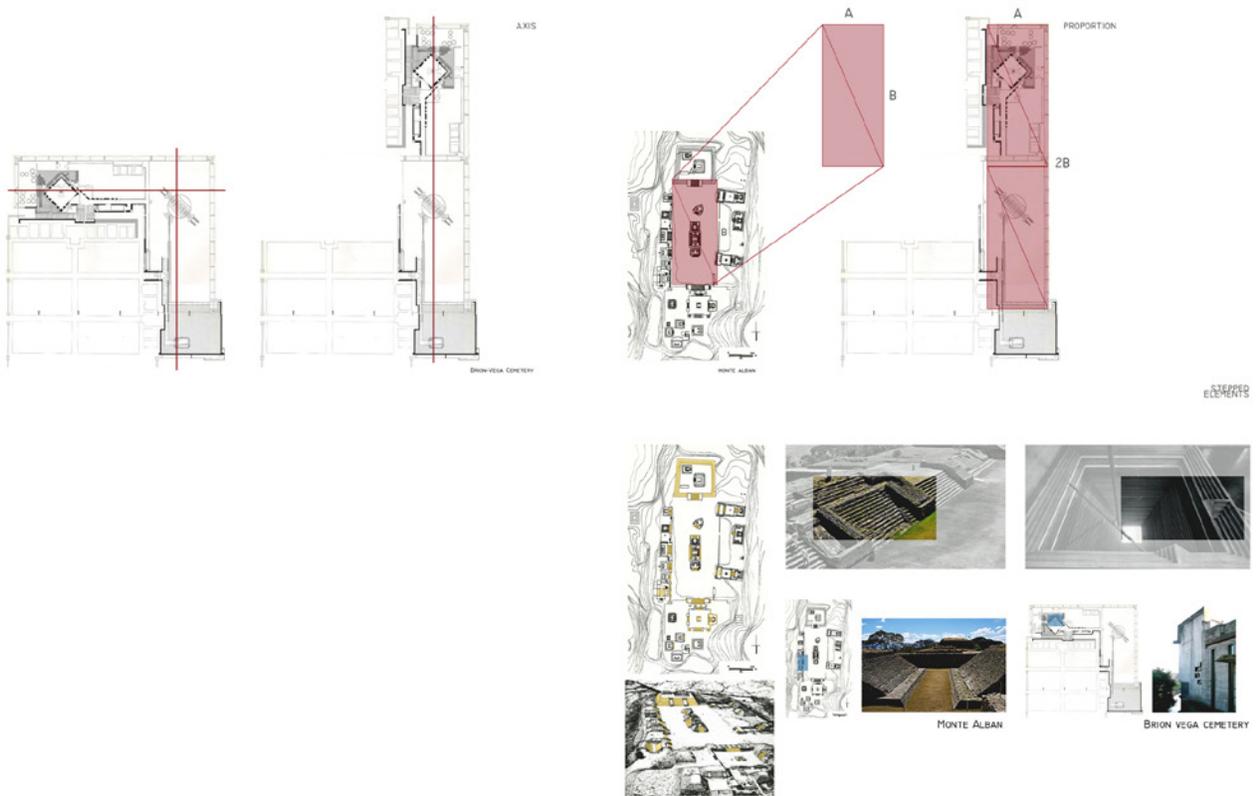


Figure 5

Figure 5 - Stephanie Peterson (UNL, 2007) was interested in studying Maya sites as the “influential” structures and Carlo Scarpa’s Brion-Vega Cemetery (San Vito d’Altivole, 1970-1972) as the “influenced-upon.” She analyzed proportions; relationships between open spaces define by massive/open structures; and the repetitive use of stepped elements.

ing. The scarce bibliography in English limited the range of topics that could be addressed. The result was papers on the already canonical figures that included little or no analysis made by the student. Therefore, for the past three academic years, I have opted to do it differently.

Interested in having students perform “original” research, I have proposed an assignment that requires them to question the premise that, with the exception of pre-Columbian structures, the architecture of Latin America has been influenced by “western” canons and models, explaining its marginal position in architectural history. This assumption is generally based on the comparisons of buildings solely through photographs. Arguing that by drawing one can see aspects impossible to understand through other means, students are required to elaborate a series of drawings of the “influential” and “influenced-upon” buildings in order to analyze measurements, proportions, relationships,

etc. Supplemented with research on the physical, historical, and cultural context surrounding these structures and the documentation the students have generated, they put into practice their ability of analysis which otherwise would have been restricted to the literature they could find. (See, Figures 1-5.)

Finally, a post-instruction survey gives me the opportunity to measure teaching effectiveness in the course. Students were asked to reflect on the knowledge they had acquired in the class, as expected from the NAAB, ACSA and AIAS objectives. In NAAB’s words, the course presented them with “divergent canons and traditions of architecture, landscape and urban design.” A student noted:

“This class has been very influential to my studio and design work. The examples of buildings and architects has broadened my knowledge of architecture and opened my eyes to other happenings in the world.”

From other comments, it is apparent that the main course objective—to understand the built environments of this region as products of their physical, historical, and cultural context, as well as instruments that have shaped, and continue to shape, Latin American societies—was to a large extent accomplished. In this regard, a student wrote:

“I definitely feel I have gained a new perspective on architecture in general. This class has helped me make architectural connections to socio-political issues and events which is something I have never been given an opportunity here.”

IN CLOSING

As demonstrated throughout this paper, to teach Latin American architecture is to deal with numerous challenges. I have so far managed to overcome a significant number of them and meet the main pedagogical objectives of the course. Thus with a better understanding of the broad cultural diversity of the region, particularly understanding the significant role architecture has historically played, at the completion of the course students are invited to reflect upon their roles as they join the professional world.

But there are still challenges ahead. Given the historical and physical vastness of the region, the architectural canons studied and documented to date constitute less than 50% of the built environments of the region. Therefore, although the course contributes to unveil important aspects regarding the architectural developments of the region, I am still faced with the challenge of including vernacular architecture found in rural areas as well as informal architecture found in the periphery of major cities.

ENDNOTES

1. Fernando Chueca Goitía, “Invariantes en la arquitectura hispanoamericana,” *Revista de Occidente* 38, Mayo 1966, Madrid, pp. [241]-275, p. 242.

2. Interested in measuring the geographic literacy among young Americans (18-24), National Geographic took two surveys (2002 and 2006). The conclusion was that this age group has a “limited understanding of the world.” In fact, the 2002 survey revealed that around 11 percent of young Americans were not able to locate their own country on a map. For more information on these surveys, see, <http://www.nationalgeographic.com/roper2006/findings.html> (accessed September 8, 2009), and http://news.nationalgeographic.com/news/2002/11/1120_021120_GeoRoperSurvey.html (accessed September 8, 2009).

3. 2009 Conditions for Accreditation NAAB approved July 10, 2009, p. 22.

4. In ACSA’s words, “[t]he new criterion should require understanding of parallel and divergent canons and traditions of architecture, landscape and urban design (including indigenous and vernacular examples). Students should understand the development of these traditions due to multiple factors, such as ecological, socio-economic, and socio-cultural.” ACSA, *Architectural Education. ACSA Report for the Accreditation Review Conference*, (ACSA) 2008, p. 9

5. AIAS, *AIAS 2008 Issue Brief on Architectural Education*, p [19].

6. Don Choi, “Non- Western Architecture and the Roles of the History Survey,” in *Fresh Air: Proceedings of the 95th ACSA Annual Meeting* in Philadelphia, PA (Washington: ACSA Press, 2007), p. 745.

7. University of Nebraska-Lincoln (UNL hereafter) has changed the history sequence from four courses to two starting in 2008-2009. The first covers the developments from Stone Age to Enlightenment, and the second, 19th and 20th centuries. Students now have a requirement to take a history elective beyond these two courses.

8. According to the course description at University of Nebraska-Lincoln (UNL hereafter), the course expands from pre-history to present, however, in reality the material covered does not go beyond the 15th Century.

9. The only exceptions are track two Master of Architecture students coming to North Carolina State University (NCSU hereafter) from another program. Until 2008, students graduating with a Bachelors of Science in Design degree from UNL had automatic admission into the Master of Architecture program.

10. See, Spiro Kostof, *A History of Architecture: Settings and Rituals* (Oxford University Press, USA, 1995) 233-244 and 433-452; Michael Fazio, Marian Moffett, and Lawrence Wodehouse, *Buildings across Time: An Introduction to World Architecture* (McGraw-Hill, 2003), 275-294; William Curtis, *Modern Architecture since 1900* (Phaidon, 1996), 491-512 and 617-634; and Francis D. Ching, Mark M. Jarzombek, and Vikramaditya Prakash, *A Global History of Architecture* (Wiley, 2006).

11. NCSU requires Dora Crouch and June G. Johnson, *Traditions in Architecture: Africa, America, Asia, and Oceania* (Oxford: Oxford University Press, 2000).

12. The most complete text is Ramón Gutiérrez’s *Arquitectura y urbanismo en iberoamérica*, however as the title suggests, the author covers the developments from 1492 to the 20th Century. See, Ramón Gutiérrez, *Arquitectura y urbanismo en iberoamérica* (Madrid: Ediciones Cátedra, 1983).

13. Marina Weisman, “Introduction,” in Malcolm Quantrill (editor), *Latin American Architects: Six Voices* (College Station: Texas A&M University Press, c2000), [3]-19.

14. The list includes, Mario Botta, Santiago Calatrava, Frank Gehry, Coop Himmelb(l)au, Zaha Hadid, Toyo Ito, Steven Holl, Philip Johnson/Alan Ritchie, Rem Koolhaas, Daniel Liebeskind, Morphosos, Jean Nouvel, Carme Pinós, Alvaro Siza, Philippe Starck, Tod Williams and Billie Tsien.