

## Challenges of Architectural Education in Mexico: Globalization, Peri-Urban Semiotics and Social Responsibilities

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### Abstract

*The recent urban and architectural development in Mexico has evidenced extreme contrast between public planning policy, aiming at creating imaginaries and images of global cities as icons of vigorous economic and technological development, and vast peri-urban territories with great socio-urban problems but also with strong cultural traditions. Through dynamics of Experiential Learning, the Department of Architecture at the Universidad de las Américas Puebla (UDLAP), Mexico, is introducing architectural practices widening the stance of architectural education beyond the construction technologies and canonical aesthetics, to understand forms of meaningful socio-spatial organizations. Facing these challenges, place-sourced workshops informed by Semiotics of Habitable Space [1] and Critical Realism [2] have been carried out to trigger the re-thinking of architectural teaching and learning. Following Halliday's ideas [3], design workshops introduced students to experiential perception of the context as a narrative of its socio-human environment; informed by semiotic approaches and critical and creative thinking [2].*

**Keywords:** Architectural education, Experiential Learning, Critical Realism, Semiotics of Habitable Space.

### 1. Introduction

The globalized economy has inspired in Mexican policy makers the goal of tying the nation up to global economic networks as rapidly as possible to enjoy the benefits they offer. Cities, with potential to insert themselves as nodes of these networks, try to take advantage of all the useful resources at hand. Thus, the impact of a globalized economy in architectural and urban development has resulted in appropriation and re-signification of urban territories and architectural image triggering socio-urban inclusion and exclusion [4].

Today, powerful developer and management agents of urban territories tend to focus their interest on economically promising urban areas, through high cost urban development ignoring the local human contents of place. These urban tendencies and policy trigger great social transformations due to expropriations, expulsion of local population in peri-urban and traditional rural areas due to the insertion of intensive real-estate business [4]. The substitution of the "local" with the "global" triggers the invisibility of original local citizens and their everyday practices of making and re-making the habitable space. We might ask then, for whom is the Mexican urbanization planned?

### 2. Critical Realism, semiotics of habitable space and Experiential Learning

Many times the modern and the contemporary architecture has emphasized economical and technological efficiency ignoring the human condition and narratives and meanings attached to it. In the framework of Critical Realism (CR) though, a transdisciplinary understanding of social, economic and environmental context leads to achieving of a real, locally sensible and conceptually wide sustainability as a vehicle to attend socio-human conditions in peri-urban areas. This leads us to reconsider new approaches to teaching; learning and assessment in architecture to enhance learning skills in the framework of creative and critical thinking, collaboration and cooperation, conflict management, decision-making, problem-solving and planning beyond the narrow canonical, economic or political limits [2].

We should understand that the society and the social reality is produced and reproduced by its members and by the social relations and structures between them as products and conditions for human activity. Thus, something fundamental to reinforce in architectural education, is the critical study of social structures in which architects work, and architectural and urban products are inserted [5]: "Critical realism regards nature as socially constructed or produced in two senses: it is materially shaped by social practices and it is existentially produced by cultural meanings, discourses and representations" [5]. The Systemic Functional Semiotics (SFS) approach on the other hand, makes it

possible to specify the different distinctive semiotic processes and practices in the development of constructed environments, be they imprinted by local or global discourses. Halliday [3] highlights that any semiotic 'text' will represent some aspect of the human experience of the world, or of some experiential or ideational function and thus the material culture is a narrative of human existence. That is, the material environment consists of a particular lexico-grammatical system of its own that offers alternatives for the expression of contextual and socio-cultural messages; every choice of the expressive elements and signs made is related to the social functioning of the utterance [1] transmitting messages of social hierarchy, local or global culture, political system and civil rights. We have been asking, how trained the contemporary architects are to work from the semiotic stance critically analyzing the created architectural and urban text and stimulating potential meanings.

Experiential learning is "to participate in societal development by educating professionals who are critical, creative, innovative, trained at the highest technical level, and who accomplish pertinent research with social conscience that demands an equal distribution of the benefits of globalization" [6]. Thus, the UDLAP<sup>1</sup> aims at identifying and improving "those disciplinary activities that impact students' ability and attitude of putting their knowledge into action and being able to propose pertinent solutions, while being conscious of their impact on the global social environment" [6, 7, 8, 9]. Based on Kolb's Experiential Learning Cycle [6, 7] of four dimensions: abstract conceptualization, active experimentation, concrete experience, and assesment of the outcomes and reflective observation, Experiential learning in architectural workshops has been based on integrated teaching-learning processes of active learning, immersed in situations requiring solution of authentic soio-architectural and urban problems through collaboration triggering a process of becoming a proactive professional, "conscious of the social situation, with the ability of self-governance and life-long learning " [6].

### 3. Experiential learning in collaborative workshops: facing global challenges through semiotics

Involving students with professionals and local stakeholders is part of a critical process that are leading them to discover, analyse, and assume complexity between social-spatial reality and project needs. This is not only a simple method, it has become an educational need focused on local perspective or *New Localism* [10] of a critical perspective corresponding to different social design practices that were conducted in different exercises and projects adopting *Regenerative Design* and *Social Urbanism*, two methods that fit Mexico's complex reality and Latin American cultural development. Regenerative design is based on the idea of the human being as a source of environmental regeneration, and the site of architectural-urban intervention as an interphase combining land uses, community development, edification and environmental meanings creation [11]. These practices locate the designer as the key agent for change adopting regenerative design based on the idea of living systems with a potential capacity to co-evolve to new levels of diversity, complexity, creativity, and life through participation and collaboration. Thus, future professionals should be able to understand the impact and long-term consequences of architectural-urban development projects on a multi-dimensional human environment: "a simple, focused intervention can create new energy, demonstrating the possibilities of a space in a way that motivates others to engage with their community. It can even contribute to the planning process" [12]. Without understanding the local context and its stakeholders, no contemporary architectural-urban project will overcome the challenges of socio-spatial segregation and the clash between economic interests of the local and the global scale.

In this framework, Cholula-project (2017), suggested solutions to the pressure of the rapid urban growth and land speculation located in the urban periphery with communal lands and their uses in which "...the paradigms on peri-urbanization where the market forces guide urban growth, development plans are short-term political visions and exclusive land policies segregate and disperse the social fabric" [13]. In the framework of this project, a collaborative workshop was organized in order to create a 'milpa'-urban system, being the 'milpas' an ancestral agricultural auto-production mechanism. The interaction between students, specialists and local community made possible the creation of conscious and congruent rural-urban projects that not only complemented the modern development needs, but also took the students down to the simplest existential life needs of the local population and sensitized them of importance of the signifying elements that shape the territory [14].

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Fig. 1.: Community meetings, design workshop and outcome exhibition in the Cholula green belt project framework (Photo: M. Schumacher, 2017).

Tochimilco-project on the other hand, introduced students to the development of a community with strong trade and agricultural activities. Collaborative workshop was organized to identify resilient strategies to improve population's emergency responses to natural disasters that are frequent in the zone, to respond specifically to the reconstruction and rehabilitation needs after the 2017 earthquake. The understanding of the urban-rural world was a true confrontation for architecture students more accustomed to urban realities. The result of this workshop was the elaboration of a resilient-strategic-master-plan in cooperation with local authorities, academics and population, including specific intervention projects to improve rural development, local governance and to strengthen community building and identity through transmission of local contextual meanings.



Figure 2.: Tochimilco edifications after the 2017 earthquake (on the left) (Photo: E. González\_Meza); Students learning traditional construction techniques in situ, to be used in the reconstruction (on the right) (Photo: M. Schumacher, 2018).

#### 4. Conclusion

Mexican urban peripheries are facing transformation processes and changes produced by the clash between complex networks of local cultural and social performativities and external economic and political demands that architecture should be able to attend in a sensible way. Thus, Experiential Learning practices offer a potential vehicle to apply semiotic and phenomenological understanding of the environment to comprehend undefined human experiences of occupying space revealing sensible relations between human beings and the context they inhabit and means of production of urban meaning through a cultural, social and historical individual and collective body [15]. Experiential Learning through a locally structured collaborative workshop between learners, teachers, professionals and local communities permits to explore alternative approaches to architectural teaching and learning as well as professional practices sensible to Mexican realities through New Localism in which people become citizen-designers [10].

#### References

- [1] O'Toole, M. "A systemic-functional semiotics of art", *Semiotica* 82(3-4), Berlin/New York, Walter de Gruyter, 1990, pgs. 185-210.
- [2] Sipos, Y., Battisti, B. and Grimm, K. "Achieving transformative sustainability learning: engaging head, hands and heart", *International Journal of Sustainability in Higher Education* 9(1), UK, Emerald Group Publishing Limited, 2008, pgs. 68-86.
- [3] Halliday, M. A. K. *An introduction to functional grammar*, London, Edward Arnold, 1985.
- [4] Kurjenoja, A. K., Ismael, M. E. and Hernández, A., *Ciudad, capital y cultura*, Mexico City, Itaca, 2018, pgs. 9-20.
- [5] Hofer, B. K. and Pintrich, P. R. "The development of epistemological theories: Beliefs about knowledge and knowing and their relation to learning", *Review of educational research* 67(1), Thousand Oaks, CA, Sage Publications Sage CA, 1997, pgs. 88-140.

- [6] Universidad de las Américas Puebla, Experienci@l UDLAP. Experiential Learning at UDLAP. Quality Enhancement Plan 2015-2019, 2015.
- [7] Kolb, D.A., *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall, 1984.
- [8] Kolb, A.Y.; Kolb, D.A., "Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education", *Academy Management Learning & Education*, 48(2), 2005, pgs. 193-212.
- [9] Kolb, A.Y.; Kolb, D.A., "Experiential Learning Theory: A Dynamic, Holistic Approach to Management Learning, Education and Development." In Steve J. Armstrong & Cynthia V. Fukami (eds.). *The Sage Handbook of Management Learning, Education and Development*, Thousand Oaks, CA: Sage, 2009, pgs. 42-68.
- [10] Katz, B. and Nowak, J. *The New Localism: How Cities Can Thrive in the Age of Populism*, Mass., Brookings Institution Press, 2018.
- [11] Mang, P. and Haggard, B. *Regenerative Development: A Framework for Evolving Sustainability*, New Jersey, Wiley Online Library, 2016.
- [12] Lerner, J., *Urban acupuncture*, Washington DC., Island Press, 2014.
- [13] Schumacher, M. *Peri-urban development in Cholula, Mexico*. Munich, Technische Universität München, 2016.
- [14] Durán Díaz, P., *El río como eje de vertebración territorial y urbana: el río San Marcos en Ciudad Victoria, México*, Barcelona, Universitat Politècnica de Catalunya, 2014.