5th INTERNATIONAL ACADEMIC CONFERENCE ON PLACES AND TECHNOLOGIES

EDITORS
ALEKSANDRA KRSTIĆ-FURUNDŽIĆ
MILENA VUKMIROVIĆ
EVA VANIŠTA LAZAREVIĆ
AND ALEKSANDRA ĐUKIĆ

PLACES AND TECHNOLOGIES 2018

THE 5TH INTERNATIONAL ACADEMIC CONFERENCE ON PLACES AND TECHNOLOGIES

EDITORS:
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ARCHITECTURE AS SOCIAL INNOVATION: EDUCATION FOR NEW FORMS OF PROFESSIONAL PRACTICE

Danijela Milovanović Rodić, PhD
Assistant Professor, University of Belgrade, Faculty of Architecture, Belgrade, Kralja Aleksandra 73/2 danmilrod@gmail.com
Božena Stojić
PhD Candidate, University of Belgrade, Faculty of Architecture, Belgrade, Kralja Aleksandra 73/2 bozena.stojic@gmail.com
Aleksandra Milovanović
PhD Candidate, University of Belgrade, Faculty of Architecture, Belgrade, Kralja Aleksandra 73/2, aleksandr-aa@hotmail.com

ABSTRACT

The subject of this paper is a specific pedagogical model for educating architects with the aim of contributing to a change in how the professional role of architects is understood in society.

The premise of this model is that an architect's clients and partners are not just a wide range of investors, but also include people who live in dire conditions caused by natural disasters or human activity in urban slums, poor or distant rural areas, refugee camps, or temporary accommodation. As seen in this model, the main goal of professional activity is to improve the quality of life of these people and communities and empower them to deal with problems in the future. The main objective of the pedagogical model is to empower architects by providing them with the skills and knowledge needed for a shift from the role of service provider to that of community enhancer. Considering social innovation as a process of innovation that results in new forms of cooperation, strategies and concepts to meet community needs, as well as this methodology for socially engaged design and planning, we tend to also position architecture as social innovation.

The first part of the paper will provide an overview of the modalities of architectural practices of similar values, educational programs, literature and various types of support. The second part of the paper will present the pedagogical model and its basic characteristics: (a) focus on communication and cooperation with local initiatives, public authorities, and the private sector; and (b) development of entrepreneurial spirit and the ability to raise funds for the execution and maintenance of the project. The aim is to contribute to the understanding of the project development process in a real context and support the discovery of different potentials for achieving various types of sustainable solutions that emerge from cooperation with local initiatives. In the third part of the article, student works will be presented to illustrate this pedagogical model. Designed in the context of various developmental problems that Serbia has been dealing with in recent decades, student projects show how social innovations are reflected in architectural practice, as they offer new perspectives on old problems and offer new answers to them.

Keywords: Education of architects, pedagogical model, social innovation, socially responsible practice, Serbia

Introduction

Social innovation is a frequently used term, although there is no consensus in the professional community about its meaning. The most common definition is the one given in Challenge Social Innovation, which provides an overview of scientific approaches to this still relatively new field based on contributions made by the first world-wide scientific conference on social innovation that took place in Vienna, Austria in September 2011[1]. This definition states that social innovations are "new, more effective and/or more efficient social practices with social ends and social means" (Challenge Social Innovation, 2012:6). Since social innovations can take different forms, the European Commission has recognized them in its major social innovation study[2] as "new ideas, products, services and models that simultaneously meet social needs more effectively than alternatives and create new social relationships or collaborations" (Challenge Social Innovation, 2010:9). A similar definition is provided in the Vienna Declaration[3] according to which social innovations are focused on searching for solutions to key social aspects, such as unemployment, poverty, marginalization of different social groups, inaccessible education, and humanitarian catastrophes due to climate change, natural disasters, or wars. According to Franz, Hochgerner and Howaldt, there is a need to distinguish social innovations from technological innovations on the one hand, and social changes on the other. The definition they set out states that social innovation is "intentional, meant to change something in what people do alone or together to the better, at least as they perceive it" (Franz & Hochgerner & Howaldt, 2012:4). It is exactly this intention to produce change that distinguishes social innovations from social changes, which, according to Franz, Hochgerner, and Howaldt, are certain to happen even if they are not the "subject of work". Nevertheless, it cannot be claimed that all social innovations are driven by the intention to bring about social changes. In fact, the aim of social innovations is changing relationships and "rules of the game" between stakeholders in the processes of development governance.

The process in which social innovations arise is characterized by a complex interaction between different types of stakeholders, establishment of new communication channels and forms of interaction, and collective creativity (Bacaksiz & Ulker, 2017). Therefore, it can be concluded that social innovations introduce changes into relationships between individuals and groups within a community, improving their individual, group, and community (a) capacity for confronting different development issues and meeting their needs, and (b) ability to operate to manage their own development.

The concept of social innovation is quite wide and related to numerous scientific disciplines (technology, economics, sociology, organizational and management theories, etc.) and social activities. However, this paper will discuss (a) the relationships between design (architecture) and social innovation, (b) the concept of socially responsible design (architecture), and (c) the models of education of socially responsible designers (architects) as social innovators.

Design, Social Impact and Social Innovation

There are several different concepts that link design and social changes, which have led to the emergence of a number of terms, such as socially responsible design, public interest design, design for social change, public design, social impact design, social design, public service design, etc. Growing interest of professionals in this area of design, and a large number of

1 The *Challenge Social Innovation* conference was co-organized by NET4SOCIETY (Network of Socio-Economic Sciences and Humanities National Contact Points), supported by European Commission, the Centre for Social Innovation, Vienna and the Dortmund University of Technology in 2011.

2 *Empowering people, driving change: Social innovation in the European Union*, European Commission, 2011.

3 The *Vienna Declaration* (2011) is a key product of the NET4SOCIETY, Challenge Social Innovation conference. The document highlights the most relevant topics of research into social innovations.

publications and examples of the results of such practices, demand the definition of those conceptual and, consequently, terminological differences. The concept of socially responsible design is based on the understanding (and ambition) that social problems can be solved by design. It is directly related "sustainable design" that implies a balance of social, economic, and environmental aspects in formulating problems and solutions. Socially responsible design (a) is never "culture-neutral", but socially contextual; (b) prioritizes people rather than design itself; (c) includes a complex set of aspects that lead to sustainability, and (d) is created through the development of an interactive relationship between participants in the design process.

Design for social innovation is a broader term than "social innovation design". It constitutes a "process for earning respect by first giving it and gaining empowerment by empowering others that could result in the mobilization and development of sustainable lifestyles" (Moalosi[4], cited in Design and Social Impact, 2013[5]). Hence, this is a type of design that results in two types of product/levels of effect. The first one presents a design solution to a concrete and current development problem, the solution to which facilitates and improves the quality of life of community members. The second one is the improved capacity of the community to sustain a project beyond its completion. Design could thus come to be regarded "as an empowerment tool rather than as a tool that creates objects or buildings" (Smith[6], cited in Design and Social Impact, 2013).

This understanding of the purpose, meaning, and professional mode of operation of designers of different profiles, according to Bell, B. and Wakeford, K. (2008), is being transferred from the margins to the mainstream. The growing practice of design/architectural activism is characterized by a diversity of approaches and ways in which design "deals with social justice issues, allows individuals and communities to plan and celebrate their lives, and ways in which design serves a much higher percentage of the population than in the past" (Bell & Wakeford, 2008:8). Project documentation often uses Creative Commons licenses that permit anyone who belongs to a particular target group to download content and use it for free while crediting the author. This allows designers to work, publish their research, and test their ideas while respecting copyright and contributing to their target groups. Promising, innovative, socially responsible design projects around the globe" are thus becoming accessible so that "others can contextualize and replicate them in the socio-cultural environment" (Moalosi, cited in Design and Social Impact, 2013). This kind of knowledge and experience sharing has been improving both the quality of lives of people around the world, and the capacities of the professional/design community.

Architecture for Social Innovation

The ideology of a socially responsible architecture/architecture for social innovation is based on the premise that social problems can be solved by architecture, and that, therefore, the purpose and subject of architecture are not confined only to objects and spatial complexes, but includes the quality of life of individuals and communities in which they are located. In such a setting, the impact on community development and its capacity to participate in the creation and implementation of sustainable solutions are key criteria for assessing the quality of architecture. This topic has been discussed in a number of publications dealing with the genesis, philosophy, and ideology of the movement that also presents the context, process of creation, and results. We highlight the following authors as its key exponents: Oppenheimer, A. & Hursley, T. (1998), Smith, C. (2007), Bell, B. & Wakeford, K. (2008), Lepik, A. (2010), Cary, J. (2010), Stohr, K.

4 Dr Richie Moalosi is Senior Lecturer in Industrial Design at the University of Botswana.

5 A white paper based on the Social Impact Design Summit, convened by the Smithsonian's Cooper-Hewitt, National Design Museum; the National Endowment for the Arts; and the Lemelson Foundation at The Rockefeller Foundation offices in New York on February 27, 2012.

6 Amy Smith is the founder of the D-Lab at MIT.

& Sinclare, C. (2006, 2012), Brillembourg, B., Klumpner, H. & Coulombel, P. (2011). These publications show the processes and products of the work of architects - individuals, associations, and institutions. They provide a better understanding of the growing movement and an assessment of its significance and its diversity. Below is an overview of the most significant examples by extent and type of impact:

E1: Earthship Biotecture.[7]- Architect and researcher Mike Reynolds founded the company in 1969 to research and build low-cost, sustainable, and autonomous homes that would allow life "out of the network, with more space, less government, and genuine independence". Their headquarters are in Taos, New Mexico. They are still active, not only in America, but also in disadvantaged areas around the world: Haiti, Japan, the Philippines, Malawi, etc. In addition to building in endangered areas, they publish books, organize seminars and workshops, and publish multimedia to pass knowledge on to architects, local administrations, and residents.

E2: The International Development Enterprise (iDE).[8] Paul Polak founded this non-profit organization in 1982 with the aim of "creating conditions for the arrival and improvement of quality of life in rural poor households". Today this is a consortium of non-profit organizations, headquartered in Denver and with offices in Great Britain and Canada. They have implemented over 280 projects in Nepal, Bangladesh, Cambodia, Vietnam, Zambia, Ethiopia, Ghana, Mozambique, Burkina Faso, Nicaragua, and Honduras.

E3: Design Corps.[9] In 1991, Bryan Bell founded this non-profit organization to "provide access to design, advocacy and education to create an environment in line with social, economic, and ecological challenges" to poor communities. The key aspects of its action are training through the Public Interest Design Institute, networking of people and institutions, and certification of projects and verification of socio-economic-ecological impacts.

E4: Rural Studio.[10] In 1993, Samuel Mockbee set up this study program at the Auburn University College of Architecture, Planning and Landscape Architecture in Australia with the aim of creating the "architectural equivalent to pro bono law firms that provide legal services to the poor." Students are educated through the experience of working with the population in a particular region. The studio has been expanding the scope and complexity of projects and increasingly focuses on working with the community. Rural Studio has won a number of major architectural awards.

E5: Architecture for Humanity.[11] Kate Stohr and Cameron Sinclair founded this non-profit organization in 1999 to create architectural solutions for humanitarian crises. The organization has networked more than a fifty thousand professionals engaged on projects around the world in various ways. They have released several publications and are working on a large project base under the Creative Commons license.

E6: Public Architecture.[12] In 2002, John Peterson founded this company with the goal of "making the architecture available in the public interest". One of their contributions has been their "1%" program in the US, launched in 2005, which requires architectural firms to commit one percent of their chargeable hours for pro bono purposes. The American Institute of Architects (AIA) has revised its professional code of ethics explicitly encouraging pro bono services. This initiative has resulted in an increase in the number of pro bono projects by reference architectural firms.

E7: Global Studio.[13] Established in 2004 by the UN Working Group as part of a research

7 More information is available online at www.earthship.com.
8 More information is available online at www.ideglobal.org.
9 More information is available online at www.designcorps.org.
10 More information is available online at www.ruralstudio.org.
11 More information is available online at www.afhuk.org.
12 More information is available online at www.publicarchitecture.org.
13 More information is available online at www.peoplebuildingbettercities.org.

project to improve the lives of people in slums. To date, many local communities, over 600 students, professors and professionals from 35 countries, 66 universities, and 11 disciplines have taken part in the work. Global Studio's projects were organized in Istanbul (2005), Vancouver (2006), Johannesburg (2007, 2008, 2009) and Bhopal (2012). In collaboration with the Center for Sustainable Cities at Columbia University, they launched the project "People Building Better Cities" with the aim of disseminating knowledge and experiences.

Educating Architects for Social Innovation

The course Architecture and Civil Initiative for Sustainable Development at the Faculty of Architecture of the University of Belgrade has been testing ways of educating socially responsible and proactive architects since 2014. The course is designed as (a) the result of critical thinking about the existing model of academic education of architects; and (b) a reaction to the current position and role of the architectural profession in (Serbian) society. The education model is based on the following principles: (a) Capacity-building for participation in collaborative processes; (b) Integral design: overcoming disciplinary and sectoral boundaries; (c) Establishing partnerships between universities, civic initiatives, and local communities; (d) Implementation as a corrective - detailed elaboration, resource allocation, and project adaptation in accordance with the possibilities; and (e) Change in the adaptability of the target group, leading to an improvement in its future ability to deal with new problems.

In the last three academic years, the students were expected to formulate projects that responded to the global refugee crisis, which is increasingly being felt throughout Serbia. The course examined the possibilities and models of architects' engagement to improve the living conditions of both refugees and local populations of the territories along their route they inhabit temporarily or permanently. The task was formulated with the understanding that we, as a state, society, and profession, had to take part in the search for new answers to both this challenge and other humanitarian catastrophes. Project proposals have included problem-solving, but have also focused on preventing humanitarian catastrophes and empowering individuals, communities, and society as a whole to deal with them. The following section of the paper will present six student projects developed as part of the course to illustrate their diversity of approaches: the types of problems, solutions, and the way in which the target group has been empowered. They differ in the size of the area, number of people involved or affected, amount of money needed for realization, and time needed for their elaboration or execution. Some were one-off, and some were intended to be repeated or last for a longer period of time; some were aimed at a specific group of people or a specific area, and some were more general in that they applied to Serbia as a whole.

P1: Adaptation of decommissioned railway passenger cars to provide access to basic services and provide services to people in distress. The project examined possibilities for improving the quality of life of people living in inhumane conditions, such as urban slums, poor and remote rural areas, refugee camps, or temporary accommodation following natural or man-made disasters. The project innovatively used abandoned railway cars a sa resource by proposing different service functions and creative spatial solutions.

P2[14]: Permanent integration of migrants in rural areas. The project analyzed and mapped abandoned rural areas in Serbia where migrants could be allowed to settle permanently. These communities would be self-sustaining in the long run and would thus contribute to the inclusion of the migrants and healthier living conditions, as well as the creation of new

14 Cases P2 to P6 were presented in an online exhibition entitled "Re-action to the refugee crisis: Students of the Faculty of Architecture for Refugees", available online at www.arh.bg.ac.rs/2016/04/20/veb-izlozba-re-akcija-na-izbeglicku-krizu-studenti-arhitektonskog-fakulteta-za-izbeglice/?pismo=lat.

activities, development of agriculture, and social and economic betterment of Serbia.

P3: Programs for integration and inclusion of refugee children into society. The aim of this project was to provide primary and secondary education, as well as kindergartens and preschools, for refugee children in their respective native languages, while requiring them to learn Serbian language and, optionally, another foreign language. This was envisaged to be achieved through the construction of school or educational and cultural center for migrant children and young people in the reception centers where they are accommodated.

P4: Reconstruction of abandoned buildings. The project called for mapping and categorizing abandoned buildings in Belgrade and assessing whether they could be renovated and utilized to accommodate migrants. On the one hand, the project used sustainable resources in the city on a sustainable basis, while, on the other, it proposed innovative program models that would contribute to revitalization.

P5: Transformable and mobile units to produce energy from biomass. The project proposed using a mobile unit to generate electricity from biomass and so address the problem of supply at locations lacking adequate infrastructure. The project was based on a cross-understanding of technological innovations that use nature as a resource and social innovation in relation to its purpose and identified problems.

P6: The economy of the refugee camp: Integration through self-sustainability. The project dealt with the modalities of organizing self-sustaining refugee camps where various production and service capacities and forms of entrepreneurial association could exist to establish a productive, sustainable and safe environment. The project constituted a new perspective on the typology of refugee centers by proposing an innovative spatial and program model.

While working on their designs, the students were able to contact, exchange information, and cooperate with specific local civic initiatives. The students' works have been shown at a number of exhibitions, which allowed them to join and promote (global and local) discussion about the professional competences of architects, as well as their position, role, and forms of action in society.

Conclusions

There has been steady growth of interest from the scientific community in research into social innovation, on the one hand, and architecture as a new type of social innovation, on the other. Promoting the development of architectural and urban planning projects based on social innovation factors requires new educational programs and courses at universities, as well as methodologies designed to create new innovator architects. Increasingly complex relationships created in society, and the problems that society faces, require new innovative approaches in both project design and the development of new interactive links among participants in the design process. The introduction of a curriculum based on collaborative and practice oriented learning would take us one step closer to solving problems in society by permitting architects to act as social innovators. The Architecture and Civil Initiative for Sustainable Development course offered by the University of Belgrade, Faculty of Architecture aims to provide students a multi-disciplinary education to permit them to create innovation, by (a) treating real problems in society innovatively; (b) developing a multidisciplinary approach to design; (c) opening interactive dialogue in the design process; and, finally, (d) rethinking the meaning of architecture and its purpose in a society.

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