

Social Innovation Design Study in Art and Design

The ARNOLD Project of Politecnico di Milano

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Abstract—This is an era that everyone is designing. Design is transforming from only focusing on professional fields like interiors, architecture, products, and clothing to focusing on the design of society, service, system, and strategy. The design's definition and boundaries are changing. The ARNOLD project hosted by the Politecnico di Milano School of Design explores in depth the methodologies involved in the design of social innovation, especially in exploring the potential of co-creation design in social innovation design. The design teams with different backgrounds and various stakeholders collaborated under a common vision, realizing the intersection and integration of service design, urban space design, and interior design. To conclude an effective instrument, an activity guide and a common value are the keys of improving the effectiveness and sustainability of social innovations.

Keywords—social innovation design; collaborative design; common value; ARNOLD

I. INTRODUCTION

Professor Liu Guanzhong, a well-known design scholar, pointed out in his speech "From making objects to planning things": "Design should come out from only making products. It is not only supposed to only make a object, but also to plan a thing for serve people. Making a object is just a little part of design process, we should stand at a higher level to consider the problems encountered by users when they are doing things." Nowadays, Design is transforming from focusing on professional specific fields like architecture, interior space, product, and fashion etc. to focusing on the thing as the core, such like design for society, system, and strategy. The design's definition and boundaries are constantly changing. In the context of seeking methods that can meet new social needs, new needs and issues are difficult to be solved with traditional models and solutions. "Social innovation design" is not only thoughtful issues for professional designers and decision makers, but also a method and an open process for for everyone living in society to "Collaborative design", It has the vision of "Common value" design and innovation. We are in a new design revolution, an era that everyone could be a designer.

Politecnico di Milano School of Design ranked No. 5 in the 2018 QS Ranking of Design Majors of Universities all over the World, as the academic center of sustainable social innovative design has launched "ARNOLD multi-design discipline social innovative design research project" from July 2016 to February

2017 in the Final Synthesis Laboratory of Master of Interior Design. The project was directed by professors Davide Fassi, Laura Galluzzo, Anna Meroni, and Zhu Xiaocun, completed by the author and other 54 international students, supported by the municipal government of Milan and the DESIS lab (International Social Innovative and Sustainable Design Network Organization). It is significant that the laboratory course formed a multilayered cooperation between communities to countries and combined the curriculum and teaching. ARNOLD is the abbreviation of "Art and Design in NOLO social district" (Fig. 1). It aims to inspire Milan's NOLO district communities with art and design, conduct the cross-disciplinary collaborative research that integrates urban space design, interior design and service design, combining practical methods and tools from different design disciplines to explore community social innovation and Multidisciplinary education research.

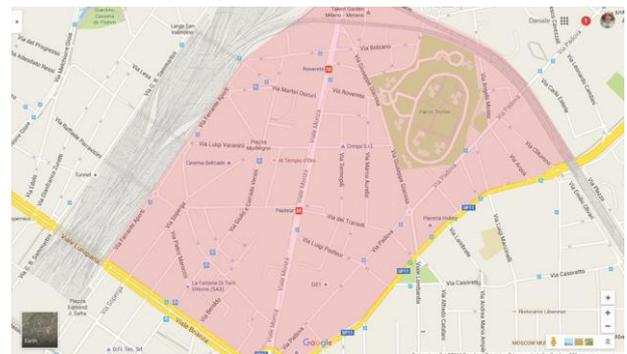


Fig. 1. NOLO social district map .

II. THE NOLO COMMUNITY WITH "POTHoles AND SORES" AND UNLIMITED POTENTIAL

NOLO, the abbreviation of "North of Loreto", which was defined by the 43-year-old designer Francesco Cavalli. It is also synonymous with Milan's new urban area and spreads and defines vitality. It includes parts of the area north of Loreto in Milan, where there are two squares, Piazza Loreto and Piazza Morbegno, three metro stations, Loreto, Rovereto, and Pasteur, Via Monza which runs through the area, and the European main traffic hub, Milan Central Railway Station (The important city hub of settlements; an important node connecting other cities in northeastern Italy such as Monza and Venice; and an important traffic fortress connecting Italy with

neighboring countries such as Switzerland, France, and Germany) which is to the west of the area.

A. Milan's Largest Immigration Settlement

Since the beginning of the 20th century, NOLO has been Milan's largest immigration settlement. It accommodates immigrants of more than 50 nationalities. The earliest immigrants came from eastern and southern Italy. Then immigrants from around the world gradually came here. According to the data from the Milan City Government in 2015, there are a total of 44,205 foreigners in Milan. The immigrants with the largest numbers are Filipinos, Egyptians, Chinese, Peruvians, Sri Lankan Ceylonese, Romanians, Ecuadorians, Moroccans, Ukrainians, and Bangladeshis. The integration of culture, living habits and languages of different countries is a major issue of the region.

B. The Dangerous Area of Milan

Immigrants' poverty is an important factor for the danger, conflict, and crime in the region. The long-term vicious cycle has made it a dangerous slum in Milan. In particular, in the NOLO area, a 4 km Via Padova street (from Piazzale Loreto square to the border of Milan) is synonymous with "alcoholism, violence, drugs, poverty, demons, prostitutes". The 1958 "Army Truck Robbery Case" took place here. In November 2016, a gunfight happened here once more, causing a man to be shot dead.

C. New Immigrants Boom

According to the statistics of the website immobiliare.it, the NOLO region has attracted more and more young creatives, designers and artists to migrate here because the price of houses in the center of the region (2,600 euros per square meter) is 21% cheaper than that of other cities in Milan and it has sound public facilities. New young creatives have injected fresh energy into the region. They held local art exhibitions, street art, graffiti, concerts, and film exchanges to promote the development and improvement of local culture.

D. Nolo Community Association

New immigrants Sara Atelier and Daniele Dodaro have been working together since 2010 to create an online and offline NOLO community association that organizes dinner parties, co-working, cycling and other social activities to promote community exchanges. For example, on weekends, they often organize street neighborhoods to discuss and discover the joy of life together. This is a way to improve and optimize the relationship between strangers and build a bridge between neighbors for good communication. At present, 80% of local community residents have joined the association. The association actively participates in the ARNOLD project, and provides its existing platform and organizational network for the project to make it easier to be implemented.

III. THE ARNOLD PROJECT DESIGN PROCESS WITH MULTI-DISCIPLINARY COLLABORATIVE INNOVATION

A. Initial Mutual Understanding Stage

In the early stage of the course, 55 students from different countries were randomly assigned and every 5 students were divided into a group. The space of the classroom was to be used to design the course reporting device. The available materials were wood, and the price was limited to not more than 10 euros. Professors provided an opportunity for students of different nationalities and cultures to understand and collaborate with each other at this stage. Students could know each others' advantages and disadvantages. On the other hand, students who were new to each other could understand each other and quickly form a design team. The design began at this time, and the entire course is a service design process.

B. Regional Research Stage

The goal of this stage is to familiarize the area with literature and field research. This not only enabled teachers and students to have a deep understanding of the NOLO community, but also stimulated interaction between the design team and the local residents. We investigated regional conditions with the following methods.

(1) Community Sketching: The Sketchmob studio organized and guided the students to conduct a one-day field experience and sketch recording. The students were required to record the intuitive experience of the initial visit to the NOLO community using sketches.

(2) Experience Map: Use the experience map based on the theory of international contextualism to develop personal exploration in the target area without any form or material restrictions, deconstruct and reshape the original area through personal perception.

(3) Video interviews: This is an effective way of research and interaction with stakeholders participating in. Through interviews, they had deeper understanding of the NOLO community. In post-production, it presents a reflection on the problems of the community and is served as a starting point for asking questions, analyzing problems, and exploring design opportunities. These videos are not only an introduction to the works and creative methods of artists and designers in the community, but also reflect their thinking on the living space and the relationship between residents in the community.

(4) Literature report: Conduct literature analysis and report writing on the connection and comparison between NOLO community and Milan City taking "Business, Collaboration Department, Social Organization, History, Process and Production, Cultural Life, Social Life, Parents and Children, Elderly People, New Immigrants, Sharing and Collaborative Economy" as 12 themes to lay the theoretical foundation for the practice of next stage.

C. Collaborative Design Stage

Space design often redefines contemporary life and reveals new problems in the changing society. The collision of multiple design disciplines and their interactions in theory and

application should be fully utilized in the project to adapt to the wider range of requirements in aspects of society, culture, politics and business. At this stage, stakeholders such as artists, designers, and site owners directly participated in interactive and co-creation design process, which is the focus of collaborative innovation of the project. Firstly, conduct indoor and outdoor venue research under the traditional design framework (spatial analysis, streamline analysis, experience analysis, etc.); second, students used service design tools and methods (guided brainstorming, mind mapping, behavioral contact maps, experience maps, etc.) to deeply understand the artists in the stakeholders, and explore the significance of their works, their ideas and concepts, their understanding and vision of the community, etc., thinking about how to express their value proposition in the exhibition; next, communicate with (video interviews, community association activity surveys) site owners in stakeholders to understand the restrictions for the space that the exhibition is intended to use and the possibilities for its expansion; finally, communicate with (co-design and co-analyze) the general community residents in stakeholders to know their understanding of the community and their expectations for artistic activities. In addition, the owner will also assist artists and design students in organizing some special exhibitions and providing financial aid of small amount.

(1) Two-dimensional and three-dimensional analysis charts. These are the traditional interior design analysis tools. Analyze streamlines, dimensions, materials, textures, etc. of the target space, make dimension drawings and spatial visualization models to understand the maximum transformation possibility of the space.

(2) Space mood board. A heuristic and exploratory tool that abstracts and visualizes the personal feelings for colors, textures, smells, and sensations of unconventional spaces to express the design ideas quickly.

(3) Video interviews. Through the video interviews of artists and their associates, we deeply explore the meaning and motivating points of the artists' works.

D. Art Activity Design Stage

Thirty days later, this phase aims to design and plan an art and design tour and a community activity that can be operated in exhibition centers and 24 locations of 22 art projects (Fig.2). It is necessary to consider the cost of activities, exhibition time and the flow of visitors. Take the first group's Marathon of Art in NOLO as an example to introduce design tools, flow and methods:

(1) Offering Map, a map that provides visualization tool analysis service for users. After the first phase of community research, the team designed a service that could “inspire creativity, improve the appearance of the community, enhance residents’ mentality, know new partners, eliminate stress and anxiety, and help users socialize”. On the one hand, residents can have a healthy lifestyle through the marathon activity; on the other hand, the residents who have an interest in art can cultivate their sentiments, and know the neighbors in a new way of art , which can enhance the vitality of the region.

(2) Virtual role model, virtual models established by observing and analyzing each major type of potential users. According to NOLO user interviews, there are three major types of users: public university students, employees of a certain company, and new immigrants.

(3) Exhibition totems, an exhibition guide picture on the day of the activity. A temporary totem will be used to introduce the artist's works in each exhibition location. It is also the medium for the interaction with the visitors.

(4) Design of user experience activities, provide a practical and feasible activity plan, know three types of art users based on the analysis of simulated character tools, design three activity routes with different distances and artwork types, and design games to interact with visits during the activity and reward each finisher in the end.

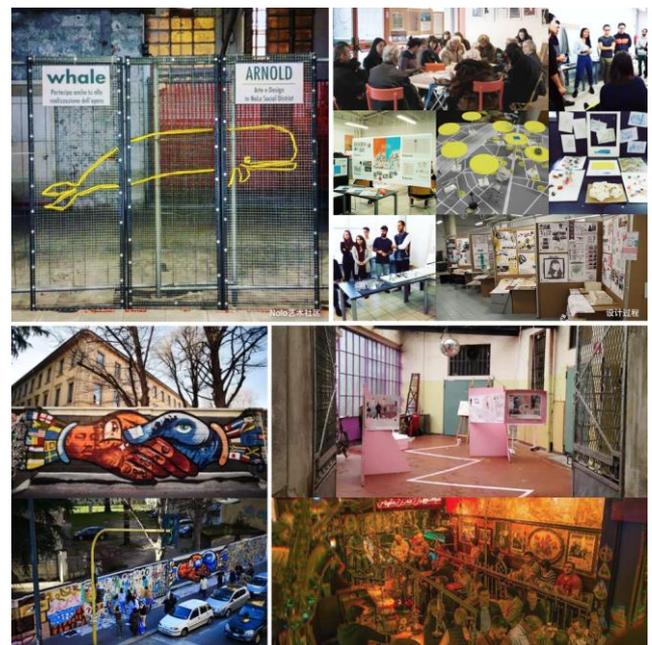


Fig. 2. The art and design activity of NOLO.

IV. INFLUENCE OF ARNOLD PROJECT

A. Social Activity Influence

On the day of the activity, each exhibition area received more than 50 visitors per day. The entire activity is estimated to have received more than 1,000 visitors, and Cristina Tajani, the Cultural Commissioner of Milan, also attended the activity. More than 20 articles were published in the newspapers (including Italy's most important La Repubblica newspaper), magazines and blogs, news about this activity was transmitted thousands of times on Facebook, Instagram and other social medias, the activity has been widely concerned by the community society.

B. Blueprint for Activities to Refer

The ARNOLD project has created a blueprint in the region for future activities to refer. It not only displayed artworks in non-traditional places, but also strengthened the cohesiveness

of different types of users (local and non-local residents, art activity enthusiasts, temporary visitors). This blueprint can be referenced by other types of events in the future. For example, the NOLO community can use this activity form as an annual activity, which can be expanded or reduced to other regions according to the needs of the event, and we can obtain benefits from the research and output.

V. CONCLUSION

Through the cross practice of multiple design disciplines, it is not difficult to find that the keys of improving the effectiveness and sustainability of social innovations are: effective instrument, activity guide, and common value (Fig. 3). Firstly, the interdisciplinary design background provides the various design tools for design students and community residents to collaborate efficiently. Secondly, because the views and backgrounds of stakeholders are different, there must be different visions in the cooperation process. The integration of various visions of stakeholders is an important guarantee for sustainability, therefore, it requires an activity guide who is supported by all parties to organize and communicate effectively. The guide of this event came from the DESIS network and also supported by the Milan municipal government, the University, the NOLO community public and private related departments, etc. Thirdly, the local NOLO community association reached an agreement on the purpose of this activity and actively participated in and supported the activity. This is an important guarantee for the successful implementation of this social innovation project. However, establishing a sustainable innovation mechanism in practice to continuously trigger value creation and support the conversion of interests among key stakeholders is still a challenging continuation issue.

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Yeqiu Yang PhD candidate at Politecnico di Milano, Design Department. He focused on the relationship between art and design, environmental design, social innovation design. Fangyi, I apologize to you for my impoliteness, whatever, I am always interested in you and take care of you.

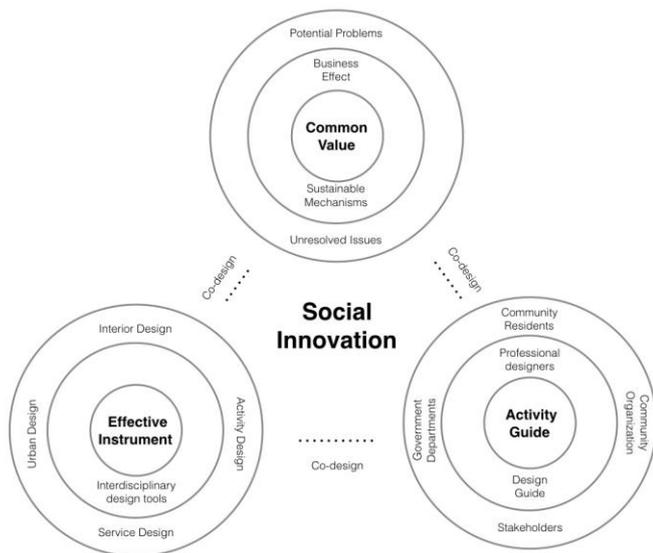


Fig. 3. The theoretical model of the conclusion (Cartography: Yeqiu Yang).