

# Empowering Surabaya

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## Empowering Surabaya Creative Communities and Start-ups through Human-centred Design

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### ABSTRACT

The role of creative communities as agents of social, economic and touristic development of Surabaya city have inspired the government to construct a number of collaborative spaces in public buildings to encourage their movements. These creative community spaces (CCS) serve as assembly points for entrepreneurial and start-up groups that are central to the growth of innovative community ecosystems needed in this post-millennial society, especially in the field of creative industries. However, they still lack specific designs to accommodate the community's unique activities, based on their distinctive creative works and unique human value to promote them to the society. This research aims to implement various approaches of human-centered design in the design of community and exhibition facilities. Two teams of designers were assigned to two active creative communities in Surabaya. A combined method based on different human-centered approaches of applied ethnography, participatory and co-design, contextual design, emphatic design and lead user approach was conducted through six stages of design process consisting of: Empathize, Point of View, Define, Ideate, Prototype and Test. The results of this research are novel designs of community co-working spaces and exhibition facilities based on the unique human values, characteristics and aspirations from each community that could be used as tools to promote their existence and projects that can contribute to Surabaya city's economic growth and development as new touristic objects.

**Type of Paper:** Empirical/ Review

**Keywords:** human-centered design; CCS; community design; Surabaya; co-working space; interior

### 1. Introduction

In the recent years, the role of young creative communities as agents of social, economic and touristic development of Surabaya city have inspired the government to build a number of collaborative spaces in public buildings to support their movements. As part of the vision of the Mayor of Surabaya, that is to make Surabaya a creative and technological center at the global level, the establishment of public co-working spaces that are free for use aims to create an ecosystem that empowers local creators, innovators and entrepreneurs to achieve

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innovation and be able to compete on a global level (Wimpi, 2017). However, apart from the public co-working spaces that accommodate general activities, creative communities also need to be supported with more specific designs of their own community centers and exhibition facilities to accommodate their unique activities and promote them to the society. To design facilities that correspond to their distinct human talents, character and the aspirations that are also contained in their artworks require a deep humanistic approach in the design process as they cannot be addressed by conventional working spaces. This research aims to empower the role of creative communities of Surabaya by implementing various approaches of human-centered design in the design process of their creative community workshops and exhibition facilities. Two teams of interior designers were assigned to design a community co-working and exhibition space for two existing art communities, by apply human-centered design approaches as defined by Steen (2007). Besides producing a conceptual model of their community center, they are also required to build exhibition booths or display facilities that could be used to promote the community and their works in real exhibition events. Through the implementation of human-centered design, it is hoped that creative communities could be empowered according to their unique characteristics by bringing out their distinctive human values as the powerful resources in developing a creative and innovative ecosystem that can contribute to Surabaya's economic and touristic values.

## 2. Literature Review

### 2.1 The Role of Creative Communities in City Development

Creative communities have been claimed to bring positive impacts on local economies. When they create new businesses and work across industries, they trigger economic growth and employment (Mulas, 2017). Generally, entrepreneurs are attracted to cities having available resources and connections, especially in terms of access to knowledge and specific needs. Such environments can be facilitated and managed by creative community spaces (CCSs), which are a number of physical spaces that promote creativity, serving as an assembly point for entrepreneurial and start-up groups. Hence, architects and interior designers of CCS play an indirect yet vital role in empowering creative communities through their contribution in the design of CCSs. Apart from their contribution to a city's economic development, creative communities, especially those that uphold one's regional potentials or culture play an important role in tourism. Community participation in tourism helps to maintain and promote the community and city's local culture, traditions and regional knowledge (Aref, 2011). Hence, the success of the development of tourism does not only depend on historic artefacts or physical objects owned by a city but also on the contribution of it's the local community and how they help in creating interactive memories for tourists. This is especially relevant for Surabaya city that is truly known in Indonesia for the characteristics of its open, daring, dominating, egalitarian, blunt and dynamic people, locally termed as *arek Suroboyo* (Tinarso et al, 2018). It's these human values that are essential to be explored and promoted as the identity of Surabaya. Therefore, human-centered design is essential to enable a humanistic, phenomenological approach in the design of creative community spaces in Surabaya.

### 2.2 Human-centered Design

Human-centered design is a problem-solving methodology widely used in development and management systems that create solutions to problems by incorporating human viewpoints at all levels of the problem-solving process (LUMA institute, 2012). Human involvement usually occurs in situational analysis, brainstorming, conceptualizing, creating and implementing projects to engage constructively with end users. Human-centered development builds on participatory action research by going beyond the participation of stakeholders and creating solutions to problems (Kanga et.al, 2014). The initial stage typically revolves around participation or immersion, analysis, and contextual framing in which the innovator is absorbed in the problem and the culture. The effect phases can then be based on group brainstorming, modeling and prototyping. Steen et. al. (2007) categorized human-centered design into six different approaches as follows:



- *Applied Ethnography*: the purpose of this approach is to understand the daily life of a group of people as a social phenomenon, by becoming part of their daily activities.
- *Participatory Design*: a design approach that involves everyone involved in the project (users, partners, communities, local residents, visitors) and contributes ideas in all processes and is often done through a focus group discussions (FGD).
- *Contextual Design*: an approach that uses an ethnographic approach, with a structured and defined process, supported by an analysis process that integrates concepts, products, and tests of user experience based on situational analysis of place and time.
- *Lead-User Approach*: an approach that looks at problems that are not yet common so that it can provide design solutions before the problem becomes a general case.
- *Empathic Design*, is a design approach to provide design solutions by understanding the user's feelings towards an existing product. It can often create new innovations in design, and provide solutions to problems that are not yet known to the user.
- *Co-Design*: a design approach that evolved from the concept of Participatory design but only a few potential users are involved, such as experts who understand the design, so that the cooperation established is truly collaborative and structured. They are directly involved in the design process, hence not merely functioning as advisors.

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### 3. Research-Design Methodology

This research-design methodology used in this research was combined method that applied the different human-centered approaches defined by Steen (2007) that were incorporated into the six stages of human-centered design thinking process adapted from LUMA Institute (2012) as follows (figure 1):

- *Empathize*: Designers perform ethnographic and empathy mapping process of collecting community data.
- *Point of View*: Designers contextual views of design needs and aspirations
- *Define*: Designers set design goals through participatory and contextual design process,
- *Ideate*: Designers brainstorm and formulate design concepts based on community contextual potentials and characteristics.
- *Prototype*: Designers plan and integrate community works in the design product and build it collaboratively with the community.
- *Test*: Designers test the results of the design by being lead-users of the product and evaluate it effectiveness with the community.

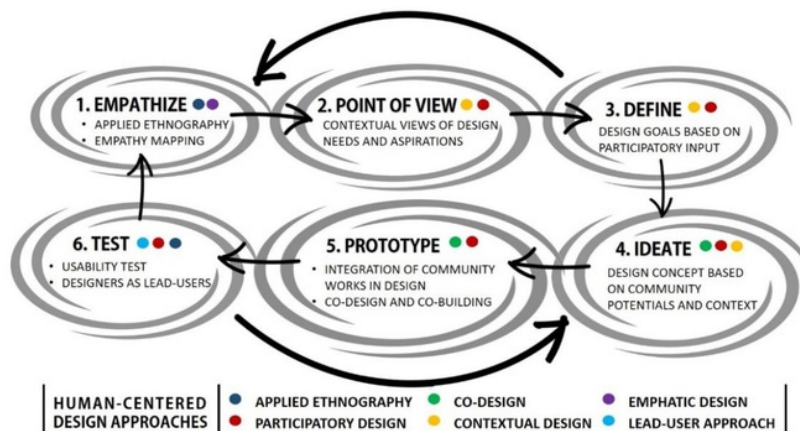


Figure 1. Implementing Human-centered Design (HCD) Approaches in the Design Process

### 4. Results and Discussion

#### 4.1 Empathize

Two teams of designers were assigned to two active creative communities in Surabaya. The first community was the Love Suroboyo community that consisted of photographers and journalists who are passionate about Surabaya city. Their works often sought to capture the potentials and news about Surabaya, from events, places, incidents, culture, and history to people. Some members of this community have freelance photo or videography projects for wedding celebrations, promotions, etc. The second community was the Doodle Art Community, consisting of creative artists and illustrators who meet up regularly to share ideas, hold public workshops and perform doodle art for leisure, art therapy and educational purposes. They produce various doodle merchandise which they sell during markets and exhibition events. Both communities are strongly active communities that have the potentials to support the creative economic wave and touristic development of Surabaya.

As the first stage of design, the two teams of designers participated in their assigned community's activities (figure 2). The first team participated in the annual *Blusukan* activity, which is an exploring or visiting activity inspired by the new style of governance in Indonesia adopted by President Jokowi and other influential leaders, including the mayor of Surabaya. The designers involved themselves in their exploring activities, documenting, photographing, conversing with the locals that they met in order to catch the same feeling and aspirations of the community. Meanwhile, the second team participated in Doodle Art Surabaya's weekly meet up, learning and performing various sorts of doodle techniques together with the community. Hence, both community immersed themselves in the community's situational context of place and time through ethnographic and emphatic approaches in observation. This helped the designers in gaining a deep understanding of their passion and purpose of their community's existence, their passion in conveying the pride of their city and their artistic, blunt and daring expression of freedom.



Figure 2. Emphatic and ethnographic field observation process was conducted through participation of designers in the creative community's routine events and activities.

#### 4.2. Point of View – Define

In the second stage, the designers sit together with the community and establish a point of view of the needs of the community, defining the problems that needed to be solved through their design intervention. This was done through a focus group discussion that included a community member, a design mentor and the design team, based on the immersive and contextual view that they had acquired from the *empathize* stage (figure 2). The designers then create design goals based on the participatory inputs of each member through affinity diagrams and concept mappings based on Pena (2012)'s spatial programming aspects of *function* (people, activities, relationships), *form* (site, environment, quality), *economy* (initial budget, operating cost, revenue streams) and *time* (past, present, future). These goals were created based on the context of the community as journalists, photographers and artists who all wish that their aspirations for Surabaya city, articulated from their works could be seen, heard, felt and touched by the public through the design of their community centers and



exhibition facilities. Hence, in this stage, the participants map out all of the community's potentials that should be the content to expose through the design interventions.



Figure 3. Contextual and participatory design process of defining design goals that are based on FGDs, affinity graphics and community input.

#### 4.3 Ideate

Entering the ideation stage, the designers produced various concepts for the design of a community center for each community. They based their concepts on the community's character, aspirations and content of exposition that they collaboratively acquired from the *define* stage. For the Love Suroboyo Community, the goal was to create a community space that could highlight the icons and image of Surabaya city, often captured by their photographic and journalistic works. The conceptual design produced was based on Surabaya's famous Red Bridge (figure 4a), a historical site of the huge battle that happened between the Indonesian army and the West after their struggle for independence, the event from which Surabaya gained the epithet as the "city of heroes." The community center was designed with high considerations to how journalists and photographers work together with photo studios, collaborative spaces that were fused together with the walls, floors and ceilings adopting patterns and images of Surabaya landmarks, such as the *Suro* (shark) and *Boyo* (crocodile), statue, symbolizing a fierce battle and the *Bambu Runcing* (sharp bamboo monument), the weapon that was used during the battle in Surabaya, both icons symbolizing the local slogan "dare to face threat" and solidarity of *arek Suroboyo*. Hence, the community center can function as an exhibition space equipped with various photo spots that was integrated with the co-working spaces, a unique form of working space in the context of the community's aspirations for Surabaya.



Figure 4. Conceptual renderings of creative community spaces for (a) Love Suroboyo Community (Design by Favian Grady and Melissa Ardani) and (b) Doodle Art Surabaya (Design by Adi Kelvianto and Graciela) based on Surabaya city icons and the daring and dynamic expression of *arek Suroboyo*. For the Doodle Art community, the designers based their concepts on the dynamic features of doodle art itself that was fused with icons of Surabaya city to differentiate from the doodle

art communities in other areas. They integrated the community's doodle works into the furniture, walls, façade, ceilings and floors that were used as means of wayfinding and defining the boundaries between public and private spaces. Hence, both teams of designers managed to create a new form of interior design concept that would have otherwise been fully undiscovered without the approach of contextual design and participatory involvement of the community in the design process.

#### 4.4 Prototype

To realize a part of the conceptual ideas in the ideation stage, both teams of designers decided to build a set of exhibition facility that can be used by the community in public and personal exhibition events in public spaces. Building the booth was done through a collaborative process of planning, finding materials, constructing, transporting and assembling (figure 5).



Figure 5. Participatory and co-design design process of planning, building, and setting of exhibition booth in malls and public halls.



Figure 6. Results of exhibition facilities for the creative community from the participatory and co-design process that can provide opportunities for startup groups to display their skills to the public.

For the Love Suroboyo community booth, the designers adopted the pattern of *Suro* and *Boyo* creatures (shark and crocodile) mentioned earlier into the display booth that consisted of a photo and journalistic article display area and display tools for their merchandise items such as clothes, mugs and brochures (figure 6a). For the Doodle Art Surabaya community (figure 5b and 6b), the designers built the display booth in which the community contributed their



expertise in doodling and incorporated their doodle work in the display facility itself. The signage of their community name has been decorated with fresh works of their doodle art on spot. Hence, the exhibition booth was set up with the approach of co-design and co-building, ensuring its usable and desirable value to the community. Both prototypes enabled the creation of a new form of art that highlighted the creativity and boldness of the Surabaya people. They also provide a starting point from which creative startup groups from the community can exhibit themselves and their skills to the wider community. Since the display booths were designed in parts to be portable, they can be reused over and again in other following events, functioning as a sustainable mode of promotion.

#### 4.5 Test

To ensure the effectiveness of the design prototypes yielded, the two teams performed usability tests by becoming lead-users along with the community in a public exhibition event for a duration of three days (figure 7). The designers used the display product, performing the activities that users would normally do such as displaying, storing, changing or reaching for items, moving, disassembling and transporting. Meanwhile, the community supported the collaboration by posting the events on their social media platforms and being present to explain their works to users. By being implementing the lead-user approach of human-centered design, the designers and community were able to evaluate the effectiveness of the design in terms of dimension, durability, feasibility, viability to attract visitors and support purchase of their works and subsequent project or job offers from potential clients.



Figure 7. Usability test with designers as lead-users followed by design evaluation process with end-users and community

Hence, designers do not terminate their assistance prior to the usability test in order to ensure that their impact strategy to empower the community through their design has been achieved (Bijl-Brouwer et. al, 2007). From the usability test performed, it was found that the design had enabled an effective way of efficient display of the different works of the communities, as they were designed according to the dimensions the artworks, having contrast colours and materials to the artworks so as to ensure their visibility and were effective for reuse in other following events.

#### 5. Conclusion

Through the approach of human-centered design, creative communities could be empowered according to their unique characteristics as this method of design brings out their distinctive human values as the powerful resource in developing creative community spaces (CCSs) and exhibition facilities that function as ignition points for startups and object of touristic development. In the case of Surabaya city that is known for its bold, dynamic and fearless community the empowerment of specific human activities and social values that are unique to



the city that they live in could in turn increase its touristic and economic values. Building designers and educators could also be given more opportunities to become direct agents of social and economic improvements in the contemporary society.

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