## The 48th Southeast Asia Seminar

CO-CREATION OF NEW URBAN LIVING: ADVANCING QUALITY OF LIFE IN THE CLIMATE CHANGE ERA

GROUP 2 Individual Report

## Rethinking Urban Heat Mitigation: DIY as a Medicine for Technology Fever



As part of the 48th Southeast Asia Seminar, we met Mr. Thalib, a resident of Kampung Ampel. To adapt to the urban heat of Surabaya, he created a green canopy in front of his family home using wire mesh and passion fruit plants. However, when interviewed, he denied *building* the canopy, saying: *"We humans cannot create life. The plants are solely made by God. I just provide a path for them to grow."* Experiencing the high temperature of the corridors between houses, which he considered a "hell," Mr. Thalib was driven by his religious values to provide something of a "heaven on earth" for those who passed in front of his house.



Photo 1: Mr. Thalib's green canopy in Kampung Ampel. Source: Author (2024)

Similarly, we met Mr. Sandi, who built a green canopy in Kampung Ketandan. While his creation is like others found throughout kampungs in Surabaya, it is unique in that he planted grapes. His neighbors are free to come to his canopy to harvest the grapes; in return, they help him grow and tend them. This simple act of grape planting not only provides comfort from the heat, but also provides a social ground for neighborhood interaction.



Photo 2: Mr. Sandi's green canopy in Kampung Ketandan. Source: Author (2024)

Do-it-yourself (DIY) initiatives and spontaneity define Surabaya's kampungs and they take many

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forms. For example, informal adjustments to outdoor spaces, like placing chairs and tables in front of houses, take advantage of outdoor breezes. The (re)arrangement of furniture and spaces is self-generated. It also includes the making of green canopies.

As Mr. Sandi's canopy illustrates, a DIY project is not necessarily created or maintained individually. A sense of ownership can be fostered through community participation (Fraser et al., 2005). This is evident in the case of kampungs of Susun Akuarium (KSA) and Marlina in Jakarta Special Region. Through the active co-creation of new housing, residents take part in designing their own homes. They are thus proud of their creations and nurture a sense of ownership. Furthermore, residents of KSA were allowed to practice some DIY by modifying their units to a certain point, such as altering the number of rooms. In fostering a sense of ownership, DIY ultimately enhances social capital (Fitrianto, 2014), one of the three main assets of kampung residents, along with physical and human capital (Woolcock and Sweetser, 2002).



Photo 3: New housing units in Kampung Susun Akuarium (left) and Kampung Marlina (right). Both are the result of the residents' participatory planning in improving their settlements/houses. Source: Author (2024)

Technologies can be our savior but also our doom. For example, while air conditioning (AC) reduces the risk of heat-related mortality and improves productivity by prolonging the time people spend inside individual houses, AC also increases inequality (Davis et al., 2021) and reduces social interaction (Murtagh et al., 2022). As technology in general has shaped our societies, people have been 'automated' to seek refuge in technological solutions (Freeberg, 1992; Shringarpure, 2020). People consider AC as their main 'savior' in fighting the urban heat. Kampung residents are no different. Currently, there is no decisive solution to the possibility that AC could disrupt the social fabric of the kampung. However, the norms of using such technology may result in excessive in-house stay (Murtagh, et al., 2022), which risks the disintegration of social capital.

William Glasser (1998) states that "We are, by nature, social beings." Humans crave social interaction, even as we seek comfort inside our own houses. External social interaction can be stimulated through collective action. The case of Mr. Sandi in Kampung Ampel illustrates an ideal combination of DIY, passive cooling, and social stimuli. Models such as his can motivate other residents to create their own "heavens" and organize collective plant watering and nurturing activities as social gatherings.

Key common spaces, or places, in the kampung are also important. In the case of Kampung Tambak Bayan, for example, improving the community hall could enhance residents' sense of collective ownership, which resulted in an increased willingness to spend time in that place.



Photo 4: Community hall in Tambak Bayan. Source: Author (2024)

Regarding urban heat, one crucial question remains: "Where can DIY play an integral role?"

DIY should be evident in all forms of intervention, including those from the government and policymakers. It has been proven that kampung residents will alter any intervention or regulation imposed on them to fit their norms and/or customs. Therefore, involving them in a discussion at the outset would be more beneficial, as demonstrated by the cases of KSA and Marlina. Thus, future interventions should harness the DIY spirit and spontaneity of the kampung by bringing kampung residents and professionals together to exchange knowledge, collaborate, and co-create.

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