Participatory Approaches to Communal Gathering Design in Homeless Shelter Villages

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Abstract

People experience each other and their shared environments through communal spaces. Often, these shared spaces allow residents of neighbourhoods to affiliate a sense of identity and placemaking and foster socio-economic relations. Homelessness, exacerbated by growing socio-economic inequality in cities, manifests itself in external, public, and frequently hostile urban settings. Although architectural investigations seek solutions to provide basic shelter to persons experiencing displacement, their community spaces often remain largely overlooked. This paper underscores the need for more effective community spaces, in addition to basic shelter, in homeless re-housing projects. It investigates social and structural paradigms to create spaces of opportunity that provide a safe space for community interaction, fostering social relations and even employment opportunities while recognising social challenges such as reticence among shelter residents due to mistrust, fear of theft and more. Beyond social challenges, the research investigates some challenges related to the employment of more inclusive and participatory design processes and the development of low-cost, adaptable and durable architectural solutions that are safe and effective but do not require a building permit. Working along with a non-profit housing organisation in Seattle, Washington, a team of university students and instructors revealed through this study a necessity for multifaceted approaches towards the design and construction of communal spaces that can be built inexpensively and within code requirements on a variety of sites with more significant community member input. The outcome of this research is a catalogue of shelter systems - a 'recipe book' called "Recipes of Hope"- with tectonic elements - called 'ingredients'- categorised as structure or skin that can be combined by non-profit developers, builders and residents to create safe, sociable, and structurally efficient communal gathering places, that emanate an environment of joy and hope.

Keywords: communal gathering, homelessness, low-cost, participatory design

1. Introduction

Over the last five decades, cities globally have been experiencing rapid capital growth and infrastructure investments along with a simultaneous and proportional increase in urban poverty and homelessness (Lin & Mele, 2012). New York, Los Angeles, and Seattle in the United States have some of the highest numbers of unhoused individuals as of 2020 [1]. King County's Point-in-Time

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data estimates a five per cent increase in homelessness during 2020, with about 11,199 people experiencing homelessness on one night in January. Fifty-three per cent of those were reported to be sheltered, leaving forty-seven per cent experiencing unsheltered homelessness [2]. Those unhoused are broadly categorised as experiencing sheltered or unsheltered homelessness. The U.S. Department of Housing and Urban Development (HUD) defines unsheltered homelessness as "a place not meant for human habitation, such as cars, parks, sidewalks, abandoned buildings, or on the street [3] (Rose, 2019, p. 13)."

Figure 1. (top) City of Seattle's 'Hooverville' homeless settlements in the 1930s; (bottom left) unsanctioned tent encampments by those experiencing homelessness; (bottom right) sanctioned Tiny House Village encampments for housing unhoused individuals.

As the housing crisis grew in Seattle (Figure 1), exacerbated by the 2008 economic crisis, responses ranged from informal 'tent encampments' loosely organised by local churches and charitable organisations, dubbed "Nickelsvilles" in a somewhat derogatory reference to then Seattle Mayor Greg Nickels (2002-2009), to the establishment of more formal group shelters and temporary transitional housing units by organisations like the Low Income Housing Institute (LIHI) [4], to immediately shelter homeless individuals and families rather than rely solely on permanent supportive housing which often takes as many as three to five years to be built. LIHI, founded in 1991, owns and/or manages over 2,200 housing units at 60 sites in six counties throughout the Puget Sound region. They provide various supportive services to help unhoused residents survive, regain stable housing, and develop self-sufficiency, including the operation of 'Urban Rest Stops', which are critical hygiene and service facilities for people experiencing homelessness [5]. In partnership with municipal authorities throughout the region, numerous faith groups and a wide array of charitable and community partners, LIHI operates an innovative Tiny House Village program, providing warm, safe, secure shelter in tiny houses organised in community settings with case management that helps residents on their path out of homelessness [6].

Tiny House Villages have emerged during the last 10 to 15 years as a response to exponential increases in homelessness and the inadequacies of proliferated informal tent encampments. Tiny Houses are small, single-room shelters typically with one door and two windows. They are under 120 square feet in area to avoid requirements of full building permit review and approval that may delay or hinder the construction process; insulated but unheated since no sources of heat, neither for temperature control nor cooking, are allowed by the City of Seattle's fire code. The houses are generally built off-site by volunteer groups using a common design layout but

with some leeway for variation of individual features. The structures are typical light wood frame construction with simple materials that are usually donated. The interiors are painted plywood walls for durability and easy cleaning, and the units are typically only furnished with simple shelving for storage. The houses are hoped to have a 10-year or longer lifespan and must be easily movable to the site and transferable to another location afterwards.

The 'Villages' typically consist of between 12 and 60 Tiny Houses placed in a city-approved site plan on existing parking areas or unused lots and are targeted for multi-year ground leases of 5 years or more if possible. Houses must be at least 5 feet apart as fire department equipment must be able to access the site. Sites are typically fenced for the security of residents and staff. The layout is also designed for handicap accessibility and easy orientation among the other elements of the Village, which are the site manager's office (near the controlled entry), counselling and resident services, hygiene facilities, a shared cooking/dining space, and a waste collection area. Dedicated, uncovered smoking areas are generally provided. Some villages also have shared outdoor grilling and eating areas and a structure for children to do homework and play (Figure 2). Many of the functions beyond the housing units, like the office and the counselling space, also use the same building typology and materials as the houses with simple modifications. Shared sanitation, however, is provided with a range of solutions, from porta potties to trailer-based, prefabricated mobile sanitation units with handicap-accessible facilities and showers.

The spatial needs for these communal gathering functions generally exceed the 120 square foot area of the houses themselves and can be as large as 400 square feet. These structures pose a greater challenge for design and construction since no truly satisfactory prefabricated solutions have yet been found for the larger gathering spaces. Difficulties include the need to keep costs low to avoid permanent foundations and circumvent the long-time delays of building permit review and approval. Typical past approaches have favoured either larger commercial party tents or prefabricated carport structures with thin improvised wall panels set over a plywood floor structure. Stoves are not allowed in kitchen spaces since they are a significant fire hazard. Instead, these spaces contain microwaves, hot plates, refrigerators, cleanable worktops, industrial-sized sinks, shelving and storage for tables and chairs that are used flexibly for different functions in the room. These spaces must be highly flexible in layout since residents, staff, and volunteers also use these spaces in myriad ways for formal and informal gatherings. However, while they are seen as vital to the mission of building a sense of community among the Village's residents, residents rarely participate in the design, construction, or customisation of their community spaces. While LIHI and their partners have extensively optimised the design and construction of the Tiny Houses themselves, systems for sheltered communal spaces, such as kitchen, dining, meeting, and smoking areas, as well as dedicated sheltered play spaces for kids, all reveal the need for further creative investigations and fresh solutions.

Figure 2. Existing sheltered communal gathering spaces in LIHI's True Hope Village, Seattle; BBQ stand in the foreground, and children's sheltered space in the background (left).

2. Relevance of Communal Gathering Spaces for Homeless Housing

Space, far from being static, is an actor that influences, to an extent, controls the behaviour of groups and individuals that interact with and within it (Campagnaro & Di Prima, 2018). Organisations and architects that design for people experiencing homelessness must be conscious of the influences of spaces, albeit indirect, to the route out of homelessness – how do inhabitants engage with the shelter's architecture to construct notions of home and homelessness? How do architects and community partners design spaces that achieve the psychological qualities of a "home" in shelters – qualities that are acquired or negotiated and symbolic to residents who are in the process of becoming "homed" (Datta, 2005)? Individuals experiencing homelessness also have homemaking goals related to placemaking territoriality and evaluate home-like attributes in their temporary accommodations (Kellet & Moore, 2003). Often, they define and interpret their versions of "home" in the context of that which is socially accepted and promptly available in material, resources, and skill (Veness, 1993) (Datta, 2005). Communal gathering spaces, including community kitchens, informal lounges, spaces for children, and even smoking areas, provide a physical space to network, communicate, and form social connections between residents. While they may at times be sites of conflict, they play an essential role in providing a dimension of 'community' to the residents, a physical basis for life in the city, and a pool of individuals and families from which acquaintances, comrades, friends, as well as rivals may be made (Liebow, 1993; pp.4). These community dynamics arising from laundry spaces to play areas for children and smoking spaces for adults evoke simultaneous perceptions of home and homelessness, along with the manifestation of domestic subcultures and alternate domesticities within the residential communities (Datta, 2005).

3. Relevance of Participatory Processes in Shelter System Designs

In situations that warrant emergency sheltering, speed and agility take precedence over empowerment processes to save lives, thereby awarding power and control to external actors with resources and expertise to make decisions for the disaster-affected (man-made or natural) population. Shelters can often be viewed by external communities as that which French philosopher Michael Foucault describes as heterotopias or the 'other'. For shelter inhabitants, however, these places provide a level of respite from more severe social constructs of 'othering' they experience while living on streets or spaces without defined boundaries – thereby enjoying marginal relationships with that which is deemed socially "normal" (Campagnaro & Di Prima, 2018). Places have the power to define their inhabitants' wellness, and shelters contribute to a degree of mental and physical wellness by primarily taking away concerns about a space to sleep at night, every night. At the same time, residents continue to contend with feelings of temporality, un-belonging, and powerlessness. To address some of these issues that invariably influence the wellness of inhabitants, we underscore the need for participatory processes in the design and functioning of shelter systems, particularly those serving communal gatherings in shelters. The United Nations defines 'Empowerment' as "the process of enabling people to increase control over their lives, to gain control over the factors and decisions that shape their lives, to increase their resources and qualities and to build capacities to gain access, partners, networks, a voice, in order to gain control [7]". Participatory processes help individuals gain a sense of control over their lives. In the case of shelters, they aid in empowering communities of unhoused people to participate in the re-housing process, making them actors of change rather than limiting their role as recipients of aid [8], [9] (Luttrell et al., 2009).

4. CollabFab Studio X, LIHI

In Spring 2021, a research studio -CollabFab 2021 – comprised of a group of seven students[1] and two instructors from the University of Washington's College of Built Environments partnered with Seattle's Low-Income Housing Institute (LIHI) to investigate and produce spatial designs and structural systems for sheltered gathering spaces in LIHI's Tiny House Villages– generated through participatory processes despite restrictions related to the pandemic, including restriction on in-person meetings and gatherings. "Collab/Fab" is a university-based initiative to link deeper levels of community engagement with more innovative and collaborative building fabrication

techniques as an alternative to long-standing "Design-Build" service-learning approaches. Initiated by architects/professors Rob Corser and Nils Gore at the University of Kansas to aid rebuilding efforts in New Orleans after Hurricane Katrina in 2005, the Collab/Fab studio at the University of Washington was led in 2021 by Professor Rob Corser and instructor Jack Hunter.

4.1. Framing the Challenges of Gathering Spaces for Tiny House Villages

The goal of CollabFab, in partnership with LIHI, was to generate specific designs for larger communal gathering spaces that can fulfil the need for lightweight construction, with structural durability of about five to seven years and the capability to be taken apart and be modified or re-situated in new locations while responding to user needs in a myriad of ways. The team worked closely with Bradford Gerber, LIHI's Tiny House Village (THV) Special Projects Manager. Since one underlying theme for the studio was 'Insurgent Architecture,' this course emphasised innovative, bottom-up design strategies and took shape as a collaboration between shelter developers, designers, and community members to work together towards a higher level of social justice and alleviation of inequity through architecture. Questions were posed about the evolution of LIHI's current design strategies, as well as lessons they have learned about what has worked and what has not, including the utilisation of shared spaces by dwellers and their changing uses based on time of day, size and accessibility requirements; and spatial understanding of functional, social and storage needs in the community kitchens, lounges and other gathering places. LIHI identified deficiencies in the existing construction approaches to inform new strategies for providing more efficient solutions. Some key deficiencies were identified as:

i. Negative associations with tents or carports - many residents have transitioned away from tent living or in automobiles.

ii. Ventilation is often a concern as these tent sides or improvised walls do not have easily operated windows.

iii. Lack of potential connection to adjacent outdoor spaces for socialisation

iv. Lack of opportunity for these structures to reflect the group and individual desires of residents.

Taken together, the absence of a pre-existing set of robust, affordable, and effective structural options combined with the need for more flexible and responsive structures and the negative associations and other deficiencies of the tent and carport approaches, LIHI engaged with the Collab/Fab Studio to research new alternatives and make a set of proposals for the larger spaces dedicated to important communal needs like gathering, dining and socialisation.

4.2. Development of the Recipe Book

The Recipe Book is an outcome of collaborative thinking from the CollabFab studio's student team. Each student brought to the discussion a unique perspective and problem-solving approaches to the task at hand, including previous indirect experiences with homelessness, familiarity with disaster relief design-build approaches where structures are put up within a short time frame with the help of volunteers or individuals who do not necessarily have construction expertise; experiences volunteering with LIHI in the Tiny House Village home construction, as well as student research interests including responses to refugee crises and resettlement processes.

After a site visit to LIHI's True Hope Village in Seattle's Central District, students engaged in numerous discussions with LIHI and their site planning partners, Environmental Works. The team began brainstorming design solutions to a variety of existing challenges at the villages, ranging from the lack of truly effective communal gathering spaces to the difficulty of providing designated smoking areas that do not negatively impact adjacent residents, material-related challenges to the tiny spaces used by kids in the village as well as fresh thinking for the heavily used communal kitchen spaces. Existing Approaches to communal structures across THVs in Washington State were researched and catalogued, and the most typical solutions were identified as carports, vinyl tents, open-air wood pavilions, and repurposed greenhouses. The team then speculated on alternative material and structural possibilities, including precedents from emergency response efforts like the UNHCR's lightweight tents in the Bab-al-Salam IDP camp at the Syrian-Turkish

border, repurposed shipping containers, and Ikea's 'Better Shelter' systems. Ultimately, the team stepped back from a typical top-down approach of developing a predetermined, comprehensive design solution. Instead, they sought to identify the specific needs and desires of residents and to provide a tool to address the range of solutions available - solutions that can be adapted across a variety of climates, geographic regions, and demographic needs by simply tweaking or hacking the composition of the constituent elements of the structural and cladding systems themselves. These elements were eventually catalogued in a 'recipe book' as the 'ingredients' that can be variously re-combined to provide site- and user-specific solutions through participatory design.

The tectonic strategy combines a structural framework ingredient with one or more skin ingredients to construct a functional, shaded structure that also creates a sense of joy, community, and belonging among residents. The structural ingredient provides stability and durability and forms the skeleton that supports the skins, which offer shelter from the weather and user mediation of the internal and external environments. In deference to residents' journeys out of homelessness and their experiences in the process of getting rehoused, materials that resembled the short-lived tent encampment aesthetic were avoided to the greatest extent possible while keeping in mind economic and resource availability constraints. Essential questions about the level of autonomy residents may have over the construction of their community spaces were raised and became a major point of discussion. People experiencing homelessness face many stressful life challenges. The design team was sensitive to not over-burden residents with construction challenges while seeking to maximise opportunities to invite residents into the design process through the use of the recipe book and to frame lower-stakes involvement opportunities such as simple assembly or setup of prefabricated elements, painting and decorating, and gardening. The ethos driving the design development of the recipe book was always to heighten participation, collaboration, and empowerment.

5. Conclusion and Future Research

This paper elaborates only on the beginnings of an incremental process to provide humane, fun, and creative architectural solutions to providing community spaces for people experiencing homelessness so they may participate in society as a citizen rather than an 'other'. Through investigations of and direct engagement in existing efforts to address the homelessness plight in one of the worst-affected cities of the United States, we sought to synthesise a problem-solving approach that is more inclusive and responsive to user-specific needs and might have broader applicability as a model for design action across wider cultural, geographic, and climatic contexts. We sincerely hope that the recipe book might empower collaborators and residents and help enrich the architectural possibilities for Tiny House Villages and other supportive efforts for those experiencing homelessness.

We acknowledge that the recipe book has not yet been deployed and tested, as it was the outcome of an academic course completed less than four months ago. However, as immediate next steps, we seek to gather user as well as collaborator feedback on the project's practical applicability and hoped-for success in bettering the overall residential environment in sanctioned homeless relief settings like LIHI's Tiny House Villages. We intend to refine the book based on the evaluations and suggestions from the developers, suppliers, volunteer construction teams, site managers, volunteer aid groups, and, most importantly, the residents themselves. Conventional architecture operates as an assembly of raw materials based heavily on specialised design and trade skills. Instead, we contend that starting with a curated list of "state-of-the-shelf" prefabricated systems and easily recombined components, the designer should be able to adapt readily available resources to create usable spaces more significant than the sum of their parts. Our hope in creating the "Recipes of Hope" book has been to democratise the design process by directly putting the tools for good design into the hands of those who will benefit most from the empowering potential of direct participation in the design and making of effective and inspiring community spaces.

Conflict of Interests

The author declares no potential conflict of interest was reported by the author.

Endnotes

1. The seven students are – Gloria Cheng, Saba Fatima, Stephanie Lam, Lawson LeGore, Yunen Li, Siobhan Schramm, Daze Wu.

2. This paper has been presented at the SPACE International Conference 2021 on Housing.

References

Campagnaro, C., & Di Prima, N. (2018). Empowering Actions the Participatory Renovations of a Shelter. IntAR Interventions Adaptive Reuse, 9(1), 9.

Datta, A. (2005). " Homed" in Arizona: The architecture of emergency shelters. Urban Geography, 26(6), 536-557.

Kellett, P., & Moore, J. (2003). Routes to home: homelessness and home-making in contrasting societies. Habitat International, 27(1), 123-141.

Liebow, E. (1993). Tell them who I am. Simon and Schuster.

Lin, J., & Mele, C. (Eds.). (2012). The urban sociology reader. Routledge.

Luttrell, C., Quiroz, S., Scrutton, C., & Bird, K. (2009). Understanding and operationalising empowerment (pp. 1-16). London: Overseas Development Institute.

Rose, J. (2019). Unsheltered homelessness in urban parks: Perspectives on environment, health, and justice in Salt Lake City, Utah. Environmental Justice, 12(1), 12-16.

Skinner, S., & Rankin, S. (2016). Shut Out: How Barriers Often Prevent Meaningful Access to Emergency Shelter. Available at SSRN 2776421.

Veness, A. R. (1993). Neither homed nor homeless: Contested definitions and the personal worlds of the poor. Political Geography, 12(4), 319-340.

Web References

[1]   City Mayors: Homelessness in US cities. http://www.citymayors.com/society/usa-cities-homelessness.html (Last Access: 11.11.2021)

[2]   https://kingcounty.gov/elected/executive/constantine/news/release/2020/July/01-homeless-count.aspx (Last Access: 11.11.2021)

[3]   U.S. Department of Housing and Urban Development Office of Community Planning and Development, A Guide to Counting Unsheltered Homeless People, Retrieved from https://files.hudexchange.info/resources/documents/counting_unsheltered.pdf (Last Access: 11.11.2021)

[4]   Low Income Housing Institute, History of LIHI, https://lihi.org/history/ (Last Access: 11.11.2021)

[5]   Urban Rest Stop, https://urbanreststop.org (Last Access: 11.11.2021)

[6]   https://lihi.org/tiny-houses/ (Last Access: 11.11.2021)

[7]   empowerment-booklet.pdf Retrieved from https://www.un.org/esa/socdev/ngo/outreachmaterials/empowerment-booklet.pdf (Last Access: 11.11.2021)

[8]   World Community Empowerment Manual, Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/2011.GLO_WWGVC_Community_Empowerment_Manual.pdf (Last Access: 11.11.2021)

[9]   Global Shelter Cluster, Shelter Projects 8th Edition. Retrieved from https://shelterprojects.org/shelterprojects8/ShelterProjects8-2021-web.pdf

Appendix: Recipe Book (Excerpts)

Introduction

We hope that this book can be used to inspire useful designs for the University Tiny House Village and beyond. We have crafted it as a choose-your-own-adventure cookbook.

Readily available and affordable design typologies have been listed to present a set of "ingredients". The Recipe Generator is meant as an inspiring, game-like formula for designing useful spaces that are joyful to occupy. A few example designs are provided towards the end.

We sincerely hope that this book is empowering and helps meet the architectural needs of Tiny House Villages throughout the region.
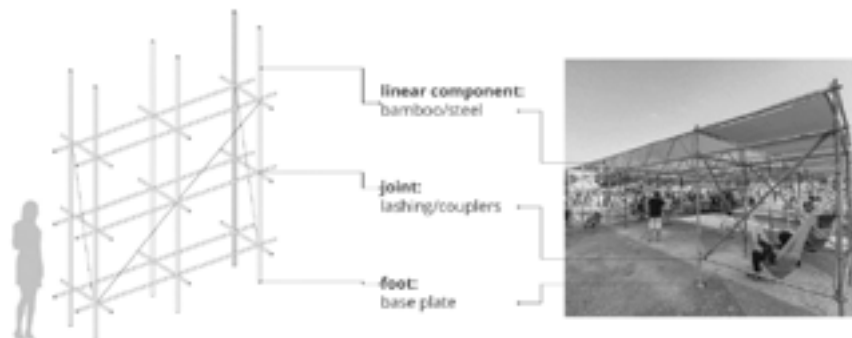
UW ARCHITECTURE→
Collab/Fab 2021

Introduction   p 2

Scaffolding

linear component:
bamboo/steel

joint:
lashing/couplers

foot:
base plate

UW ARCHITECTURE→
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Structure: Scaffolding   p 12

Storage Wall

Building unit:
Cabinet

Building unit:
Shelf / Panel

Unit-to-unit
connectors:
Screws and metal clasp

Cabinet Wall

Moving Forward

Conventional architecture serves as an assembly of raw materials based heavily on specialized design and trade skills. **Our hope** in creating this book has been to democratize the process, putting the tools for good design and construction directly into the hands of those that need it.

With a starting list of "state-of-the-shelf" components the reader should be able to combine and adapt readily available resources to create usable spaces that are greater than the sum of their parts.

Please use the Recipe Generator to craft custom solutions to the needs of your own community. Make photo copies and share with your friends or scribble right in the book. Above all... **Happy Designing!**