PAPER

Planting Imagination: Community Co-Design for Toronto's Chinatown West

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Planting Imagination ran from 2021 to 2023 (during a pandemic recovery period) in Toronto's Chinatown neighbourhood. It brought together a group of local Chinatown community organizations and University researchers to recruit 60 diverse 'Chinatown Activators' (CAs) and six Community Facilitators (CFs) from across the community. CFs and CAs used virtual reality (VR) technology to co-design a local community garden and develop new visions for the future of Chinatown. Using cutting-edge VR visioning and the principles of the Collaborative Community Engagement Model (CCEM) co-design, the Chinatown community was provided with a platform to virtually envision the future of their own community and neighbourhood as a collaborative process. In doing so, they explored how we might transform the way we build and mobilize communities, (re)construct community identities, and strengthen the community's resilience to promote social justice and equity. This process strengthened community solidarity to enable local residents to more readily steward the future of the built environment and respond collectively to challenging events like the pandemic. Bringing together diverse disciplines and practices (including architecture, cultural psychiatry, interior design, immersive technology, computer science and public health), Planting Imagination developed models of therapeutic VR co-creation delivered through a series of online and in-person multilingual community co-design and co-fabrication sessions that prioritized the communities and neighbourhoods disproportionately impacted by COVID-19.

INTRODUCTION

"Planting Imagination" was a two-year initiative from April 2021 to March 2023, set in Toronto's Chinatown West during the pandemic recovery phase. This project was a collaboration between local Chinatown community organizations and researchers from Toronto Metropolitan University and the University of Waterloo. Together, they engaged 60 'Chinatown Activators' (CAs) and six 'Community Facilitators' (CFs) from the community. Using virtual reality (VR) technology, these individuals co-designed a community garden, envisioning a renewed future for Chinatown. This project not only bolstered community solidarity but also empowered residents to actively shape their environment, especially when faced with challenges like the pandemic.

Toronto's Chinatown West, a vital hub for newcomers, refugees, as well as established families, was chosen as the pilot site for the "Planting Imagination" project. Located strategically near essential community centers, mental health agencies, and universities, this neighbourhood has historically stood as a beacon of community care, mutual aid and inclusivity, even amidst systemic exclusion and discrimination. The project recognized the cultural, symbolic, and social importance of Chinatown West, especially in light of the challenges and discrimination, reminiscent to the 2003 SARS epidemic, where the Chinese Canadian community and Chinatown neighbourhood has been psychologically affected the earliest and once again is bearing the burden in being scapegoated and targeted for discrimination.

Pandemics have profound effects, impacting not just physical health but also community well-being and the built environment. To address this, the project provided a platform for community members to counter the pandemic's adverse effects on Chinatown West. Using shared VR technology and co-design principles, the community could virtually envision and reshape their neighbourhood's future towards anti-displacement. This approach facilitated transformative community building, identity reconstruction, and resilience enhancement, all underpinned by a commitment to social justice and equity.

HISTORY OF BUILDING COMMUNITY CONTROL IN CHINATOWN WEST, TORONTO

Toronto, like many cities in North America, has witnessed the rise and fall of multiple historic Chinese and Chinatown neighbourhoods, shaped by Canada's socio-economic dynamics and changing immigration policies. The earliest Chinese settlers established themselves on York Street south of Wellington beginning in the 1870s.[1] However, they confronted escalating anti-Chinese sentiments. These initial Chinese enclaves, while being centers of community and mutual aid, were also formed as a response to broader Canadian exclusions and escalating anti-Chinese sentiment as highlighted by policies like the 1885 head tax and the 1923 Chinese Exclusion Act.

The Great Fire of 1904 devastated the first Chinese neighbourhood. Rather than rebuilding, the city used it as an opportunity to redevelop the area into what is now Union Train Station during the 1910s and 1920s.[2] This redevelopment displaced the Chinese community to Elizabeth Street, soon to become Toronto's first official Chinatown, known today as 'Old Chinatown'. However, this community soon faced another challenge. The construction of Toronto's New City Hall between 1947 and 1965 which led to the expropriation of two-thirds of Old Chinatown [3], replacing a rich Chinese-Canadian heritage with a new (white) Canadian image.

However, the 1960s heralded change. The 1951 Refugee Convention, which Canada was a signatory of, emphasized "non-discrimination", setting the stage for Canada's immigration reforms in the 1960s.[4] As the New City Hall opened in 1965, Chinatown began moving to its current location at Spadina Avenue and Dundas Street, termed "Chinatown West".[5] The 1970s saw the emergence of "Chinatown East" at Gerrard Street East and Broadview Avenue due to increasing unaffordable property values in Chinatown West. [6]

Toronto's relationship with its Chinatown continues to evolve. The 1980 recognition of Chinatown West as an "Area of Special Identity" emphasized its cultural significance. [7] This shift in perception was further solidified in 2009 with the inauguration of Toronto's Zhong Hua Men Archway, a joint effort between the City of Toronto, the local Chinatown community, and the Chinese government. [8]

Despite a decrease in overt racial prejudices, Chinatown still confronts challenges rooted in racial-colonial urban planning and speculative real estate practices.[9] Every generation has witnessed efforts to preserve and protect Chinatown. After the inauguration of New City Hall, Jean Lumb, a community leader and restaurateur, established the Save Chinatown Committee. This dedicated group opposed further demolition of the remaining parts of Chinatown. Their persistent efforts led to a historic win in 1969 when Toronto City Council limited building heights to four storeys, ensuring the survival of remaining Chinatown businesses, which would later transition to Chinatown West. [10]

By 2018, the Friends of Chinatown Toronto (FOCT) rose as grassroots defenders of community rights against the backdrop of gentrification.[11] While the term "community control" might evoke varied interpretations across generations, its core principle remains consistent: democratic ownership and governance of local assets.[12] Organizations like FOCT advocate for genuine community control, stressing that mere community consultations aren't sufficient. Instead, they champion authentic community involvement in decision-making processes. [13]

DIGITAL TECHNOLOGY AND COMMUNITY CONTROL

The digital age presents both opportunities and challenges for community control. On one hand, digital tools have the potential to democratize access to heritage building, civic participation and decision-making. On the other, these digital tools, particularly Virtual Reality (VR), can also be misused. Often, they're tailored to serve the speculative real estate market, a major consumer of such innovations. For instance, Matterport, initially entered the market as an AEC 3D scanning tool, but is now known as a real estate technology company focused on 3D real estate tours.[14] This shift highlights how technological advancements, influenced by the real estate sector, can intensify displacement pressures.

Yet, when VR prioritizes community over commercial interests, it has the potential to transform urban planning and architectural design.[15] It provides a space for individuals to visualize, discuss, and co-design. The "Planting Imagination" project utilized VR as a medium to build community control and power, aiming to deepen residents' connection to their environment. CAs felt more involved and empowered by VR to visualize and shape potential futures for their community. By collaborating in virtual realms, residents exchanged stories, forged a shared vision, and deliberated on Chinatown's trajectory. This approach paves the way for a future where technological advancements are both accessible and beneficial to all.

A NEW MODEL

The research project's intervention methodology and design included a multi-prong intervention model comprised of three intersectional, interdisciplinary, and inclusive components:

1. Collaborative Community Engagement Model (CCEM): Community-based Participatory Research (CBPR), Community Coalition Action Theory (CCAT) and various co-design models served as initial templates to connect, mobilize, and align existing people and communities, processes and resources in Chinatown West.[16] However, a unique model, the CCEM, was needed to address the limitations of more generic models of community-based research, which have previously failed to address a number of political, cultural, and technical challenges within the Canadian pandemic response and recovery context. [17,18]

Our CCEM model situated knowledge within the community and championed community members as empowered 'knowledge carriers' at all project stages, fostering a sense of community ownership. From the development of the research questions to implementation and knowledge dissemination, this model worked to enable the community–as opposed to external researchers–to own the knowledge being produced. This shifts the traditional power disparity between professional and community researchers (which exists in models like community research and peer research).

Through the development of the CCEM framework, this project provided community members with:

- Resources, including training, technology and funding
- Opportunities, including paid research positions, personal development and community skills development

- Agency, through collective decision-making in design research, democratizing digital technologies and design fabrication processes to shape the built environment

2. Virtual Reality for Community Empowerment and Building (VR-CEB):
This research builds on and challenges the applications of existing single-user architectural and gaming VR technologies.[19] In contrast, the technologies developed as part of this project provide shared VR experiences that are inclusive and collaborative, for the purposes of community wellness, resilience, and empowerment. The project explored how community-led and shared VR experiences can serve as tools for building community participation and agency to address a given community's psychosocial needs.[20] When democratized, this technology has the potential to:

- Serve as the vehicle for bringing speculative fiction to life - a tool most commonly used to envision alternative realities and encourage community empowerment and collective healing
- Encourage community-led engagement with city planning through the practice of collective envisioning
- Provide positive therapeutic and public health benefits for users

With this in mind, the project team developed five bespoke VR platforms that were introduced to CAs during co-design sessions. This approach enabled broad community participation, even for those with limited digital access. From a resource perspective, a number of CAs did not have access to high-speed internet, computers, or VR headsets; but most had access to smartphones with data plans, making a smartphone browser-based VR experience an important engagement option. VR headsets were mailed to each CA at the start of the project. Transitioning from passive to active VR involvement, community members became change catalysts, shaping new worlds. See Figure 1 for platforms.

3. Community-led Empowerment through Design Action (CEDA):
This final prong transitioned CAs from virtual environments to augmented realities, and finally to direct action on the real physical environment. It culminated in the collaborative fabrication and installation of the community-led design on the Cecil garden site. This included fabricating, installing, planting, gardening, developing community programming and legacy planning. CEDA is not just about physical transformation; it's about empowering the community to take charge of their environment. The project championed community decision-making through democratizing design technologies and tools that are often out of reach of the general public making use of digital fabrication. This approach recognizes the deep reservoir of knowledge and insights that communities possess, and by tapping into this, CEDA facilitates the creation of spaces that are truly reflective of the people who inhabit them.

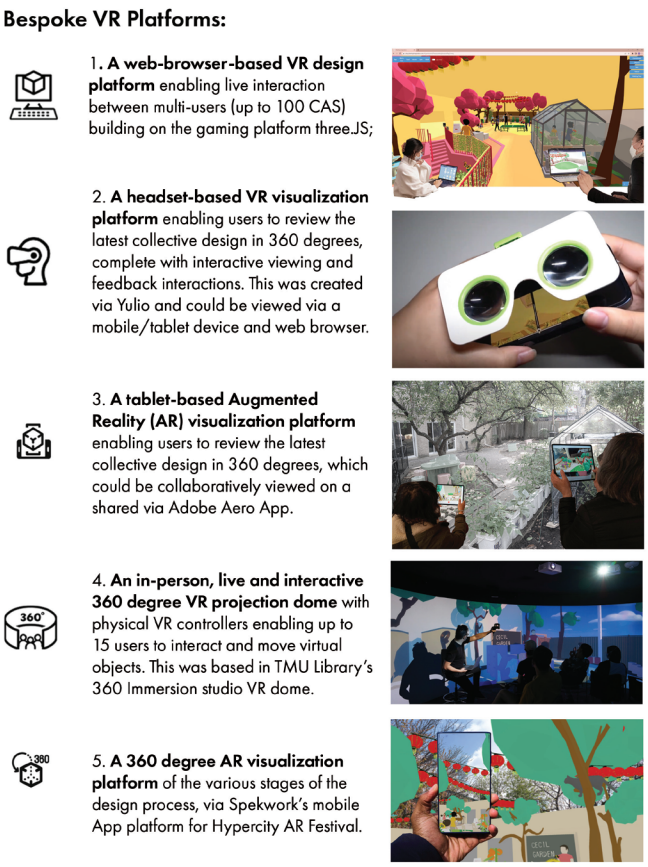

Figure 1. Five bespoke VR technology platforms developed for Planting Imagination. Illustration provided by Linda Zhang with photographs by Michelle Ng, Alice Huang and Long Winter Hypercity Augmented Reality Festival.

THEORY OF CHANGE

To guide and measure the impact of the multi-prong intervention, the project team adopted a Theory of Change (ToC). Chosen for its robust framework in driving social change, widely adopted across diverse sectors, from philanthropy to international development, ToC is known for its evidence-based causal analysis.[21] Unlike traditional research methods, ToC is dynamic, participatory, and emphasizes continuous learning.[22] It allows strategies to be adapted based on ongoing monitoring and changing circumstances, ensuring a more empowered stewardship of community spaces in Chinatown.

The project posited that through recruiting and training Community Facilitators to deliver VR and design workshops to support Chinatown Activators to co-design an anti-displacement garden, the Chinatown community would ultimately be better equipped to work together to steward the future of the built environment. The ToC (See Figure 2) facilitated the team in setting up evaluation processes centred on social impact towards this ultimate goal. Integral to the ToC methodology, evaluation measures each short-, medium-, and long-term outcome throughout the project, allowing for adaptation and recalibration when faced

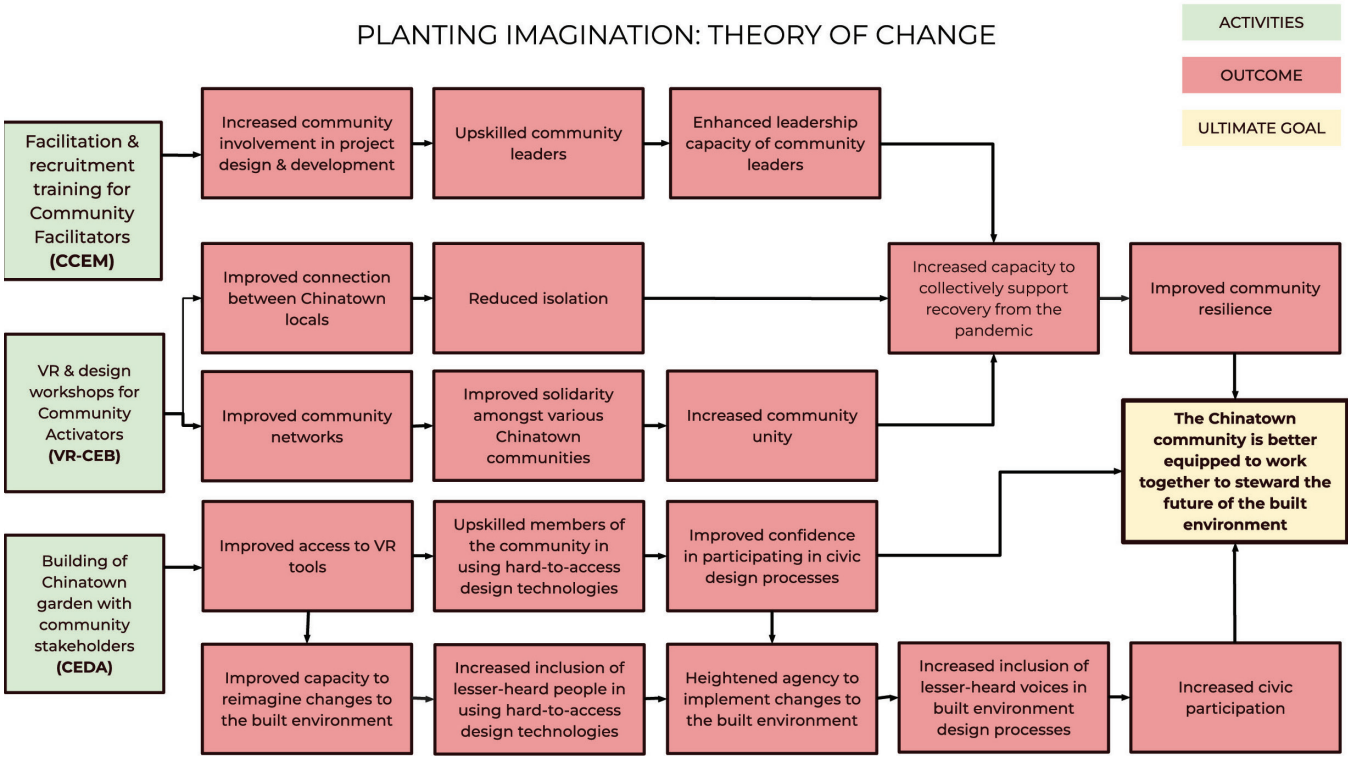

Figure 2. Planting Imagination's Theory of Change. Image provided by Linda Zhang.

with unforeseen challenges. This iterative approach ensures the theory's ongoing relevance and effectiveness. ToC provides a framework that considers the complex interplay of socio-political, economic, and cultural factors driving change, ensuring interventions are sustainable and foster lasting positive change.

To capture the breadth of the project's impact, the team employed a mixed-methods evaluation approach. Quantitative tools, such as baseline and final surveys, offered concrete data on the tangible impacts of the project. Qualitative tools, including 1:1 interviews and focus groups conducted in English, Mandarin, and Cantonese, explored the community's lived experiences and perceptions. This combination ensured a comprehensive understanding of the project's outcomes, capturing both measurable and more intangible facets of social transformation. The insights are detailed in the project's Impact Report, underscoring the project's commitment to lasting community betterment. The following data was collected (in English, Mandarin and Cantonese):

- Demographic information from 45 Chinatown Activators
- Baseline survey completed by 47 Chinatown Activators and final survey completed by 34 Chinatown Activators
- Baseline survey completed by 5 Community Facilitators and final survey completed by 4 Community Facilitators
- Mid-project reflection sessions with 16 Chinatown Activators and 4 Community Facilitators
- 1:1 baseline interviews with 5 Chinatown Activators
- Final 1:1 interviews with 4 Chinatown Activators and 1 representative from Cecil Community Centre

INCLUSIVE PARTICIPANT RECRUITMENT AND SELECTION PROCESS

The team collaborated with community leaders through workshops to map stakeholders, identify and target recruitment towards highly impacted and marginalized groups. In total, the recruitment phase spanned nearly six months, which is a significantly higher benchmark than existing (exclusionary) planning consultation would invest to ensure community access. The diversity of the CA cohort (reflected in the demographic data in the Impact Report) is evidence of the success of the project's inclusive recruitment process.

Recruitment Strategy:

- Open, flexible, inclusive, and highly accessible.
- Increased efforts to reach historically marginalized and silenced groups: seniors, non-English speakers, those without digital access and those displaced or at risk due to gentrification.
- Engage a wide spectrum of the community spanning generations, disciplines, geographic boundaries, language, and immigration status.
- Collaboration with community leaders for stakeholder mapping and targeting.

Outreach Strategy:

- Two streams: broader Chinatown community and Cecil Community Centre members (where the garden is located)

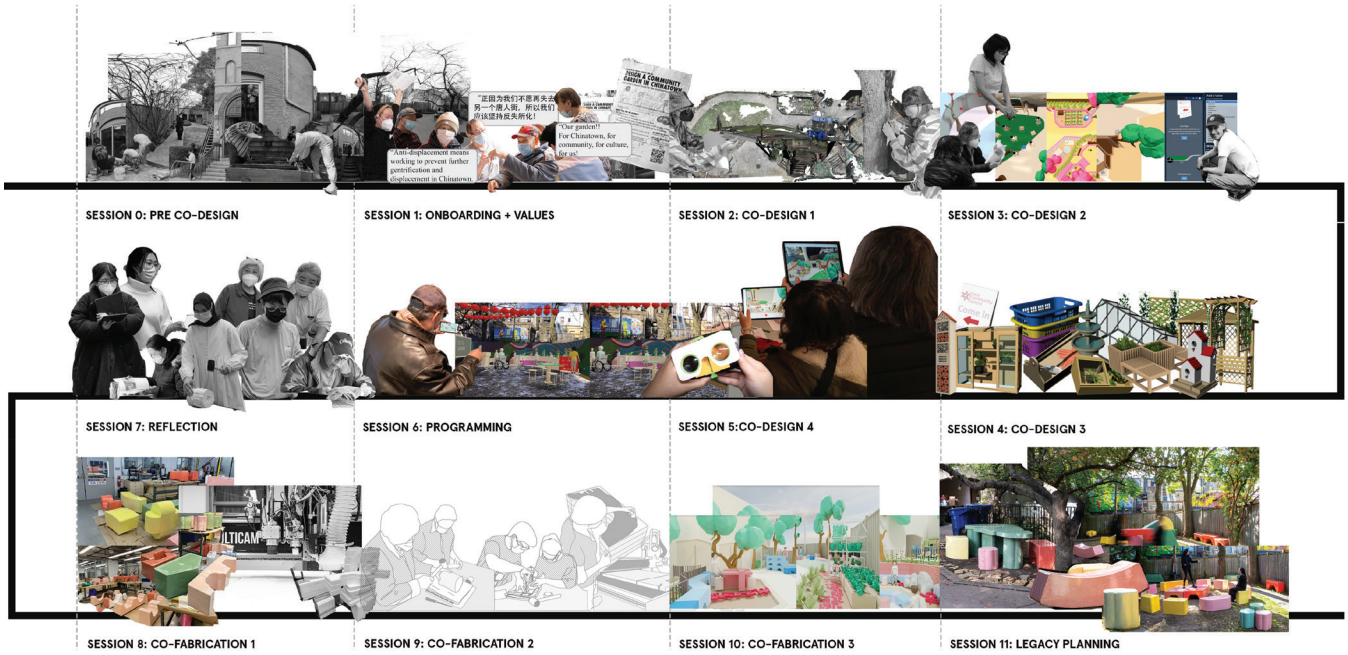

Figure 3. Timeline of the Planting Imagination sessions showing technologies used. Illustation by provided Linda Zhang, supported by Shuning Xie.

- Multi-faceted approach: personal networks leveraging 'insider-outsiders', community connections, flyers, social media, canvasing, and stakeholder mapping sessions.

Application Process:
- Multilingual form (digital and print) with accessible options for typed, voice, or video responses.
- Emphasized living wage for participants.

Selection Process:
- Prioritized community connection and project interest over skill level.
- Selection rubric based on: connection to Chinatown, teamwork, community involvement, and VR interest.
- Form open for six weeks with applicant pool monitoring and additional outreach for underrepresented demographic groups.
- Extension if applicant demographics didn't reflect community diversity.
- A diverse multilingual panel double-blindly scored each applicant; and discussed if significant score variance.
- 135 applications received; 30 Chinatown Activators were selected and 32 Cecil Community Centre members joined

CO-DESIGN PROCESS

Over a year, Chinatown Activators took part in a series of sessions that integrated the traditional design process with a co-design approach through VR (See Figure 3). The essence of our project was to challenge and transform the traditional design process, making it more inclusive, participatory and collaborative. While the conventional design process has often been linear and top-down, with experts making decisions and the community being a passive participant, or, worse, being tokenized to provide community buy-in of predetermined design, our project sought to challenge this paradigm. [23]

Here's a breakdown of our project activities aimed at democratizing the traditional design process (also See Figure 4):

Introduction and Onboarding:
- Instead of a preconceived project idea, invited participants to define project direction and values
- Equivalent to traditional Programming and Site Analysis

Co-Design Sessions:
- Active involvement in garden co-design from the start
- Used AR/VR for real-time visualization and modification ensuring that the final product truly reflected the community's needs
- Equivalent to traditional Schematic Design and Design Development

Co-Fabrication Sessions:
- Transformed ideas into reality
- Empowered with skills and tools to build the garden themselves, fostering ownership.
- Equivalent to traditional the Construction phase of a Design-Build

Programming Session:
- Collaborative planning for the garden's future community-defined activities

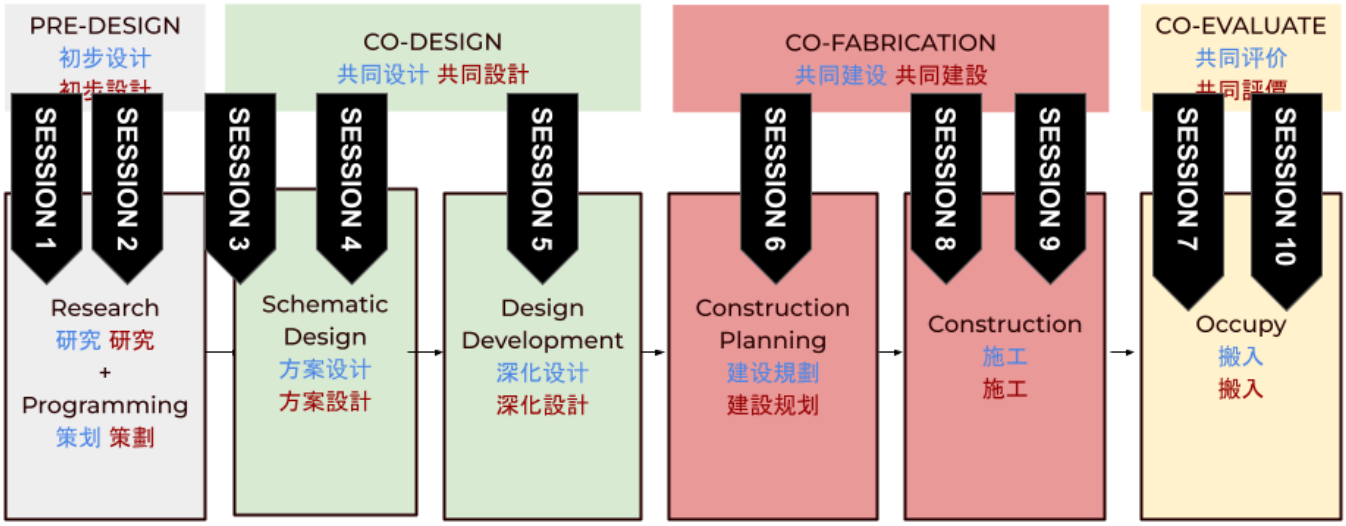

Figure 4. Planting Imagination Sessions mapped against a traditional design phases. Illustrated provided by Linda Zhang, supported by Shuning Xie.

- Occurred at the midpoint and end, and feedback into the iterative co-design process

Reflection Session:
- Participants reflected on the process, shared their experiences, and suggested improvements at the start, midpoint, and end of the project to ensure that the project remained responsive to the community's needs
- Equivalent to traditional Post-Occupancy Evaluation

Fundraising and Legacy Planning:
- Addressed the garden's future use and maintenance
- Equipped participants with fundraising strategies for the garden's longevity post-research project

ARNSTEIN'S LADDER OF CITIZEN PARTICIPATION

These co-design sessions sought to 'climb the rungs' of Arnstein's ladder of citizen participation (See Figure 5) by enabling community members through VR platforms to take control of the processes that traditionally reside within the bounds of architecture and design experts.[24] In order to prioritize co-design sessions to reach the highest rungs of citizen participation, this necessitated some of the other components of the project take place on lower rungs, for example, safety compliance and research ethics were led by the research team.

KEY FINDINGS

Through our impact evaluation, findings highlight the multifaceted impact of the project on the Chinatown community, from fostering connections and building skills to promoting inclusivity and serving as a social intervention during challenging times. Below are five key findings. Further information and details can be found in the Impact Report on the repository website: https://uwspace.uwaterloo.ca/handle/10012/20104

Community Building and Connection:
- Strengthened community bonds and facilitated intergenerational learning that bridged generational gaps.
- Facilitated the sharing of personal stories, enriching the design process.
- Was seen as a community-building model for other initiatives.

Access to New Technologies:
- Introduced VR tools to residents
- CAs gained confidence in using VR tools but some felt a greater emphasis on technical skills was needed

Skill Acquisition and Reimagining Community Spaces:
- CAs learned hard and soft skills and felt increased confidence and empowered
- Equipped CAs with tools to reimagine community spaces

Inclusive Design and Delivery:
- Engaged traditionally excluded residents in the co-design process.
- Fostered a sense of ownership and inspired further civic engagement.

Social Intervention in a Pandemic Context:
- Reduced social isolation and provided economic support through a living wage.
- Enhanced facilities of a Chinatown community space and reinvested a significant portion of the grant budget (44%) directly into the community.
- Demonstrated the potential of design projects as beneficial social interventions, with a cost-effective unit cost of roughly $1,300 per participant.

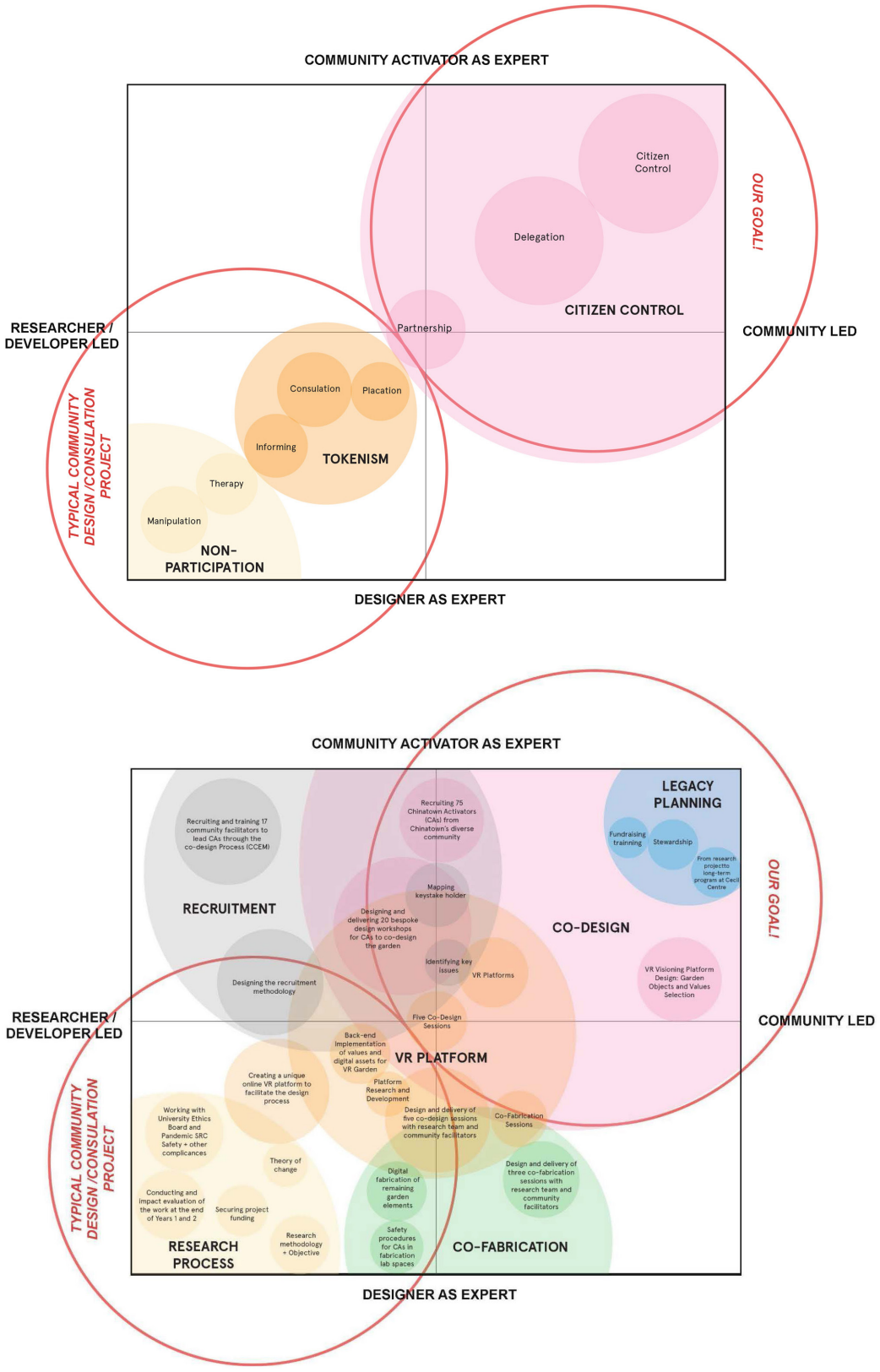

Figure 5. Above: Two-axis representation of Arnstein's Ladder of Citizen Participation as mapped against design and community expertise. Below: Planting Imagination's various project activities as mapped against two-axis representation of Arnstein's Ladder. This acknowledges the different realities of degrees of citizen participation needed throughout the project to prioritize the co-design process and community-led decision making in the design process. Illustration provided by Linda Zhang, supported by research assistant Shuning Xie.

KEY CHALLENGES

The project encountered several challenges that provided valuable insights into areas of improvement and adaptation in the future:

Conflicting Community Best Practices and Academic Norms:

- CAs and CFs deserve a living wage and proper recognition as community researchers, but research grants don't allow payment to collaborators, assuming they're salaried university researchers.
- University grant management prevents payments to those without an address, bank account, or Social Insurance Number, marginalizing many community members.
- Partnering with Cecil Community Centre enabled cash honorariums but with an administrative fee. The Centre's petty cash restrictions placed financial burdens on employees who floated the cash from their personal bank accounts.
- The 2-year funding duration doesn't support long-term legacy planning or extended impact evaluation, risking project continuity and long-term impact.

Removing Barriers:

- Each session was delivered twice, once virtually and once in person. This dual format provided in-person access to those who could not access a smartphone, computer, or internet at home.
- Multi-lingual delivery in English, Mandarin, and Cantonese to include non-English speaking newcomers and seniors. Note: All Vietnamese-speaking participants were bilingual.
- Integrated multilingual cultural education to enhance understanding of displacement issues, the racial-colonial property paradigm, including gentrification and displacement, the absence of an official Chinese language land acknowledgment, design for inclusion, and more
- Offered intergenerational support, especially for seniors.
- Addressed gender-specific impacts of COVID-19.
- Supported a diverse range of hearing and vision access needs.

Team Capacity:

- The ambitious project had a tight timeline, demanding a large team.
- More lead-in time was needed, particularly for recruitment and VR co-design R&D.
- Transitioning from co-design to co-production needs more time to elevate CAs to leadership roles.

Project Handover:

- Despite legacy planning, the project's conclusion felt sudden and abrupt, causing a swift transition between the research team and community.
- Cecil Community Centre faced challenges in organizing programming and communication to replace the research team
- Introducing legacy planning and fundraising earlier is needed to ensure smoother transitions between research-led and CA-led activities.

Broader Impact:

- The project directly impacted around 150 people, which is significant for a design project but could have been broader.
- Engaging across community organizations and city councillors could have broadened the impact. This is now being pursued through knowledge sharing and CA-led outreach.

RECOMMENDATIONS

Drawing from the experiences and lessons of the project, a set of recommendations has been formulated to guide future projects and the broader design sector, ensuring more effective community engagement and impactful outcomes.

For Future Projects:

- Enhancing Community Leadership: Allow community leaders to naturally emerge by providing more moments where the research team steps back from intervention during sessions. This involves direct engagement with potential leaders and creating pathways and capacity building for their increased involvement.
- Deepening Tech Understanding: Provide more in-depth 'back-end' training on AR and VR technologies, ensuring participants not only use them but also understand their broader applications and feel confident to employ them in their own contexts.
- Conflict Resolution Training: Equip facilitators with additional conflict mediation skills to address potential challenges, including how to efficiently deal with disrespectful behaviour, sexism, ageism, etc.
- Iterative Feedback Integration: The research team should be agile in incorporating feedback throughout the project, ensuring continuous improvement based on community insights.
- Strategic Legacy Planning: Legacy planning should be included as a final phase of any future co-production project, allowing time for exit strategy planning and a detailed handover to the lead community partner.
- Building Political Influence: Actively seek alliances with city councillors and progressive housing developers to amplify the project's reach and impact during the project phase.

For the Design and Public Sectors:

- Clarifying Roles and Responsibilities: Due to diminished community trust in institutions, it's crucial to communicate clearly about the distinct roles of government, developers, and community organizations in public consultations. This ensures participants understand and trust the entities involved.
- Defining Scope of Co-Design: Clearly outline which parts of a project are open for co-design, community control, or shared decision-making. A balance should be struck between the need to draw on necessary technical expertise while grounding decision-making related to the wider vision within the community.

- Incorporating Cultural Sensitivity: Designers should integrate cultural education (e.g. land acknowledgement, political tensions within given communities, differing definitions of gentrification and beauty, etc.) whenever they try to involve community members in co-production processes. They should also be conscious of the implications of language translation choices and respect diverse political beliefs within language communities.
- Leveraging Insider-Outsider Leadership: Where feasible, research teams should be led by individuals with lived experience related to the project's focus. This approach taps into existing community networks and ensures a deep understanding of community needs.
- Empowering Community Participation: Equip participants with the skills and confidence to engage in existing civic processes and inspire them to initiate their own projects that can influence existing civic structures.

CONCLUSION

The "Planting Imagination" project achieved many of its short and medium-term goals, notably in skill-building, VR and design confidence, strengthening community ties, and fostering community resilience during the pandemic. Participants, encompassing Chinatown Activators (CAs), facilitators, and partners like Cecil Community Centre, reported significant growth. In the context of the pandemic, the project also addressed social isolation, providing a space for community connection. A significant portion of the project budget was reinvested into the community, highlighting the potential for urban design projects to offer tangible social benefits.

The project notably democratized VR technologies for Chinatown residents, offering them unprecedented access. Feedback indicated increased confidence in using these tools. While there's room for improvement in the depth of technical workshops, the overall feedback was positive, with participants gaining confidence in using these technologies. The project's inclusive design empowered Chinatown residents, traditionally overlooked in design discussions, to actively shape their surroundings. This resident-led co-design process has since inspired many CAs to participate in local civic processes, many for the first time.

The legacy of "Planting Imagination" persists beyond the research phase. With 20 dedicated CAs at the helm, the initiative thrives as a Cecil community program. These CAs, actively host events and secure funding. The ongoing interest and dedication of the CAs to continue the work and steward the garden's future is a major success of the project. It evidences the ways in which deep engagement, upskilling and legacy planning with community members can build the confidence and agency necessary for marginalized communities to reclaim the future of the spaces and places in their neighbourhoods.

ENDNOTES

1. Blackadar, B. "Chinatown: A Community in Transition." *The Toronto Sunday Star*, April 9, 1978, A14. ProQuest Historical Newspapers.
2. Nipp, D. "For the Love of Family," *The Toronto Star,* October 5, 1992, E2-3. ProQuest Historical Newspapers.
3. Honderich, T. "Chinatown Rub P'o Tai Hopes Good Luck Image Saves One-Third of Area." *The Toronto Daily Star*, April 1, 1995, p. 33. ProQuest Historical Newspapers.
4. Chan, A. "The Changing Face of Chinatown from 1967." In *The Chinese in Toronto from 1878: From Outside to Inside the Circle*, 125-152. Dunburn Press, Toronto, 2011.
5. Chan, A. "Toronto's Chinatowns." In *The Chinese Community in Toronto: Then and Now*, 106. Dunburn Press, Toronto, 2013.
6. Chan, Arlene. "The Changing Face of Chinatown from 1967." In *The Chinese in Toronto from 1878: From Outside to Inside the Circle*, 125-152. Dunburn Press, Toronto, 2011.
7. City of Toronto. 1980. "By-Law No.99-80 to adopt an amendment to Part I of the Official Plan for the City of Toronto Planning Area respecting South-East Spadina." Toronto, Canada.
8. "The Making of the Toronto 'Zhong Hua Men' Archway." Commemorative Plaque. Chinatown East, Toronto, Canada, 2000.
9. Dorries, H. 2022. "What is planning without property? Relational practices of being and belonging." *Environment and Planning D: Society and Space* 40 (2): 306–318.
10. Jean Lumb Foundation. "About Jean Lumb." Accessed [September 14, 2023]. https://jeanlumbfoundation.ca/?page_id=205.
11. Ahmed, Z. et al. December 2020. "Community Power for Anti-Displacement: An Inclusive Future for Downtown Chinatown." Planning Master's Program - Workshop Project, Department of Geography and Planning, University of Toronto. Academic Advisor: Katharine Rankin; Project Advisor: Kuni Kamizaki. Creative Commons Attribution-Non Commercial 4.0 International License.
12. St. Louis-McBurnie, K., and Tam, C. 2022. "Comparing Notes: Anti-Displacement Organizing from Little Jamaica to Chinatown." I*n Advancing the Right to Housing in Toronto: Critical perspectives on the GTA's housing crisis and how to solve it, Affordable Housing Challenge Project.* University of Toronto.
13. Kamizaki, K. 2013. *Linking community organizing with policy change initiatives: implications for future community practice in Toronto.* Canadian Electronic Library.
14. The Seeker. "Revolutionizing Real Estate: How Matterport Changes the Game." September 2023. Accessed October 1 2023. https://theseeker.ca/2023/09/revolutionizing-real-estate-how-matterport-changes-the-game-2/.
15. Fukuda, T., Nagahama, R.,Kaga, A., and Sasada, T. 2003. "Collaboration support system for city plans or community designs based on VR/CG technology." *International Journal of Architectural Computing* 1 (4): 461-469. https://doi.org/10.1260/147807703773633473.
16. Sendra, P. 2023. "The ethics of co-design." *Journal of Urban Design.* https://doi.org/10.1080/13574809.2023.2171856.
17. Dong, W., K. Fung, and K. C. Chan. 2010. "Community mobilisation and empowerment for combating a pandemic." *Journal of Epidemiology and Community Health* 64 (2): 182-183. https://doi.org/10.1136/jech.2008.082206.
18. Israel, B., et al., eds. 2005. *Methods in Community-Based Participatory Research for Health.* John Wiley & Sons, Incorporated. ProQuest Ebook Central, http://ebookcentral.proquest.com/lib/waterloo/detail.action?docID=238816. Accessed February 19, 2023.
19. Szczepanska, A., Kazmierczak, R., and Myszkowska, M. 2021. "Virtual Reality as a Tool for Public Consultations in Spatial Planning and Management." *Energies* 14: 6046. https://doi.org/10.3390/en14196046.
20. Fung, K. et al. "Exploring mental illness stigma among Asian men mobilized to become community mental health ambassadors in Toronto Canada." *Ethnicity & Health.* https://doi.org/10.1080/13557858.2019.1640350.
21. Doherty, R., et al. 2022. "Developing a theory of change methodology to support the evaluation of place-based systems change interventions to support child and adolescent mental health and well-being." *Evaluation* 28, no. 4: 466–483. https://doi.org/10.1177/13563890221110257.
22. De Silva, M., et al. 2014. "Theory of Change: a theory-driven approach to enhance the Medical Research Council's framework for complex interventions." *Trials* 15:267. http://www.trialsjournal.com/content/15/1/267.
23. Parker, G., and Murray, C.. 2012. "Beyond tokenism? Community-led planning and rational choices: findings from participants in local agenda-setting at the neighbourhood scale in England." *The Town Planning Review* 83, no. 1: 1-28. Liverpool University Press. https://www.jstor.org/stable/41349078.
24. Sendra, P. 2023. "The ethics of co-design." *Journal of Urban Design.* https://doi.org/10.1080/13574809.2023.2171856, 5-6.

CHINATOWN LAND ACKNOWLEDGEMENT

Toronto's Chinatowns are situated on the territory of the Mississaugas of the Credit, the Anishinaabeg—the traditional owners and protectors of this land—as well as the Wendat and the Haudenosaunee. In Tkaronto, what is now called Chinatown West is located along Spadina Avenue derives it's name from the Ojibwe word "Ishpadinaa" (ish-pah-di-naw), meaning "hill or sudden rise in the land." In the mid-18 century, the Anishinaabe peoples camped along what is now the northern end of Spadina Avenue as a strategic vantage point to monitor trade activity with the French.

In downtown Toronto we have already seen the displacement of Old Chinatown, as well as two early Chinese neighbourhoods that were never formally recognized with Chinatown designation. Acknowledging this history as our shared context is crucial for contemporary anti-displacement efforts in Chinatown, which should also recognize and work together with Indigenous communities and honour indigenous histories and practices to address on going violence and dispossession.

This includes how our land and our work is governed, which aims to respect existing and ancestral models exemplified by the Dish With One Spoon Wampum Belt Covenant (an agreement between the Haudenosaunee confederacy and the Anishinaabeg to peaceably share and care for the resources around the Great Lakes: to protect the land: to never take more than we need and ensure that we leave something in the Dish for others) and the Two Row Wampum Belt (symbolizing two path traveling down the same river together, living side by side in peace, with respect for one another's customs, laws and ways of life).

The coexistence of the Chinese and Indigenous communities in Canada for over 140 years holds lessons from the past. In the 1880s, when Chinese railroad workers arrived in British Columbia, Indigenous peoples played a vital role in nursing them back to health along the tracks, where many were left to die during the construction of the Canadian Pacific Railway, as well as providing proper burials. As we engage in co-designing and envisioning the future of Chinatown, it is essential to consider how we can uphold these governance models, leave something in the Dish for others, and live side by side in peace and respect.

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