



# Nature and Service of Senior Care

*An exploration of care-models to encourage community-building amongst seniors in care home premises and give them agency.*

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*MDes 2020*

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by

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# Glossary of Terms

Nature	All the animals and plants in the world and all the features, forces, and processes that exist or happen independently of people, such as the weather, the sea, mountains, reproduction, and growth. ( <a href="https://dictionary.cambridge.org/dictionary/english/nature">https://dictionary.cambridge.org/dictionary/english/nature</a> )
Ecosystem	A system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environment. ( <a href="https://www.dictionary.com/browse/ecosystem">https://www.dictionary.com/browse/ecosystem</a> )
Service Design	According to the Nielsen Norman group, 'service design' is that which improves the experiences of both the user and employee by designing, aligning, and optimizing an organization's operations to better support customer journeys. ( <a href="https://nngroup.com">nngroup.com</a> )
Community	A group of people living in the same place or having a particular characteristic in common. ( <a href="https://www.lexico.com/en/definition/community">https://www.lexico.com/en/definition/community</a> )
Multiculturalism	According to Lexicon-Oxford Dictionary, the presence of, or support for the presence of, several distinct cultural or ethnic groups within a society.
Long-Term Care Homes	A facility that provides rehabilitative, restorative, and/or ongoing skilled nursing care to patients or residents in need of assistance with daily living activities. Long-term care facilities include nursing homes, rehabilitation facilities, inpatient behavioral health facilities, and long-term chronic care homes. ( <a href="https://www.medicinenet.com/script/main/art.asp?articlekey=24859">https://www.medicinenet.com/script/main/art.asp?articlekey=24859</a> )
Caring and Accommodations	Caring is the work or practice of looking after those unable to care for themselves, especially sick and elderly people. Accommodation is the provision of room or lodging. (Oxford Languages; <a href="https://languages.oup.com">languages.oup.com</a> )
Care Staff Members	A person whose job involves helping people who have particular problems or special needs, for example in a care home. (Collins Dictionary)
Actors	People playing a role at all levels in the institutions. According to the Merriam-Webster dictionary actors are the ones that take part in any affairs.
Organizations	A systematically organized collection of people, with a common goal and identity associated with an external environment, like a business entity or a government department ( <a href="https://www.differencebetween.com">www.differencebetween.com</a> )
Institutions	A form of organization, which is set up for an educational, religious, social or professional cause. ( <a href="https://www.differencebetween.com">www.differencebetween.com</a> )



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# Abstract

An aging population leads to challenges in long-term care homes such as social isolation in multi-cultural communities. While working in Mumbai, India, I observed this social isolation of seniors in long-term care homes first-hand. Familial and financial limitations are insufficient in providing seniors shelters in their own homes, leading to greater demand for ‘nursing homes’ in India. The seniors in care homes with smaller populations were more likely to quickly find relationships among their neighbours. In larger-scale care homes hosting more than 100 seniors, the feeling of institutions, unfamiliarity kept the seniors socially disconnected, in Mumbai as well as the care homes I visited in Vancouver, BC. The policies about eldercare are not updated, leading to insufficient resources and outdated norms.

As part of my MDes research, I also visited De Hogeweyk (a dementia village) in the Netherlands. I used methods like observational research, fly on the wall, and interviews with the management members. As a designer, I explored and made iterative design objects and experiences for human-human and human-nature connections. This thesis describes design research activities and prototypes such as guided outdoor walking and reflection practices, using peer designers as proxy participants. I describe my service design workshops and architectural space and layout discussions. This thesis work includes historical perspectives and personal reflection on nature-human connections such as described in the Bhagavad Gita and practiced in traditional Ikebana.

One significant insight through the research was that experiencing time in nature might solve institutional issues, whether in India, Vancouver, or the Netherlands. The second important lesson learned as a designer, addresses how time pressure makes people take shortcuts, such as overlooking the importance of material in concept review and testing and too little or too much preparation in developing interview scripts and protocols. The research also reflects on iterations of different design concepts, repeating and improving, recognizing the failures and appreciating them. It is an essential step as a designer to learn from the process, especially when it is imperfect. Lastly, through this research, I found that nature, space, memory and social connection are interconnected, intricately woven together to help humans survive independently and with fellowship.

# Keywords

Social isolation, long-term care homes, De Hogeweyk, senior care, nature, human-nature connection, human-human connection, community, policies, care models, service design, collaborative making.

# Foreword

The following is a reflective master of design thesis that draws on insights I have uncovered through my making process. As a designer, I feel my making process goes hand-in-hand with receiving feedback and critique from others. I use this to help refine my design concepts further.

Through the work I have done over the past two years, I learned about the material process, service design and policy methodology. I also learned the importance of being imperfect, sharing fragmentary work and developing it. Throughout this document, I have used secondary literature as an understructure of several phrases, statements and/or words.

Theoretical references from these sources also help to ground my methodology and add a richer historical context to my personal multi-cultural experiences and observations.

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1.

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# Introduction

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## Unfamiliarity to a Sense of Belonging: My Vancouver Diaries

In 2018, when I first arrived in Vancouver for the master's program, I was inundated by my surroundings' unfamiliarity. Living in the same city for twenty-four years of my life and instantly relocating into this new place, to my new 'home' (temporarily even) was quite bewildering to me.

Overwhelming feelings led me to disconnect myself from the outer world socially. One incident, however, had me rethinking the connections I had discovered at a particular place in my new city. During the first month in Vancouver, I visited a local park close to my house called the Trout Lake. Gradually, this place became a regular visiting site for me. A sanctum, if you will.



(Image 1: Trout Lake during the observations in Fall of 2018)

What was so special about the lake? Nothing!

In India, tall buildings and a vast valley surrounded the house that I lived in for most of my years. There was no scope for a lake, neither natural nor artificial. I asked myself why my attraction towards this lake - why does it provoke such a strangely comforting feeling?

The more I visited the lake, the more I started enjoying observing little incidences in that space like a breeze softly touching your face in summers, the raindrops creating a seasonal petrichor throughout. Noticing these things made me think about what would happen if I based my design research work around these incidents and how an ecosystem, 'nature,' can help in my research in eldercare. My graduate studio professor Louise St Pierre suggested observing the same ecosystem (Trout Lake) throughout the changing seasons. This suggestion served as a starting point to my beginning to understand what nature was to me; and realization that it might help me with my work connected to dementia care.

Early on in the process, in the fall of 2018, I noticed a tree close to where I sat down to take my observations. Unsure as to why I marked that tree, I tried to look for the reason. The tree had big branches that split right in the centre and rose high to the skies. It reminded me of an incident from my childhood when my cousin would put me up on a similar-looking tree that seemed to be sliced int between for fun at night. It gave me the same comfort I had when I was a child looking down at my family.



(Image set A: Photographs taken at Trout Lake during the observations in Fall of 2018)

While growing up, I had the view of woodland from my window kept untouched by the city's government. We would visit the forests for outings and morning walks. I found a sense of belonging to the place and land through my connections to similar actions in my memory.

After developing a sense of comfort in my newfound sanctum, I began noticing a change in myself. I was initiating conversations with people passing by, people with whom I was sharing a seat at the lake, merely enjoying my social time while conversing with people sitting around the lake.

## Leaving our homes and entering unfamiliar surroundings

At this point, I began to see some parallels between my experience of unfamiliarity and my observations of seniors in long-term care homes in Vancouver. I could see a correlation between how I was learning in an institutional space where it was comparatively tough to establish a sense of familiarity other than my experiences at the lake. Even when I was around familiar faces, I had a hard time connecting with my institutional university surroundings.

Could it be the white walls, the separated spaces, or the different awareness in this space?

Leaving the sanctum one calls home, (similar to my migration to a different city after two decades) and establishing a connection to the people around and the surroundings of this new space could be a difficult choice to make because, in the end, it may be out of our comfort zone.

If going to Trout Lake helped me build a particular scope of comfort within myself, would it serve a similar purpose to the seniors living in the long-term care homes in Vancouver?

“A sense of belonging characterizes several constructs in environmental psychology to the natural world, or of viewing oneself as a part of nature” (Schultz, 2002; Mayer and Frantz, 2004; Nisbet et al., 2009; Kibeom Lee et al., 2015). In retrospect, observing organisms growing in abundance, such as the moss on the trees, the ducks in the lake, dogs playing around, helped me acknowledge that I was now part of it.

According to Aron Gurevich, a medievalist historian, ‘man thought of himself as an integral part of the world. His interrelation with nature was so intensive and thorough that he could not look at it from without; he was inside it.’ (Aron Gurevich, 1992). An individual, in medieval terms, is someone who is ‘indivisible.’

Following this notion, it seems that an individual undergoes a “natural inclination to feel connected to humanity and the natural world have a common psychological basis.” (Kibeom Lee et al., 2015)

Based on this understanding, one cannot be separate from nature but is, instead, always a part of it. The individual understood as indivisible and not apart from ‘nature’ makes this ‘nature,’ a community that embraces everything, including our sheer existence. The trees, the ocean waves, all seem to be one significant entity. Our shared experiences, our natural sense of storytelling, make us believe that we are part of a bigger picture, which, perhaps, is what makes us empathetic towards other stories. I think the term ‘nature’ falls under various contexts based on the situations to imply nature. For example, considering the current scenario in 2020, wherein we are asked to stay home due to the pandemic situation, watching the outdoors from our windows is also considered a pleasant activity. Living in Vancouver, where nature has played an important role in creating a comfortable space for me to correlate, even five minutes in the outside environment feels good.

However, people who are used to living close to the outdoors would find looking outside their windows an undistinguished routine. For them, living in an entirely untouched part of nature, wilderness perhaps, would be pleasant, calming and ideal.

This perspective led me to thinking about the implications when we understand ourselves as apart from nature and the inverse, when we consider that we are not apart from but part of nature. If our individuality is not separate from 'nature,' how is it that we have separated ourselves from our one community, 'nature'?

**Then, how does being outside, feeling connected to nature, provide us with a sense of belonging that helps us feel a part of something, a place, a community? (March 2019)**

## Research Questions:

How to cultivate the learning from 'nature' into dementia care, and what are the implications?  
(March 2019)

How might we encourage seniors to form a sense of connection in and around the premises of their care homes? (March 2019)

How can a 'walk in the wilderness' experience help them become familiar with their surroundings and connect with people inside and outside the care home premises? (June 2019)



# 2.

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## **Hindu Philosophy about Nature & Social Isolation in India**

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## Hindu Philosophy & Nature:

According to the Hindu philosophy, shifting focus and spending time in the forest in older age was given importance which is commonly known as “Vanaprastha” in different stages of human life, adolescents, childhood, teenage years and adulthood. A Vanaprastha (Sanskrit) is a person who is living in the forest as a hermit after partially giving up material desires. (Priyadarshani N., 2010)

Another such excerpt referring to the importance of trees in our learning of life around us would be the ‘Asvattha tree,’ which is also known as the Peepul tree or sacred fig tree, has the Latin name Ficus religiosa, and is native to India and Southeast Asia. The Peepal tree is essential, both practically and symbolically, to contemporary Indian religious belief and practice. “But the Asvattha tree’s importance goes back to the most ancient recorded history of India.” (Sahota P., 2019)

अस्वतथा सर्व वृक्षसासना  
देवर्षनिम का नारदः  
गंधर्वनाम चत्तिरथः  
सद्धानम कपलि मुनीः

### Translation:

Of all trees, I am the holy fig tree, and amongst sages and demigods, I am Narada. Of the singers of the gods [Gandharvas], I am Citraratha, and among perfected beings, I am the sage Kapila.



(Image 2: A visual representation of the 'Asvattha', the Peepal tree in Bhagavad Geeta)

For me, this verse talks about the path of enlightenment by representing the parts of a 'peepal' tree, and portraying the ties one has with the materials (the mediums that make us feel connected to our surroundings) this world. The idea of the tree is to see yourself and understand your progress towards this path.

Similar to the metaphor about liberation shown through the Peepal tree in Hindu philosophy, we often find ourselves learning from the “trees as an important metaphor for knowledge-classification systems” (Maria Popova, 2020), a visual representation of laws or hierarchies, for example, the tree diagrams, a family tree.

**For thousands and thousands of years, trees have provided us with not only shelter, protection, and food, but also seemingly limitless resources for medicine, fire, energy, weaponry, tool building, and construction. It's only normal that human beings, observing their intricate branching schemas and the seasonal withering and revival of their foliage, would see trees as powerful images of growth, decay, and resurrection. In fact, trees have had such an immense significance to humans that there's hardly any culture that hasn't invested them with lofty symbolism and, in many cases, with celestial and religious power. The veneration of trees, known as dendrolatry, is tied to ideas of fertility, immortality, and rebirth and often is expressed by the axis mundi (world axis), the world tree, or arbor vitae (tree of life).**

**(Lima Manuel)**

Like the connections trees possess with the land through their roots, flowing in all directions attempting to find links to minerals or other organisms, humans crave connections. Connecting to other people and other living beings is an instinct. “The human being is born with the need for contact and tenderness.” (Heinrich and Gullone 2006). If we don't have those connections, we feel lonely, a critical concern for eldercare. As Hawkley and Cacioppo write in ‘Loneliness Matters’ (2010), “a particularly devastating consequence of feeling socially isolated is cognitive decline and dementia.”

## Social Isolation in India:

I come from India, where building communities is quite an organic process. In Pune, a city in Maharashtra, I grew up in a neighbourhood where most of the families within one apartment building were familiar with each other. In my childhood, the seniors in our area were the neighbourhood grandparents. As kids would visit their homes at any given hour and would always be treated with love. In the evenings, the children and seniors would come out of their homes to a central meeting point, a park, an empty parking lot, or even the reception lobby and sit together. The kids would play near the adults. On the other hand, the adults, with one eye on the kids, would enjoy their own conversations.

More recently, due to various economic factors the traditional Indian family structure consisting of three generations engaging and living together has been left behind and replaced by the nuclear family concept. It seems the rising middle-class population has led to a multi-generational family structure that encourages living in separate households pertaining to the nuclear family concepts. In a household, where four generations would be living together, the nuclear concept talks about these generations living separately, by themselves. For example, when my grandmother was newly married around 60 years ago, she was living not only with her husband, my grandfather, but his parents and all the other siblings. However, In this age, my grandmother lives along with her son and we, belonging to the same household, live separately. The idea of living in a separate lifestyle forms a question of 'seeking solutions for taking care of their elders' (Celine Thomas, K. Samuel, 2017).

I visited long-term care homes in Bombay and Pune (cities in Maharashtra, India) in 2017 while working on an industrial design project in the SINE incubator at the Indian Institute of Technology, Bombay. I realized that the concept of social isolation in 'old age homes' depends on the care homes' scale of operation. I noticed that small scale nursing homes with 10 to 15 seniors, were open and community-oriented. Seniors living in old age homes that were larger and more crowded often seemed to be socially disconnected; be it in metropolitan cities or small towns. When I visited smaller care homes, I could observe the seniors socializing, sitting together for breakfast, enjoying their evenings with coffee or tea. However, when I visited the care homes that hosted around hundred or more seniors, the corridors were rather empty. The seniors preferred staying in the radius of their rooms. I also observed that the situation varied from care home to care home but in a nutshell, followed similar patterns of socializing seniors.

Due to community-dwelling adult generations, being lonely or socially distant was not something I witnessed in the care homes with a smaller community because of the closely connected seniors. What was evident through my observations in these 'old age homes' was the buildings and institutions' structure. The care homes where I observed conversations and engagement were ones built either on a small platform (a house turned into a care home with multiple facing rooms) or interconnected dorm systems, almost like a hostel.



Care homes in India are struggling for necessities like financial and material resources. They also face institutional challenges. In the paper “Overcoming Social Isolation in Indian Care Homes,” the authors highlight that - “firstly, there is not an adequate social welfare system to support poor and middle-income older people in dealing with changes in family care.

Secondly, within old age homes, there is a lack of regulation concerning basic hygiene rights and limited activities that promote social connectedness”. (Celine Thomas, K. Samuel, 2017). The seniors’ lifestyle and sentimental focus prior to going to the care homes, often revolve around their families.

Leaving this feeling and moving into an old age home might be quite frightening and distancing from everyday bonds with families, thus feeling socially disconnected.

Consequently, seniors suffer from social isolation, which hinders them from accessing basic needs and the reciprocal relationships necessary to continue living a meaningful life. (Celine Thomas, K Samuel, 2017).

Indian care home organizations struggle to accommodate the essential resources like the senior’s medical services, infrastructural developments. It has been identified that organizations and the government must fabricate policies towards the security of vulnerable seniors grappling with changing social conditions in their lives. In appendix 6, I address the implications of policy issues for design that I considered while conducting my thesis research.

# 3.

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## **Making Objects: The product design approach**

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The theories and lived insights I describe above, starting with my observations at Trout Lake and reflections on social isolation for elders in India, are tightly connected to many of the design activities, making and testing I have conducted. As I moved through them I also began to draw on other insights from locations and circumstances connected to care of elders in Canada, the Netherlands.

## Research Questions:

Accordingly, how can we transfer the essence of nature and open spaces to concrete square interiors?

Could small pieces of nature collected along the way such as Soil, moss, leaves, flowers, twigs be a means? When I think of nature, the first thing that pops into my mind is the colour green and a giant tree. So how do we bring parts of this interpretation into an indoor setting? (June 2019)

How can the culture of sensory therapy form a platform for connections amongst seniors in care homes? (July 2019)



(Image set B: generative user tests/contextual cold reads of design sprints based on making objects related to connecting seniors to nature for encouraging collaborations or associations with fellows seniors in the care homes.)

## Planter Story 1.0

My planter 1.0 prototype, thinking about the giant tree, was creating scaled-down pocket-edition trees for the seniors to hold, feel, gather around and engage. These were to be objects handled while within the premises of an elder home. I used play-doh to create a tree-like structure and leaves with moss around the tree for this activity.



(Image 3: The female bodies of the planter concept created out of play-doh)

Buying play-doh from a dollar store was an easy and accessible option to explore the physical forms. I was creating multiple female bodies out of the sculptor's wax—the malleability of the plasticines seemed corrupted in comparison. However, my primary intention was to develop female bodies with what was readily available. I addressed the prototypes as 'female bodies' with regards to the shape of the planters centered around the pre-existing trees and bushes. A part of the reason was also that I interpreted 'female bodies' as the planter's flowy and organically curvaceous built. It also created an image that represented the feminine features of Mother Earth.

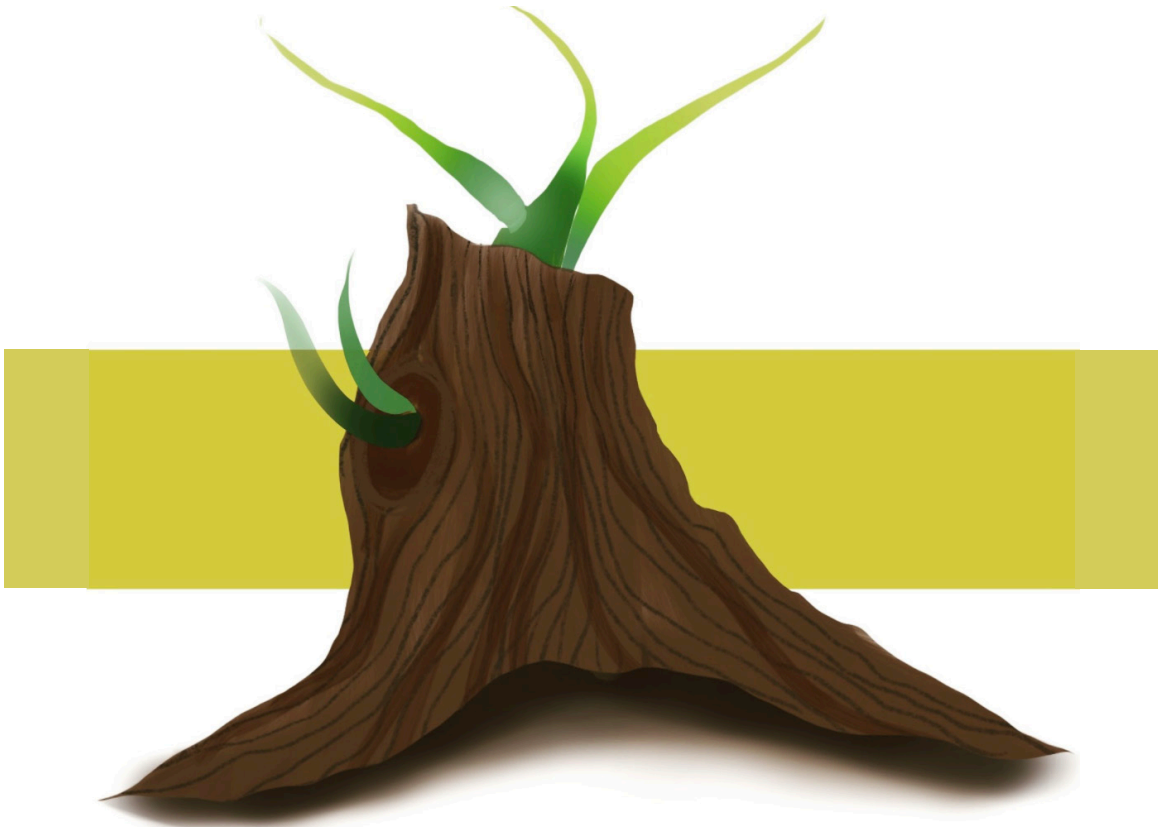
Considering the material medium while synthesizing the idea was not my primary concern at that moment.

After sharing my activity with others, we realized that while I was thinking about nature and aiming to bring small amounts of natural essence into the care homes. The strong rubbery smell of the plastic-like material felt like a conflicting usage of material, which is entirely artificial, opposite to the idea of natural elements.



## Planter Story 2.0

Thinking about how the seniors would engage with only a shell of the planter, brought me to the idea of adding an interactive experience in addition to the body of the planter itself.



(Image 4: Ideation; Digital sketch of the planter concept)

My first planter concept was based on incorporating a music system, acting as a catalyst to gather the seniors around the object. My idea was that it would hum tunes of songs from different decades, the 50s, 60s, to more recent ones, and that doing so would help forming a non-verbal connection amongst seniors who gathered around it. This idea emerged as I often find myself building faster relationships with people of similar music tastes. Our moods are oftentimes determined by the genre of music or songs associated with our current feelings. Music relaxes us. It teleports us to connected incidences in a few beats (Harvard Health Publishing, 2016).

My idea was that this musical planter could promote natural sentience and bring comfort to seniors.

In “Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts” Bruno Latour discusses how technologies play an essential role in mediating human relationships.

Latour argues that we cannot understand how societies work without an understanding of how technologies shape our everyday lives (Latour, B., 1992).

Latour talks about the relationship between humans and technologies and the process of building technology that starts with an idea, moves to a paper drawing and then to a concrete technological machine or object. The values that we share with the technology is quite similar to those we share with others. I assume that technology is the vessel and the creators and makers share the values through it. The origin of the technology, starting from the 'nature,' natural ores turned into metal and other materials that originate from the land, essentially creates a connection between us.

To test this idea, I developed a low fidelity paper prototype. Bill Buxton's idea of "sketching UX" influenced me to create a broader and more interactive sketch than the traditional approach of a rough drawing. Buxton defines sketching along a continuum, which he calls the "design funnel", which starts with rough drawings (ideation stage) and increases in the fidelity to the point of the prototype (usability stage) (Buxton, 2012).

My interactive sketching consisted of a generative user test with the paper sketch prototype, called a "contextual cold read". It was shared with a participant who responded with a short anecdote about their grandparent when they were a toddler.

Their grandparent would always sit with them in the evening with a radio in their hand. He was a classical music fanatic and would ask my peer to be all ears and listen to the melodies. This act later turned into an evening tradition between my participant and their grandfather. Running this exercise helped me to realize the implications and limitations of my conceptualization and making. Through the responses of my collaborators, such as the one noted above, I recognized that my concept prototypes worked well toward connecting nature and seniors. I also began to realize that external factors, such as added technology or functionality, might be distracting. I began to understand the need to limit the scope of my research by exploring the non-technological approaches.

While I was working on my planter concept, I was also volunteering in a care home and working as a research assistant for the Health Design Lab. This gave me the opportunity to observe Canadian care homes. The lobbies, beautiful rooms, multicultural environments of these facilities were impressive but I soon learned that social isolation was (as in India) still a critical challenge for these organizations. Grappling with this, care home organizations have developed many innovative methods to counter this problem, including games like Bingo and exercises. Therapy sessions with art and music, gardening, and animals are used to help alleviate this problem of social isolation of residents. While this was good, I also observed that once these activities were complete, many of the seniors would disperse reluctantly, to their respective rooms for the night.

I became interested in the dispersion of seniors to their respective quarters. It reminded me of the time when I moved into a new house in Vancouver in 2018. Since I was not familiar with anybody, I would eat with my roommates while immediately heading to my room. I returned immediately but also with reluctance. I left because it was an unfamiliar community for me; I did not feel like a part of the group.

This exercise helped me to better understand the implications and limitations of my conceptualization and making. Through the responses of my collaborators, I realized that my concept prototypes worked well toward connecting nature and seniors. Potential external factors such as added technology or functionality might only distract. I began to understand the need to limit the scope of my research by exploring the non-technological approaches. My reason behind this action was because I wasn't comfortable with these new roommates.

Is it possible that the seniors feel similarly?

To further understand the senior's perspective, I read 'Negotiating Tensions in Long-Term Residential Care: Ideas Worth Sharing' by Pat Armstrong and Tamara Daly, which talks about the experiences of seniors and the care staff members. They attempt to address challenges like reintroducing independence of the seniors, tensions over risks and safety. Monique Lanoix, author of Chapter Nine, 'Robotizing Social Time, A Way Forward?' states -

Many long-term care residents have few visitors. Many long-term care homes have social programs and group activities such as bingo or singalongs; however, the plans do not always fill the void of companionship. The short time given to specific activities means that residents must find other ways of occupying themselves, either sitting by themselves clustered around the nursing station or in front of a television-set passively watching whatever is on.  
(Monique Lanoix, 2018; ch 9)

According to a few care homes in Vancouver BC, they promote recreational activities like - Hangman, board games, friendly visits (families, volunteers visiting seniors) music sessions, ice-cream social events, movie afternoons, social gatherings. Based on my observations, In small scale care homes the seniors often gather in cozy living rooms, the dining arrangement is often set together since there are 20-30 seniors living in the care homes. The seniors often come across one another because of semi-private rooms, and also because of the common social routine. That gives a platform to be socially active. On the contrary, I observed, in larger scale care homes, the dining setting is completely different, based on the area. The seniors may acquire their personal rooms which may result in isolation. The social programs are marked on the calendars and proceed accordingly reducing an organic flow of connection between seniors.

Filling the void of companionship was becoming central to my design work. For me, fellowship is important for establishing a connection with space. I also find myself looking for people with similar interests, lifestyles quite often.

Then, what roles do 'natural collectable items' play in this setting?

How do we form an organic flow of connection between the seniors in the care homes?

Much like this poem, my intentions behind the concept was to form organic conversation, free-flowing, eventually forming long-lasting ties.

*Excerpt from ‘Flow’ by Derrick Jones*

*Floating in the breeze  
Filtering through your fingers  
Flowing through the trees  
Flowing all around  
Floating down the river  
Flying oh so high  
Falling oh so low  
Feelings, thoughts, emotions  
Full of experience  
Flowing consciousness  
Flowing down the streams  
Forming together, falling apart  
Filling the earth  
Floundering, faltering, but always flowing  
Flow flowing through the field  
Flowing far and wide  
The flow of the human condition  
Full, overflowing, boundless  
Finite infinities  
The flow of human life...*

(Image 5: Reference of a poetic representation that resonates when I think about organic, flowing interactions)

4.

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## **Artificially-Natural Making**

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While making the objects, discussed in the above section, imitating nature, my choice of materials led my work to almost point in the opposite direction. I used Plasticine to form a fake “tree” shape, industrial fertilized potting soil, instead of dirt (with worms), bowls made of plastic instead of terracotta, which all read as a contrast to my intention.



(Image set C: Soil bowl in plastic coated terracotta bowl; Plastic plant pot with fertilized potting soil)

Why did I choose plasticine? Why did I not use terracotta? - Cost; Time; Unfamiliar market search; the ease of access of just one trip to the dollar store. The rush of contemporary life - a set and limited time frame, the activities to be done; preparing materials and working on a limited budget - all took precedence over the reason I was doing the exercise in the first place.

I could understand the interconnection, but had difficulty practising it. Why? Could it be these are the same difficulties the designers of long term care homes have? Issues of time, cost, ease of access to the dollar store?

Does the sense of belonging form a space of comfort for us to live in?

What is Nature?

‘Nature can be that small plant sitting in your built environment, a flower pot sitting on your window sill. It is also the space outside the walls of the house you live in, where the trees grow and build a shelter for many organisms. Nature is the creepers and climbers clinging on your wall, the birds chirping in the distance, but it’s also the brick of your walls, the wood in your home, the paper you write on, and you.’





(image set D: depictions, photos, sketches, and concepts that were worked on throughout the project wherein I focused on understanding the importance of trees. The picture of what comes to my mind when somebody says Nature is the 'trees'.)

How does it fit into Dementia Care?

Now that I look back at this picture, I realize that I was in some ways unable to draw a connection between Nature as a theory and Dementia Care as a practice. How would Nature help? What happens when we understand Nature not as apart from all of us ( as individuals) but in fact, a part of 'all of us'?

In the planter and the product design activity from the previous section, my main objective was the idea of exploring the idea of nature in a simpler manner, this, however, led me to overlook the material aspects of my design. Material appropriateness was something that did not cross my mind.

How to cultivate the learning from 'nature' into dementia care and what are the implications?

Subsequently, in feedback from one of my research presentations, I was asked why I was aiming for designing extended nature experiences for seniors when I had been avoiding natural materials in favour of imitative ones. Louise St Pierre explained it in a beautiful analogy:

"Gardening activities are like writing a novel, I would suggest writing a poem instead." When Louise gave me this comment, she was remarking on the way I was approaching nature. My secondary research into definitions of nature, wilderness, wildness, etc. had made me aware of how vast an area this was to explore theoretically. In contrast, my making activities were fleeting rather than elaborate and thoughtful; I was taking shortcuts. Louise's insight about following a poetic format and making smaller activities instead of latching onto big ideas, much like a novel, helped me see through my making into actions like gardening, community gardening.

Keeping this analogy in my mind and looking for poems, I discovered the method of Ikebana when I was also told the story, by my supervisor, of a designer who had a tradition of making ikebana arrangements together with their grandparent as a way to connect with them. The grandparent, who had memory issues, did not have a conventional sense of time passing or understanding from a calendar when the designer would next visit. However, the grandparent would be reminded of the approaching next visit by the progressive wilting of the flowers in the ikebana arrangement. After hearing about this example, I started doing activities around Ikebana.

# 5.

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## **The Ikebana Case Study**

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What is Ikebana?

Ikebana is the Japanese art of floral design, translated as arranging flowers. In Japanese 'ikeru' means to organize and 'bana' origins from the word 'Hana' meaning flower, i.e., giving life to flowers and arranging flowers. (Editorial, Cenci N., 2018)

Ikebana is a composite art of natural flowers and artificial technique, and thus a mutual creation between nature and human beings. Collaborations in Ikebana arrangements are considered to be quite a spiritual and calming experience, often looked at as therapy.



(Images 6a: Left image source - Wikipedia; The founder of Sogetsu, the school for ikebana, Sōfu Teshigahara in 1948. Image 6b source - wiki commons; Illustration of Japanese women working on an ikebana arrangement together.)

My Ikebana activities included- activity one that was collaborative; activity two and three that I continued working on a year later. Activity one was focused was on interactions and conversations. I also aimed to observe the relationship-building while making something together that became ikebana collaboration. At that point in my research, I was (in a way) trying to figure out if interactions between humans was the main focus of my work or if it was, a concentration on the role of human-nature connections in encouraging interactions between humans.

Later in the Second Activity B, I realized that the philosophy and connections with nature in Ikebana play quite a vital role in the organic flow of both human-human and human-nature relationships.

# Research Questions:

How can the culture of sensory therapy form a platform for connections amongst seniors in care homes? (August 11, 2019)

How can ikebana become a platform for seniors to connect socially while making? (August 22, 2019)

How can ikebana build a relationship between two or more individuals through collaborative making with sensory therapy? (August 22, 2019)

## **The Ikebana Activity One: Collaboration**

In my first Ikebana Activity, I quickly chose my materials from things that were ready at hand. I used a pseudo-ceramic pot, a twig found near the university and cuttings from a fake plant in my studio. My focus, during this phase, was not on the materials so much as the actions of assembling the materials and how to engage others in the activity. I enlisted two of my peers in the design lab. I introduced them to the exercise on Ikebana, then the activity I had planned and the time we would require for each task. I then spread the materials out on a desk and asked them to make an arrangement, using a hard sponge as a base and adding in the fake 'flora' on top. I was interested in observing how the actors (the two personas my peers were taking on) connect and engage in the making process without any personal relationship with each other before the activity.

After the activity, we discussed and mapped their actions and thoughts about collaboratively making the ikebana arrangement on an 'experience mapping template' according to the set of pointers. The idea of mapping their experience on the template was to understand the outcome of the activity and to produce content for the brainstorming session that followed.

In this first phase of this activity I had, due to time constraints, used non-organic materials in order to achieve my end goal. However, in a paper by designer Rachel Kelly titled "Ikebana: A Collaborative Design Pedagogy", which I came across later, an important insight was made. Kelly observes that 'Non-organic materials were tested as an alternative to branches, but the most successful work resulted when organic elements featured. The organic forms lend themselves to the structures the students wanted to create' (Rachel Kelly, 2017).

Inadvertently my first ikebana arrangement activity without the use of real flowers was disconnected from the ikebana art form.

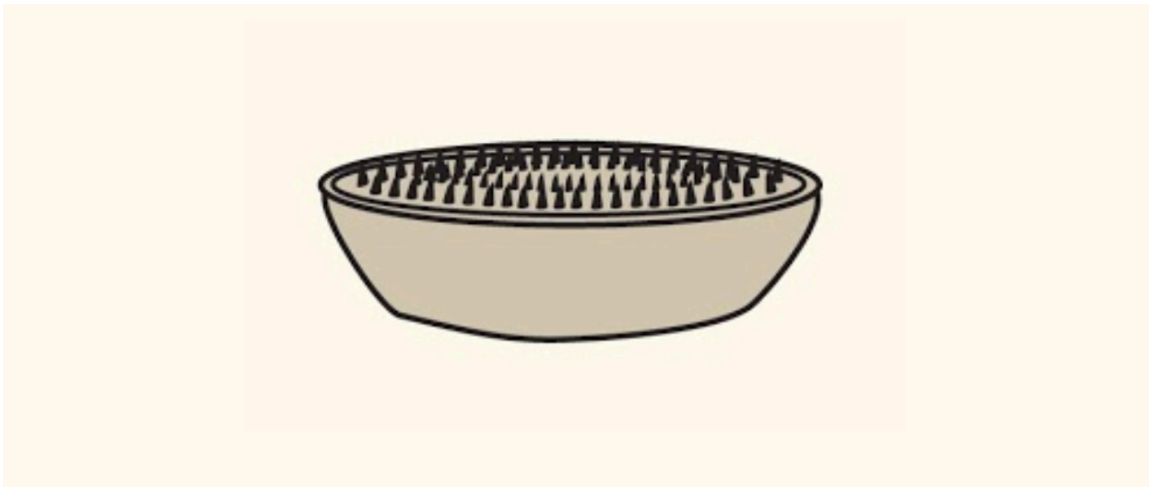
The materials I used: fake leaf strings, dried twigs - were not living. The arrangement materials did not follow the traditional ikebana method.

## The Ikebana Activity Two: Personal Explorations

In my second phase exploring ikebana arrangements, I researched more about the philosophy behind Ikebana as well as the technique of moribana arrangements.

**"Moribana, the 'piled-up flowers' style of Japanese flower arranging." ( P. H. 2020)**

In researching types of Ikebana, I came to understand that moribana is an arrangement using a shallow container with a needle-point holder or kenzan, while nageire ( another style of ikebana) is composed in a tall vase with a variety of methods used to keep the materials in place.



(Image 7: An illustration of Kenzan, needle-point holder to pierce the stems of the flowers and plant)

When using a kenzan, thick branches are cut on a diagonal, and the cut end is split lengthwise so that it can be inserted easily into the needle-point holder. Flowers and other materials with soft stems are cut horizontally, inserted directly into the needles in an upright position, and then slanted forward or backwards to the desired angle. With materials such as grasses, which are thinner than the individual needles of the kenzan, an additional short piece of the same or a different material can be tied to the base for added thickness. (Jeffrey Hays, 2009 [factsanddetails.com])

“Water is an essential visual cue for the moribana style of arrangement. The short and open container displays reflective water in the bowl to show the perfect branches.” (Roman M., 2017)

The ‘shushi’ are the three main branches – the shin (truth) branch, the ‘soe’ (supporting) branch and the ‘hikae’ (moderating) branch. (Jeffrey Hays, 2009 [factsanddetails.com]; Ohara, 2015)

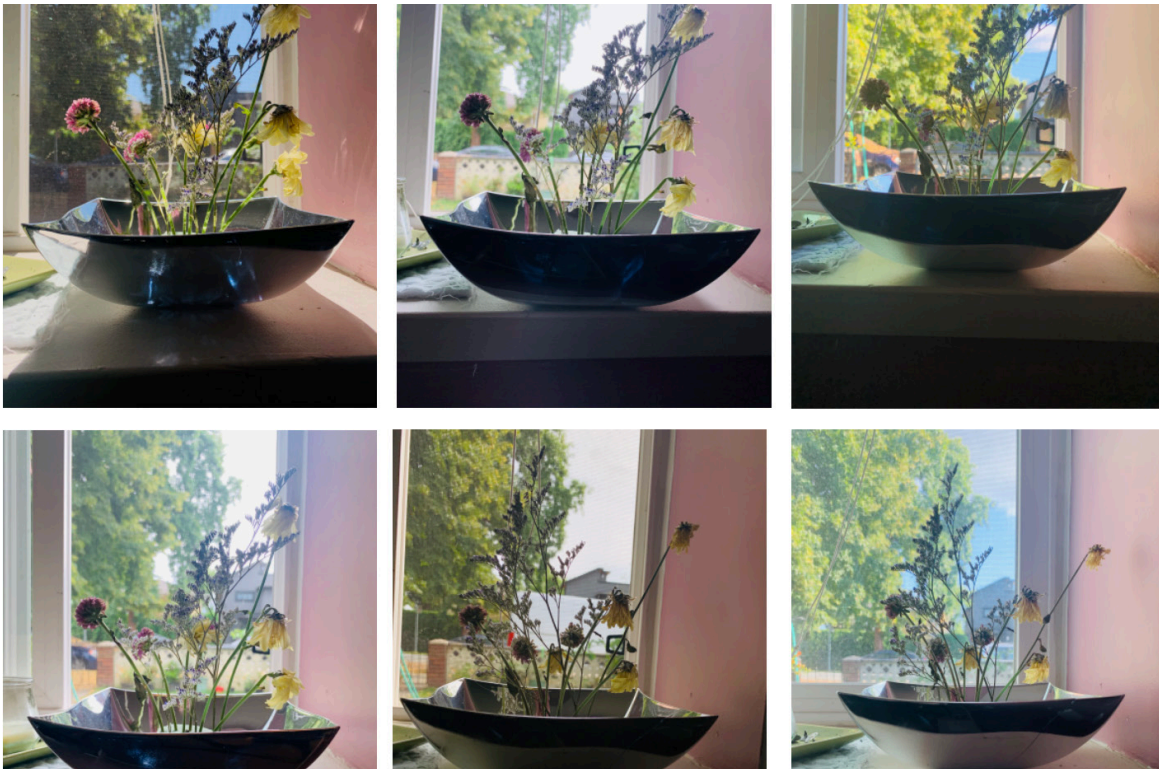
Having found out more about types of Ikebana I chose Moribana for my next exploration. I did so because the flowers and branches used in Moribana arrangements are chosen not only for their beauty but also for how they interact with one another and with the style of Moribana as a whole. (ftd.com, 2015) Considering I was exploring the relationship between the making, the arrangement and the makers, to me, it was a visual representation of my research.

As a set-up for activity two, I brought some flowers from my neighbourhood florist. As low bowls, within a price I could afford were difficult to find, I settled for one readily available at the dollar store. Similarly, instead of buying a kenzan, I settled for a sponge and toothpicks which I broke into small segments and placed these into the sponge, so that just the tip of the toothpick segment rose above the surface to provide needle-like concentric circles.

Because of the challenges, I faced while acquiring the Ikebana apparatus, I settled for the easily accessible items from the dollar store and created my own apparatus which follows the ‘do-it-yourself’ method. Another reason to make my own apparatus was that I had to bear in mind that it would be difficult for seniors in long-term care homeless to head out and buy their own apparatus.

When the arrangement was complete, I placed it onto my window sill. In the entire house, this small window is quite special to me. Strangely, I could not sit through keeping the arrangement of organic flowers anywhere near closed corners. My intentions were to keep the arrangement in light. The corners were too dark for the arrangement. It felt restrictive while keeping the arrangement in the corners of my room. The window sill was instinctively comforting, free. Keeping it outside had the possibility of being mauled by the cat.

As I placed the Ikebana arrangement in my special spot, I could see the freshness of the leaves already fading away. After three days, I could see the flowers in the arrangement shrinking, bending downwards. A few days later, the petals of the flowers started wilting, withering away. I feel this transition from fresh upright flowers to shrunk, wilted nothings gave me an idea of how life and death works. I wanted to create something for the seniors to explore the same experience collaboratively to strengthen their relationship with others through this short representation of life and death.



(Image set E: Timeline photography of the Ikebana arrangement placed in the special spot, the window sill)

### The Ikebana Activity Three: Design

My final Ikebana design activity was to draft a how-to guide to help caregivers do ikebana activities with elders. This was informed by my earlier activity with one of my peers.

While collaboratively making the Moribana arrangement described in the section above, my peer and I, both seemed to develop a new form of respect for each of our ideas about the arrangements. We were both patiently waiting for the other person to finish. During the making, we talked about her reflection on the activity in reference to the book, 'The Re-enchantment of everyday life', by Thomas Moore that talks about specific aspects of daily life such as clothing, food, furniture, architecture, ecology, language, and politics, Moore describes the renaissance these can undergo when there is a genuine engagement with beauty, craft, nature, and art in both private and public life.

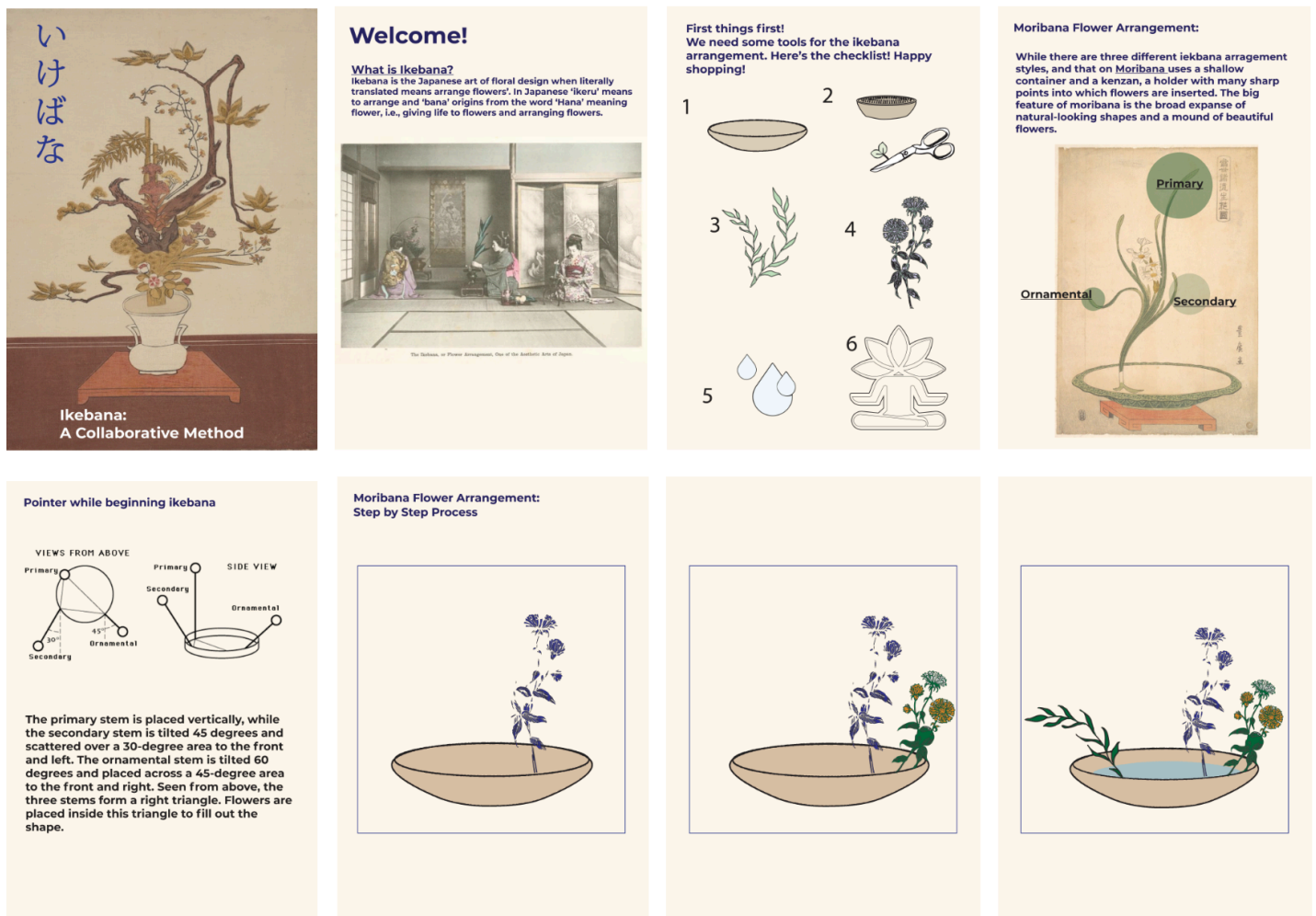
After developing my digital mock (see image set J in appendix 2) of a how-to guide for collaborative Ikebana arrangement making, I realized that unlike Ikebana, which is a respected ancient tradition, my version wavered from the ancient traditional method and moved towards a contemporary, commercial driven, design approach to sharing knowledge. I needed to make some aesthetic shifts. When a person picks up my how-to guide, they should have a publication in their hands that feels like a parchment sheet or handmade paper - something that gives a traditional, cultural, as well as a personal feel to it. My illustrations, drawings, steps all needed to be changed. I decided to work up a second iteration drawing on original paintings of ikebana that showcase the art style followed in the early 1910s in Japan and attempted to maintain a similar form for the method.



This revised how-to guide show below can be used individually by seniors on their own or collectively by seniors and their friends, as a means to create something beautiful together.

The social nature of every senior seems to be a subjective factor. Therefore, this how-to guide helps the seniors create their connections with flowers, as well as others around them through the clear instructions in the booklet. In care homes that host more than hundred seniors, I believe it would help strengthen the connection between seniors sharing the how-to guide without any forced arrangement.

Over time, as I engaged with Ikebana through my different activities and my secondary research, I came to understand Ikebana as a medium of connections, be it with people, be it with natural elements, be it with the containers. Key to all of this, what matters most, is the making, the experience, the journey.



(Image set F: The final digital mockup of the How-to guide for Moribana (type of Ikebana) arrangement with company)

## Concluding Questions:

How do we bring Ikebana to the seniors in care homes in Vancouver for collaborative sessions amongst themselves to encourage social connections?

How do we bring the material, the people and the instructors to come together and create something beautiful and long-lasting in its own way?

The idea of building boxes for Ikebana, special packages for seniors, seemed to come organically to me while I asked myself these questions. And of course along with my new idea a new set of questions:

So how do we make these boxes?

What comes in these boxes?

How does it connect to activating sensory receptors through Ikebana?



I also returned to the question of how to bring nature into care homes for seniors. In my mind, one way to do this, to provide the smallest meaning of bringing nature to seniors, could be through twigs, leaves, mosses, flowers, plants, ground soil.



(image set G: An initial concept of 'bringing nature into a care home; Sketch of natural elements like leaves, moss-ball, twigs, stems, rocks, and small plants that can be turned to a mini-moss garden; References of the sketched items [all images are photographed during research])

My Ikebana kit, inspired by these images above and my earlier Ikebana activities (1,2,3), can be found in :appendix 2: Section 5. My Ikebana kit, which I only hint towards here, led me towards a product outcome and somehow sat uneasy with me as it seemed to contrast with other ideas and wisdom that nature seems to bring. Instead of continuing with the kit, I shifted my focus towards a bigger question; one about the space, community and service design that came up during the experience of Ikebana making.

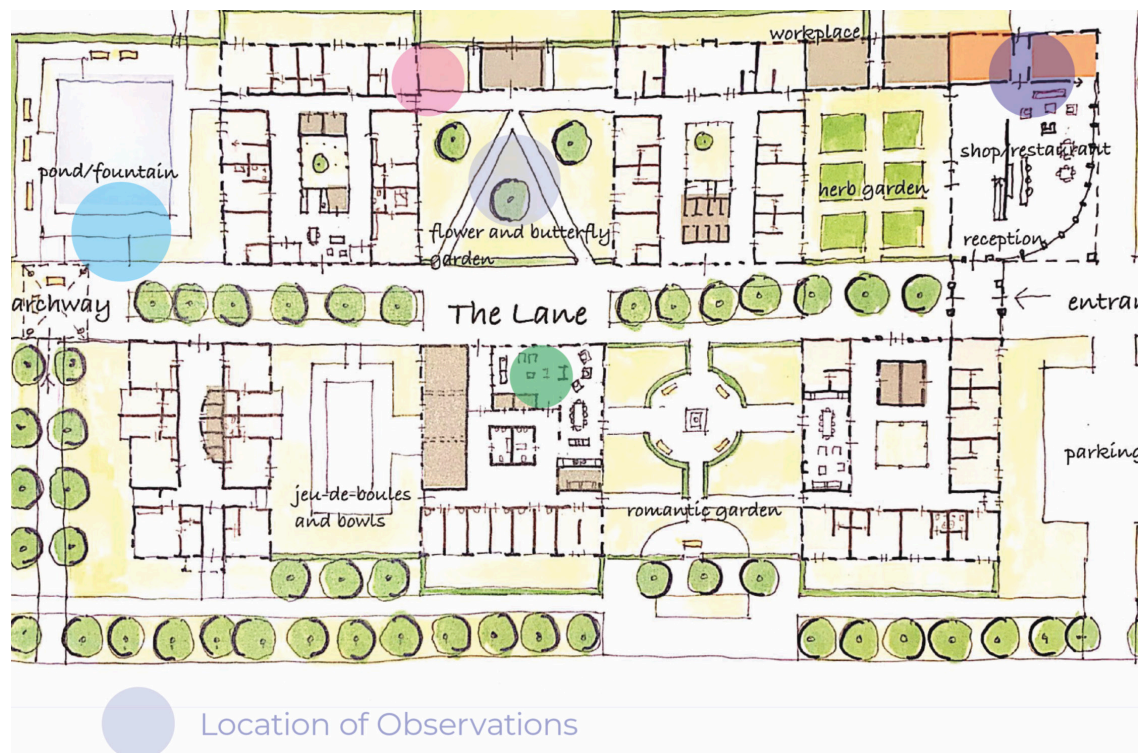
# 6.

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**Visiting De Hogeweyk,  
Discovering communities and  
service design in care home  
settings**

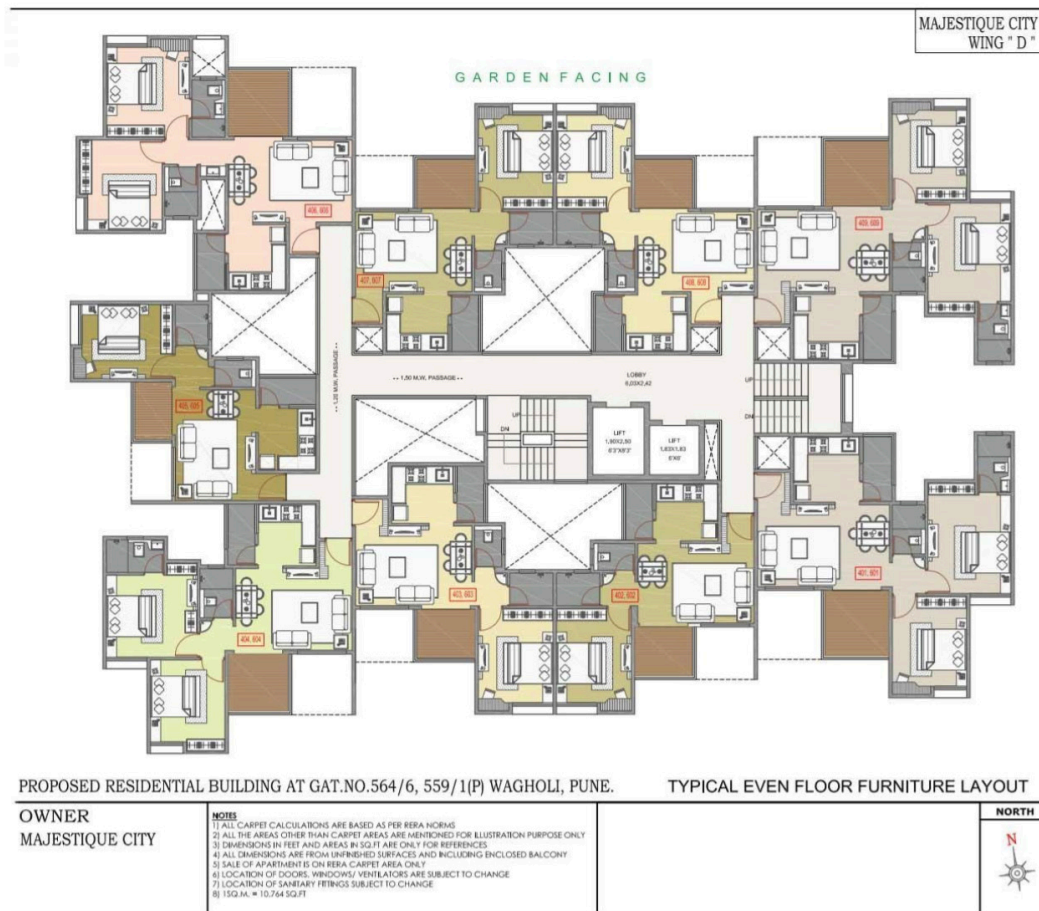
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In Summer 2019, shortly after my early Ikebana explorations, I had an opportunity to visit a well-known example of successful design for senior care, De Hogeweyk, in the Netherlands. De Hogeweyk is a recognized, innovative, senior healthcare offering. (Larsen D., 2019) It is a care space for seniors living with complex dementia that has been carefully considered. Spaces are designed so that all the lanes, passages, lobbies, garden spaces interconnect. It creates a dynamic platform for residents to interact with their fellow seniors and care staff who, unlike in conventional care home settings, are dressed in casual outfits. The result is a nursing home setting that has a village-like feel. Despite a considerable amount of rainfall in the Netherlands, the seniors, with their 'formed' social circles, also enjoy taking walks and sitting in the open outdoor spaces: near a fountain, in an outdoor cafeteria area, in multiple garden spaces. This situation enables seniors at home to easily occupy spaces outside of their rooms and houses (ones with selective lifestyle).



(Image 8a: Observation spots inside De Hogeweyk's Premises and layout)

This situation correlates with informal and formal observations I had previously made while living and working in India. In India, apartment settings and community habitats enable homeowners of multiple generations to establish a similar pattern to De Hogeweyk. People are familiarized around an individual's home due to the structure of the building. Indian apartment complexes consist of three to four houses on one floor facing one another due to the space challenges in metropolitan cities like Mumbai. The windows are like a portal into the neighbour's house, which invites conversations. Interestingly, In the Indian context, living in a similar housing complex entails not just an exchange of dialogue but also commodities.



(Image 8b: Reference for the layout of apartments on one floor in Indian buildings)

During my time at De Hogeweyk, I had the opportunity to observe seniors freely conversing with each other without prompting via care home methods/activities. They were able to create their own connections. I saw seniors who knew each other, meet each other casually as friends in their De Hogeweyk spaces. They were open to connecting with one another, comfortable in their new home environment and easily able to do so thanks to their meeting ardour space and being in a situation with new people of the same age and lifestyle. Interestingly, much of their communication was non-verbal.

The anecdote below is from my experience at De Hogeweyk. It demonstrates an interaction I had with a senior living there. Amongst several other seniors that I spent time with, one in particular gave me much pause for thought. One morning, Auntie Helda (pseudonym) sat next to me and talked to me in Dutch. I attempted to convey that I do not speak or understand Dutch but she continued none the less. All the while she greeted several of her friends strolling in the sun while continuing to talk to me. After a while she left me only to return, take my hand and then seem to indicate "Would you like to walk with me?"



While I could not understand her words, her hand held out, gesturing towards a nearby open lobby letting me know what she wished. We walked, sat down and ‘talked’ more. Well, she talked! I just nodded because even after I told her that I didn’t understand Dutch, she continued speaking with me. It turned into a fun conversation with some gasps when I tried to answer her questions. I think I answered them wrong. She showed me a picture frame of a young girl who I think she introduced as her granddaughter. She also showed me a picture of a dog.

During my conversation with Aunt Helda, I also met Uncle Albert (pseudonym). Unlike Aunt Helda, I think he noticed that I didn’t understand Dutch words, still, he kindly played along, glancing towards me every now and then to see how I was doing. Through this experience, it became evident to me that even when you don’t share a common language, the efforts you take in accepting that fact and remaining comfortable is worthwhile. In these instances visual cues and gestures are not missed. They become key communicators. I did not understand what Aunt Helda told me, in great detail and with enthusiasm but I still understood her openness, her gestures, smile and was able, in my own way reciprocate!

“A visual-based language can lead to a more universal form of communication, or provide a more coherent approach, thus creating greater chances and facilitating easier integration for individuals in various domains.” (Nawar, H., & Gabr, H., 2013)

Further, Psychologist David Matsumoto, an expert on non-verbal behaviour, culture and emotion has noted that, “the majority of people in the world want to get along. As with all relationships – communication is key. That’s when our non-verbal abilities can help us to better relate to other members of our human family. Even when words fail us.” (Pogossyan, M. Ph.D., 2017[psychologytoday.com])

Revisiting my observations, I realized that it was not ‘Nature’ that kept them connected. Instead, it was the human-human connection and the comfort of being around a place with a touch of familiarity essential at De Hogeweyk. That, regrettably, seemed to be lacking in the care homes I had visited in Vancouver. I also remembered the examples of connections that I had seen in the care homes I researched during my job as an industrial design at an incubator company in the Indian Institute of Technology in India in 2017.

## **The human to human connection; Feeling of comfort and belongingness.**

Because of this, my research began to include community; I began to think about the layout of care homes. I reflected on the different spaces I had observed: in India, in Canada, and in the Netherlands. I began to consider the use of Open Spaces as a significant site for encouraging community for building meaningful connections for elders.

During my time at De Hogeweyk, I also had the opportunity to attend a dementia care conference in Eindhoven. Here, I had a conversation with a fellow designer from Zurich that resonated. The designer observed the factors associated with policies different countries use to address models of care and building care homes. This led us to discuss different relations with the notion of risk - in particular - Risk-taking Culture.

“A positive risk-taking culture looks beyond the potential physical effects of risk, such as falling over or wandering to consider the mental aspects of risk, such as the effects on well-being or self-identity if a person is unable to do something that is important to them.” (Croft, J., 2017)

We were both interested in how seniors and their family members address and respond to notions of risk. What does it mean to let a senior walk around the care home without assistance from the care staff members or to let them help in daily schedules inside the care homes?

My design colleague reflected that, in the Netherlands, and places such as De Hogeweyk (which I had just visited) and Sonnweid (A care home in Switzerland), family members are aware and accept the consequences of the risk of seniors falling, wandering around. Whereas, in Canada, family members are not accepting these circumstances due to a fear of possible consequences. Similarly, the care home organizations also seem to be careful in maintaining the risk safety methods to ensure the seniors do not undergo fall, get hurt in the process or wander off. ‘Falls are a major safety concern for nursing facilities. Injuries resulting from falls are a major reason for lawsuits against facilities and staff, which can result in the loss of large sums of money and higher insurance premiums.’ (Agency for Healthcare Research and Quality, 2012)

During my time as a volunteer in Vancouver, I observed quite a few measures taken by care staff members to alleviate these fears, such as the use of wheelchairs to avoid the risk of seniors falling. In contrast, in De Hogeweyk, the number of wheelchairs used was relatively low, and the seniors were encouraged to walk around freely without the use of wheelchairs or assistance, if at all possible.

While talking to one of the founding nurses at De Hogeweyk, I inquired, ‘if the seniors feel the need to get out of the premises leading to wandering?’ It opened a discussion about how, although some seniors, time and again find a need to be outside, most seniors enjoy their time inside the premises. For them, it is their daily routine. These ‘white lies’ help them stay inside and have a good life around seniors of similar cultures, age groups, and lifestyles.

I thought about the acceptance of the surroundings and the people in the care homes in Vancouver. Do they feel the same way?

Are they content with their care home surroundings, are people who accept inside the care homes of their ethnic backgrounds, cultures, and lifestyles?

To understand in-depth how the surroundings and a fresh environment inside the care homes can help seniors connect amongst themselves, I took on two sketch exercises linked to an imagined campaign, ‘Follow the green.’ Details of this exploration can be found in appendix 4 (Section 6).

How to cultivate the learning from 'nature' into dementia care and the implications of dementia care if we methodize these learnings into our service systems (into care homes)?

How do we interpret learning from 'nature', such as, acceptance to the dynamic change, accepting the ecosystem and interconnection between the various organisms residing in the ecosystem, change being a constant factor in the surrounding?

If nature accepts all the changes around, how can we use similar ideals in a human-human setting?

In nature, some changes are drastic while some are gradual. In dementia, individuals gradually begin losing fractions of their memories. How can we find a common ground between these phenomena of accepting gradual change? Even the cycle of day and night, the change occurs over a period of twelve, giving a sense of progression. How do we bring this sense of gradual change in relation to the day-to-day change in the seniors lives.

Accepting oneself, accepting the abilities that seniors (in the care homes) are/were experts in, throughout their lives, could accepting the surrounding through changes in the way the care homes are decorated or constructed change their perspectives towards living in these care homes?

Why is Dementia Village an example of good stories of acceptance?





(Image 9a: Pictures from De Hogeweyk premises under the consent of De Hogeweyk's team)





(Image 9b: Pictures from De Hogeweyk premises under the consent of De Hogeweyk's team)

# 7.

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## **Service Design Methods**

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In the context of health care, service ecosystems are typically comprised of wildly divergent actors, (a person playing a role in the system) including patients and their families and friends, other patients, healthcare professionals, hospitals, health support agencies, professional associations, health insurers, healthcare authorities, government agencies, and regulatory bodies (Frow et al., 2016; Litovuo et al., 2016; Jaakkola, E. et al., 2018). One actor alone cannot maneuver such structures. A dynamic and iterative process involving multiple stakeholders in the ecosystem with varying views on value is needed to maintain or change practices, thereby ultimately institutionalizing innovation (Vargo et al., 2015; Jaakkola, E. et al. et al., 2018).

I developed a workshop-led practice for long term care homes, inclusive of the stakeholders mentioned above, to help sustain a sense of community. A vital element of this workshop was a service design layout-mapping exercise to encourage all stakeholders to discuss the care homes' current scenarios and propose changes by and for the seniors. I based this activity on my observations of the De Hogeweyk's seniors' connections to their surrounding space. I wanted to investigate the importance of creating a comfortable surrounding space inside the care homes premises to make seniors sense familiarity and comfort.

In the exercise that I conducted with my peers and a few passersby, I tracked the way emotional connections are formed in open spaces. It allowed me to investigate alternate perspectives on ways of creating comfortable and familiar spaces inside care home premises for seniors. For more details, please refer to Appendix no.5.

## Connectedness with Nature:

One early design activity that I developed in my summer 2019 service design workshop, which I briefly described above, became essential to further developments in my work: a Walk in the wilderness. This activity became a necessary means for me to return to themes of connection, nature, and eldercare.

"Green space is emerging as a powerful force for good mental health. Exposure to green space can help alleviate depression, ADHD, Alzheimer's, and more." (Hendriksen, E., 2018).

According to Vancouver's Greenest City Action Plan Part Two (2015-20), Green spaces have been proved beneficial for the people's physical as well as mental health. According to me, green spaces can be the greenway along the side of your block, they could be dozens of plants alongside your community garden spaces, or they could be the little park around your neighbourhood. Not only do they serve as a space where the trees, different plant-based ecosystems help in reducing stress, but they also help us humans socialize; forming a sense of community. (Simon Evans, et al., 2019 ;City of Vancouver, 2020 Plan Action)

## Outdoor Walking Activity One: Trout Lake in 2019

The outdoor walking activity's objective was to enable people to think about human-nature relationships and how being connected in nature helps one's wellness by walking around in the outdoors around a local lake. It was based on my personal experiences (see section one above) and my De Hogeweyk observations of seniors (living with severe dementia).



(Image10: Trout Lake; 'walk in the wilderness' activity space and the common sitting area near the lake)

Unlike in the Vancouver care homes, I visited where people were confined to wheelchairs, the seniors in De Hogeweyk would sit outside with their friends, take rounds along the premises' circumference, and engage in conversations openly with passersby. Seeing this had made me wonder: was the idea of being outside, even though it was within the care home walls, what helped the seniors cope with getting familiar with the surroundings? In addition to familiarity, this first walk in the wilderness activity was also a means for me to better understand the human-nature relationship in terms of sensory receptors and seniors' therapy.

The activity consisted of a participant being given a persona and then invited to walk around 'Trout Lake' for a quarter of an hour (to activate sensory receptors). After this, we sat down on a park bench, and I asked my participant to reflect and respond in writing to the following question "What things triggered your five senses during our walk?"

Later, while discussing reflections on the experience, my participant observed that the persona I had given them became almost non-existent as our conversation went on, carried-forward along a different route. My participant also noted that being outside and hyper-aware of sensory reception was a significant takeaway.

I also realized that the instruction to sit and write in one spot during the second part of the activity, in some ways, restricted the urge and possibility to further explore the surroundings - that this may act as a hindrance in understanding how a person forms connections with nature or open space. The script for the activity did not provide a clear understanding of what I, as a researcher and facilitator, expected. "It's (referring to the activity) a bit mechanical." She said. When I repeated the activity, the next iteration was more defined, clear about the research's anticipated outcome based on the previous feedback and reflection.

# 8.

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## **A New Trip to Trout Lake: Lessons about Methods**

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## Outdoor Walking Activity Two: Trout Lake a year later

One year later, I returned to my walking activity. I aimed to understand by reiterating the role of open spaces for an individual and the urge to connect with nature to build a sense of familiarity and comfort to sustain while living in unfamiliar surroundings. Both my peers, engaging in the activity were in their twenties. My peers were only given the senior's persona to base their embodiment of the role of seniors during the activity. Since I wanted to understand what part of my persona-making helped the peers engage with the role, and in what ways they were understanding the proxy senior's perspective, I avoided using additional tools in the exercise such as glasses, walking canes or restricting their movement as I had arranged in the 'Follow the Green' activity. I looked forward to observing their interaction with the persona and the activity with a non-meddled interpretation of their role.

This time I divided the session into three parts: sensing, collecting and reminiscing. My peers completed all these new activities while acting as a proxy senior based on a persona I provided at the beginning of the exercise. (refer to image 17a)

### Sensing

I first asked the 'seniors' to survey their surroundings: Trout Lake for one participant and a bench outside a suburban home for the other. (refer to image 19a & image 24)

### Collecting

I followed up this activity by asking my proxy seniors to collect items from these spaces that encourage their connection to the particular space. (Image 21 & image 27)

### Reminiscing

After they had finished this, I asked them to identify five things they had seen, four things they touched, three things they heard, two things they smelt, and one thing they tasted. I asked them to tell me stories about these things. I intended to understand if explicitly activating their senses helped them recollect a few resonating memories. Image 23 & image 29).

For more details about the workshop process, please refer to Appendix 5 (Section 8).

## Post-Activity Observations and Thoughts:

*Several different participants using the same persona*

Persona Feedback: (A senior lady in a long term care home)

During my second set of outdoor activities, the personas I had developed helped my participants clearly understand the scenarios I had set out. While the first participant brought in an imaginative narrative to the persona, the other personified their past relations with women in their own family.

## Observations: Collection of items

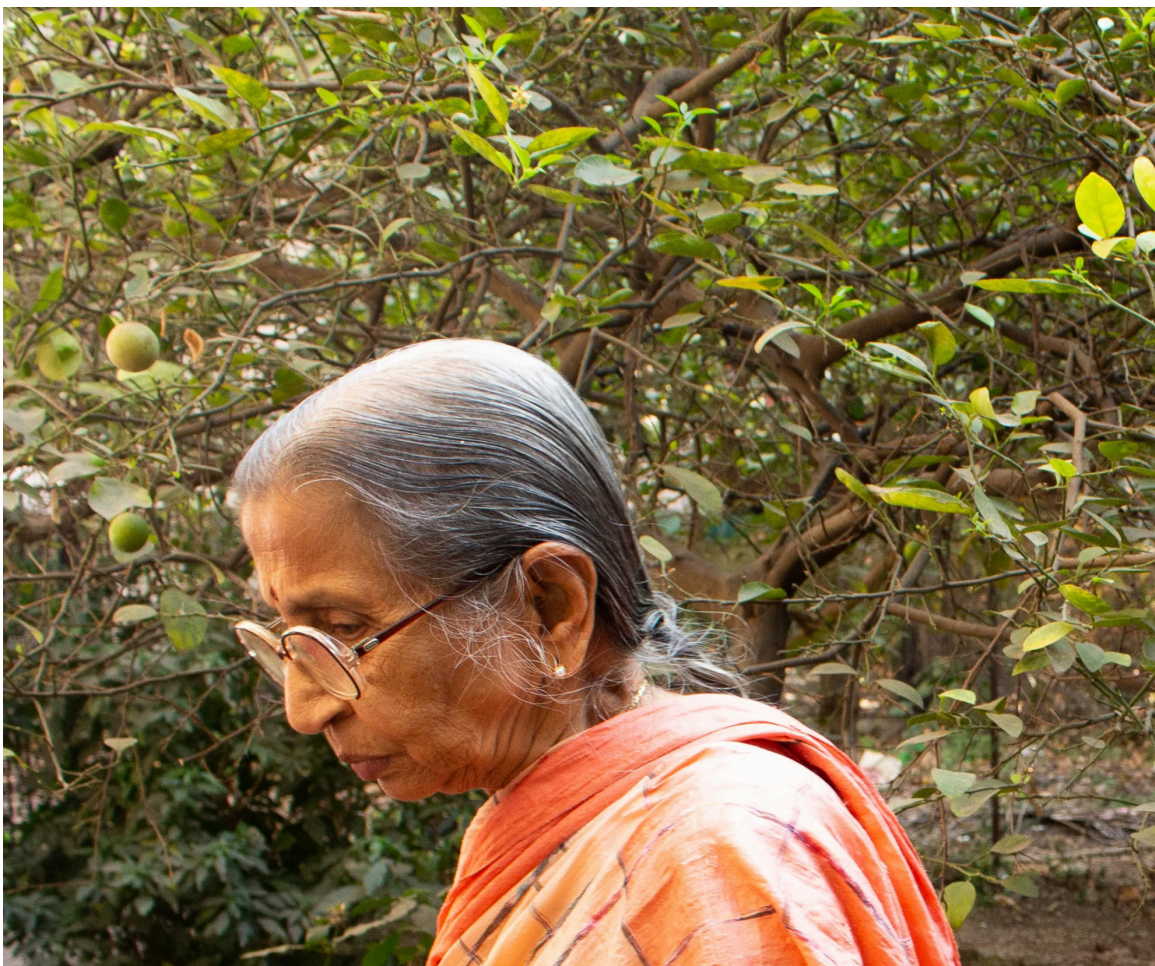
Through the activity, the first proxy senior developed into an individual who was enthusiastic about collecting multiple items around Trout lake. However, in the end, she only took back a pebble. The first proxy senior had a special connection with the pebble as she shared multiple memories on the beach with her and her family. The pebble was a saccharine reminder of these memories. During activity three, the second proxy senior with the same persona walked around the block and did not consider collecting anything apart from a small rosemary piece. Later my participant (who had taken on the proxy role) observed, “Your increasing age is also losing control over things, sometimes yourself, and that is quite scary. So you hold on to the small things just like the rosemary - your little victories. It reminds me of all the times I plucked rosemary for my aunt to make her special recipe when I was a kid.” she said.

## My Thoughts

I started thinking about how these small items in the spaces around a natural habitat can bring numerous memories back to us through this process. It was evident that the space you feel comfortable in is connected to the feeling associated with memories that we have spent our lifetime building.

Even for me, if I think about it, outdoor spaces bring me back to this memorable incident with my grandmother—a feeling of laughter and security of being with my close ones. My grandmother’s backyard gardening lessons are connected to the green (nature-related) experiences in my life. My grandmother is an avid gardener! I remember when I was a teenager, I would enjoy spending afternoons in the summer holidays at my grandmother’s home and specifically digging her garden under her instructions. More recently, in a conversation with my grandmother, she made the following observation “Gardening is a very meditative experience. When I would fight with your grandfather, I would come to the garden with a shovel. I would dig and plant new seeds until I was calm enough to go back inside. It’s my haven.” This personal perspective offered up in my everyday life, all salient and relevant to me as a designer.

Even my decision to move to Vancouver is connected through the green living phenomenons of nature; just like the tree, I drew connections from Trout Lake. But was it the tree that brought comfort in me, or was it the people I shared my memories of being around the tree with? Fellowship, that is what the tree reminded me of.



(Image 11: My grandmother in her garden; Picture credit: Eesha Pendarkar)

9.

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## Conclusion

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My research developed into an exploration of how natural settings might help overcome one's social disconnections by drawing onto personal feelings of unfamiliarity and uncertainty from being in a new space and situations. What interested me most was the contrast of education's institutional space and the social disconnection I felt in that place. Thinking back on the experience of senior's disconnection in India's care homes, I drew parallels to the institutional setting of my university and the long-term care homes. I found myself asking how natural elements and spaces, for example, the moss, flowers, potted plants, stems and leaves of trees outside, could help the seniors connect in the care home premises?

Carrying forward this thought about community and comfort as facilitated by nature and natural elements, I developed a series of research actions using walks, trees or smaller elements; like moss balls, flowers, ground soil, leaves and plants, from the outside to the participant designers as prototypes to connect with a non-verbal, (Pogosyan, M. Ph.D., 2017) visual language (Nawar, H., & Gabr, H., 2013). After getting feedback from my participants, I gained some insights about how much the particular materials I brought to sketch and prototype influenced the actions. I came to understand how dollar store shortcuts and plastic imitations of natural forms might undermine my efforts to bring nature to my users. As I proceeded in my activities with the mentioned materials, I observed that flowers were the first point of interest and thus interactions. The feeling one gets while looking at the bright colours in flowers, the velvet-like touch of the petals is what makes flowers pleasant enough to generate an interest in, connecting to brighten up our mental wellness.

As a designer, becoming aware of material practice details and careful vetting of scripts provided using experiential research methodologies became vital to creating an experience for my participants and understanding their feedback.

I refined my designer practice through several iterated activities: first, my work in the series - 'Nature: A Collaborative Method,' in which I learned about sourcing and consistent material use, especially the flowers. During this Ikebana activity, an exciting realization was observing how, when we talk about nature, I often find myself referring to life and abundance, the freshness. There is something quite awe-inspiring about making an arrangement together as a collective ritual that one knows will fade away, much like human life grows and fades. It also encourages a long-lasting bond between the collaborators, creating a bridge, the starting knot of their connections.

Moreover, creating a connection with fellow seniors in the care homes without forming a verbal connection (in reference to section 6) to associate with each other allowing multicultural seniors in one space to collaborate, connect without a language barrier. My intent with bringing the outside in care homes through natural elements was to provide seniors with an experience of being in nature while carrying these items in their hands. Considering the physical and/or cognitive limitations of the seniors, bringing these small elements for seniors who were unable to take themselves outdoors often, was my idea of helping them cope by feeling the elements, or by making something with them, creating a connection in the end.



Similarly, inspired by my research trip to De Hogeweyk in the Netherlands, I continued my work to understand what community is and how one finds oneself in a community. In my view, 'community' is an invisible space where we meet people with similar interests, cultures as ours; A space to encourage openness, comfort.

What I first noticed, which was different from the other care homes that I visited since my project in Bombay in 2017, was openness. I could almost feel the freeness, the independence in the space (if it creates the picture). The seniors were walking around casually, either alone or with their companions. I brought the question to my studio: Was it the feeling of being a part of the community?

What began as a discussion session with my peers in one of the graduate studios later turned into a series of activities, including layout exercises exploring architectural design potentials, service design mapping, and policy design research and workshops.

Finally, while reflecting on the idea of belongingness in patios or gardens, I was inspired to iterate the walk in the wilderness exercises. The purpose of exploring the walking research activities was to observe the participant's connection to outdoor space; that could be a park or even space around the block near their home. After practicing the repeated activities, I realized that space appeared as a portal to memories of past incidences and the feeling associated with those memories.

During the activity, one of the proxy seniors kept a pebble she found around the lake. Though the pebble was not something she harboured for her entire life, now that she found one, she wanted to keep it as it acted like a portal into her memories pertaining to the moments spent with her family. It was the newly found elements in the surrounding space, and the space itself, that encouraged the senior to reminisce.

When both peer research participants collected items to keep with them, they had stories to tell about items that they picked up. The natural, open space connected to memories with people and events from previous times in similar spaces. In summation, as quoted in one of the research activities, "sometimes all a senior wants is to connect, communicate, be heard, and be independent."



# 10.

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# Appendix 1

## Section 2

### The Hindu Philosophy:

According to Indian philosophy, the entire universe is created out of the conglomeration of the subatomic particles which influence the five gross elements - earth, water, fire, air and space.

All living beings, animate or inanimate, come under this classification.

So, life forms are created on the backdrop of the gross elements. The five gross elements do inherently carry a link with the five human cognitive organs. The nose carries an inherent relationship with the earth, the tongue with the water, the eyes with the fire, the touch with the air and finally, the ear with space. (Dr. J.S.R.A. Prasad, 2015)

Regular visits to the now preserved outdoors are good for your help according to modern science. The quasi-spiritual atmosphere afforded by forests and trees also impressed ancient peoples in many parts of the world, leading to worship and spiritual retreat in woods and groves. (Peter Sahota, 2019)

## Section 3. Product Design

I continued to find scientific support for the idea of bringing nature to the eldercare environment, to “retrieve the benefits of nature and green spaces for dementia” (Dr Ellen Hendriksen, 2018) and senior care. Natural surrounding spaces, green spaces, encourage seniors to uphold their daily regime, a structure, in their retirement. It gives them an opportunity to attempt various activities outside of their homes. The action of being in green spaces motivates the seniors to be active physically, spiritually and also socially which can offset chronic illness, physical and cognitive challenges and most importantly isolation. (Jessica Finlay, et al., 2015) Research also states that people living in green areas have a lower risk for several challenges such as depression, cardiovascular diseases and asthma. (School of Population and Public Health, 2018)

I was interested in exploring nature's insights because of what I had experienced throughout my life. My experiences of/with/in nature are ones I associate with a feeling of security: They are often small but never insignificant. The small portion of "wilderness" outside my apartment in India, trips to wildlife sanctuaries with my friends, walks I have taken along trails in forests around the city of Pune, climbing solo or with a company and sitting at the top of the small hill next to my recent home in India, have all left me secured by a feeling of belonging to the space I have been in.

#### Section 4. Artificially-Natural Making

The material practice has been an important aspect in the way designers carry out activities, prototyping. It is often linked to material culture in such a way that the cultural component is foregrounded and where the properties, causal chains, physics, resistances or even affordances (action possibilities) of the material are not in discursive focus. (Michael Filimowicz, unknown) The material practice is central in a designer's material practice as designers articulate meaning through the materials that embody a design.

# Appendix 2

## Section 5. Ikebana Case Study

The deeper I looked into the history and theory behind Ikebana, I began to understand that Ikebana is an art, a creative activity in which calculation serves sensitivity and inspiration.” Ikebana, the art of Japanese flower arranging, is a creative and symbolic form that uses plant materials to express awareness of nature and human life” (Moriyama & Moriyama, 1999; Allison M. Watters et al., 2012). Ikebana is a way of looking at and presenting the form of life itself, both human and blossom. Ikebana is not just an aesthetic and spiritual therapy, but it can also be seen as a reminder that we are all a part of nature. Keeping nature close to us even through our cemented walls is our natural instinct and need.

My objective behind researching into a collaborative practice of Ikebana for the seniors

My intent towards this research was to understand the connection two to three people in groups would share with these small pieces of nature that are built through the ikebana arrangements. I was aiming to understand the relationship a person forms between parts of natural elements that bring the essence of being outside (flowers, plants in this case) and also with others; whether it is long-lasting or as long as the flowers wither is another question.

The following section presents the two Ikebana activities as mentioned below

My ikebana design activities unfolded in three phases:

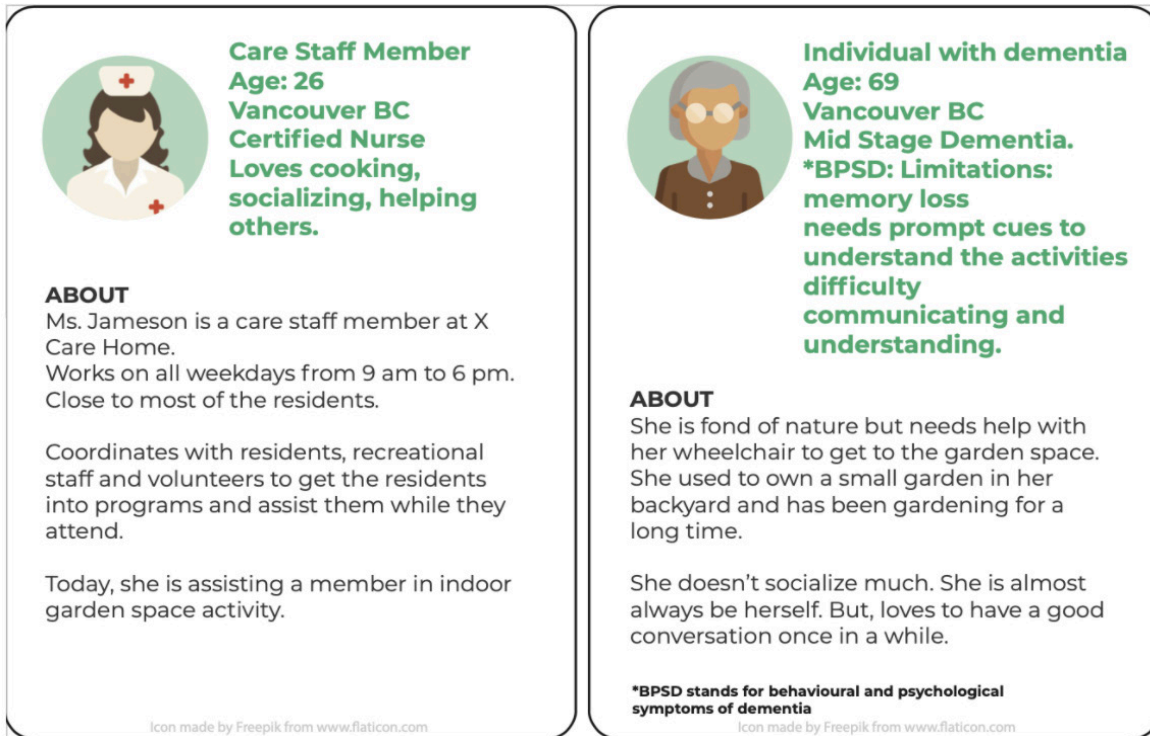
1. A collaborative prototype with the members of the Health Design Lab
2. Creating an Ikebana arrangement:

A moribana arrangement with my peer as a collaborative activity

### Ikebana Activity One:

Phase One: The first phase of the activity was arranged with members of the health design lab at Emily Carr University.

I began by presenting two personas to help my participants embody the perspective and experiences I was designing for.



(image set 12a: personas for (left)a care staff member; Image 12b: (right) senior living with dementia)

“The engaging perspective is rooted in the ability of stories to produce involvement and insight. Through an understanding of characters and stories, it is possible to create a vivid and realistic description of fictitious people. The purpose of the engaging perspective is to move from designers seeing the user as a stereotype with whom they are unable to identify and whose life they cannot envision, to designers actively involving themselves in the lives of the personas.”

- Lene Nielsen from NN group (Esser, P.)

In this phase, due to time constraints, I chose to use a pseudo-ceramic pot, with a twig found near the university and cuttings from a fake plant in my studio. My focus, during this phase, was not on the materials as much as the actions with assistance from the materials. At first, I introduced the activities and the concept of Ikebana with the time we would require for all the tasks. Then, I spread the materials in front of them and asked them to make an arrangement, using a hard sponge as a base and adding in the flora on top. The purpose of the activity, for me, was to observe how the actors (two personas) connect and engage in the making process without any personal relationship before the activity.



(image set H: personas for (left)a care staff member, (right) senior living with dementia)



(image 13: personas for (left)a care staff member, (right) senior living with dementia)



## Ikebana Activities Two & Three:

Later, I explored a collaborative moribana arrangement activity with a participant, a fellow designer. While engaging with the arrangement, I explained to Sheen what Ikebana is while sitting in the front yard outside her house. I talked to her through the connecting theory of Heaven, Earth and Man and how Ikebana is a visual representation of those three spirits. Then I explained to her the technique of Moribana and what the style stands for. However, she did prompt that she would want me, as a researcher, to provide an in-depth description of the philosophy about Ikebana and moribana.

Early in the morning, I engaged in making the Ikebana arrangement with available materials - flowers, the blue-mist plant, sponge, bowl and tape to stick the sponge to the bowl. The reason behind 'making' in the morning was to experience a serene, quiet surrounding and the freshness of the flowers, myself and the surroundings was a different experience altogether.

While I was making the arrangement individually, unexpectedly, I did not feel that I was alone. Be it the surrounding grass, the flowers in the arrangement, the wooden table, I felt a different gush of liveliness.

Getting the materials for the second activity ready, involved purchasing a sponge, two holding cups, One bowl/container and scissors, sponge (preferably taped to the container), Flowers, Plants, and yourself.

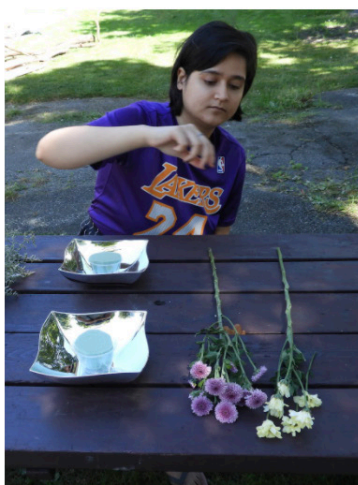


Image Set I: Ikebana Activity Two: Collaborative Moribana arrangement with fresh flowers.

I chose the open space to experience the previous serenity and calm atmosphere to observe how that affected our collaboration. However, during the making of the Ikebana activity, it did not occur to me that I would perhaps get a different outcome after changing the surrounding space into an indoor setting. One of the reasons probably being my interest in finding how the cool breeze and the shining sun could affect or change the activity. The ambience had quite a significant role to play as we walked around finding flowers to add into the already colour-driven arrangement.

So, can we use the same technique for the Ikebana Kit? Yes, Ikebana Kit!

Based on the insights and feedback from the first two phases, while thinking about how we could integrate Ikebana in the regular routine of the seniors in care homes, I could visualize a kit forming with bowls acting as trays of moss for activating the sensory receptors in the seniors which can be later converted into containers for the Ikebana arrangement.

'Nature: A Collaboration' came into action. Looking at it sort of like a bundle of social fun for seniors.

It got me thinking about the previous explorations of the soil bowl, touching and sensing the outdoors through these little elements, pieces of nature that would be set in front of the seniors in the care homes through the concept of Nature: A collaborative method.

Why not design and experiment on this idea of bringing the outdoors (of sorts) to the seniors through a kit of containers, a holding base and flowers, plants?

Then, thinking about the idea of collaboration while engaging in this activity, I thought about adding three containers for the seniors to work in pairs and remember their Ikebana partners the next time they come across. The contents of the packaging would be the kenzan, short containers made out of wood, with the hole in the middle of keeping the kenzan and/or the soil to place the materials for a moribana arrangement and water. The idea is to propose the kit as a six-week or yearly program for the seniors to engage with each other and make together to bring themselves closer to nature as well as their fellow seniors that comes with a how-to guide for their reference.



Image Set J: Digital Mock Up [Version One] of the how-to guide for Ikebana

Considering that the items can be bought from the closest dollar store, it seemed like a cheaper option for me as a researcher. However, if the idea was to proceed into care homes, depending on their accessibility and affordability, they could proceed to purchase the Ikebana apparatus directly. What makes the kit different from the conventional Ikebana arrangement is the factor of tactility that I introduced in the form of moss-filled container for the seniors to interact with. The moss patch would later turn into the kezen for the flowers that the seniors would place to form an arrangement of their preference. However, one of the reasons I chose to discontinue the concept of 'Ikebana Kit', was the physical and cognitive challenges of the seniors. Since I did not have the opportunity to substantiate the kit in an existing long-term care home, I could not understand the material and monetary shortcomings of this project. I was interested in Ikebana for the philosophy behind the arrangement more than the cultural implications. A significant aspect of Ikebana is the spiritual connections and the non-verbal collaborative methods.

# Appendix 3

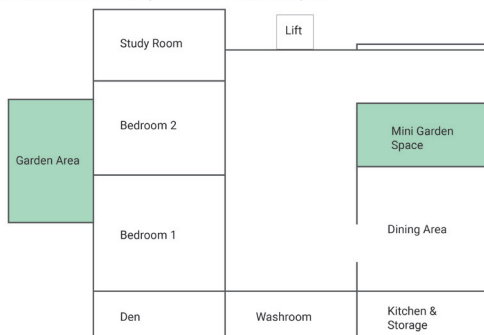
## The Layout-Mapping Activity (Open Studio)



Image set K: The layout-making exercise where I set up a section of my studio with a bed, a side table, in an attempt to create a care home's room-like structure. Then I asked people to fill out the two layouts based on their emotional and pragmatics connection

After my short introduction, I gave each person who visited my space two sheets (see fig. below). One of the sheets provided a layout of a two-bedroom apartment house out of my secondary study of apartments in Vancouver BC, the other showed a layout of the ground floor of a care home based on my observations of care homes in the same city. For sheet one, I asked each individual to mark the areas in the home layout where they felt an emotional connection and the areas that they had pragmatic connections to using a green and orange marker respectively. After completing the first sheet, I asked them to repeat the exercise of identifying emotional and pragmatic aspects of a lived space on the second sheet, which had the care home layout. This time, rather than drawing on personal memory and experience I asked them to imagine a hypothetical situation in the future where they might be living in a care home.

Considering this is your home, please mark the spaces that have an emotional connection with you and the ones that have a practical connection to the space.



Please visualize yourself in a care home and mark the emotional and practical connections in the following layout.

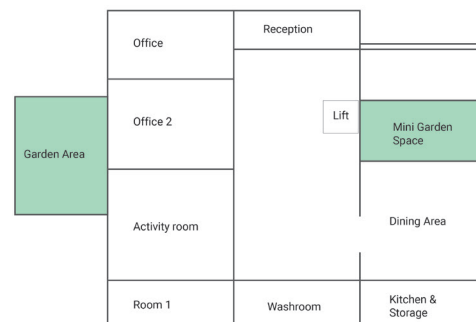


Image 14a: [left]: A general layout of the first floor of a care home; Image 14b [right] a layout of an general apartment plan

Later in the Fall, I had the opportunity to expand on my earlier exercise with my peers. At Emily Carr's Open Studio I presented a layout-marking workshop as a collaborative, open and person-directed exercise to passersby through my studio space.

While discussing how communities are formed and methods used to research how humans acknowledge and encourage the feeling of belonging to specific locations, place/spaces peers and studio faculty began reflecting on the possibility of mapping a space according to the emotional connections people form with it as a way to help establish what being comfortable in that space means. While some people instantly realized what the arrangement (the set up of a bed referring to a room in the care home in Vancouver) looked like, some were oblivious to it. I realized, people who were accustomed to the care homes due to prior contact and personal experience noticed and identified the setting immediately while others were asking for an introduction and means to better understand the context.

The responses I received about the care home layout exercise, showed that almost everyone indicated that garden spaces, in both the home and the care home layouts, were linked to emotional connection. One person referred to it as a 'porthole back into their own house when they are away.' It reminded the person about their home, space they had grown attached to and were familiar with.

It allowed me to realize how important it is to make connections to spaces in new situations seemed to be for people. Facing a new phase in life, where everything is new, we seemed to be drawn to comfort memories and these are often connected to the feeling we experience in a space. I was reminded of my own relation with Trout Lake, a place I often found myself going to as a way to find just that one connection that would take me back home; a porthole. I realized that the care homes themselves, the way they are built, decorated, sometimes fail to comfort a person or help them to find a connection to the place and their past. According to Yvonne Amerongen: "The dementia village [is] redefining elder care", she says, "Red curtains are as expensive as the grey ones." Dementia Village's concept was based on creating a comfortable environment for seniors. Be it through building interconnected lobbies leading to open spaces or be it through building different lifestyles. What mattered most was the comfort and connection of the seniors in the space.

What happens when we use similar ideologies in Vancouver's care home culture? What happens when we drop the grey curtains and use the red ones instead?

It was at this point that it dawned on me that when I was looking at nature, I was perhaps not solely looking at it as a means to an insight into the community from nature but rather as a way to find comfort built on past lived, sensory experiences in other communities. In other communities that comforted me!.

So how do we proceed in understanding which red curtains form the same kind of curtains in the care homes to tackle social isolation? What happens when the management and seniors sit together and discuss how to bring in the comfort in their care homes?



# Appendix 4

## Section 7; Follow the Green Prototype

One activity I facilitated in my MDes studio was designed to understand the participant's views about the community. I asked them to answer the following questions on a sheet for the first ten to fifteen minutes of the session. The latter part of the peer review went into discussing as a cohort what their views about community was and how the project was closely working towards fostering a multi-cultural community just like Emily Carr University's closely tied community with making people joining from all parts of the world, comfortable and welcomed.

"Ask your neighbour, Ms.XY, if you can borrow a bowl of sugar." said my mother once when there was a shortage of the same in our house. This exchange encourages a feeling of community into our life long before we even acknowledge it. Seniors living in care homes in India are often found meeting people of the same socio-cultural and economic backgrounds forming their mini-communities in the care home to encourage a dialogue that is a part of their cultivated habit. This is also largely attributed to the seniors sharing a common language.

While comparing the scenarios in Vancouver and De Hogeweyk, I found that De Hogeweyk is majorly populated with people who can speak dutch in the care home premises. Therefore, the language barrier was not a severe challenge. Whereas, in Vancouver, the city's cultural variations are quite large. The seniors come from different ethnicities such as - Chinese, English, Canadians, Punjabis. That creates some communications problems and hence, socio-cultural challenges.

What community? How do I define community? In what context was I referring to community-building?

This really helped me understand the idea of community was very comprehensive and I couldn't narrow it down just yet. However, I knew the main aspects that I needed to consider like the stakeholders concerning the care home, the premises and the observations from De Hogeweyk as well the care homes in Vancouver.

I began to include service design activities along with the object-focused activities of making planters, soil bowls, and ikebana arrangements. The Follow the Green campaign was one such effort:

How do we foster community engagement amongst seniors while using open spaces as a platform inside care homes in Vancouver?

How do we take the learnings from the details of De Hogeweyk's visit and try to design a better care environment for the seniors in long term care homes in Vancouver?

Result: The campaign, "Follow the green."





Image set L: [clockwise] Follow the green activity with two peers to understand the limitation of both sides, the senior and the care staff member, during an action of assistance for going outside to the garden space.

The campaign was a platform to make iterative prototypes that were created with an emphasis on the word 'Green.' Following the greenery, the sense of freshness, the feeling of being outside, would work on a campaign through posters, and arrangements that were later user-tested.

The first activity was a task given to two of my peers. The participants were given personas where one was a senior with physical limitations and the second was the care-staff member. The idea was to embody the limitations that seniors and care staff members might face in their routine. For the purpose of drawing a clear picture of the scenarios, I asked the peer, who was acting as a proxy for a senior, to be tied from her torso to restrict the flow of her actions. Then I handed over a script to the care-staff member role player, and tasked her to wheel the senior from their room (studio space) to the garden on the top floor.

**Post-activity feedback from my peers:**

- "I feel awkward in this academic setting to sit on this chair."
- "I need to feel trusting towards the person helping me. I need to know them."
- "I like being in control; I wouldn't mind some responsibilities."
- "I was really frustrated that the door to the garden wasn't opening."  
- (Senior Proxy)
- "I was just doing my job."
- "I would like to have her go out and enjoy it but it is also my job."
- "I still tried to pacify the senior with impromptu alternatives after the door didn't open."
- "Care members have to sustain their jobs."
- "I cannot afford complaints as a care staff member on part-time."  
- (Care-Staff Member Proxy)

(Image 16: Notes and feedback for the 'Follow the Green' activity)

This helped me understand one important factor that I was not following from the derived pain points - The shortage of Care Staff Members. Also, factors such as miscommunication between care staff members, seniors and the administration team of the care homes needed to be considered as a result of the activity with my peers. In this case, hypothetically, the message about the inaccessible garden door was lost in the hierarchical system of the care home. The care-staff member was not aware of the change in access points. In the end, a care home is an organization that consists of numerous actors that work together towards the success of their service. If anywhere the messages are lost in the journey from management to board to the seniors or the volunteers, there will be a hindrance in the system, and further service design activities such as journey mapping and service blueprints would consider multiple stakeholders in the eldercare experience.

# Appendix 5

## Section 8; Outdoor Walking Activities Two (around Trout Lake) and Three (around the block)

While brainstorming about the outcome of this approach, my friend asked me to expand the walking time to fifteen minutes and suggested that the volunteering peers I invited to take this walk might do better with being allowed to move around the lake freely, at their leisure, in their own way. All the while collecting samples that connected them to their past experiences caught their attention. Later they could analyze why they'd pick those samples based on the sensory reception and brewing any anecdotes related to the objects (leaves, moss, plants, flowers, water) and talking about these memories and the senses that are highlighted during the sample gathering.

I learned the prompts I provided to my peers during my prototyping activities were vague and they did not convey a lot of information or direct cues to people about how they should participate or engage. The ambiguous aspect of my interventions helped me to see different avenues used by my participating peers. While this vagueness was useful, it also conflicted with the idea of giving them a general idea behind the project.


### Script for the 'Walk in the Wilderness' Activity (Iteration Two: Around the Lake)

Hello,  
My name is Srushti Kulkarni; I am a Master of Design student at ECU, and I am working on a research project that, for the sake of this activity, is focusing on understanding the role of open spaces for an individual in unfamiliar surroundings. I would like to thank you for taking the time out for this activity.  
This session would take forty-five minutes to one hour. Please feel free to stop me if you are uncomfortable at any point in the activity.  
During this part of the activity, I would like you to study the persona of Mrs D, a senior living in the care home in Vancouver at a distance of two kilometres from this lake. The details of the persona are as follows (\*hands persona over\*). If there are any questions regarding the same, please feel free to ask me.  
For the first half of the activity, I'd like you to walk around the lake and collect examples that help you relate/connect to this space. The items could be anything from a small twig to a large snake (if you are comfortable with that). It is a free range for items; anything that encourages your connection with this open space. The duration of this activity is fifteen minutes and you are free to walk around the grounds around the lake. As your care-staff member, I will be accompanying you around during your walk. (after fifteen minutes)  
Now, I'd like to see what you've collected.  
Tell me about your experience.  
How do you feel? What thoughts crossed your mind?  
What was walking around this open space like?  
What kind of feelings do you associate with the items that you have collected and why?  
I'd like to know more about what you felt, touched, smelt these items. Can you mark them according to the given chart? (image below)  
Let's get into the final activity now.  
I'd like you to picture this:  
You are sitting in your room in the care home. It's a bright sunny day after a week of showers and you suddenly have an urge to go outside and enjoy the sun. Now, considering you are in a care home and in need of assistance, you require a care staff member to accompany you to the park. However, your care staff members and even the recreational staff members are currently short-staffed and it may be tough for them to take you to the park at the moment.  
Prompts:  
What would you do in this case?  
Would the items that you have collected play a role?  
How have the collected items helped you connect to this surrounding?  
Can we think about alternatives that can help you experience the same feeling in a different setting (perhaps an indoor setting)?  
This marks the end of our activity together.  
Thank you for your time!

Image 17: The second version of the script for activity: 'Walk Around the Lake'

## Making of the persona:

While discussing with my Supervisor, Eugenia, an extensive persona for proxy research was an important step. So I started researching on how to build a comprehensive persona for the participants to understand and incorporate it. According to an online article 'Personas Make Users Memorable for Product Team Members – "A persona doesn't need to document every aspect of the imaginary individual's life, but rather should focus on those characteristics that impact what is being designed."' (Aurora Harley, 2015) So, in order to bring to life the experiential role play for my participants, I created two story-telling personas - one of a senior living in the care homes and one of a care staff member to assist the senior. I added details about their background, their medical challenges, their interests, and some of their activities.



**Name:** Auntie Zee  
**Age:** 72  
**Occupation:** Former Legal Advisor at CIBC, Downtown Vancouver BC  
**Job Status:** Retired  
**Education:** Masters in Legal Affairs  
**Location:** Long-Term Care Home XYZ in East Vancouver, BC  
**Challenges:** Cardiac Arrest Survivor; Limited physical strength


Originally from India, Auntie Zee has lived in Vancouver for almost fifty years of her life. She was working as a legal advisor for few conglomerates in Vancouver and Toronto. She was never a fan of travelling. She loved her job at BBank that let her stay her family in Vancouver. She has been a very active person until recently. She loves quiet outings with her friends and partner. She enjoys going for wine tasting event and is said to be a food fanatic!

She had to move into the long-term care home after undergoing surgery after suffering from cardiac arrest. Her kins no longer reside in Vancouver which makes it a risk for her to live independently. Moving into the care home was the right choice for her.

She loves enjoying her breakfast with her set of meal mates, she absolutely enjoys playin bingo and meeting new people listening to the radio.

On weekdays, Zee enjoys her hour long yoga session with floormates. She engages in music and art therapy to keep herself busy. She engages in gardening as it is a meditative experience for her.

- Loves being outside but not an outdoorsy person; She would rather sit with her coffee in the patio-garden  
- Loves talking with different people; But has reduced her social activities since she moved into the care home.  
- Due to some limitations on physical health after the surgery, reduced short outside travels; If need be, needs assistance from care staff members



**Name:** Jane D  
**Age:** 25  
**Occupation:** Care Staff Member at XYZ Long-Term Care Home; Care Staff Member to Floor D; Three seniors are in requirement of JD's assistance.  
**Job Status:** Part-Time  
**Education:** Pursing Master's in Occupational Health Nursing at UBC.  
**Location:** East Vancouver, BC  
**Challenges:** Mildy anorexic

Jane is original from Victoria BC, now pursing her masters at UBC in Nursing. From a young age, Jane has had her share of taking care of her grandparents in their autumn of life. Jane has always been fond of helping people around her and especially the seniors in their feeble years. She pursued nursing for this reason and is happily employed as a part-time care member at the XYZ long-term care home where she loves to indulge in conversations with seniors in their rooms, around her allocated floor and otherwise in the hallways or sometimes outside the premises. She is lalways excited to help the seniors feel more independent and purposeful while enjoying life at their best!

Jane loves helping seniors with breakfast, playing bingo, helping with daily taks, and talking with them for hours and hours!

Jane's weekend plans involve catching up with her friends, going for concerts, and completing assignments

On weekdays, Jane loves yoga for all five days, she shops for groceries one in two weeks, and loves reading books. She'll always have one in her bag.

(Image 18a: Persona of the senior living in a long-term care home in Vancouver;  
Image 18b: Persona of the care staff member in the same long-term care home)

## Outdoor Walking Activity: Around Trout Lake

Research question focused on the research pertaining to the activity:

How might a walk in the wilderness encourage seniors to reminisce?

The purpose of this activity is to understand, by reiterating, the role of open spaces for an individual and the urge to connect with nature to build a sense of familiarity and comfort to sustain while living in unfamiliar surroundings.



Following up on the second version of the script for the activities, I decided to proceed with setting-up the activity in two different spaces:

- 1) Walk around the Lake at Trout Lake as an elaborate recap and more to the first trout lake activity
- 2) Walk around the block (consider the participant's house as the care home premises)

Hi,  
My name is Srushti Kulkarni; I am a Master of Design student at ECU. Firstly, thank you for agreeing to participate in this research activity today and please note if at any given point you feel uncomfortable leading to the need to stop, you may let me know.

Currently, I am working on a research project that, for the sake of this activity, is focusing on how a walk in an open space can help seniors' mental health and social connections.



### An overview of Today's Activity

I'm going to take you through a design research activity where I will ask you to **role-play a provided persona while completing a few actions**, and I will be asking you questions along the way. Please keep in mind that I will **not be testing you but the design actions**- so all answers are appreciated and recognised.

The activity will take **45 minutes - one hour**. The activities are designed in **three phases** which will be revealed in time.

To get your perspective while performing the actions, I'd like you to **speak out loud as much as possible** whenever asked to do so - **say what you can see, feel, touch, think at that moment**.

Please also feel free to ask questions if you have any during the activity or after. However, I may not be able to answer the questions at that moment as I'd like to see how you might react to certain things without prompts from my end.

(Image Set M: An introduction and general description of the design research activity for the participants with an overview of the activities.)

Like the first version, ‘walk in the wilderness’ the participant, my peer Sheen and I walked from the nearest long term care home to Trout Lake. Although the walk from that exact point was not planned purposely, the intent was to understand the close proximity of the lake to it and the surrounding neighbourhood. Once we entered Trout lake, we instantly found ourselves walking towards the bench where we conducted the previous exercise. It was quite organic that we found ourselves sitting in the same area, on the same bench space. After settling down, I handed the first two scripts to my peer and asked if she had any questions about the same. Once we were clear about the idea of the activity and the persona, the first phase commenced.

## Phase One at Trout Lake

### Phase One:

I'd like you to embody the persona of Aunty Zee for the duration of this activity

**Action 1:**  
Time Duration: 10 minutes

Sit on the bench alongside the lake while embodying the persona on the left.

I want you to observe your surrounding; for example the people, the trees, the wind, the birds, the sky, the water and so on.

I'd like you to be speak out loud about your thoughts while in the activity.

Remember, you are now 'Aunty Zee'



Name: Aunty Zee

Age: 72

Occupation: Former Legal Advisor at CIBC, Downtown Vancouver BC

Job Status: Retired

Education: Masters in Legal Affairs

Location: Long-Term Care Home XYZ in East Vancouver, BC

Challenges: Cardiac Arrest Survivor; Limited physical strength

Originally from India, Aunty Zee has lived in Vancouver for almost fifty years of her life. She was working as a legal advisor for few conglomerates in Vancouver and Toronto. She was never a fan of travelling. She loved her job at BBank that let her stay her family in Vancouver. She has been a very active person until recently. She loves quiet outings with her friends and partner. She enjoys going for wine tasting event and is said to be a food fanatic! She had to move into the long-term care home after undergoing surgery after suffering from cardiac arrest. Her kins no longer reside in Vancouver which makes it a risk for her to live independently. Moving into the care home was the right choice for her.



On weekdays, Zee enjoys her hour long yoga session with floormates. She engages in music and art therapy to keep herself busy. She engages in gardening as it is a meditative experience for her.

- Loves being outside but not an outdoorsy person. She would rather sit with her coffee in the patio garden.
- Loves talking with different people; But has reduced her social activities since she moved into the care home.
- Due to some limitations on physical health after the surgery, reduced short outside travels; if need be, needs assistance from care staff members

How are your senses (sensory receptors) affecting where you are?

How is it encouraging you to reminisce?

### First Action's Prompts:

Tell me about your feelings Aunty Zee.  
How does this experience make you feel?  
What are you thinking about?  
Does the surrounding remind you of something/someone? I remember coming to the lake with my brother when we were kids. It was our special place.  
What about you?  
What would you like to share with me about this experience?

(Image 19a: The script to phase one of the activity with Aunty Zee's persona to remember the proxy. Image 19b: The first ten minutes of the entire session.)





(Image set N: (Left) while reading the persona of aunty Zee. (Right) Peer reading the script for the first activity.)

#### Notes, Reflections, Peer's POV from Phase One:

The dogs have gone back, they went away; They are no more playing.  
 I can see the ducks in the lake  
 This kind of music really feels...like it fills the age in a strange groovy vibe.  
 I like that we're getting shade from all the trees. It's comforting on a sunny day. I love the sun. I don't enjoy travelling very much so for me the ideal situation would be sitting and looking at the outside world. My wife really enjoys travelling. She loves going to the Caribbean islands. I would watch her from the pier and I have a picture of hers in my head.  
 Q. Does this surrounding take you back to that moment? What makes you remember that incident in particular? (Srushti)  
 "Just being outside here and looking at the water. It reminds me of my trips. We had three dogs together. Looking at the dogs makes me very nostalgic. One is still with my granddaughter."

Q. What are your feelings at this moment, while sitting on this bench along the lake?  
 "A deep sense of comfort I would say. It's nice to see that there are so many people around and everybody is having a good time with their family, friends alike. It's nice to see people doing what they do.  
 (What do you mean by comfort?) "I think this is a space open to everybody and anybody. It's a space and they can inhabit it, not illegally, but they can be themselves. And, of course, the trees. There is something about these trees, they are sheltering us I feel."

This space gives me the space to contemplate, to this and be here having a conversation with others. Looking at people, I enjoy people-watching. I have come to this park when it is barely quiet and that gives one a different space of contemplation and chain of thoughts.  
 Back in India, we did not have parks this large. When we were in our teens, we would go downstairs to a small park in the area where I lived. My mother would meet her friends and they would either sit and talk or go out for walks often. But here, it's different. She missed that when we moved to Vancouver It's very expansive, large. I like that we have the space for people to encourage regular recreational activities which are engraved in their culture.

(Image 20: Notes and feedback of the activity with one of my peer at Trout Lake for the iterated activity: Walk around the Lake)

## Phase Two:

Please continue to embody the persona of Aunty Zee for this activity

### Action 2:

Time Duration: 15 minutes

I'd like you to walk around the lake and collect items that help you relate/connect to this space.

The items could be anything from a small twig to a large snake (if you are comfortable with snakes). It is a free range for items; anything that encourages your connection with this open space.

I'd like you to speak out loud about the relation to the collected items, why you picked them and what you feel while feeling them physically.

Remember, you are now 'Aunty Zee'



Name: Aunty Zee

Age: 72

Occupation:  
Former Legal Advisor at CIBC,  
Downtown Vancouver BC

Job Status: Retired

Education: Masters in Legal  
Affairs

Location: Long-Term Care  
Home XYZ in East Vancouver,  
BC

Challenges: Cardiac Arrest  
Survivor; Limited physical  
strength

Originally from India, Aunty Zee has lived in Vancouver for almost fifty years of her life. She was working as a legal advisor for few conglomerates in Vancouver and Toronto. She was never a fan of travelling. She loved her job at BBank that let her stay her family in Vancouver.

She has been a very active person until recently. She loves quiet outings with her friends and partner. She enjoys going for wine tasting event and is said to be a food fanatic!

She had to move into the long-term care home after undergoing surgery after suffering from cardiac arrest. Her kins no longer reside in Vancouver which makes it a risk for her to live independently. Moving into the care home was the right choice for her.

Zee loves enjoying her breakfast with her set of meal mates, she absolutely enjoys playing bingo and meeting new people listening to the radio.



On weekdays, Zee enjoys her hour long yoga session with roommates. She engages in music and art therapy to keep herself busy. She engages in gardening as it is a meditative experience for her.



- Loves being outside but not an outdoorsy person; She would rather sit with her coffee in the patio-garden  
- Loves talking with different people; But has reduced her social activities since she moved into the care home.  
- Due to some limitations on physical health after the surgery, reduced short outside travels; if need be, needs assistance from care staff members

(Image 21: The script to phase two of the activity with Aunty Zee's persona to remember the proxy alongside the lake. Taking a walk in the park while collecting items that are interesting/associative to the seniors was the main purpose of the activity.)

### Notes, Reflections, Sheen's POV:

I as a facilitator was embodying the persona as a care staff member to assist Aunty Zee (Peer) on the walk.

Me: So Aunty Zee, how has your day been?

Zee: It's been good. I like it around here but I have become very slow.

Aunty Zee saw a stick on the floor that she wished to pick up. So Jane, the care staff member, helped her pick the stick up. "Thank you child."

After touching the stick in her hand, Aunty Zee was unsure if she liked the stick at all. "It's a pretty ordinary stick." She said. But a minute later, after contemplating, she said, "No actually, I like that it had these rough edges like somebody broke it." When I asked what it was about the rough edges that interested her, she said, "I would break twigs myself in my young days. It was something we, as teenagers, would do in our pass-time."

When we walked a bit ahead, she said, "I can feel the wind on my face. It feels pleasant." Then while walking she asked me (Jane, the care staff member) if I have a habit of plucking grass while I sit down. "I remember I did that in all our hikes and camping trips and my mother would get very upset that I was causing harm to the land" I replied (Jane).

"I would usually sit on the chair but now my knees are not strong enough. Now I am used to sitting in the chair. Can you help me pick up that leaf?" Said Aunty Zee. "Very leafy!" She exclaimed. She loved crunching the leaf. It's quite satisfying according to her. Later, we came across a bird feather which she asked me to pick up for her. "I love bird feathers. They come from a living species just like the twigs and the leaves. But there is something different about this." And we continued our walk. After a few steps, Aunty Zee spotted a pebble which she attempted to bend down and fetch all by herself. "This pebble might be good for skipping but I am not good at it now because of my age. I don't think I can do that anymore." Then she asked me my name again, trying to recollect and we continued our walk. Later, we found a 'fairly large stick' according to Aunty Zee which she wanted to pick up. We also saw something looking like mushroom-like structures on the trees that fascinated us.

Q. Is there a reason that you collected some items?

"Out of all the items that I have collected, I feel that I can only relate to the rock. The pebble, I mean, reminds me of the shores, picking up shells. I don't think I want to keep other mementos though. I think I'll give them back to the park. The pebbles remind me of a lot of good moments."

Closely after selecting the item she would take back, Aunty Zee placed the items in front of a painted white tree which looked quite different from the others in the park. It felt ritualistic to her that she subconsciously selected that tree to give away the collected items.

(Image 22: Notes and feedback of the activity 'Let's talk by the lake' with one of my peer at Trout Lake)





(Image set O: Phase two of the activity: The peer while embodying the role of Aunty Zee, giving back most of the collected items back to the park; ritualistic, white-surrender; give back)

### Phase Three:

Please continue to embody the persona of Aunty Zee for this activity.

#### Action 3:

Time Duration: 15 minutes

In this activity, I'd like you to take time and connect with the surroundings through your senses.

#### Action 3.1:

Now, I'd like you to list down:

5 things you see

4 things you hear

3 things you smell

two things you touch

one thing you smell

#### Action 3.2:

Please note down the things that you observe/feel/touch/smell/taste(optional) and answer the questions in the chart.

Remember, you are still 'Aunty Zee'

(Image 23: The script to phase three of the activity with Aunty Zee's persona to remember the proxy wherein my peer noted the observations associated with the five classic senses.)

In the third phase of the activity, I asked Aunty Zee (my peer) to note the things she could identify and associate with her five classic senses - sight, hearing, smell, touch and taste in a chronological-descending order. We were seated on the same bench as for the first activity. It seemed like a quiet place and also a center point to look over the park and the lake's circumference. It was also the same location where I would sit to observe the surroundings and also where I conducted the initial activity (the first version). The idea behind asking my peer to jot down these associations was to understand how these observations help them connect with the space they're in and what I, as a designer, can do to encourage these observations. I noticed that while observing the space, my peer was attentive but equally relaxed compared to the moment she walked to Trout Lake.

According to Aunty Zee's observations:

In sights she wrote about the dogs and ducks swimming in the lake, a couple taking photos with their dog, the surrounding trees, the ducks flapping their wings in the water, people sharing drinks.

In hearing she talked about the groovy-jazzy tunes, people chatting, dogs running around, and rustling leaves.

She could smell a faint fishy smell of the lake, and dirt from when she touched the collected items.

In touch she mentioned the feel of the pebble's roundness, it's smooth surface, instantly bringing up memories from her past and the grains of sand on the bench we were sitting on. She couldn't identify any particular taste from the surrounding space. Although she did contemplate about tasting the pebble but decided against it.



(Image set P: My peer noting the senses that she could identify while the third phase of the activity while speaking them out loud)

The second round of the activity: Walk around the Block

Phase One around the block:

### Phase One:

I'd like you to embody the persona of  
Aunty Zee for the duration of this activity

**Action 1:**  
Time Duration: 10 minutes

Sit on the bench alongside the  
road outside the care home XYZ.

I want you to observe your  
surrounding; for example the  
people, the trees, the wind, the  
birds, the sky, and so on.

I'd like you to speak out loud about  
your thoughts while in the activity.

Remember, you are now 'Aunty  
Zee'



Name: Aunty Zee

Age: 72

Occupation:  
Former Legal Advisor at CIBC,  
Downtown Vancouver BC

Job Status: Retired

Education: Masters in Legal  
Affairs

Location: Long-Term Care  
Home XYZ in East Vancouver,  
BC

Challenges: Cardiac Arrest  
Survivor; Limited physical  
strength

Originally from India, Aunty Zee has lived in Vancouver for almost fifty years of her life. She was working as a legal advisor for few conglomerates in Vancouver and Toronto. She was never a fan of travelling. She loved her job at BBank that let her stay her family in Vancouver. She has been a very active person until recently. She loves quiet outings with her friends and partner. She enjoys going for wine tasting event and is said to be a food fanatic! She had to move into the long-term care home after undergoing surgery after suffering from cardiac arrest. Her kins no longer reside in Vancouver which makes it a risk for her to live independently. Moving into the care home was the right choice for her.

Zee loves enjoying her breakfast with her set of meal mates, she absolutely enjoys playin bingo and meeting new people listening to the radio.



On weekdays, Zee enjoys her hour long yoga session with roommates. She engages in music and art therapy to keep herself busy. She engages in gardening as it is a meditative experience for her.



- Loves being outside but not an outdoorsy person; She would rather sit with her coffee in the patio garden  
- Loves talking with different people; But has reduced her social activities since she moved into the care home.  
- Due to some limitations on physical health after the surgery, reduced short outside travels; if need be, needs assistance from care staff members

*How are your senses (sensory receptors) affecting where you are?*

*How is it encouraging you to reminisce?*

(Image 24: The script to phase one of the activity with Aunty Zee's persona to remember the proxy within a different setting. This activity was arranged around the block of my peer's house to notice reactions about activity after living in the neighbourhood.)

### Notes, Reflection and Peer's POV from 'Around the Block Activity':

"Usually when I sit outside, it's to get out of my head. There is so much more outside of me and that calms me in a way. I don't have to palace myself when I'm outside and see how it's moving. I can focus on the bigger and smaller things moving around that indicate the cycle of life to me in a way.

Things like the colour of the sky or the angle of the light depending on the time of day are small things that I look forward to. But, I have always found the outside to be magical. The world is full of beautiful things and people and instances. I try to always make those instances count when I'm outside. It is a feeling that I cannot put in words but those instances end up being associated with these peculiar feelings.

Being outside is reassuring that I am here now, the next moment I might not be. That's the feeling I get when I am outside.

What I look for in this experience is not to feel. Being outside is very meditative to me. Listening to the rustling leaves, looking at the cars driving by, feeling the breeze, this is what I focus on when I am outside and try not to think about anything. It is what it is...It helps me stop trying to control anything-a moment of humbleness which leads me to actively stop worrying. There are prettier places to be but we don't always have the privilege to experience, to go there physically.

These small things like the sky, the small surrounding houses, the roadside bushes, I take what I like of it and try to make the best of the place. It's not my favorite place (referring to the care home) but I try to make the most of it through these instances.

Q.Does the surrounding remind you of something from your past?

Not the space itself but when I look at it, there are associated instances. So I got back through these instances that are attached to feelings, memories of wholeness, family. It allows my mind to be open to bring back the memories when I sit in an open space.

(Image 25: Notes and feedback from the second phase of the activity 'Around the block' with one of my peers around the premises of her house.)





(Image 26a: [left] Introductory session; Image 26b: [right] My peer observing the surroundings during the first activity)

## Phase Two:

Please continue to embody the persona of Aunty Zee for this activity

**Action 2:**  
Time Duration: 15 minutes

I'd like you to walk around the block and collect items that help you relate/connect to this space.

The items could be anything from a small twig to a large snake (if you are comfortable with snakes). It is a free range for items; anything that encourages your connection with this open space.

I'd like you to speak out loud about the relation to the collected items, why you picked them and what you feel while feeling them physically.

Remember, you are still 'Aunty Zee'



Name: Aunty Zee

Age: 72

Occupation: Former Legal Advisor at CIBC, Downtown Vancouver BC

Job Status: Retired

Education: Masters in Legal Affairs

Location: Long-Term Care Home XYZ In East Vancouver, BC

Challenges: Cardiac Arrest Survivor; Limited physical strength

Originally from India, Aunty Zee has lived in Vancouver for almost fifty years of her life. She was working as a legal advisor for few conglomerates in Vancouver and Toronto. She was never a fan of travelling. She loved her job at BBank that let her stay her family in Vancouver. She has been a very active person until recently. She loves quiet outings with her friends and partner. She enjoys going for wine tasting event and is said to be a food fanatic! She had to move into the long-term care home after undergoing surgery after suffering from cardiac arrest. Her kins no longer reside in Vancouver which makes it a risk for her to live independently. Moving into the care home was the right choice for her.

Zee loves enjoying her breakfast with her set of meal mates, she absolutely enjoys playin bingo and meeting new people listening to the radio.



On weekdays, Zee enjoys her hour long yoga session with floormates. She engages in music and art therapy to keep herself busy. She engages in gardening as it is a meditative experience for her.



- Loves being outside but not an outdoorsy person; She would rather sit with her coffee in the patio-garden
- Loves talking with different people; But has reduced her social activities since she moved into the care home.
- Due to some limitations on physical health after the surgery, reduced short outside travels; if need be, needs assistance from care staff members

(Image 27: The script to phase two of the activity with Aunty Zee's persona to remember the proxy around the block. Taking a walk in the block while collecting items that are interesting/associative to the seniors was the main purpose of the activity.)



In the second phase of the activity, I introduced myself as the care staff member's persona to Aunty Zee (my peer) and asked her if she'd like to go for a walk around the block. We started our walk from the bench where she had been sitting and extended it in any direction she wanted to explore. "Good weather today!" Aunty Zee mentioned but she pointed out that she loves the cold weather even when she and her relatives have a condition where their hands and feet get swollen due to lower temperatures. To me personally, now in 60 years, I like to see the house. (what is interesting to you in houses?) I like how defined they always are. They look like they are doll-houses. I have them in a high standard that I imagine myself living the life of a doll in a doll house, that sort of life, pampered and pretty. When asked about her feelings on her current living space, "It keeps growing on me." She said. At this point in the conversation, she continued the conversation as my peer and not Aunty Zee. The conversation led towards their personal idea of houses and the current house and the neighbourhood.

We talked about the weather but I was unsure if I was talking to Aunty Zee or my peer. However, when we started talking about the beauty of fall, I asked what she in particular likes or remembers about fall having lived such a long life. "Halloween!" she exclaimed. Continuing our conversation, I asked if she enjoys coming out of your room and the care home to walk. She replied that she doesn't do it regularly. Sometimes she wants to come out, sit around or walk but sometimes she wants to be inside and lay down, in the warmth of her room. It's a spur of the moment because if she does it every day at a particular time, then it becomes a chore which she would not be happy engaging in. Then I attempted to subtly hint or prompt her to pick something up from the area that we were walking in. However, she seemed reluctant to the idea of picking something up as she couldn't connect with anything except for flowers; there were none on the pavement and she wasn't comfortable like plucking them from someone's garden or otherwise. When I asked her what was so intriguing about flowers to her. She said, "They're aesthetics, beautiful. They remind me that I have been outside and that I would want to go again. I would love to bring a part of it with me and keep it in the room for as long as I can. It then becomes a reminder when the petals wilt that I should go out."

Then suddenly, she stopped and spotted a rosemary shrub. She instantly plucked a small piece and smelt it. She organically put it in her pocket. Later she revealed that she would always have a piece of rosemary herb in her pocket. Sometimes she would even forget and be surprised to find it there. She stated there was something about the smell that reminds me of her mother who kept a small shrub of rosemary in the house for the smell and the taste of her aunt's cooking recipes topped with rosemary that she (Aunty Zee) would bring from her house.

Then, while continuing our walk, she remarked that this neighbourhood is very homely and calm with small convenience stores close by. To which I asked if it is hard to acknowledge that living in a care home she might not be able to go out anymore to get milk for example. "It's just a habit of the past. Sometimes it is frustrating. People, my kids patronize me, tell me that you cannot go out, you need assistance. But my body and mind works and I trust myself in getting milk. You become a kid to them. It's just surprising how at one point in your life you are successful, with a lot of responsibilities, achieving your goals and you feel you've made it but then a day comes when it's taken away from you.



(Image 28: my peer as Aunty Zee during the 'walk around the block activity, plucking rosemary.)

### Phase Three:

Please continue to embody the persona of Aunty Zee for this activity.

#### Action 3:

Time Duration: 15 minutes

In this activity, I'd like you to take time and connect with the surroundings through your senses.

#### Action 3.1:

Now, I'd like you to list down:

5 things you see

4 things you hear

3 things you smell

two things you touch

one thing you smell

#### Action 3.2:

Please note down the things that you observe/feel/touch/smell/taste(optional) and answer the questions in the chart.

Remember, you are still 'Aunty Zee'

(Image 29: The script to phase three of the activity with Aunty Zee's persona to remember the proxy wherein my peer noted the observations associated with the five classic senses.)



(Image 30: my peer as Auntie Zee smelling the rosemary that she picked during the previous activity)

**Notes of Phase Three in 'Around the Block' activity:**

After coming back from our walk, we resumed our position on the bench outside the house. Then, I handed out the final activity about noticing and identifying the five classic senses to my peer while she continued to assume the persona of Auntie Zee.

The five things she could see around were the clear sky, the sun in its golden hour, the birds flying back, shadows around the block, and the bus.

The first things she could hear was a helicopter, followed by the neighbours, the cars on the road and also the crows cawing. She remarked that there is something spooky about the cawing and her being interested in 'witchy' things since young age, it's quite fascinating to her even from the window of her room or her former house.

She also talked about the strong smell of rosemary that had now adhered to her palms. She could smell the crisp in the air but there was no tangible way to describe it. She also associated the sense of touch to the feeling of rosemary buds in her hands. She drew connections to her interest in witchcraft and how the rosemary's feeling in her hand and the strong smell. "It shows itself to you."- my peer as Auntie Zee.

(Image 31: Notes and feedback from the third phase of the activity 'Around the block' with one of my peer around the premises of her house)

**Discussion about the Activities with the first participant:**

After the completion of the activities, we sat down for a feedback-discussion about her (Sheen's) experience during all three phases of her activities. While addressing the persona and script, she felt the persona needed a character sketch or a personality description for her to better understand the role.



We discussed adding physical and emotional traits or stories to add a more specific understanding of Aunty Zee. However, she also mentioned that the pointers in the persona were quite helpful and an open-ended area of creating her own story of Aunty Zee was interesting to work around. It helped her immerse herself into the role of a senior living in a care home without any prior awareness of life in care homes. I could notice that she was imagining and exploring the persona's life-story, past memories, family specifics which were part of the conversations between us.

Connected with her experience about the personas, she thought about working on a similar activity for seniors living in care homes who are given a proxy of younger people, encouraging them to reminisce their youth through the same set of activities. She also suggested that instead of saying, "I have a question for you", I could try to channel the questions into a conversational approach. Comparing the activity to the first version which she had experienced, she was less confused and dedicated to performing the proxy given to her without any reminders that she is role-playing and she also thought the new script helped her understand the purpose of the workshop and also encouraged her to answer freely without doubts.

#### Outdoor Walking Activity: Walk around the block

After the first activity with one of my peer, I met the head of recreational therapy at Three Links mirror and while discussing challenges related to going outdoor, The recreational therapist said, "the fall to winter season is tough since the seniors living at the care homes cannot afford to be outside for a long time due to their deteriorating health." That got me thinking about an opportunity to conduct this activity around the block, just outside the premises. Hence, my supervisor suggested that I try the activity within a different space.

During the activity a few significant moments were as follows:

The peer needed was thinking about surroundings not based on the incidences but correlating it to a feeling associated with an incident.

The senior did not feel like collecting anything while walking around the block but instantly plucked some rosemary when she spotted the herb.

According to the proxy senior (my peer), she has a lot of memories with Rosemary and the women in her family.

The proxy senior also talked about how she would have collected flowers but doesn't want to pluck them. She mentioned that flowers are a reminder when the wilting petals reveal the time to head back outside for her tying back to the idea of Ikebana.

Discussions about the Activity with my second participant:

According to my peer, the persona was thorough and she liked that as a facilitator, I gave them space to draw from their own memory of their grandparents, aunts.

“I read that it was an Indian senior’s persona, I have no idea how that person could be. But I thought about my grandma and I understood where I could situate this.

She also suggested, like the other peer in the previous activity, that a more conversation-based approach could help bring multiple segments of stories in this activity. Propose the idea as ‘I would like to spend an afternoon with you,’ which would become a conversational and engaging story-telling; it’s more than just a design approach but narrative.

Natural spaces, outdoor spaces were the key takeaways from this activity. However, due to the senior’s physical limitations and to consider striving for lower reliance on the staff and equipment, another way of trying to create this exercise could be to bring the natural elements to seniors. The activities I conducted under ‘Making objects that stand in for open space (Section 3)’, project would be my way to approach the ‘Outdoor Walking Activity’ in an indoor setting.

# Appendix 6

## Section 9: Policy design activities for senior wellness in long term care homes.

My research activities and my designerly reflections repeatedly demonstrated that connections to nature are critically important to human flourishing. My own failures in material exploration due to time, money, ease of access, and convenience let me wonder if perhaps the issues facing designers working on elder care were similarly constrained by utilitarian neo-liberal principles. Perhaps the way to bring nature-connections to eldercare would be most successful not through product design, nor service design, but through systemic changes brought about by policy design?

A question I constantly asked myself after studying the policies in Vancouver, India and the Netherlands was - Are the challenges in making and reintroducing policies governmental or is it the issue of social isolation amongst seniors at an organizational level?

In Spring 2020, my shift to consider care home management let me seek out how they perceive the community and tackle isolation and led me to research policy-making practices of care home organizations. I wanted to know more about ways to innovate policies. I was interested in brainstorming tactics that might be used by senior advocates and management alike. My aim had shifted to include finding ways to help develop community models in care homes. I was interested in finding ways to connect care home residents irrespective of their language and background: cross-cultural models because of the demographics of Vancouver's seniors. This led me to consider Person-directed care (Virgil Thomas, 2014). In my view, person-directed care typically encourages seniors and their caregivers to practice their power to choose and exercise their independence.

Policy design techniques are similar to other design methods. Even though design methods encourage us to look for opportunities to bridge the gaps, and policy-making methods help us prevent the unfavorable outcomes, policy design together can help create a platform where the bridge itself helps create a preventive circumstance through a collaborative approach.

"Approaches, methods and techniques used include interviewing or doing field studies of users, creating personas, visually mapping customer journeys, making and reviewing mock-ups of future services, devices or artefacts, organizing cycles of feedback and iteration, and stakeholder engagement. (Lucy Kimbell, Jocelyn Bailey, 2017) Before engaging in some of these design activities, I began to research what policies existed on elder care. In India, there is one national policy that has existed since 1999, titled The National Policy on Older Persons, envisioning affordable long-term accommodations, a new 'architecture' for ageing, to encourage healthy ageing. Therefore in my opinion, in 1999, the government policy recognized the necessity of seniors turning towards long-term care homes. However, in, 'The foundation of National Policy for Senior Citizens 2011', the policy encourages healthy ageing and other provisions to ensure ageing at your own home. According to the policy, 'care of senior citizens institutional care as the last resort. It recognises that care of senior citizens has to remain vested in the family which would partner the community, government and the private sector.' (Vikaspedia.in)



How can policies help bridge the dialogue about the community through all ethnicities for a stronger connection?

It is evident that a suitable policy needs to be framed towards restoring familial care of the elderly in view of the drastic social changes that have taken place in the wake of modernisation. It goes without saying that prompt action for the provision of social security to the vulnerable poor elderly is called for before things worsen.

(Nil, Irudaya Rajan, 2006)

Even though the 'familial care' policies have been changed to ensure families/kins take care of their seniors, the government seems to overlook the trending concept of nuclear familiar and changing familiar structure. The government also left the voice of seniors in India out of account through the law of familial care, allocating their independence elsewhere if they are dependent due to monetary limitations.

Besides, "the laws and policies derived for residential care in long-term care homes in India, are most of the times lacking in regulations." (Celine Thomas, K Samuel, 2017) The reason behind it might be due to the limitations on basic resources like medical supplies, infrastructural support, qualified workers, that are the priority of these organizations.

"A lack of government regulation of these homes creates a precarious situation, wherein the basic rights of older people are often violated and are not provided with the utmost opportunities to enhance social connectedness." (Celine Thomas, K Samuel, 2017)

From what I gather, not only the organizational and governmental policy-makers but even the stakeholders, all have a role to play in making and designing a policy that best suits the needs of the seniors.

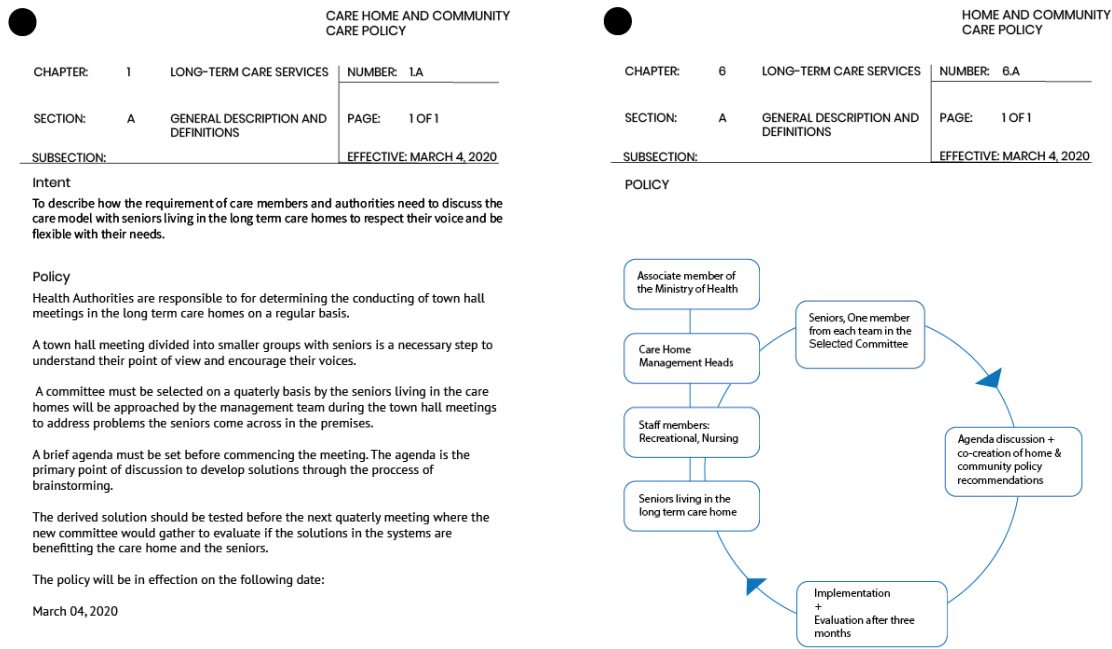
#### Policy-Making Exercise:

Considering the situation of social isolation amongst the seniors living in long term care homes and knowing that service delivery is also connected to needed changes in government-regulated health care policies I decided to undertake a policy prototype activity. Through this policy-making prototyping and discussion, my intent was to explore experimenting with policy-making and understanding the process in hypothetical situations. For the prototyping, the BC government's transparency in providing information about the process of policy-making and the stakeholders as well as the protocols to the development. This exercise was a method of exploring policy-making and its implications as a service design researcher.

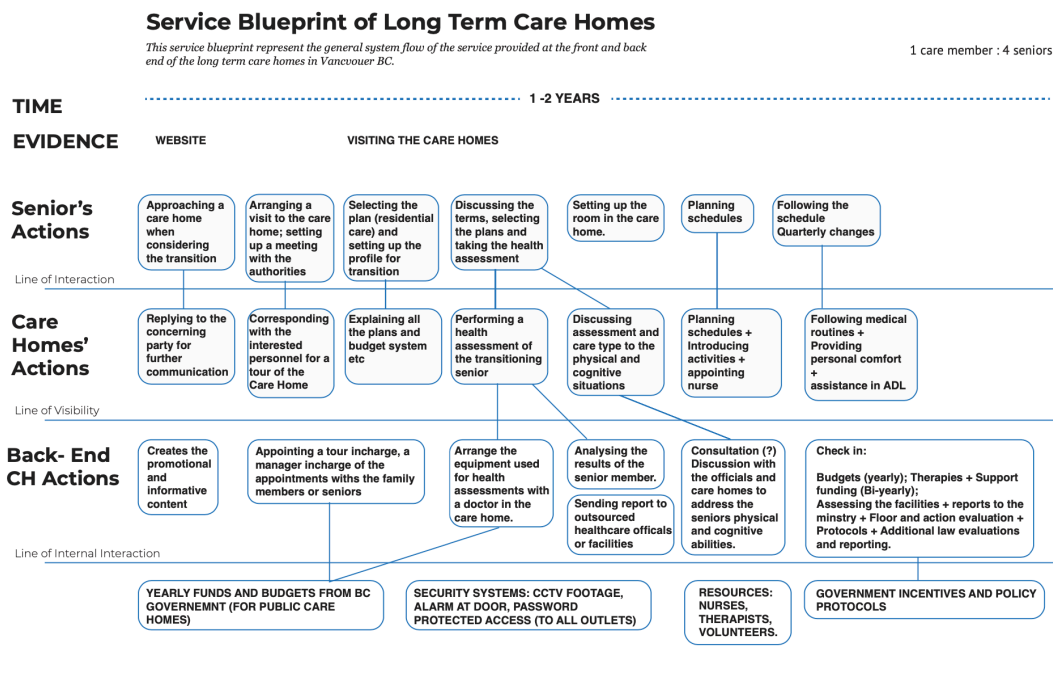
#### Insights: Policy-Making Experience (*Creating a service experience through policy*)

The prototyping policies activity was more of a reflection of how I perceive policy-making to be and after experiencing the policy-making in a collaborative setting, it showed me how extensive and iterative only the initial stages of setting an agenda and formulating the policy were.

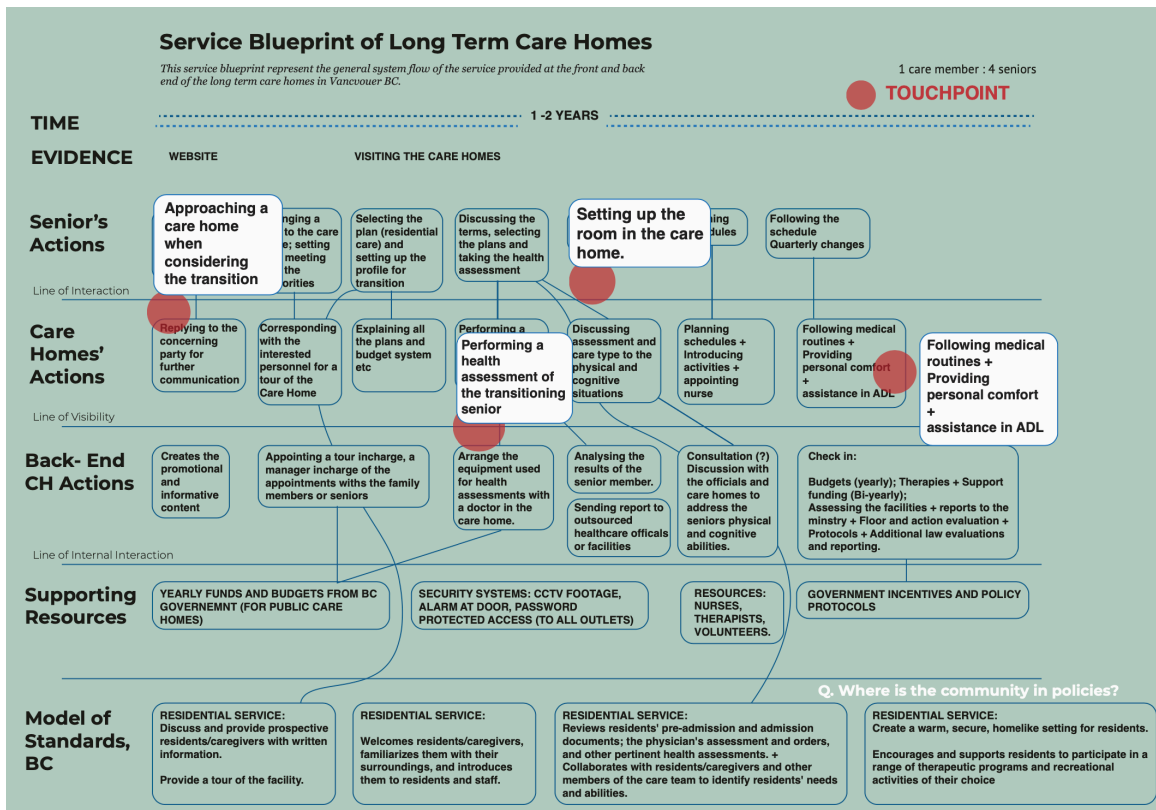
The policy-making discussion during the cold read amount of information about policy-making from the BC government in terms of residential care, long term care services and also the home and community manuals. Looking at the Model standards of care, while going through the sections from the start of the service of the care home system to the end of the senior's journey with the care-home leading to building of a service blueprint.



(Image set Q: Outcome of the policy-making collaborative exercise)



(Image 32: service blueprint based on the model standard of care policy book of Govt of BC with participants)



(Image 33: Brainstorming activity: Touch points marked on the service blueprint based on the model standard of care policy book of Govt of BC)

This prompted me to build on the end-to-end process of the care home service and build a service blueprint of a care home. Insights included that Seniors and actors at the base levels of the organizations are often unaware of what the licensing department is about and how collaborating with them can bring changes to the system.

Although it is not necessary for the seniors and their families or the other actors in the organizations to know what the licensing department accomplishes, I feel it is important for the actors to be aware how their responsibilities are administered and corresponded within the system. While discussing this factor, the collaborator presented an example: "If we consider an event in an organization and the care staff members are helping the seniors create a festive interior for the said event, then the actors in the scenario need to know what can be included in accordance to the safety regulations provided by the government."

The other critical topic for discussion was the comparative narrative between the policies in the Netherlands and the ones in North America, specifically catering to British Columbia. The long term care homes in Vancouver hold different levels of care such as assisted living, independent living and residential services. While De Hogeweyk only caters seniors living with severe stages of dementia. The stakes in both cases are quite different is something that was highlighted in the conversations. The discussion also tapped the points that recreational therapists' jobs are to keep the seniors engaged in activities that they are interested in. However, the job does not specify the role of recreational therapists in terms of encouraging conversations. So how can we cater that service through readdressing the care policies?

How can policies about community partnership make a difference in the culture of care?

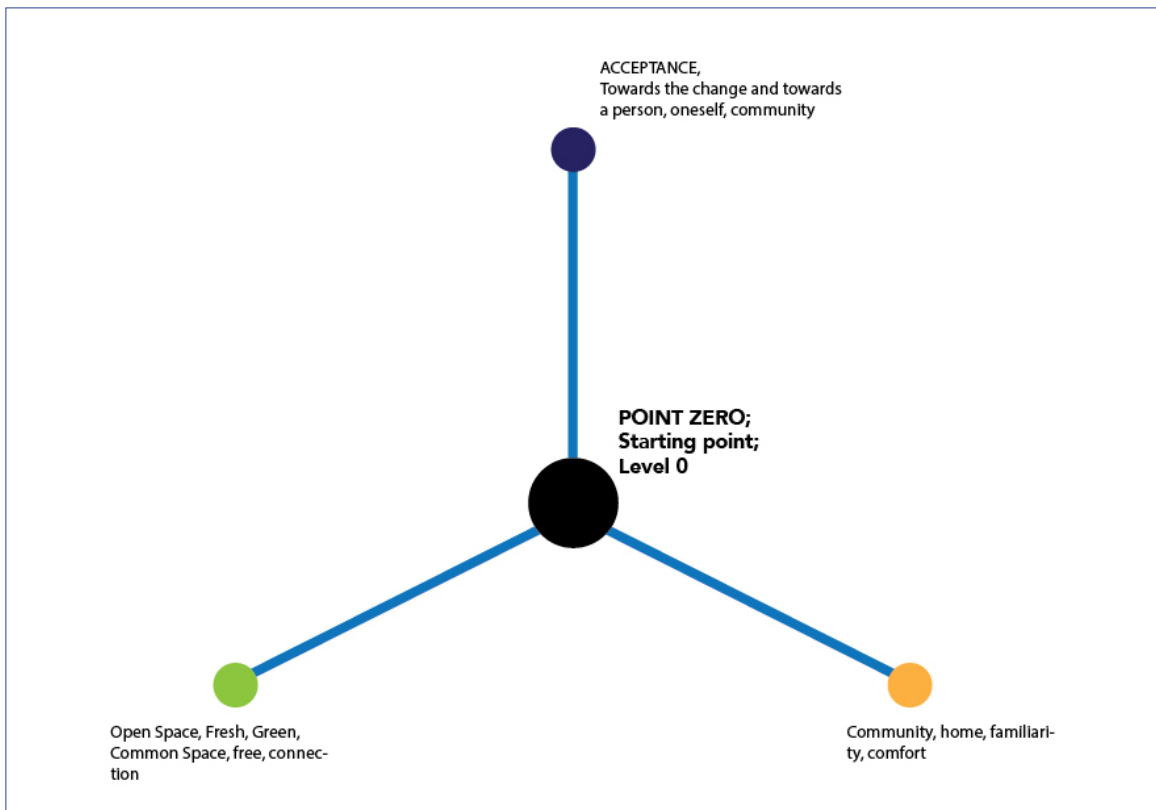
According to the director of Social Design Institute, Lucy Kimbell and a designer and researcher, Jocelyn Bailey's paper, 'Prototyping and the new spirit of policy-making', they talk about the ways government actors try to accomplish policy intent can include passing laws, publishing regulations, commissioning or running public services, and stimulating business or civil society to provide solutions (e.g. by providing funding or publishing data)—or doing nothing. On the other hand, they state that services might result from—or failures in their design or delivery might lead to—public policy.

To my understanding, policies play an important role to secure a certain outline for the organizations to operate. They do not directly incite the organizations to perform in a particular manner but they ensure that the organizations work within acceptable limits preventing unfavourable outcomes.

## Section 10: Traingle of Care

In Spring 2020 I began to consider the insights I had gathered in these two years of activities and through my observation visits to De Hogeweyk in Weesp, and subsequent visits to long term care homes in Vancouver as The 'triangle of care'.

This 'triangle of care' made up of Acceptance, Community and Open Spaces was a means for me to understand and consider the differences between an acclaimed 'successful' care model like De Hogeweyk and Care Homes in Vancouver while also keeping in mind the cultural and dementia-related differences between these two care home models.



(Image 34: The three vertices of the 'Triangle of Care' model)

The three vertices of the triangle are interlinked. I considered the triangular structure to ensure I attend to the three mentioned aspects from a starting point. The triangle is a representation of the three different cities that I am the basis of my research. Though separate in geography and culturally different, there were quite some commonalities in these three cities relating to the care home organizations. Hence the three vertices, Acceptance, Community and Open Space, though separate meet at one point to share all the common factors. While I was working on the 'triangle of care' I did not consider the categories acceptance, community and open spaces would fall into. My focus was to analyse the observations and while doing so, I discovered the three primary factors - acceptance in care homes and amongst seniors, the communal feeling and the necessity of open spaces to create the feeling of community and acceptance.



### Acceptance: Towards people, towards the surrounding:

De Hogeweyk concept branding 'BE' promotes the idea of accepting the people/seniors living with dementia as they are to help them be comfortable even when they are losing a part of themselves.

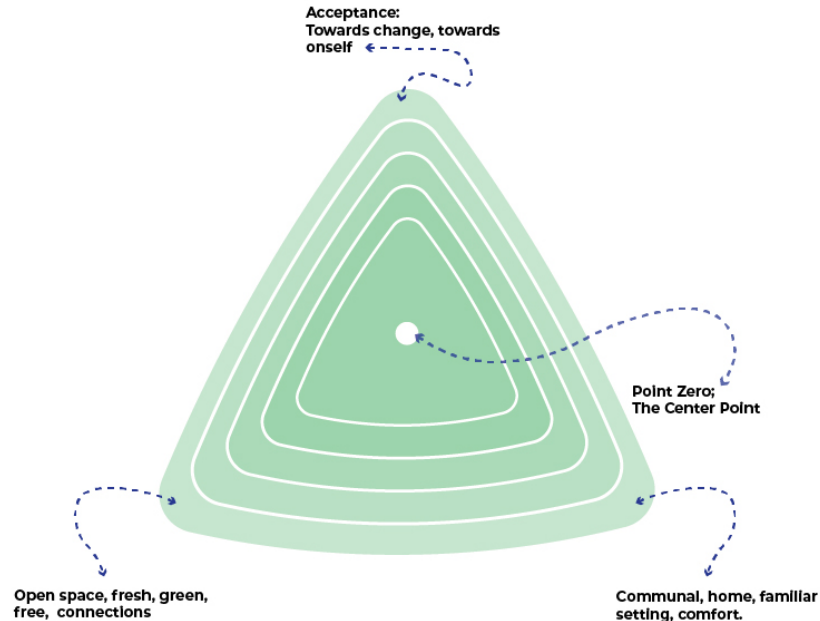
### Community:

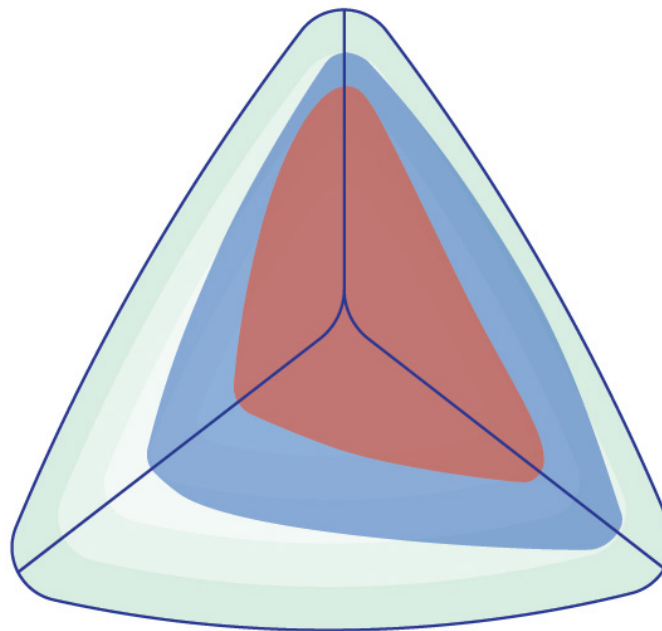
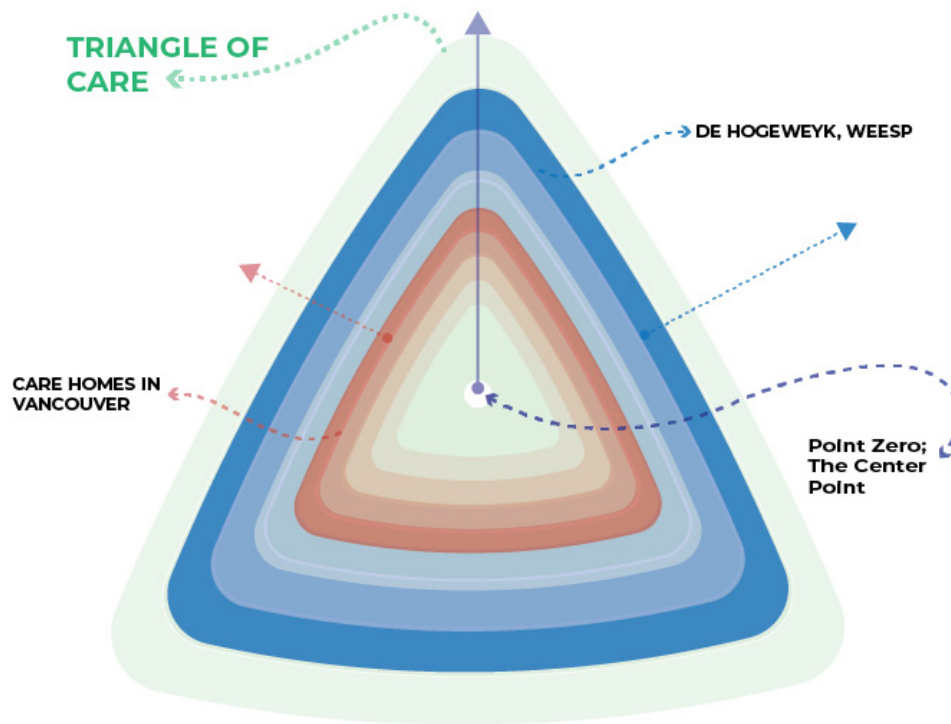
The idea of belonging to something, something bigger than ourselves. I was looking at nature as a place to belong, however, what I realized is that the people around us help us become familiar to a surrounding; in this case, the care homes.

### Open Space:

When you are accepted, you are familiar with the people, where can you be free?

Spaces that are free like your mind and your soul, the open spaces, close to nature where you can be the most unapologetic version of yourself. While acceptance inclines towards accepting change, open spaces impel the idea of being in a surrounding that encourages us to be the most authentic versions of ourselves.





(Image set R: The vertices: Acceptance, Community & Open Space respectively; The second and third images represents the comparison between De Hogeweyk, in blue and Vancouver's care homes, in red, according to the three target areas, namely the vertices)



(Image 35: Tree of Care concept; A visual representation of the tree of care concept showing seasons as sections to the three main target categories: Spring for community, Summer for open spaces and fall for acceptance.)

## Tree of Care:

Trees have a special connection with me, from helping me associate myself in new surroundings to bring back nostalgic memories. Memories of time spent in open spaces with my families, trees have been a part of my life experience. Why?

I believe the tree gives you a sense of shelter, protection. Whenever people take refuge underneath a tree, the rain or the harsh sunlight negatively affects them. Trees create a platform for other organisms to create an entire ecosystem around them. Even the interconnectedness of the roots that showcase this beautiful idea that we are interconnected in many ways intrigues me. When I started creating a visual image of the 'triangle of care,' I understood how interrelated and co-dependant the three vertices (Acceptance, Open Spaces and Community) are. I started visualizing the trees, the branches and roots acting like veins, connecting every segment together, simply like the observations linking in specific actions.

Thus, I worked on creating the 'Tree of Care.' I wanted to also embed the dynamicity of seasonal change in the visual representation as a way of showing how one needs to be open to change (in this case, the organizational change) just like the tree acknowledges and gracefully accepts the periodical variations in its appearance.

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