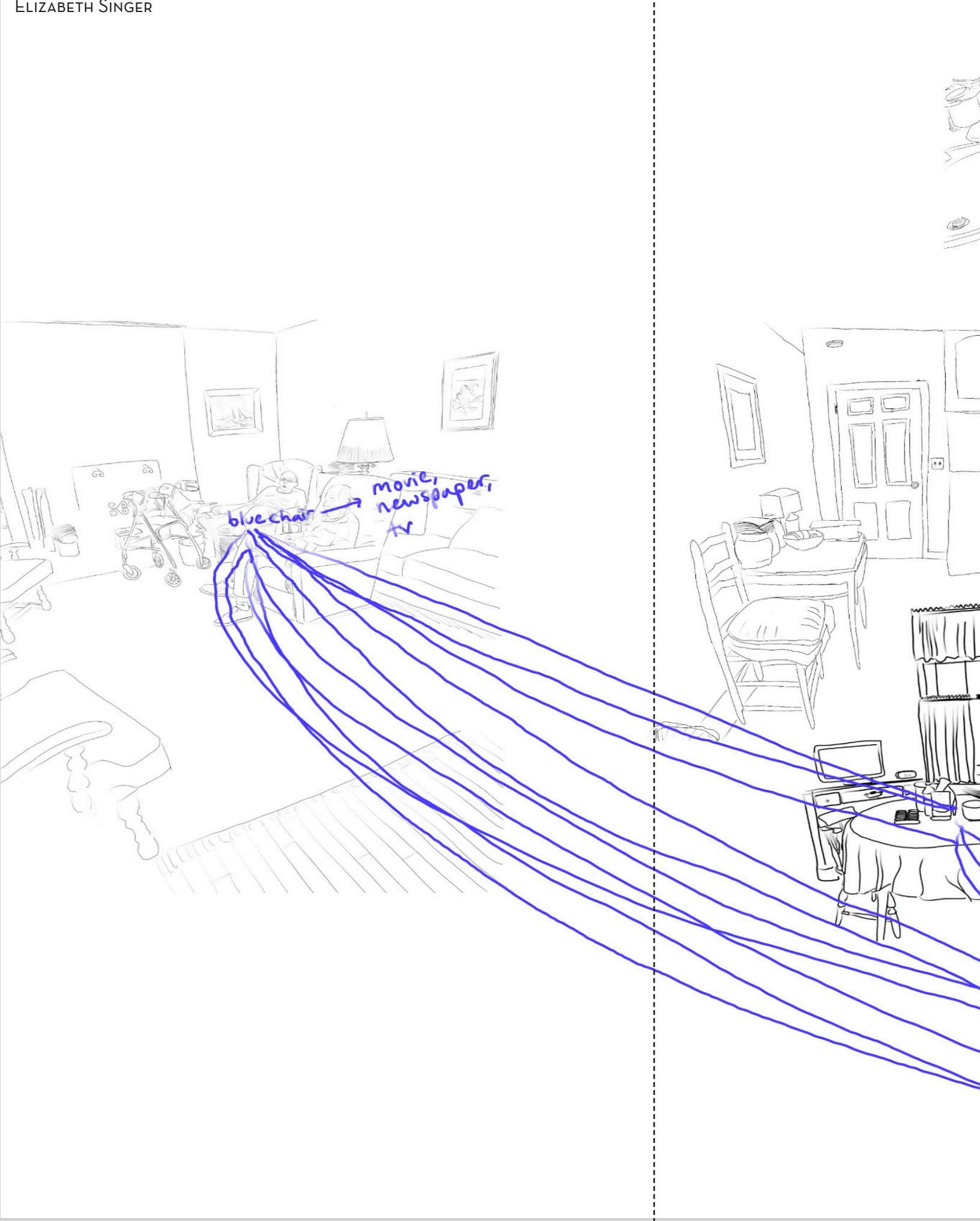
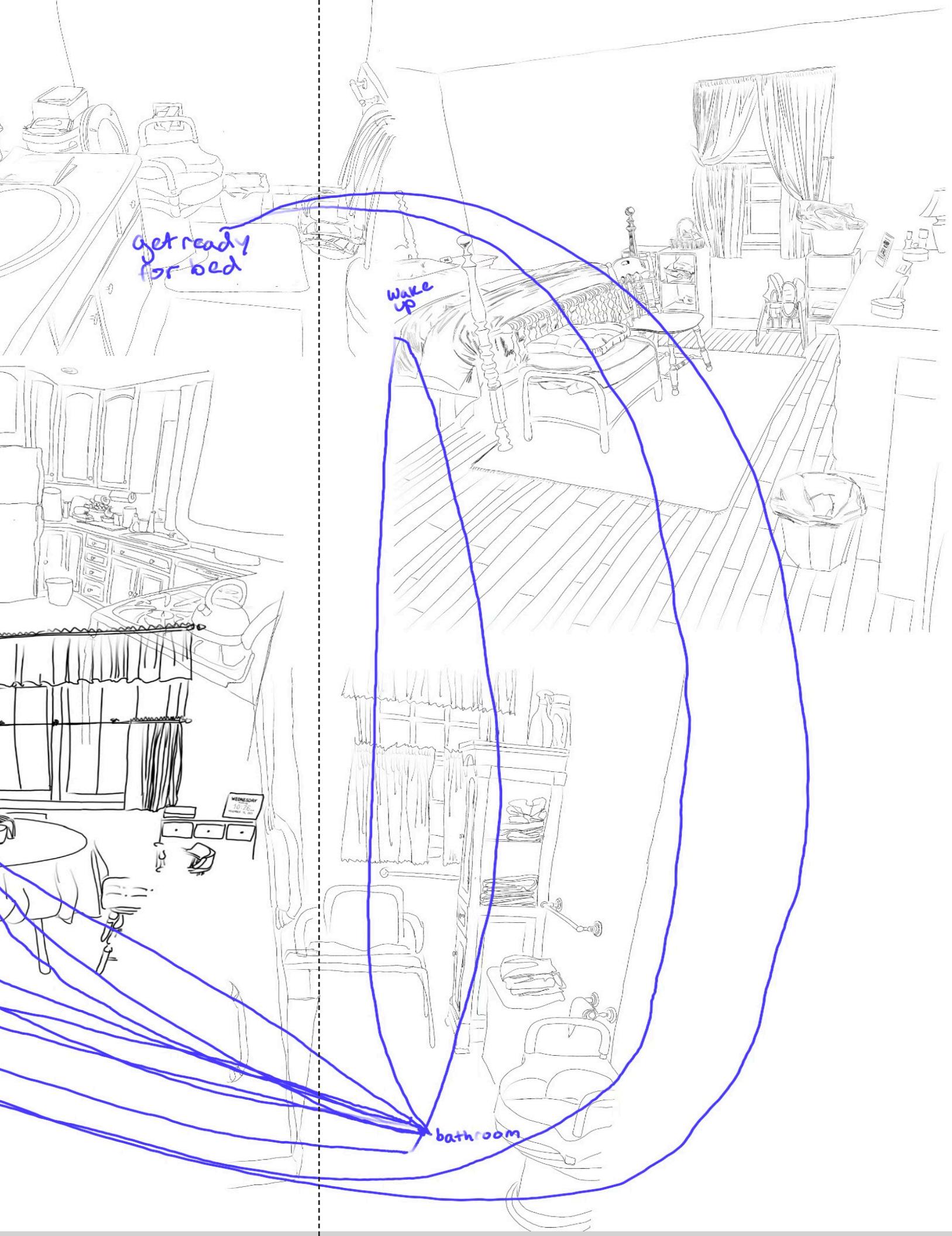


DESIGN CARE

ELIZABETH SINGER

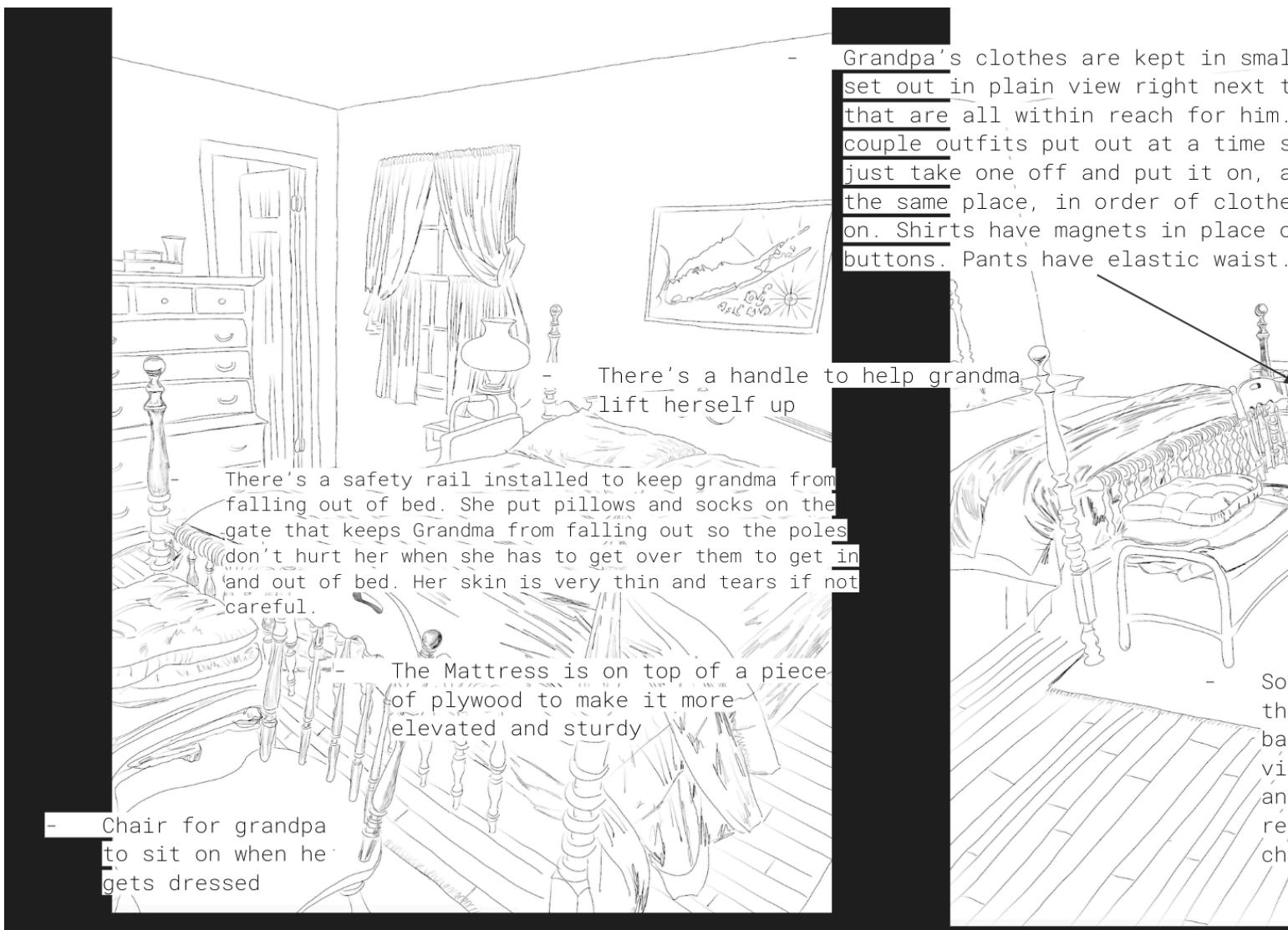




DESIGN CARE

Fostering Agency through User-Initiated Design for One in the Disability Community

Elizabeth Singer



"Design care" is a framework emphasizing the importance of personalized design solutions.

INTRODUCTION

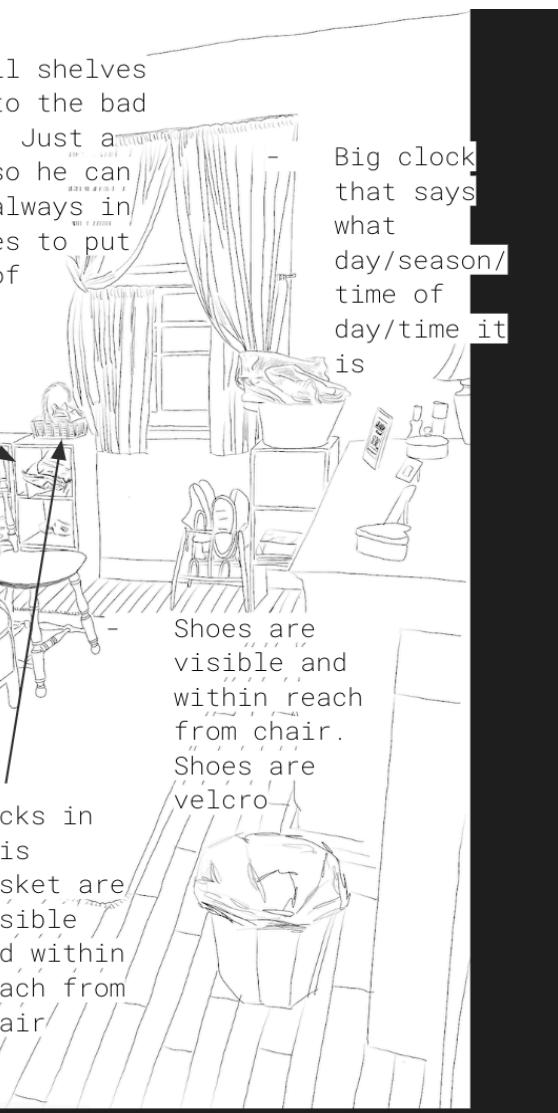
In the face of contemporary challenges, individuals with disabilities contend with obstacles often exacerbated by societal structures. This essay explores an innovative and user-initiated design approach within the disability community, framed through the lens of "design care." Departing from traditional design methodologies, this approach emphasizes daily experimentation and small, incremental changes that empower users to shape their own environments.

DESIGN CARE FRAMEWORK

Design care, as presented in this essay, prioritizes

personalized design solutions over generic, one-size-fits-all approaches. Unlike conventional design thinking and human-centered design, which involve a limited number of interactions with users, design care embraces a continuous, user-initiated process that fosters agency, inclusivity, and user-generated ideas. Both the person with a disability and others in the home, such as caregivers, embark on this journey together, guided by the preferences and ideas of the person with a disability.

Living with a disability provides a unique vantage point, serving as a daily testing ground for innovation. Individuals with disabilities become master innovators, crafting solutions to navigate environments



and systems not initially designed with their needs in mind. This user-initiated, design-for-one process encourages continuous experimentation, incremental adjustments, and the creation of adaptive objects and solutions that exemplify the creativity and resourcefulness of the disability community.

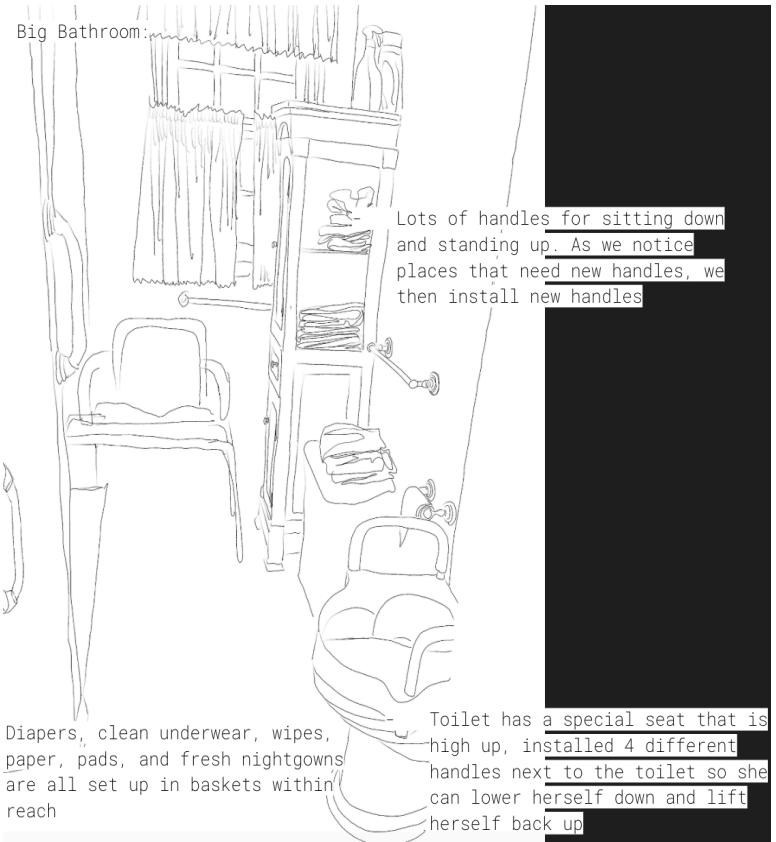
A PERSONAL EXPLORATION

This project delves into how the disability community organizes space and moves through their homes and public spaces, considering the nuanced distinctions between a caretaker's perspective and the user's lived experience. Specifically, the focus is on the unique spatial challenges presented by retrofitting my grandparents' old house, with an emphasis on designing something that gives them agency. This endeavor is deeply personal, centered around creating

spaces for my grandparents, exploring their distinctive way of organizing space, moving through it, and designing solutions that provide tangible agency, addressing a very tangible problem with equally tangible solutions.

DESIGN CARE METHODOLOGY

I worked with my grandparents to draw maps of their house, depicting how each person moved through it from their perspective, including caregivers and my grandparents. Together, we created diagrams of each room, noting every innovation introduced by either my grandparents or family member caretakers. Instances of adaptive technology in their home were documented, analyzing how these new elements positively influenced the space. Annotations were made for every place where preferences were not expressed, desires were unmet, and a desire for engagement in a design process to effect change was noted. This user-initiated approach explored problems as identified by my grandparents, allowing for the collection of key insights and conclusions from both caretaker and user perspectives, with a specific focus on retrofitting the family home for my grandma



Annotated sketches created collaboratively to highlight adaptive objects

and grandpa.

My grandma and I examined how the home appears to shrink for my grandma, who cannot use most of the house. Starting with the whole floor plan of the house, we mapped the spaces she used to move in and what she does now. The chairs she spends the most time in were analyzed, along with the radius of what she can reach. Disability limits her body's movements, and we annotated what she can and cannot reach, considering the strategic placement of objects.

There is a current moment in in-home healthcare where something that previously extended outside of the home is now within it. My grandparents possess their own desires and needs to change about their space. Findings and implications for future design methodologies include viewing Design as Care alongside other theories of care, such as healthcare and homecare. Many objects associated with those things need recalibration due to disability and aging, which is why design care stems from homecare and healthcare.

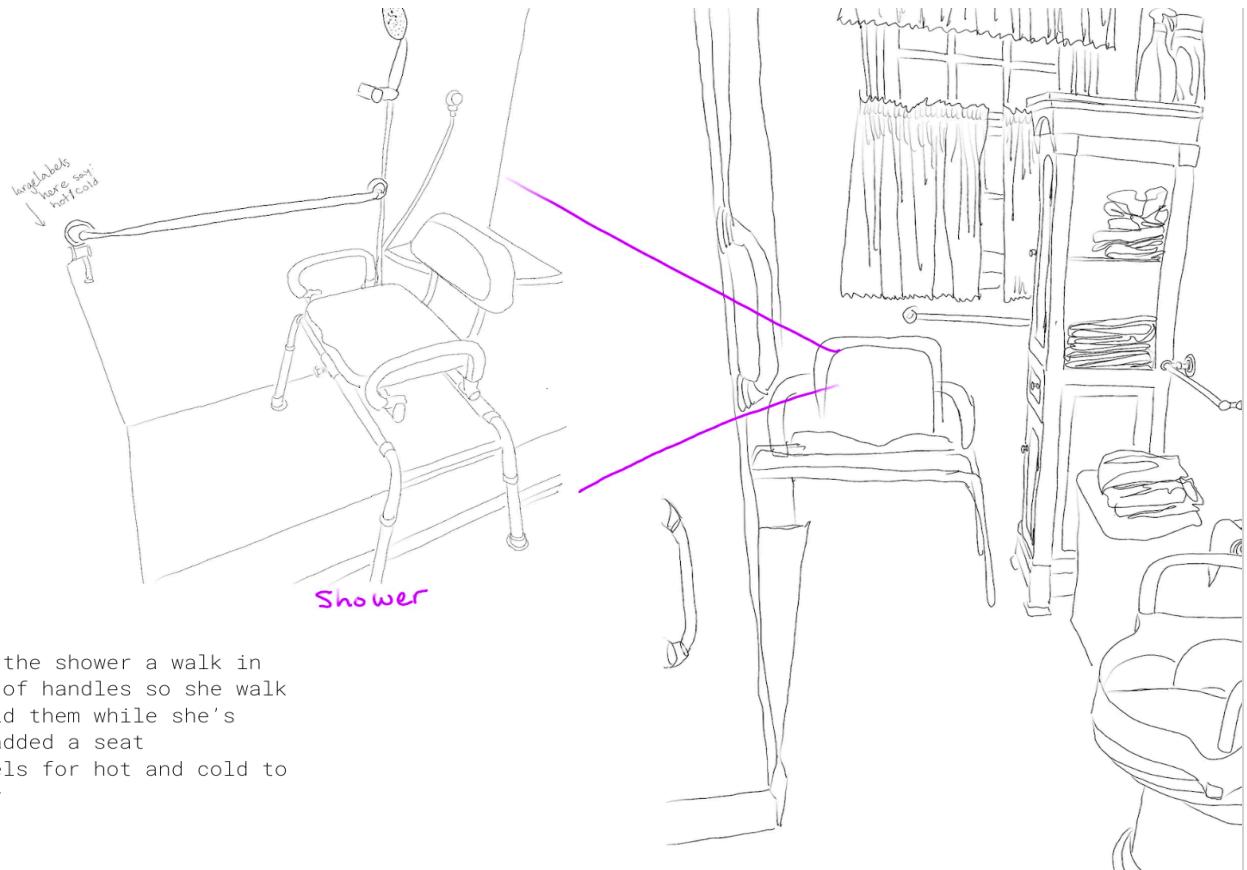
CONCLUSION

This project contributes to a paradigm shift in design thinking by advocating for “design care” as a powerful tool for enhancing agency within the disability community. Prioritizing personalized solutions and acknowledging the distinctions between caretaker and user perspectives, as well as the daily interactions that drive innovations created by and for individuals with disabilities and their families, design care stands as a holistic and collaborative approach. In addressing the tangible problems of how we organize and move through our spaces, design as care offers equally tangible solutions that empower individuals to live with dignity and agency.



We began by drawing a map of the house consisting of the rooms that my grandparents can use.

Big Bathroom:



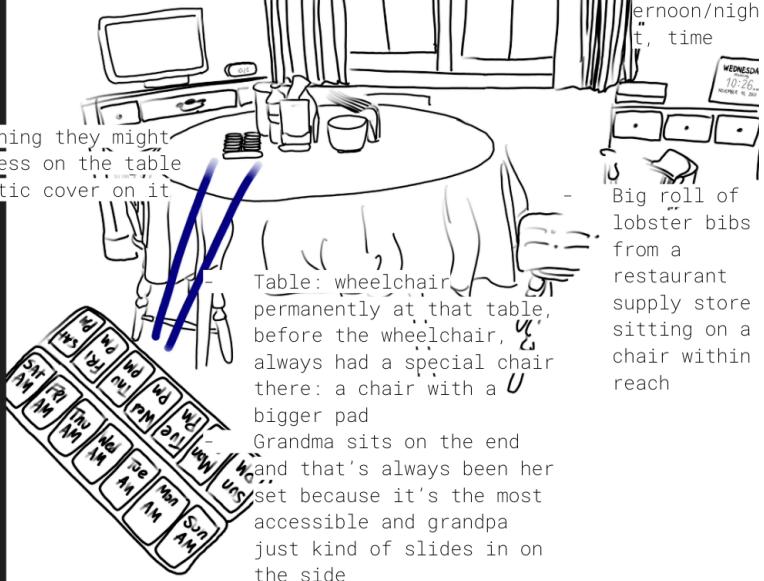
- They made the shower a walk in with lots of handles so she walk in and hold them while she's showered, added a seat
- Added labels for hot and cold to the shower

- The rug in there is really old and frayed on the ends but it is a big part of their routine. They don't dare change it because even a slight difference in thickness can change how grandma uses her wheelchair, gets herself up from the table, and sits herself down. She doesn't change it because she doesn't want to throw off her muscle memory.

-
- They keep everything they might ever need to access on the table
- Table has a plastic cover on it for spills

- They keep their pills in the center of the table:
 - Used nail polish remover to remove labels and relabel the pill bottle in a way that is intuitive to Grandma.
 - Grandma used to refill the pill markers but now daughter comes over once a week to refill.
 - Keeps a pad and pen on the table to write down what she took and when.

They have a small tv in there so grandma doesn't have to rush from kitchen to livingroom when a her show is going to start

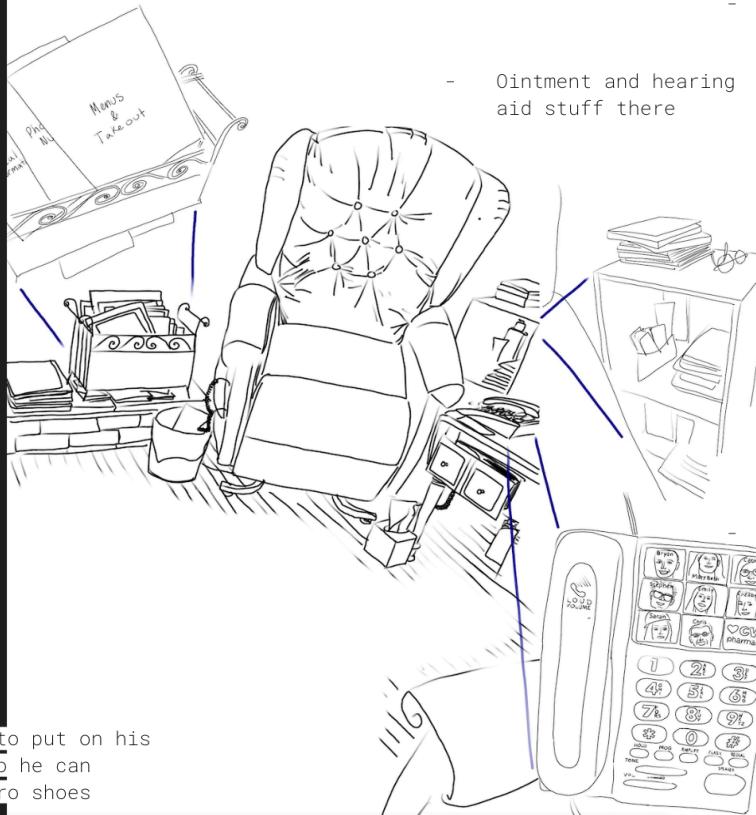


In these sketches, we explored both further potential for making spaces for my grandparents and their unique way of making space.

Living Room:

- Grandpa walks down the driveway to get the paper for grandma in the morning and to get the mail in the afternoon. He gives it to Grandma, who has many letter openers next to her blue chair. Grandma opens the mail. She throws out junk mail in the trash can by her blue chair. She has Grandpa put the rest on the hutch for one of her kids to pay the bills.

- Grandpa uses a stool to put on his shoes while sitting so he can reach them, uses velcro shoes



- Ointment and hearing aid stuff there

Everything is set up so grandma can reach it: the chair, phone, light/lamp, pad of paper and pen, small trash can, tissue box, small laundry basket, big organizer thing we made together where she sticks every menu she wants to order from, newspaper article she wants to reference, phone number she wants to save, a pad of paper, her calendar, and more

Special phone:
loud: pictures, big text

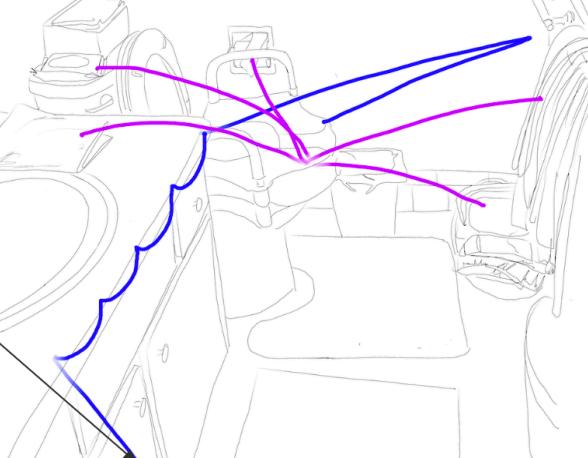
- They use a telephone with pictures on it. They just press the picture of the person they want to talk to.

Living Room



At other places in the house she uses her walker but the walker does not fit in the bathroom. In the bathroom, grandma does hand placements similar to a rock climber. She plans where she will place her hand next and does basically the same movements each time. For example, she uses the door knob to hold herself while she moves another hand to the sink. A handle has been installed across from the toilet.

- Diapers, clean underwear, wipes, paper, pads, and fresh nightgowns are all set up in baskets within reach



How grandma gets out of bed to go to the bathroom at night: Wakes up grandpa, gets grandpa to undo the bed wall, he moves her legs out of the bed for her one at a time, she uses the nightstand and the handle to pull herself up, uses the walker to get to the door frame, holds onto the door frame and countertop and takes a tiny step after tiny step and then uses the handle to sit down.

Little Bathroom

Getting into the house:

Grandma:

- Car cane kept in the car
- Foot loop created to use to lift one foot after the other and put into the car
- Has specific cars she likes to ride in
- Uses the walker to get into the elevator
- Uses the elevator

Grandpa:

- Added wood blocks to the steps to make them smaller
- Added railing to steps
- We used to have to hold her and walk her up the steps to go places. Then we got 1.5 tall blocks to make the rise for each step smaller (step, wood, step, wood, inside the house) Now, we use metal ramps from Home Depot made for getting equipment into your truck or flatbed and we use two of those that are mobile and wheel her up in the wheelchair. We would carry the blocks and now we carry the ramps in the car.

Front Door

Kitchen:

Now, they get frozen meals from a meal prep service. They're nicer than microwave meals and proportioned out for two.

They can't use the microwave because it is too high up and too hard to use.

They would only use the lowest shelves in the cabinets so they can reach.

Grandma would use the countertop to hold herself up.

Grandma would use the little table to hold herself up.

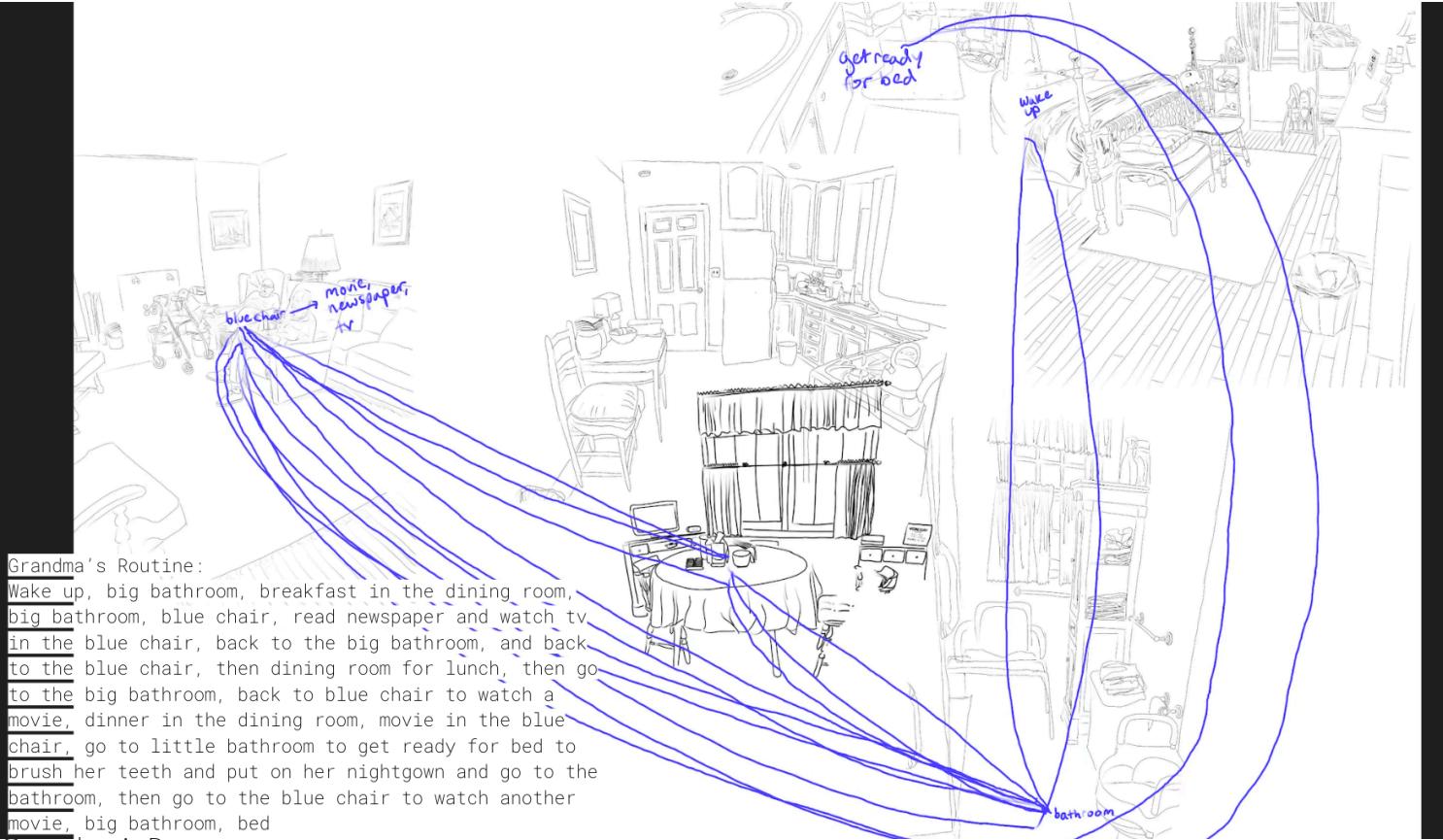
Kids would drop off groceries every week

Uses many mini small trash cans around the kitchen and house because a mini trash can can sit on Grandma's walker and because a big trash bag is too heavy for grandpa to carry outside.

Grandma does not cook anymore but previously; Grandma would carry a little trash can on the floor in front of her walker or on the walker when she would cook to reduce trips to the trash.

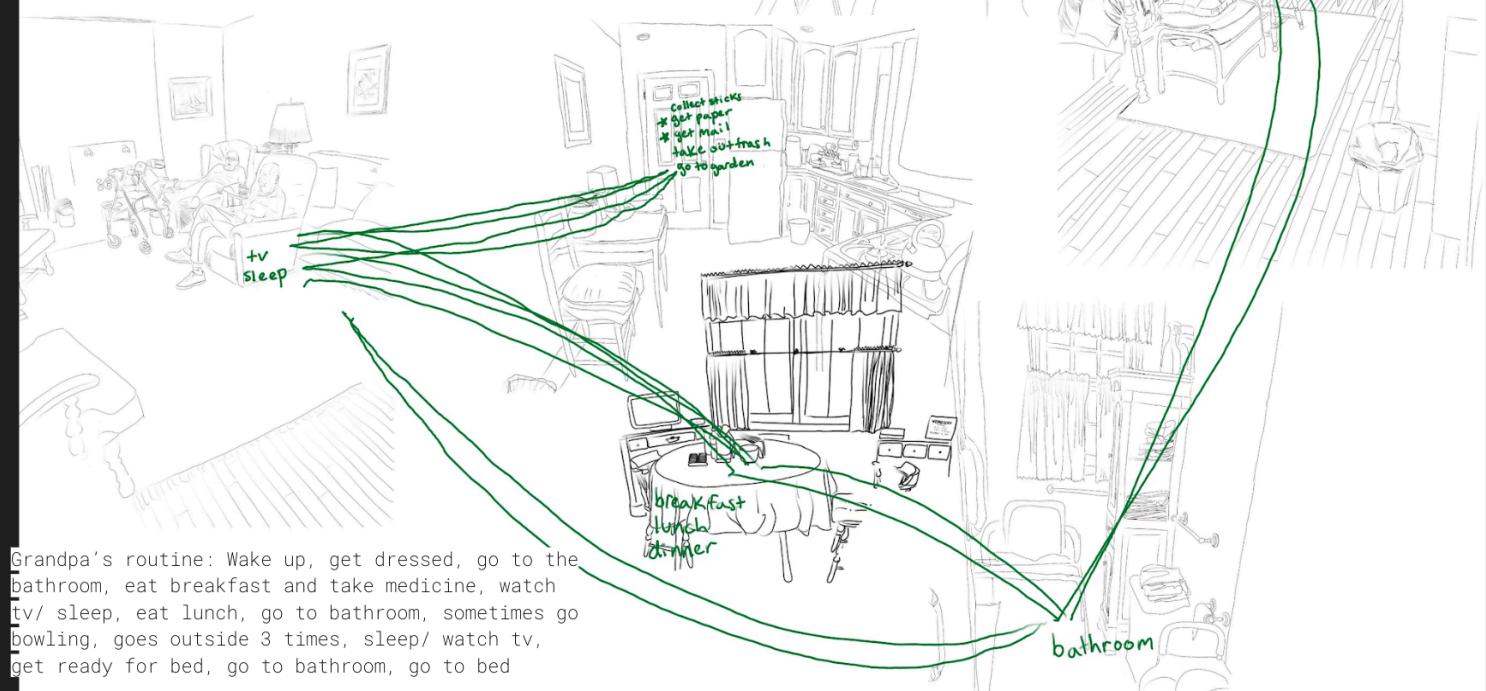
They use a countertop convection oven to heat up the meals because the oven is now too hard to use, they'd forget to turn it off, it's too low to the ground, and too big.

Kitchen

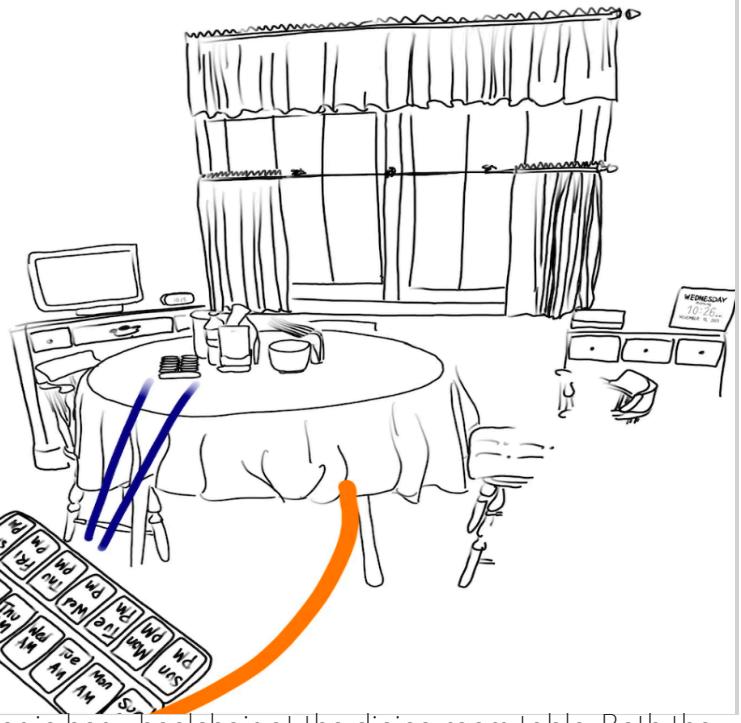
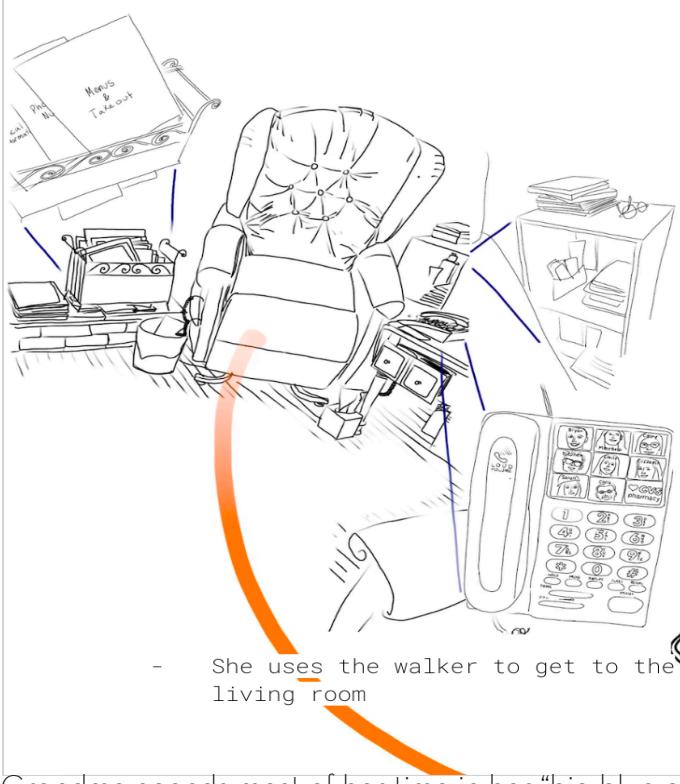


Grandma's Routine

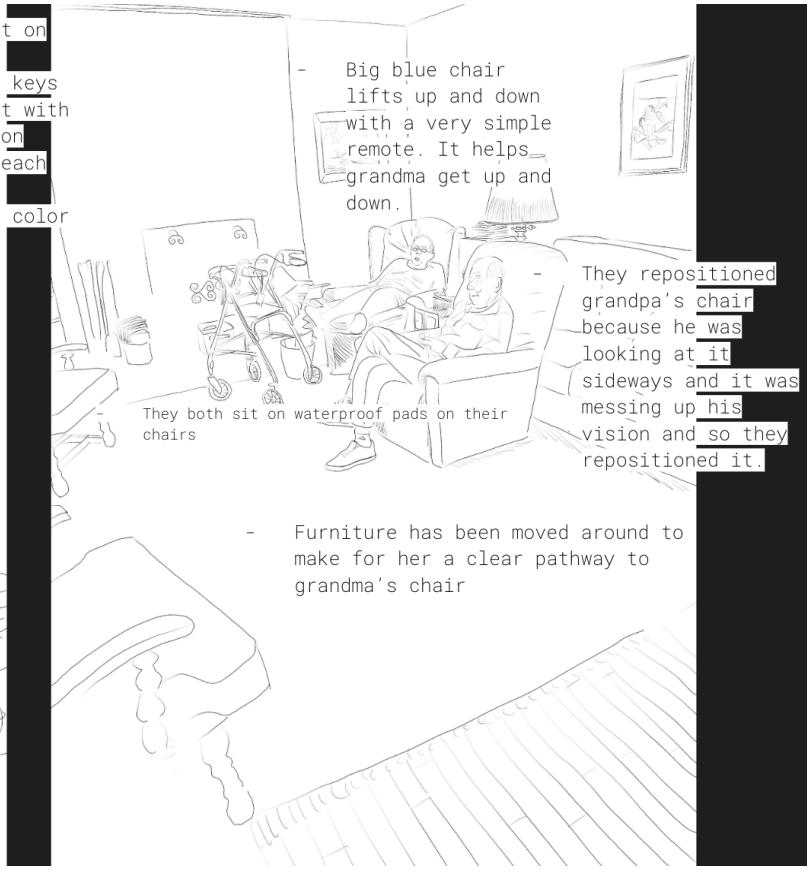
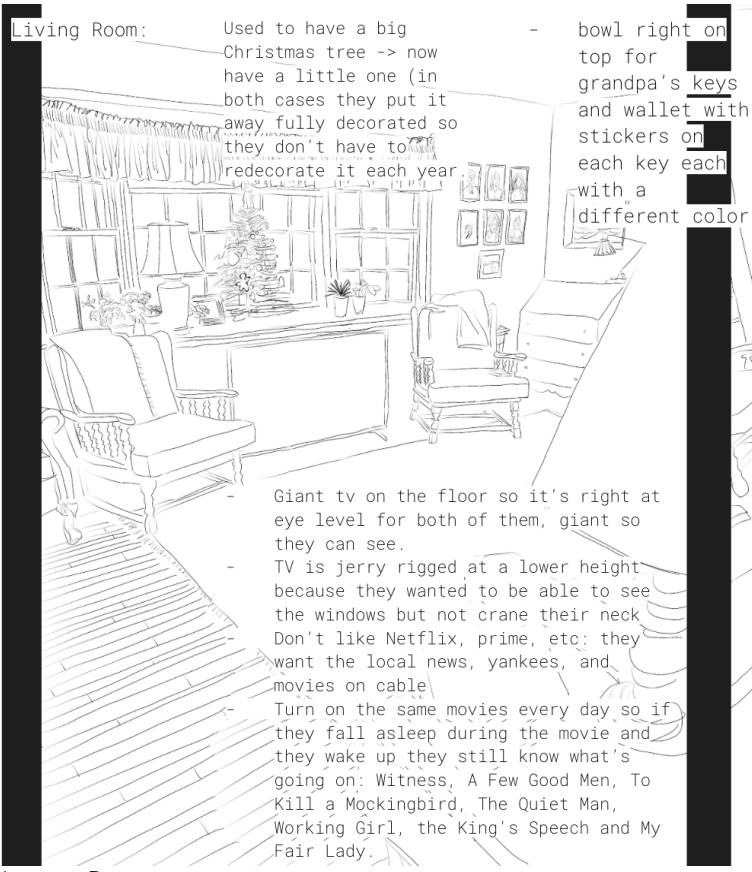
- Does 3 things outside: collect sticks, get the paper, get mail, take out trash, go to the garden
- Garden is an above ground garden on stilts so it's easier to reach.



Grandpa's Routine



Grandma spends most of her time in her "big blue chair" or in her wheelchair at the dining room table. Both the chair and table are set up so her most use objects are all within reach from these two seats.



Living Room