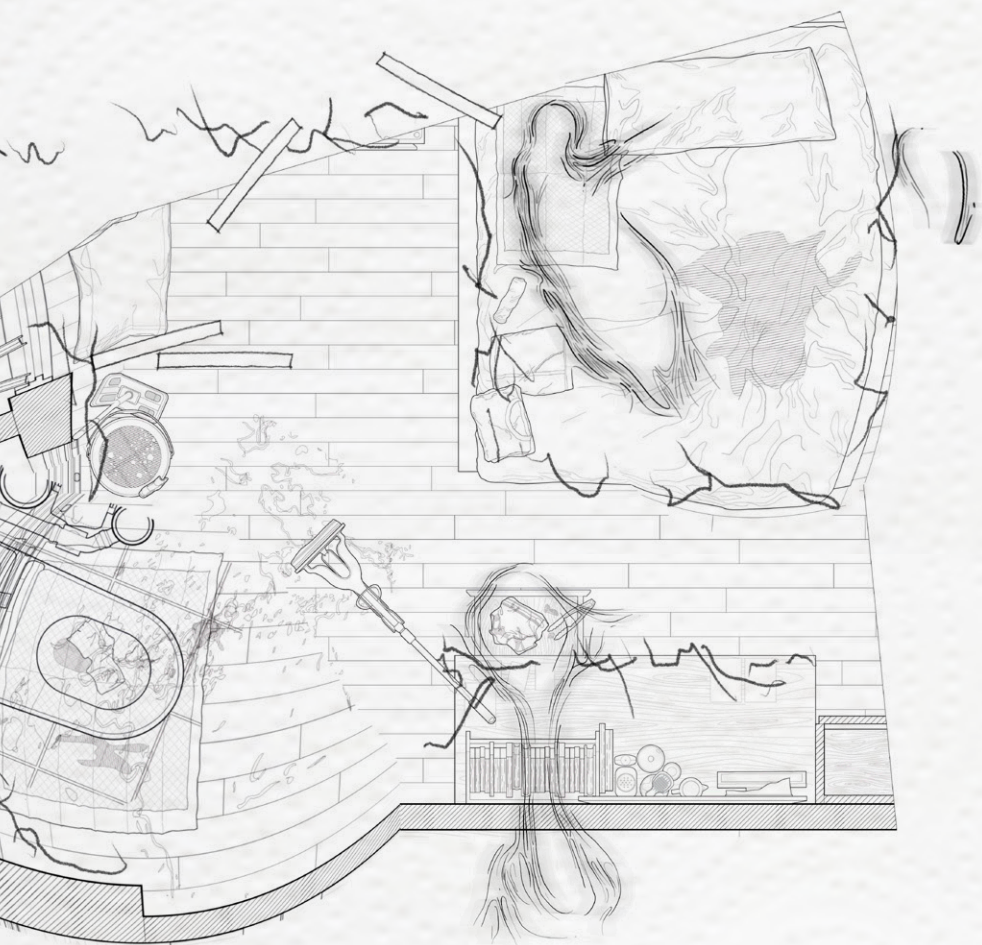


M Arch
National University of Singapore

Design Research Report
2022/2023



please give 公公 /gōng gōng/ a call

A neurodiverse lens to care in
Singaporean public housing

记得问候公公

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acknowledgements

For Gong Gong, my family, and the many caring bodies.

Deepest gratitude to A/P Dr Lilian Chee, for encouraging me to lean into the magical and bittersweet;

My invaluable studio mates for their insightful sessions of musings and buttressing one another;

And friends who helped me cross the finishing line in one piece.

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a neurodiverse
lens to care in
Singaporean
public housing

1 A mandarin reduplicative term for addressing one’s maternal grandfather.

2 Steadman, Philip. Vermeer’s Camera: Uncovering the Truth behind the Masterpieces. Oxford ; New York: Oxford University Press, 2001.

Keywords:
Lewy Body Dementia,
neurodiversity, microworlds,
care, leakiness, domestic rituals

Research Questions

(a) Do traces of bodily rituals provide a means of reading fluctuating bodily conditions wherein the home serves as both passive and active apparatus assisting carework?

(b) How do we represent the plural, intimate, and affective microworlds of domestic care for non-normative medical bodies and minds?

(c) Can we uncover an alternative form of productive capital for collective care by embracing domestic seepages — of the home and body — as architectural strategy?

What emerged from familial anxieties in finding a live-in caregiver for my grandfather — *Gong Gong*¹ — and the stresses of caring for a loved one amidst neurological decline, grew into an exploration of drawing the subjective experience of Lewy Body Dementia against the paucity of care spaces in Singaporean public housing infrastructure. Everyday intimate rituals like bathing and mealtime become defamiliarised through visual and auditory hallucinations, changes in mobility, and shifting visuospatial cognition. Rendering a non-normative body estranged and alienated by the home’s immutability to ageing and difference.

How does one tell that a body is vulnerable if not told otherwise?

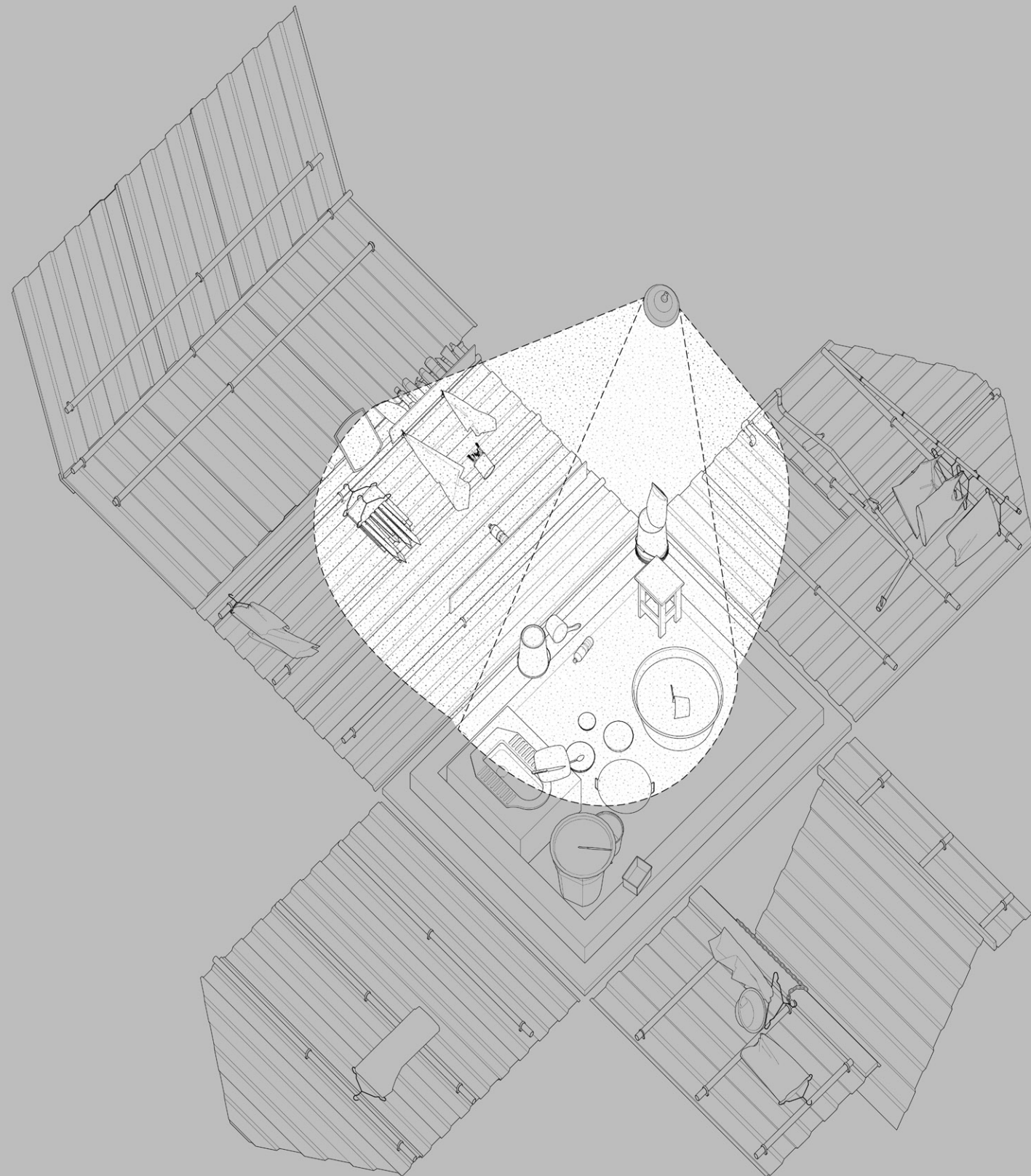
The research methodology engages a method of viscerally rendering traces of domestic rituals and its seepages beyond the home to transcribe the body’s fluctuating condition, providing a lens into neurodiverse worlds that elude conventions of architectural representation. Drawing from filmic techniques — framing, cropping, set composition design, and the camera obscura³ — the thesis ventures to peel open the proverbial door behind repressed domestic care spaces and our cultural conceptions of body and home. From architectural-medical drawings to ethnographic film and observations, the research anatomises the microworlds of care within the home’s fixity through embodied knowledge of makedo care practices, in an attempt to bridge an existing gap between quantitative medical literature, architectural data and the lived affective experience of neurodiverse bodies.

In doing so, it begins to uncover neurodiverse modes of caring for one another amidst an increasingly insular and atomistic world. By observing, inhabiting and transgressing the scale of infrathin worlds, of difference, and everyday traces.



3 Chapman, Robert. Empire of Normality: Neurodiversity and Capitalism. London: Pluto Press, 2023.

01 At a cursory glance, the image offers a mere depiction of several pails stacked atop one another, huddled beneath a square marble table. This arrangement however, beyond mere happenstance, is a carefully curated and intuitive spatial strategy. A reaction against the limitations of a neurotypical housing fabric enforced and perpetuated by capitalist logistics.³ Its composition signifies an act of accommodating a body and its agents of care, who collectively have become consigned to an estrangement from normative state models of the home, family unit, and body.



how to trace; film set design

Gallery, Võ Anh Vũ (2019)

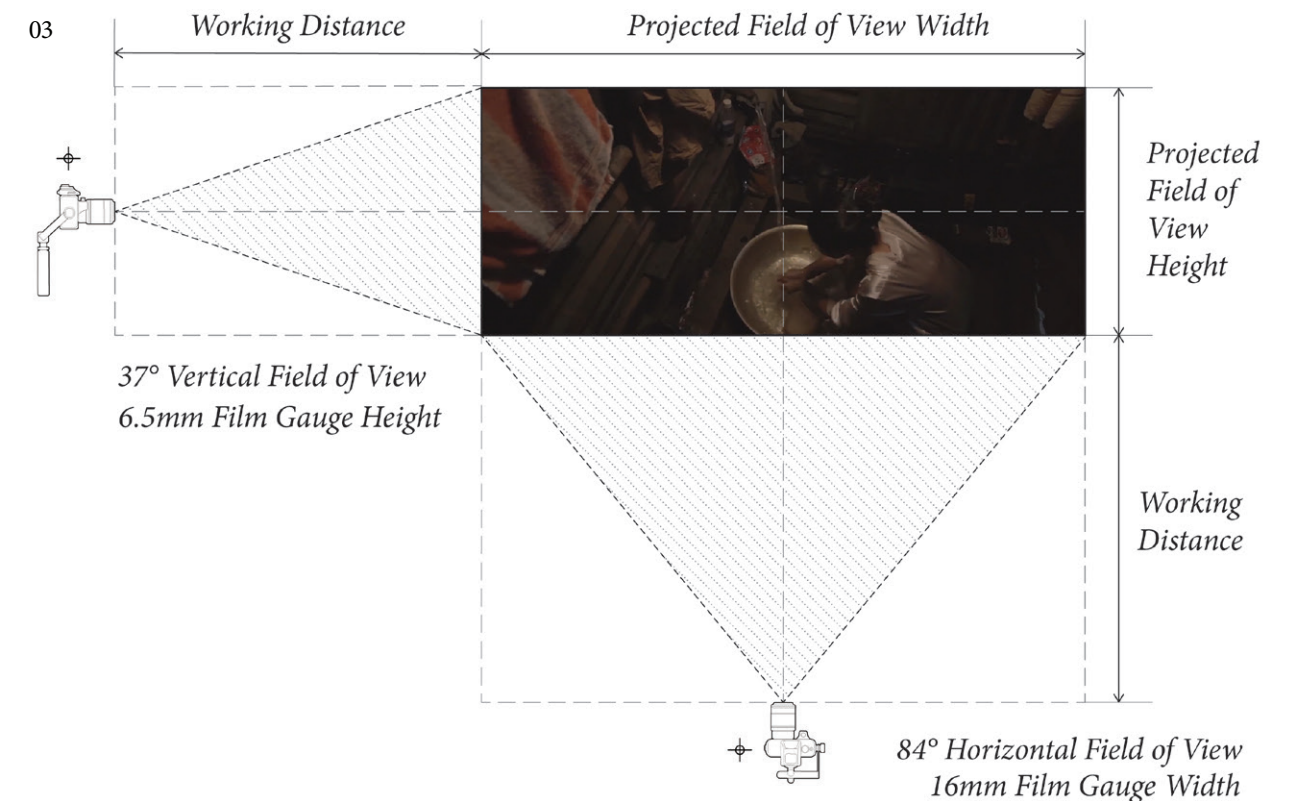
02 Unravelling *Gallery*_Unfolded
Axonometric Projection

03 Camera field of view
instructing the camera obscura
approximated drawings of the set
design

4 *Gallery* is set entirely within the confines of a makeshift shed hinted to be located alongside a bustling road from its sound design. In *Gallery*, the audience is never made privy to the world beyond the shed. Gleaned solely instead by reading the remnants of use and abuse by its multiple occupants.

Gallery is a Vietnamese short film about a dilapidated communal bathroom as protagonist, using the tight enclosure of the metal shed⁴ to close the distance between viewer and excrement. *Gallery* presents an objective list of objects and excremental traces, whilst the viewer is left to reckon with their personal subjective affective experience of disgust and shame. The film captures the intimate space of the bathroom through acts of brushing teeth, washing dishes, urinating as a threesome, and painting in a trance whilst hovering over a squat pan.

A recurring motif of water and reflections (both optical and mental) runs through each scene. The drawings that follow are an exploration of the bathroom as a space of confronting or eliding one's body and identity. Fracturing it between real and virtual, whole and fragmented. Once the body leaves the space of the bathroom, its presentation appears at once whole, yet remnants of the body that leaks, remains in the bathroom as an echo of use — an extension of the body for the next person to encounter and become familiar with.





Key Film Stills

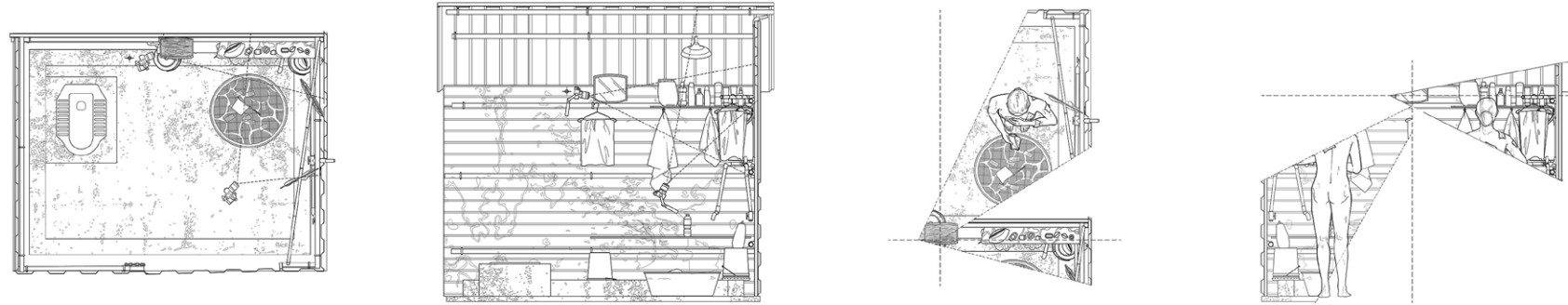
Gallery, Võ Anh Vũ (2019)

- | | | |
|---|--|------------------------------|
| A | | Water and Cotton Paper |
| B | | Urine and Teeth |
| C | | Defeathering And Dishwashing |
| D | | Paint, Smoke and Duck |
| E | | Lather and Spit |

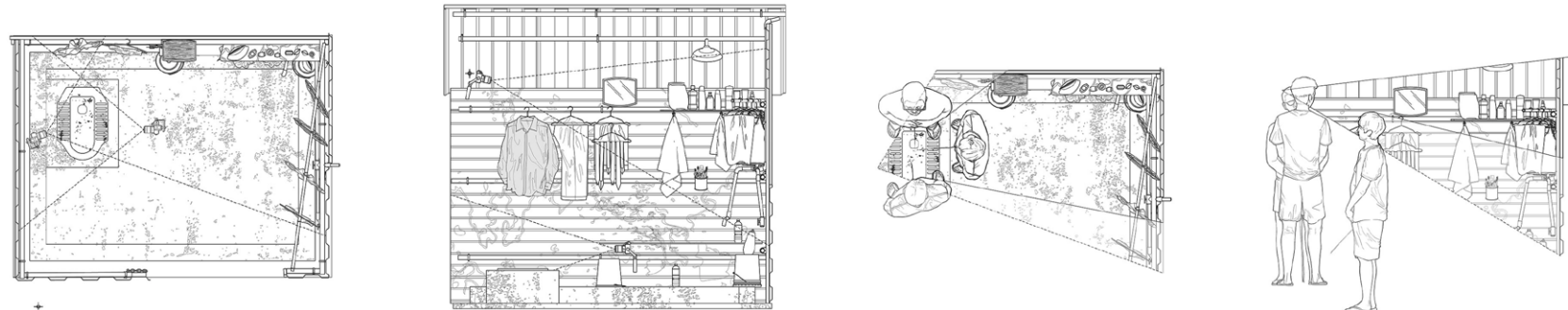
*Film still analysed through Steadman's camera obscura⁵ technique to viscerally render traces of use and inhabitation, delineating boundaries of ephemera where there are seemingly none and transcribing microworlds of bodily maintenance and identities through fragmentation of the field of view.

⁵ Steadman, Philip. *Vermeer's Camera: Uncovering the Truth behind the Masterpieces*. Oxford ; New York: Oxford University Press, 2001.

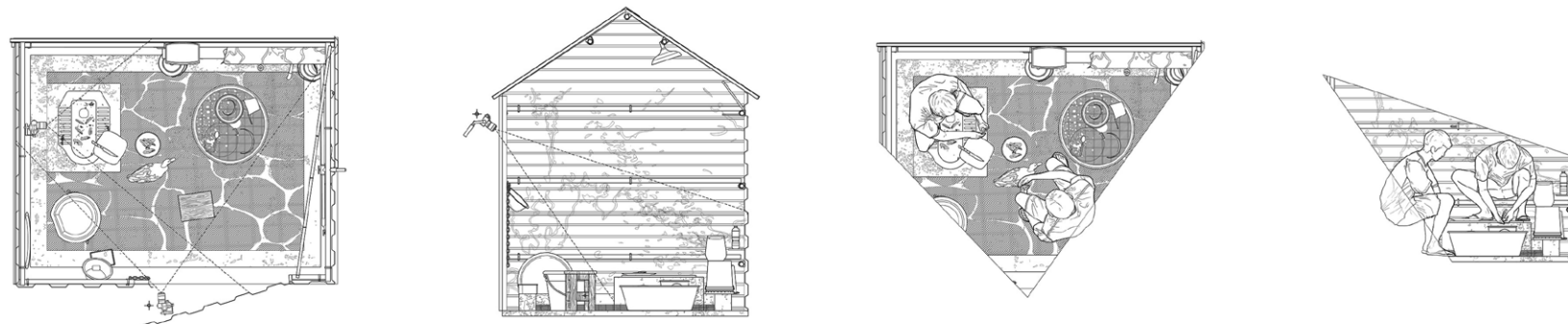
A



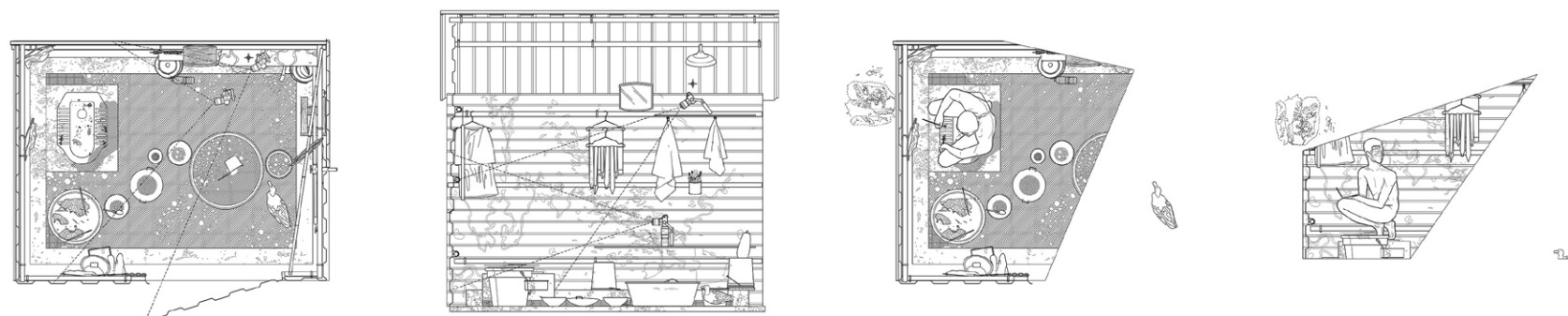
B



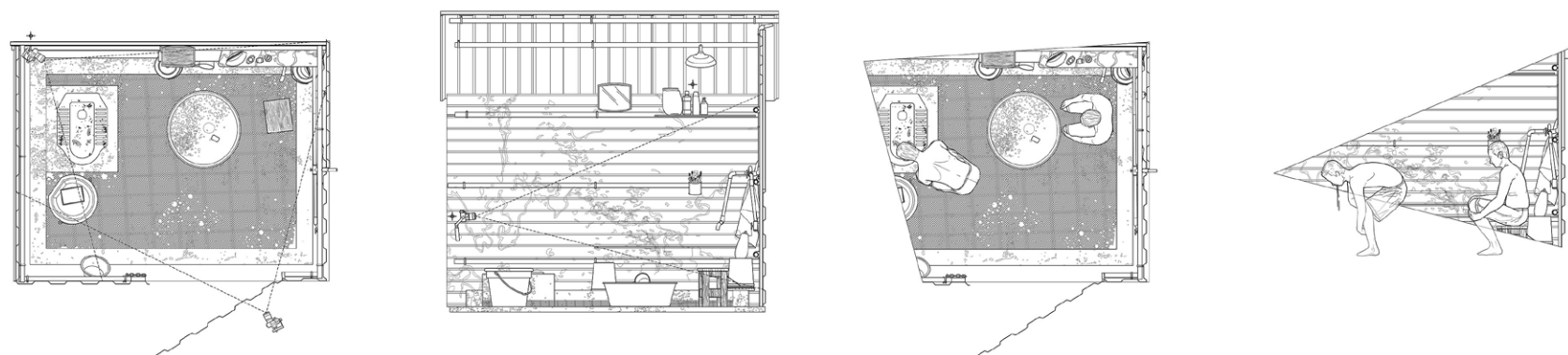
C



D



E



Drawing from the film set design and camera angles of short film *Gallery*, this series of fragmented drawings study the plural microworlds of a communal bathroom. The obscure fragments reveal a method of transcribing excremental ephemera and cleansing rituals as multiple discrete experiences by the body in relation to its postures within a seemingly singular space.

Set Design Instructions

Scene A | Water and Cotton Paper

Secure a wood frame plane mirror to pipe - tilt 30 degrees downwards. Place a packet of laundry detergent, a bottle of mouthwash, and an assortment of shampoos and cleansers on rusted shelf. Hang 2 dry weathered towels from underside of shelf. Place empty water bottle on lower rusted shelf and packet of laundry detergent atop overturned pail. Balance pail at corner of raised ledge.

Scene B | Urine and Teeth

Stain squat pan with splotches of grime and urine on grooves and inside bowl. Hang 2 deep red satin lingerie tops on bamboo, left of faucet. Hang wet white translucent blouse and beige towel on right of faucet. Slant hangers to face door.

Scene C | Defeathering and Dishwashing

Smear lard and sprinkle feathers in squat pan. Place cutlery knife 1/3 on clean white plate with handle poking out - balanced at 45 degrees off the squat pan and concrete plinth. Flood ground with water. Stack a wok with a spoon on top, small bowl inside metal pot, bowl and ladle inside copper basin filled with mild soapy water. Place bowl with feathers and lard and a partially defeathered goose on right of dirty plinth. Place bucket in front of plinth.

Scene D | Paint, Smoke and Duck

Pour red paint water around squat pan's grooves and on concrete plinth. Flood ground with red paint water. Stack wide plate with paint splotches above bucket. Place bowl with spoon inside, wok, small and medium bowls and copper basin with ladle in a rough diagonal on floor. Place another bowl on right of copper basin where duck will be flung to. Place empty water bottle lying horizontally in water by ledge.

Scene E | Lather and Spit

Hang towel at corner of squat pan. Move trousers to left of squat pan. Hang actor's shorts and shirt on hangers by the entrance. Sandwich liquid detergent bottle and toothpaste between pipe and corrugated sheet and between faucet and corrugated sheet respectively.

visual studies
into Lewy Body
dementia

On several occasions while we were assisting Gong Gong with bath time, we observed him washing his hair by the sink, in a bid to find the shower head. Forgetting to wash parts of his body like the nape of his neck, and much of his back as his reach became increasingly encumbered. Bath time left everyone with a sense of frustration in more ways than one. From the distress of cleaning oneself to the intrusive hovering and aiding at arm's length, and the emotional labour of repeating oneself whilst apprehensively awaiting another misadventure or even worse — a fall.

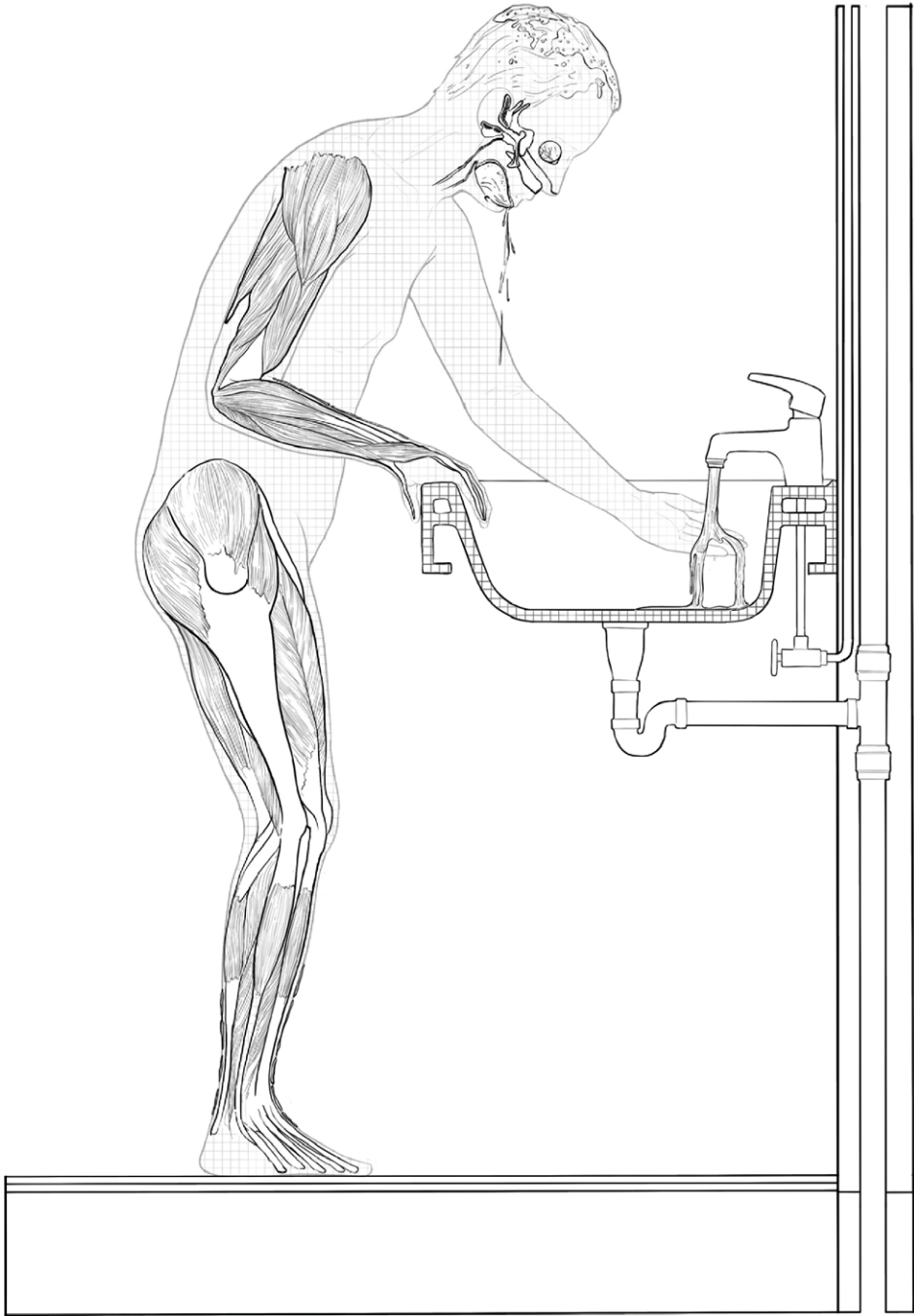
An automatic act often executed from motor skill memory and procedural memory for many of us, the essential ritual of bathing has become an arduous dance between body and bathroom. Here the tenuous rapport between caregiver and care-recipient, exacerbates the merging of bodily and psychosomatic autonomy. Suffice to say bathing assumes an emotional toil.

The highly functional logistics of bathing and it's architecture — the bathroom — at the onset of dementia has suddenly become dysfunctional and disabling. As object categories fall apart, daily tasks become conflating and confusing for the Lewy Body Dementia elderly, the bathroom's competing visual cues and ubiquity becomes an increasing liability to every day living.

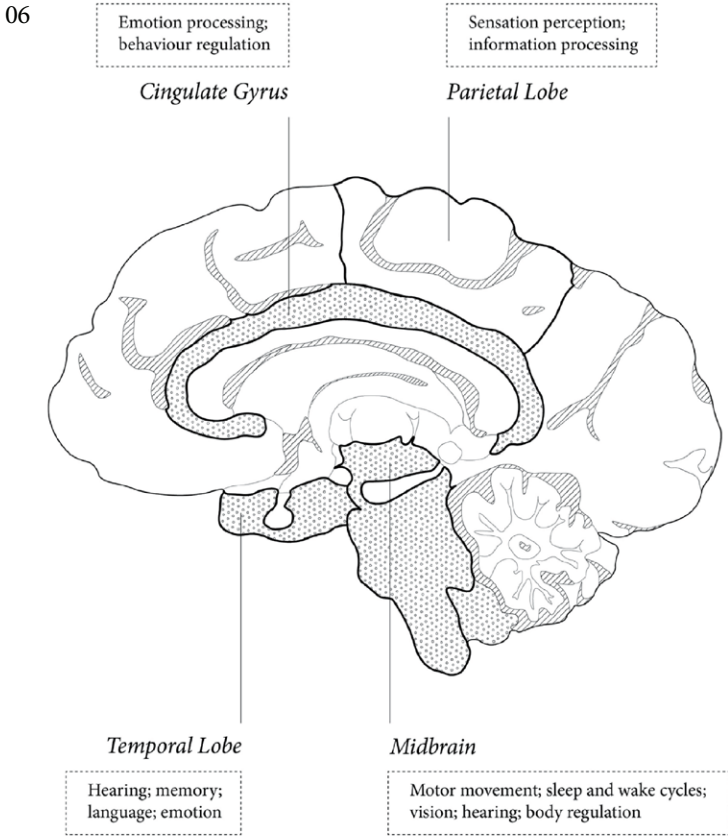
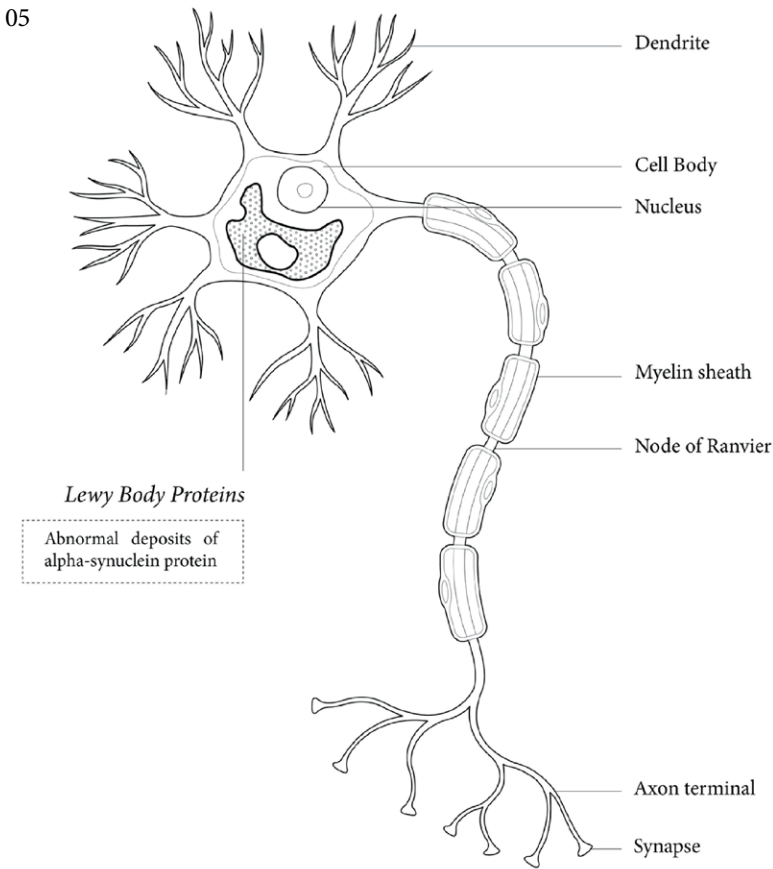
04 Shower Head Faucet_Deteriorating Body_Lewy Body Dementia

05 Neuron Destruction_Brain Cell Structure

06 Brain Shrinkage_Sagittal Section of Brain



04



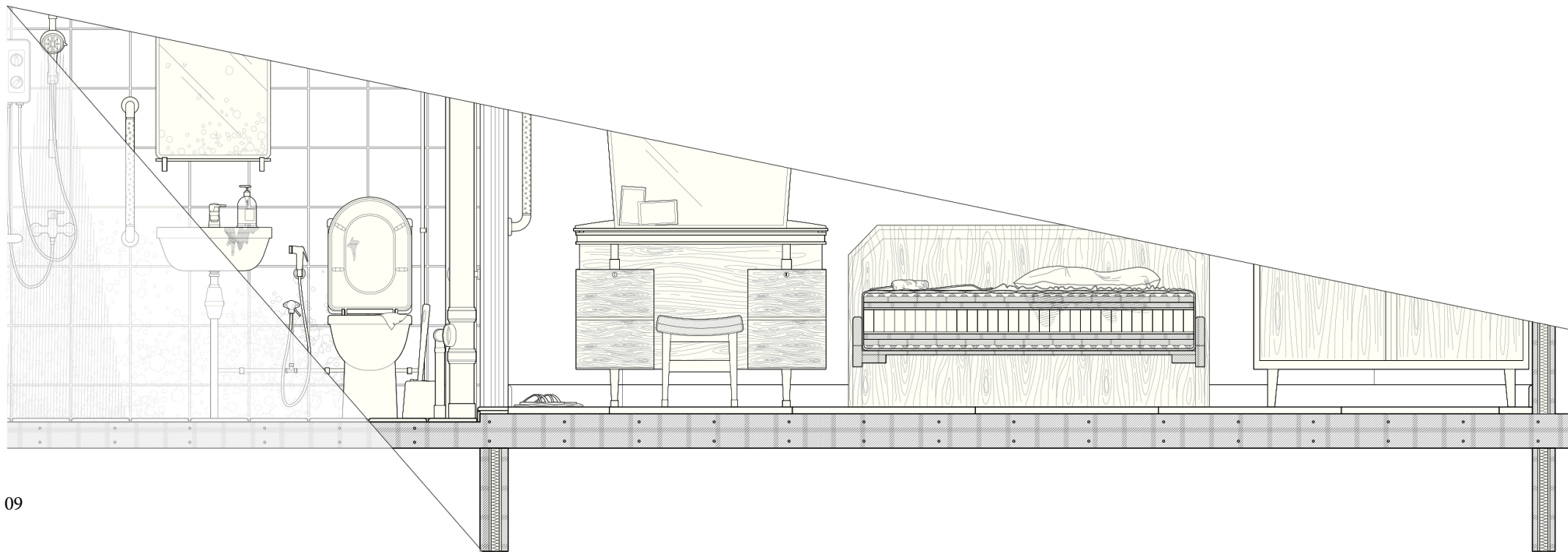


07 Plan of gong gong's
four-room slab block HDB flat

08, 09 Obscura plan and section
fragment of master bedroom
bedding and en-suite bathroom

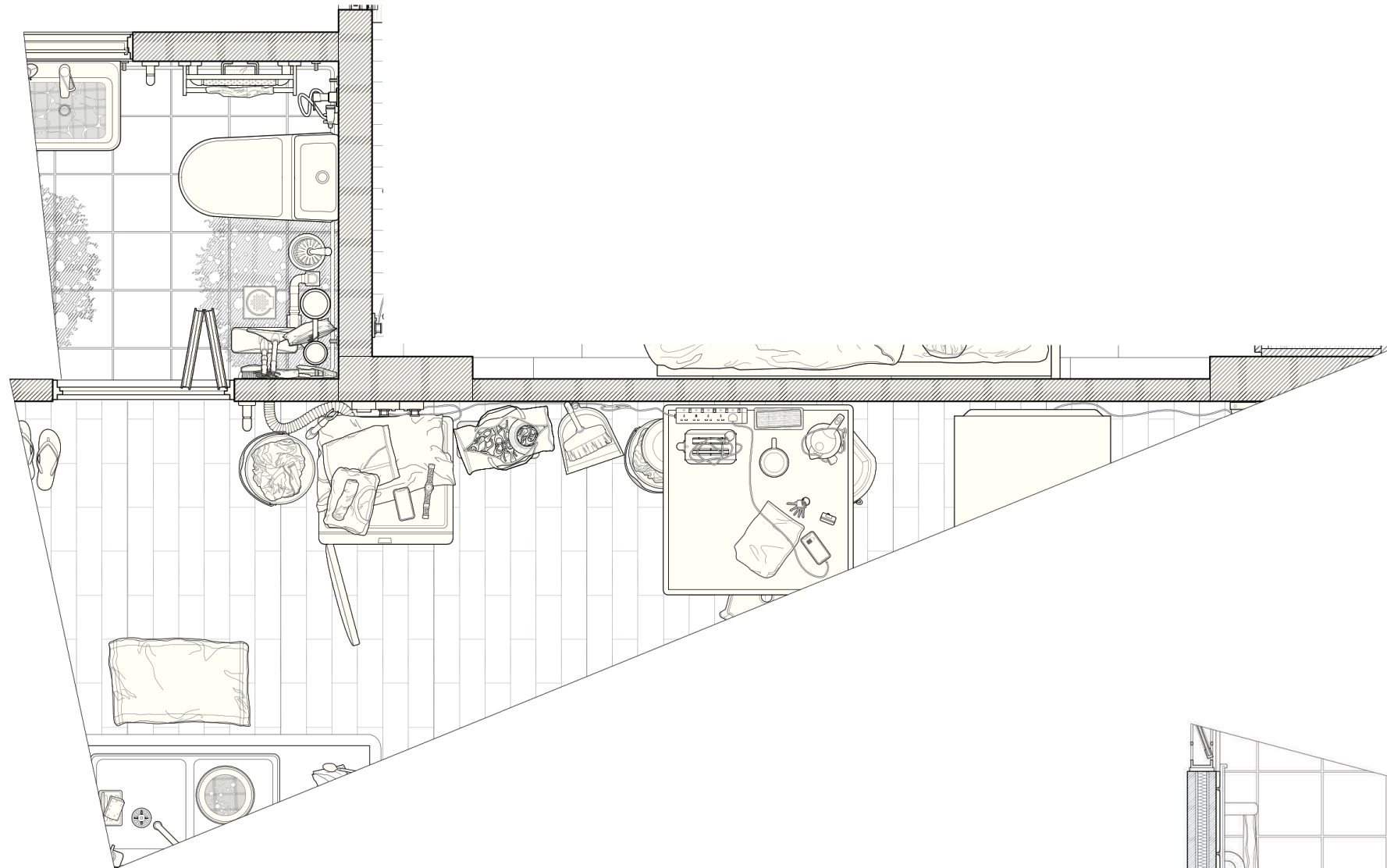


08



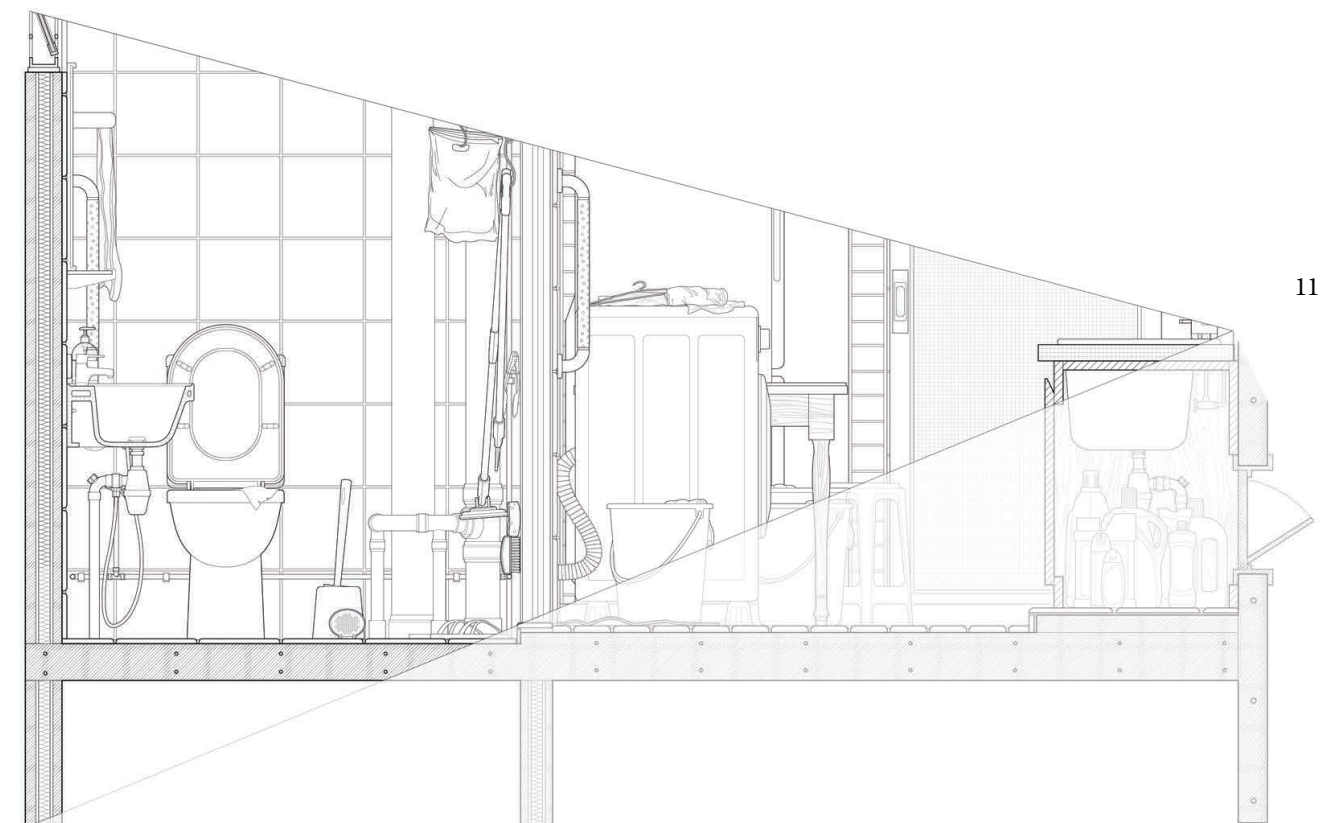
09

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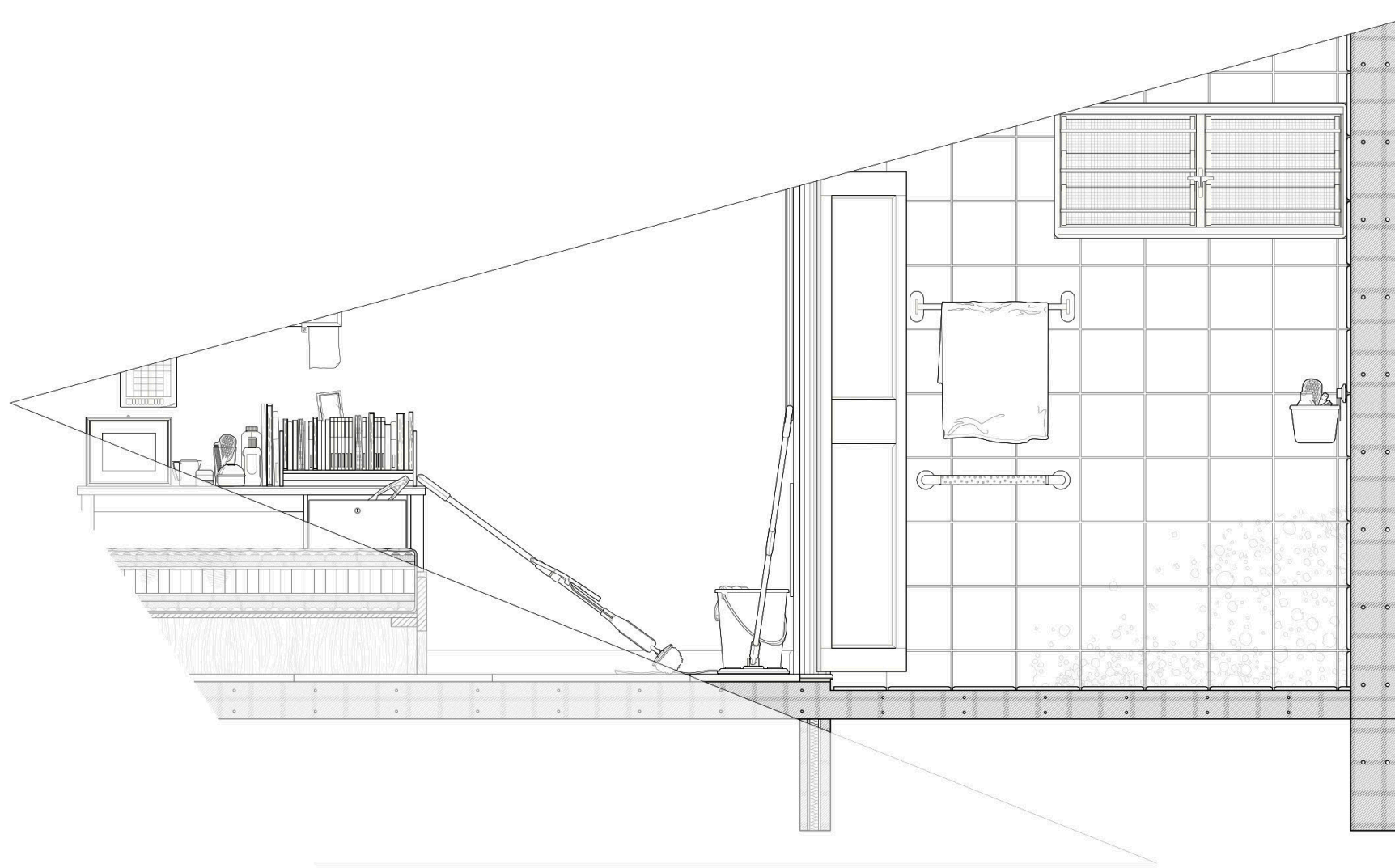


10, 11 Obscura plan and section
fragment of kitchen bathroom

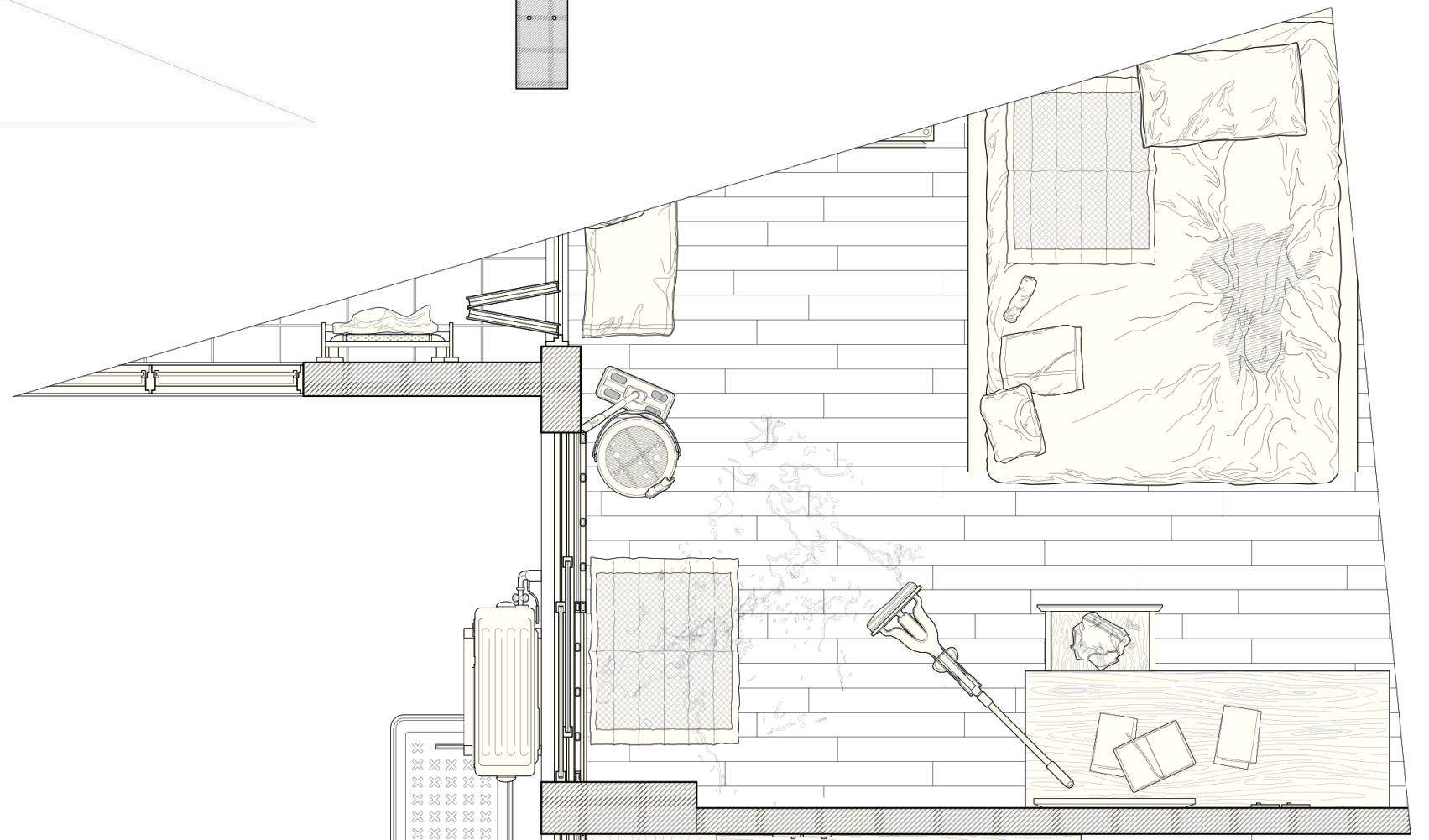
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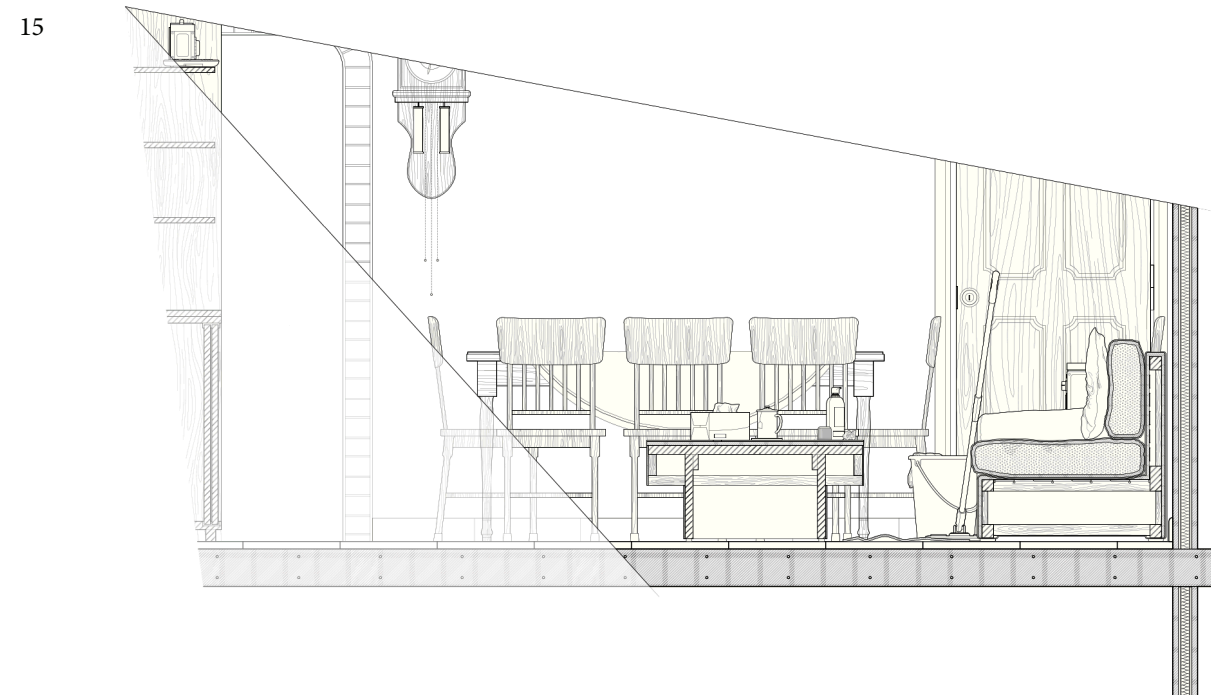
12, 13 Obscura plan and section
fragment of master bedroom
window, desk, bedding and en
suite bathroom



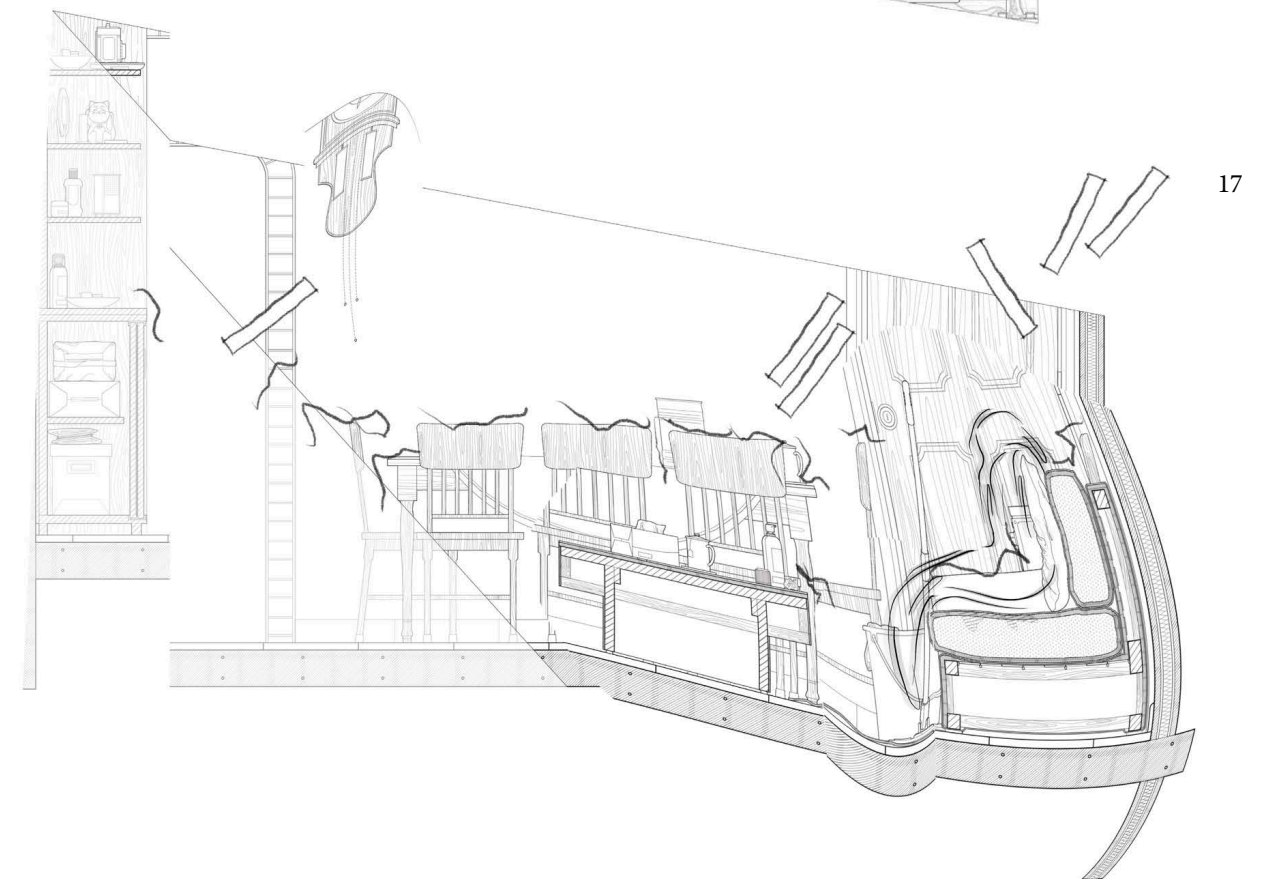
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16



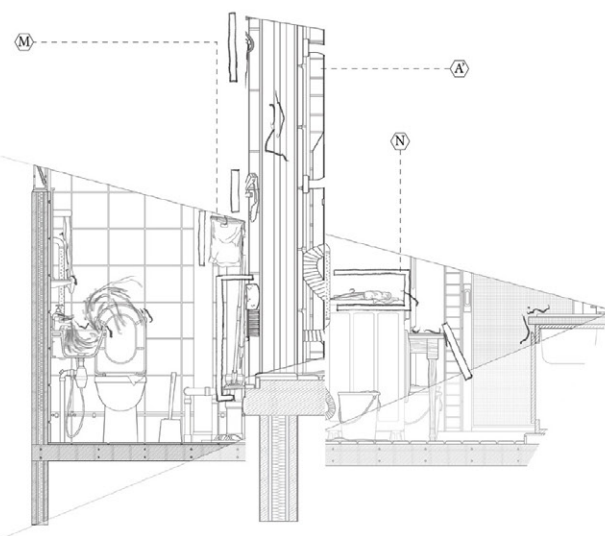
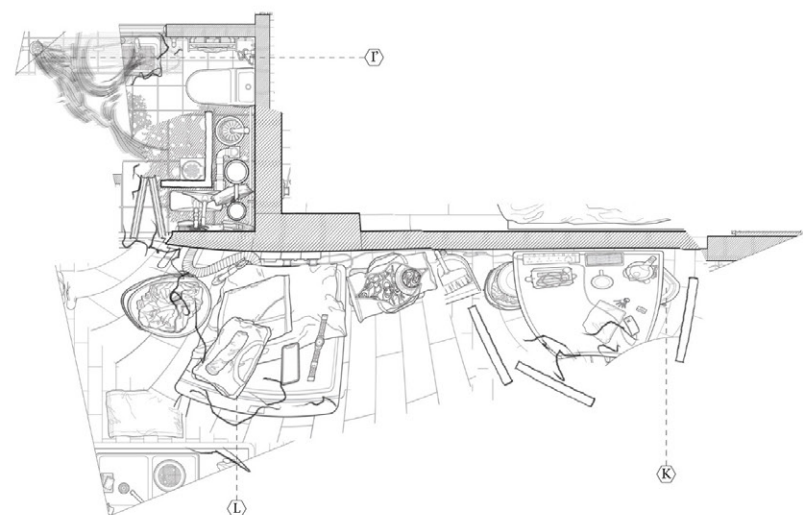
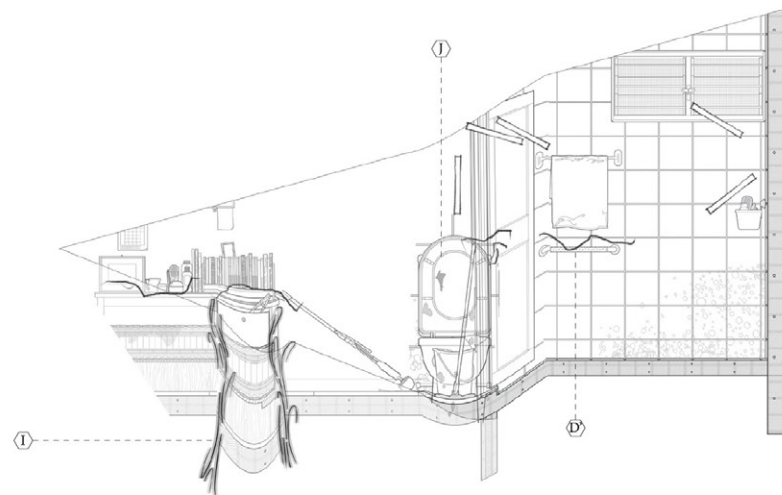
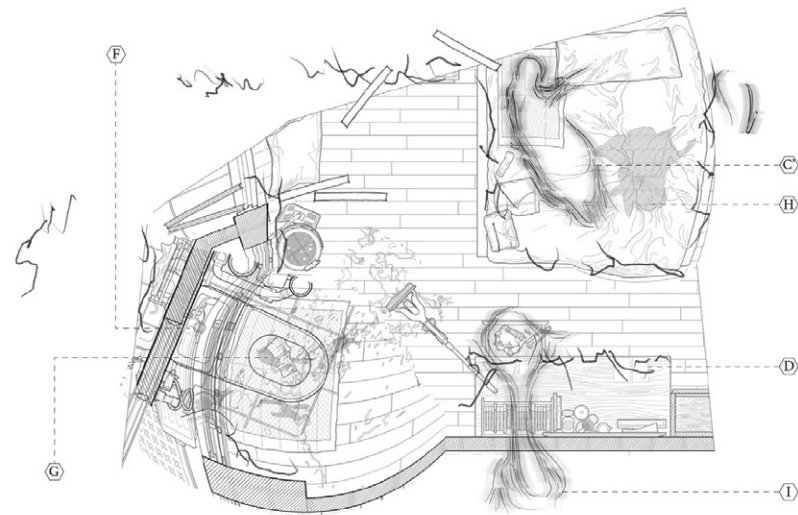
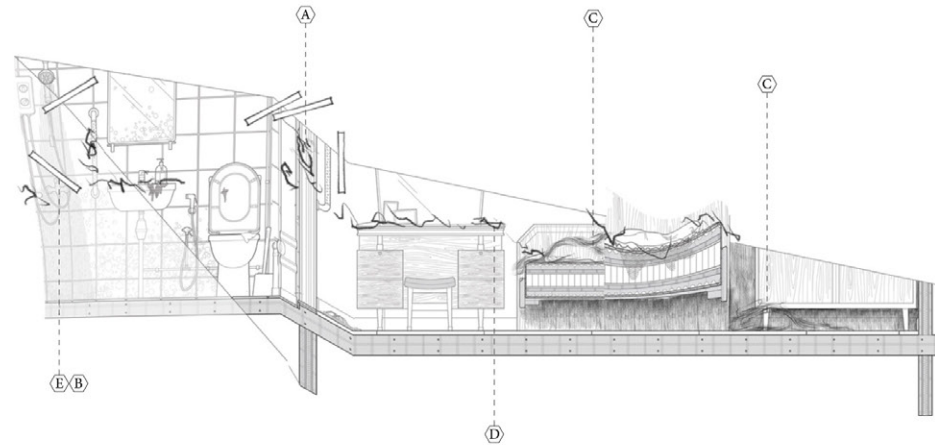
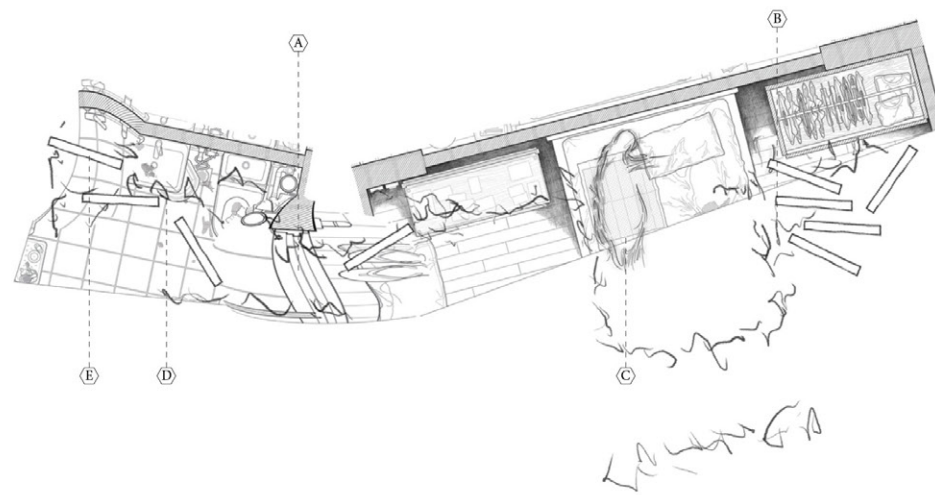
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17

14, 15 Obscura plan and section fragment of living room

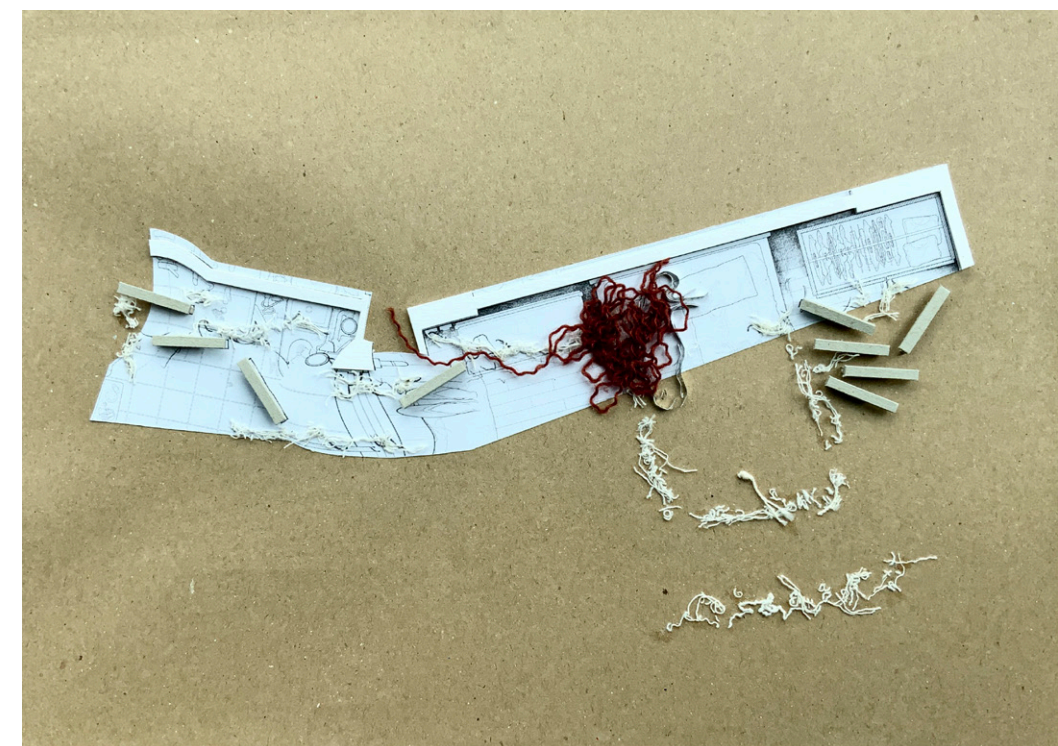
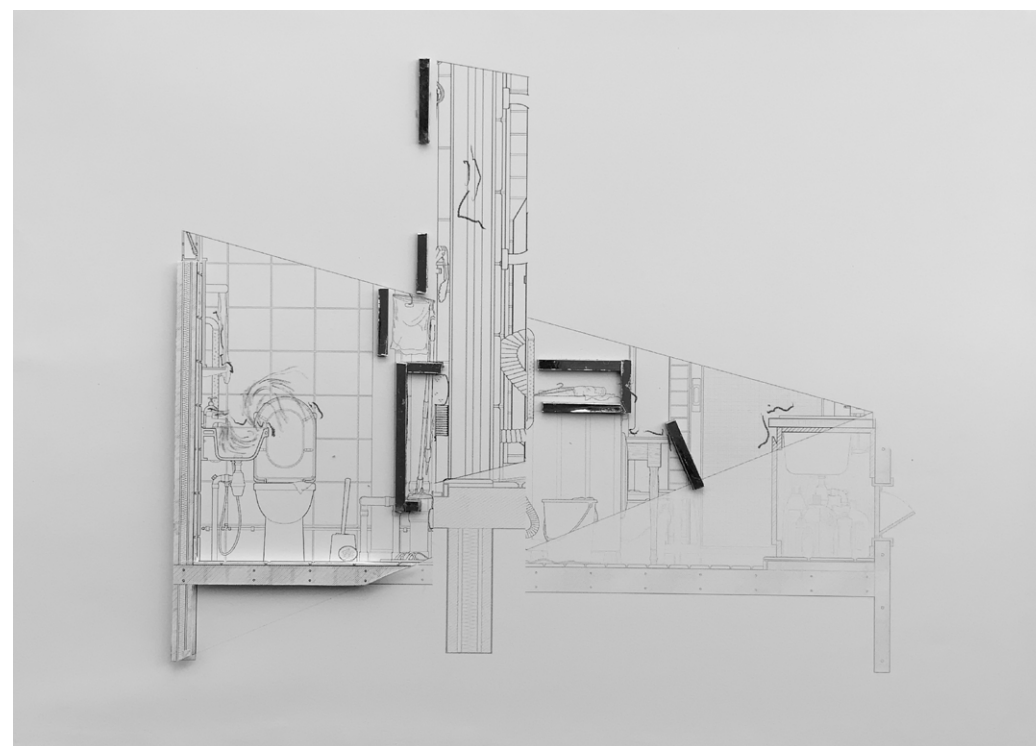
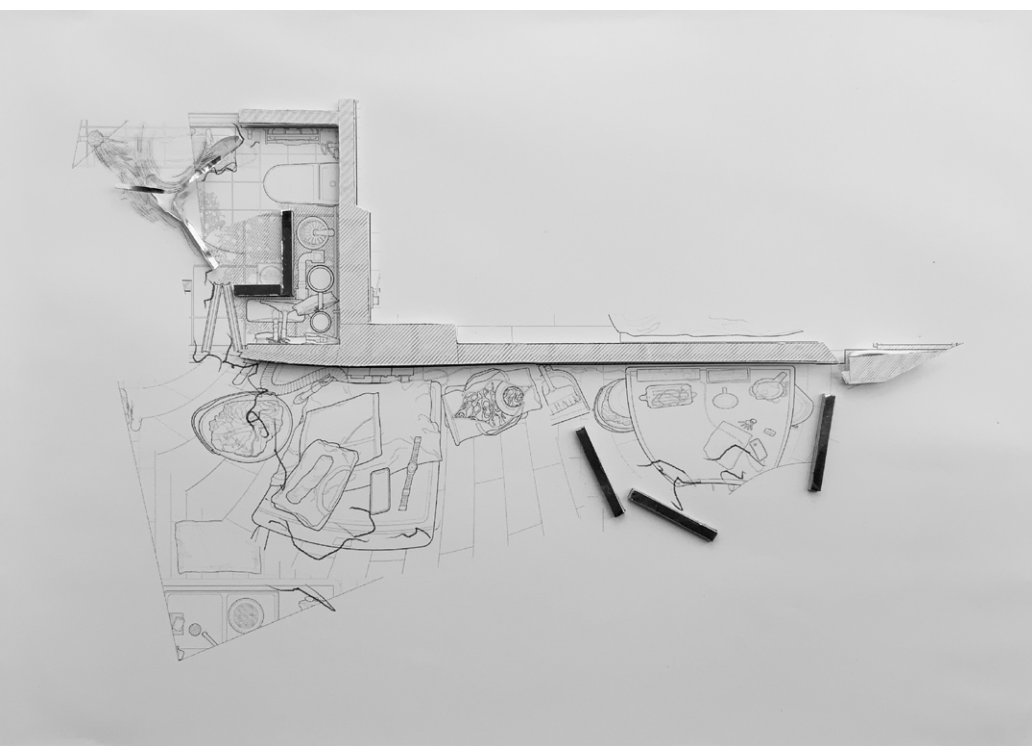
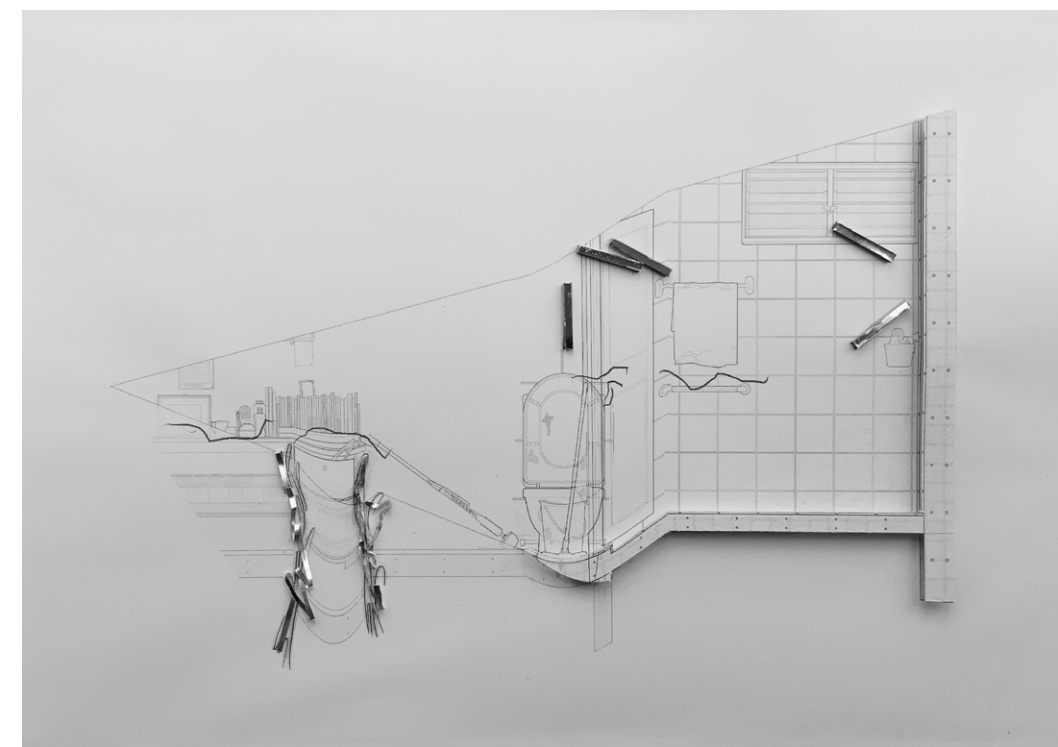
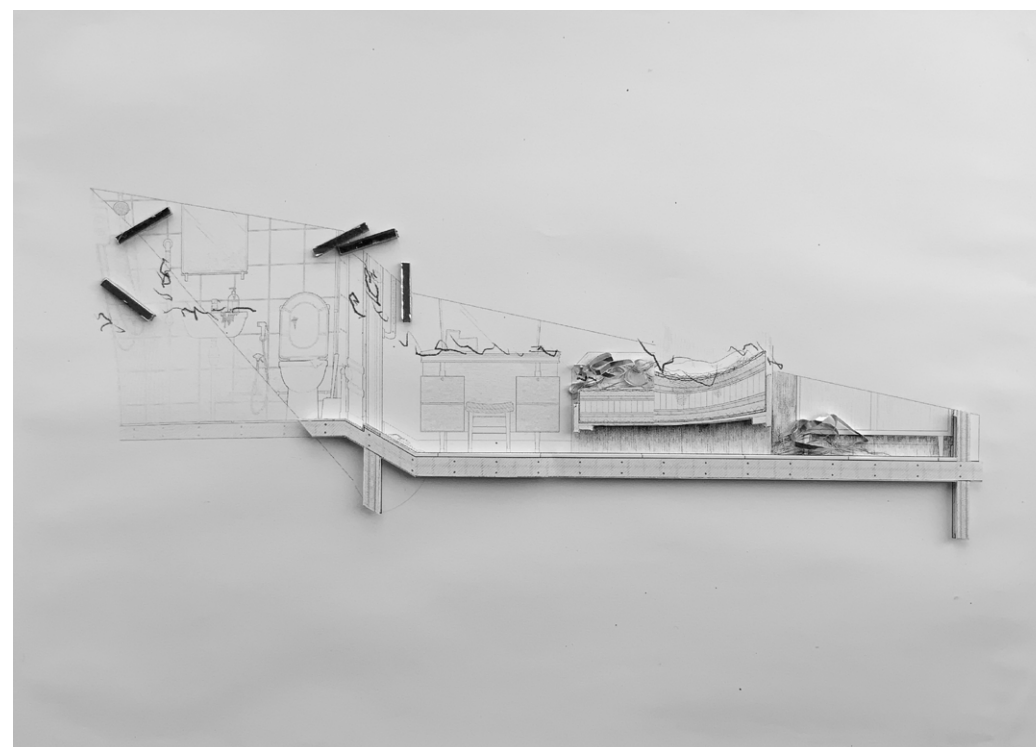
16, 17 Distorted plan and section fragment exploring the visual spatial distortion brought upon by of Lewy Body dementia



hallucinatory cartographies

- A Protraction of Thresholds; Parkinson's-like symptoms**
cognitive; mobility
Shuffling walk, slowed movement or frozen stance; Tremor or shaking most commonly at rest; Stooped posture.
- A' Protraction of Thresholds; Parkinson's-like symptoms**
cognitive; mobility
A 30mm step down into the bathroom is perceived as a 300mm ledge, requiring the LBD body to brace itself physically and mentally each time they cross this tiny sliver of threshold space.
- B Task Repetition**
cognitive
Difficulty planning or keeping track of sequences (poor multi-tasking)
- C Visual Hallucinations**
cognitive
Visual hallucinations occur in up to 80 percent of people with LBD, often early on. Nonvisual hallucinations, such as hearing or smelling things that are not present, are less common than visual ones but may also occur.
- C' Visual Hallucinations**
cognitive
Five people stay with Gong Gong — A burly man who sleeps beside him; a lady who sleeps on the floor by his bed; and two teens who reside in the living room.

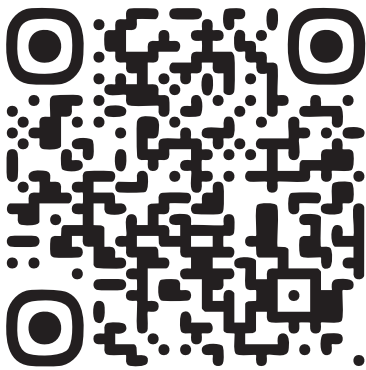
"they are driving up my electricity bills and won't go back to their homes!"
- D Surface Prosthesis**
mobility
Balance problems and repeated falls; Using surfaces to approximate a series of islands/surface supports for movement within and between rooms.
- D' Surface Prosthesis**
cognitive; mobility
Grab bar placements are important in providing viable routes of convenience within rooms. Yet the placement of a grab bar here before the bathroom folding door presents an obsolete source of support for Gong Gong.
- E Object Orientation and Permanence**
cognitive
Difficulty with sense of direction or spatial relationships between objects; Trouble with problem solving or analytical thinking — impacting routines for grooming, bathing and evacuating the body.
- E Object Orientation and Permanence**
cognitive
Wayfinding takes reference from the body as opposed to space. A turn of a head/torso obscures a view and erases space, troubling the wayfinding process of the Lewy Body elderly.
- G Incontinence**
physiological
Loss of bladder and bowel muscle control particularly at night
- H Plastic Sheet; Urine Pad**
physiological; caregiving
Layering plastic sheets and urine pads in incontinence-prone areas alters the materiality and maintenance of the bed - crinkling sounds, regular washing and the detective work of scent detection the next morning.
- I Object-Category Recognition**
cognitive
Difficulty with sense of direction or spatial relationships between objects; The categories of objects between pull-out drawer, rubbish chute and laundry machine become flattened into one.
- I' Object-Category Recognition**
cognitive
Water supplies become indiscriminate - brown water, tap water and water dispensed from the shower head. The tap then becomes a space dedicated for washing the hair and wiping down after the wet bath.
- J Boundary Registration**
cognitive
The corner of the room facing the window beside the bathroom door registers as a suitable space to relief oneself, the deteriorating body experiences a threshold just by encountering it.
- K Visual Distractions**
cognitive; caregiver
Concealing soiled and dirty laundry under stacked pails and underneath tables to prevent visual and garment contamination.
- L Discretising Bathing Process**
cognitive; caregiver
Breaking down more complex tasks like dressing and drying as separate from bathing; Personal affects are kept nearby for sense of security; Spillover of bathroom rituals onto kitchen/laundry surfaces
- M Built-away Thresholds; Storage**
cognitive; caregiver
Thresholds and slivers of tucked away spaces become prime real estate for the live-in helper to tuck away - a makeshift built-in for a packet of detergent, scrub, sponge, scrapper, mop, tongs.
- N Colonising Surfaces**
cognitive; caregiver
Surfaces adjacent to the thresholds of rooms become ancillary spaces aiding in the discretisation of bodily rituals and the simplification of visual environments.



18 Two-and-a-half dimension
tactile hallucinatory cartographic
fragments

leaky bodies

short film (2023)



Leaky Bodies is an experimental medical ethnographic film intended as an information package for prospective neighbours co-opting in an eight-grid collective caregiving and housing network scheme.

The film is part of a series of visual studies into Lewy Body Dementia (LBD), vis-a-vis the domestic infrastructure of a four-room Housing Development Board (HDB) flat as it transcribes my grandfather's medical condition and the modifications made by caregivers through intuitive design hacks. The short film explores the paucity of care spaces and seepages within Singaporean public housing, the coordinated labour of caregiving, and the qualitative embodied experience of LBD.

19 A portion of the dialogue transcript between Gong Gong (in mandarin) and his live-in caregiver (in cantonese), surfacing a discrepancy in visual-spatial understanding of the four-room HDB flat layout.

20, 21 Opening and closing stills from *Leaky Bodies* (2023).

gg
eh, there are 6 rooms [in this flat] y'know?

y
yeah [the house] is very long

gg
downstairs, there're 6 rooms

y
mm I know that



22 Intertitles; abstract medical literature.

23 Surfaces; mobility, traces, and memories

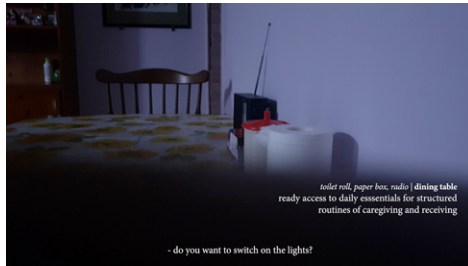
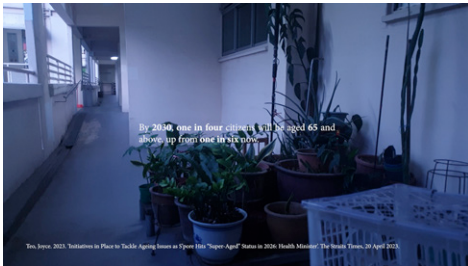
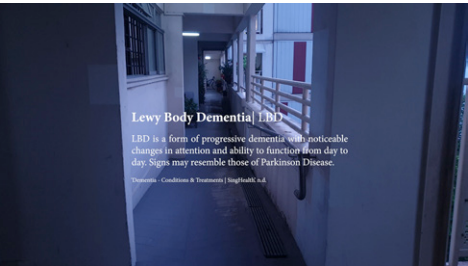
24 Mobility; fixtures, thresholds, and visual-spatial distortions.

25 Episodes; incontinence, complex tasks, and rummaging.

26 Engagement; cognitive stimulation and objects of routines.

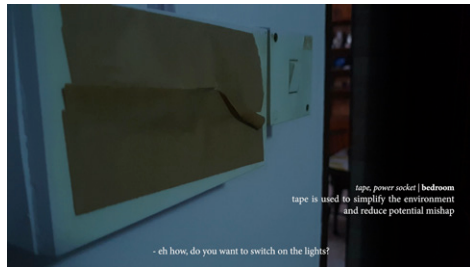
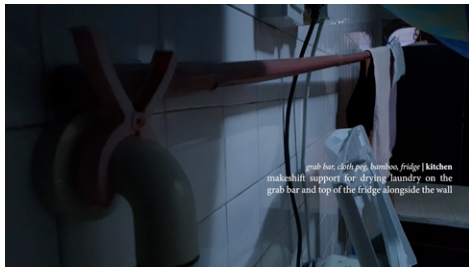
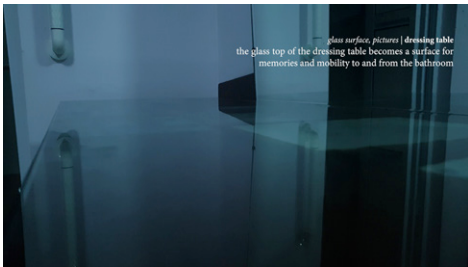
27, 28, 29 Modifications; spatial workarounds and simplification.

22



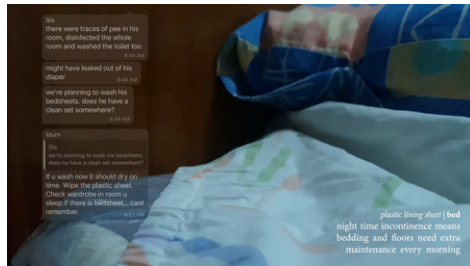
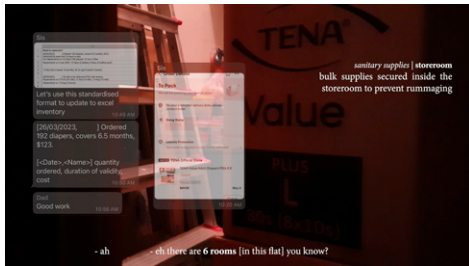
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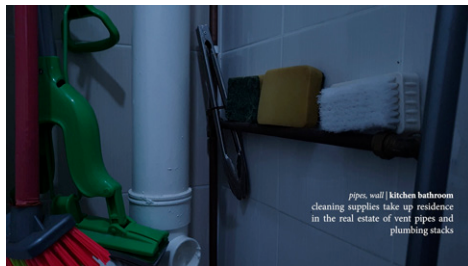
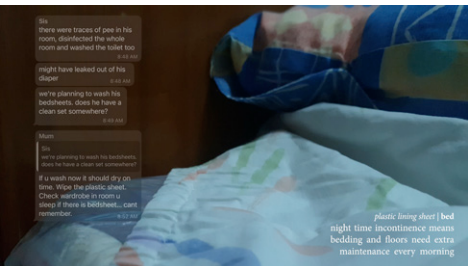
27

24



28

25



29



30

30 Egg carton protecting a multiplug extension from being exposed to water in the kitchen

31 Storage cupboard to conceal kitchen plumbing

32 Built-in kitchen cabinetry with an opening for plumbing maintenance

32 please give gong gong a call

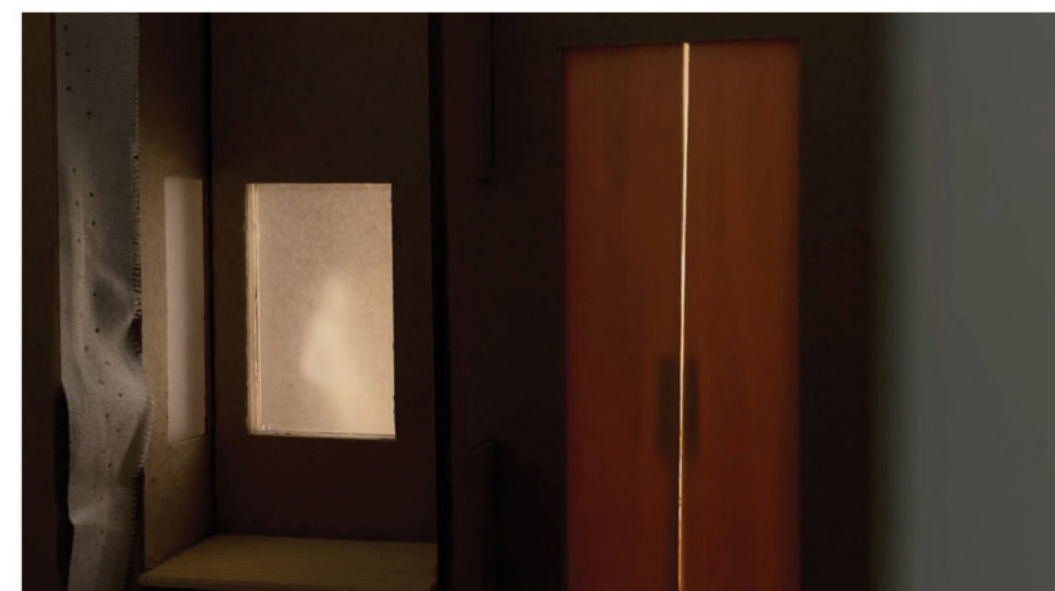
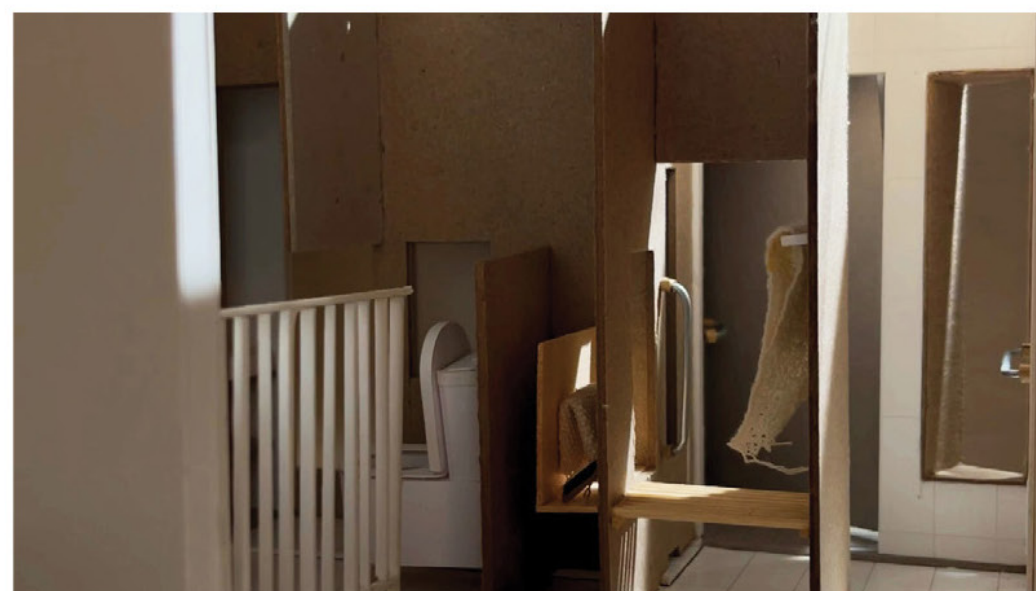
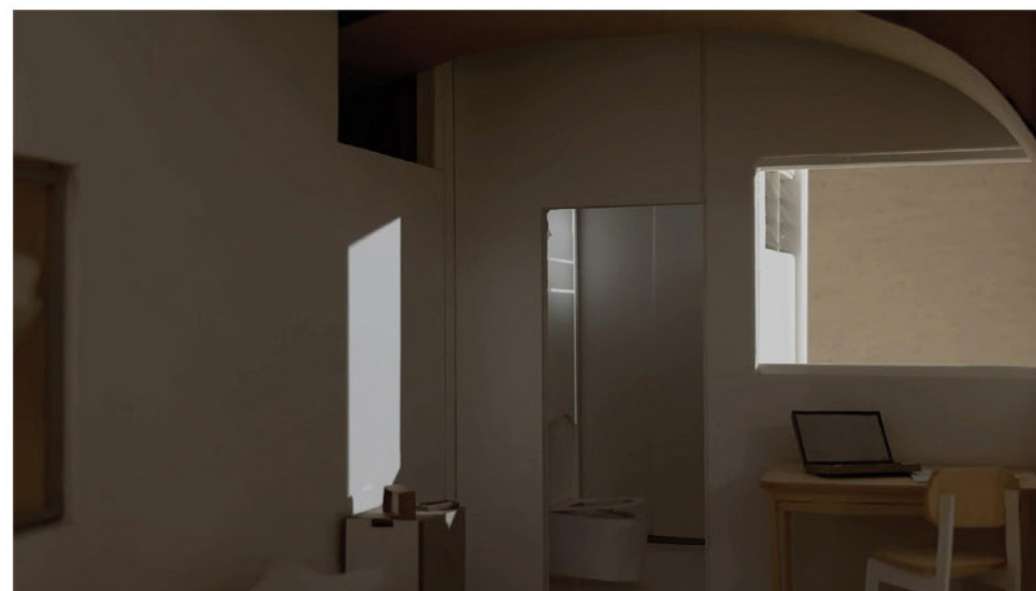
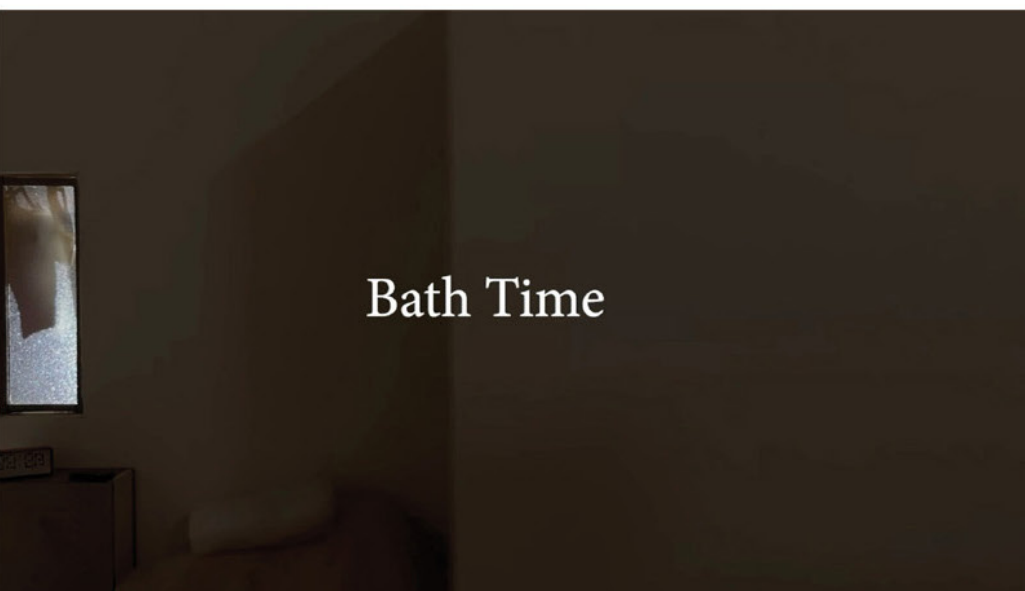


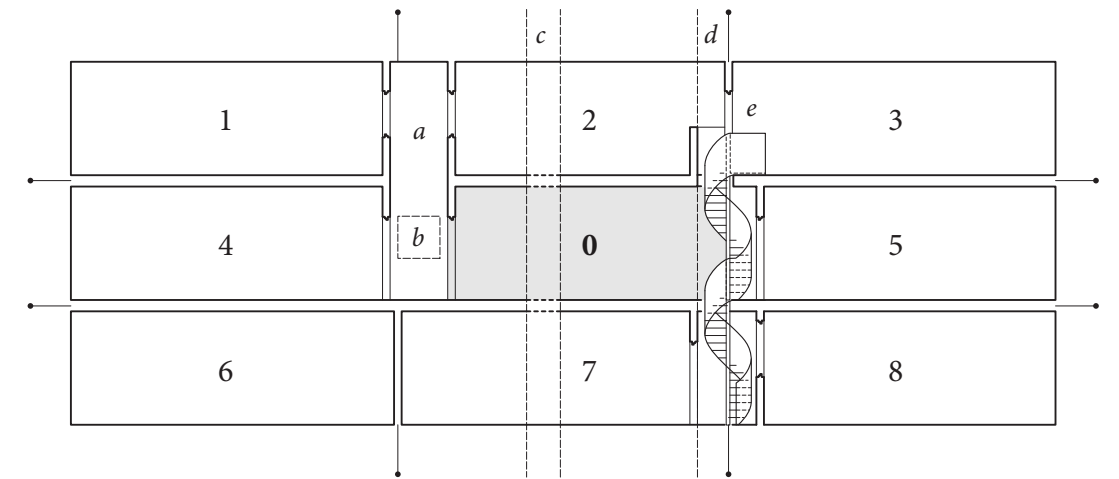
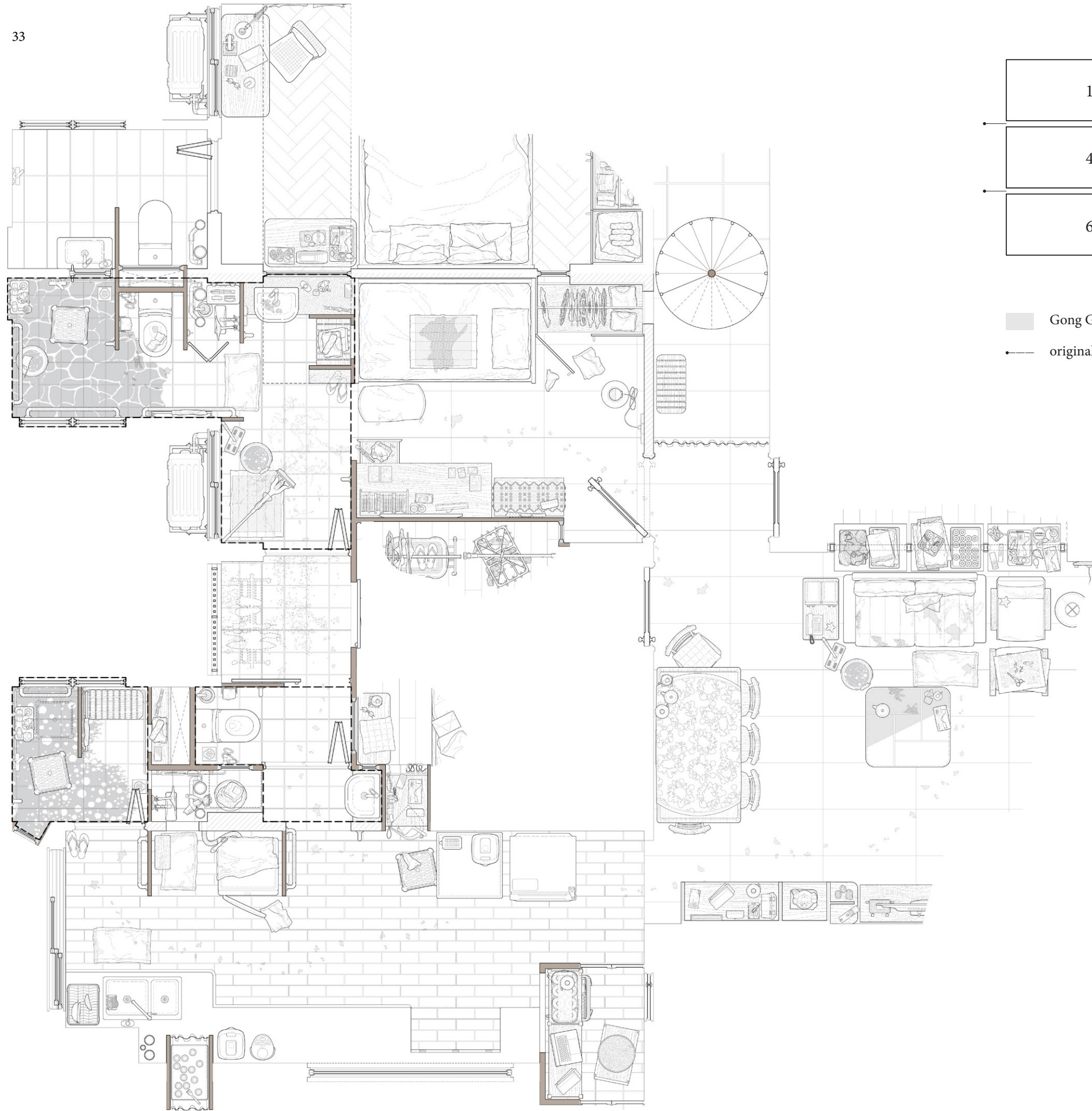
31

32



please
give
公公
/gōng gōng/
a call





■ Gong Gong's unit (0)
 — original grid

- a. kitchen courtyard (0, 1, 2, 4)
- b. delivery window (0, 4, 6)
- c. common bathroom stack shaft (0, 2, 7)
- d. en-suite bathroom stack shaft (0, 2, 3, 5, 7, 8)
- e. spiral staircase (0, 3, 7; 2, 5, 8)

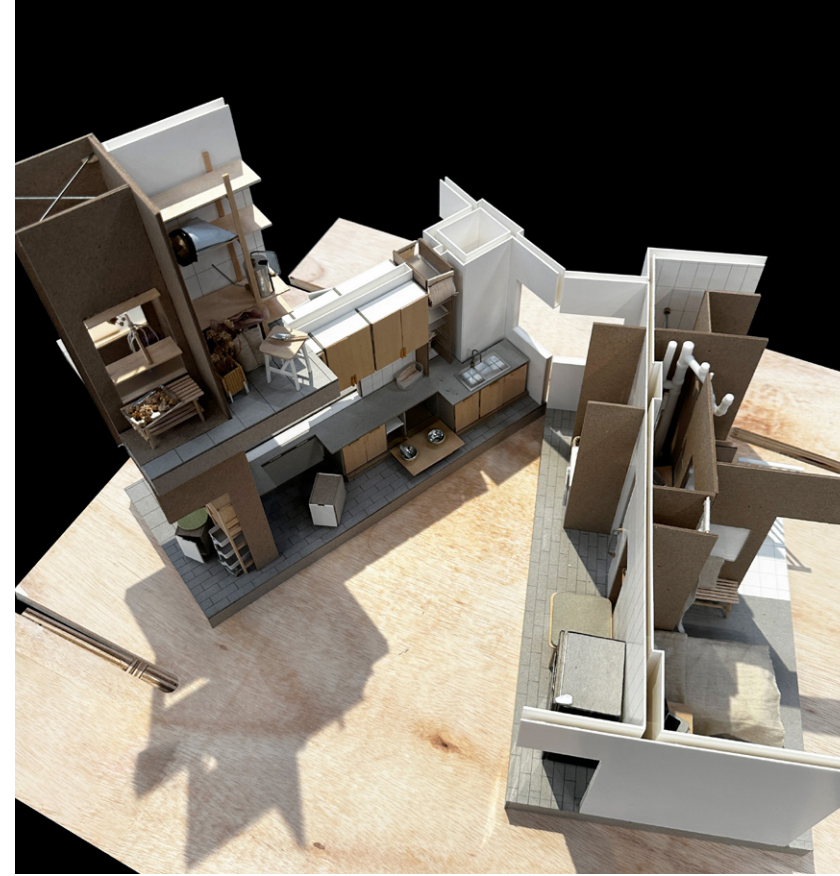
33 April Showers

Plan drawing of two bathrooms connected by a meandering route that Gong Gong negotiates when it is time for his shower. The plan shows a series interconnected passageways articulated by openings, vestibules, gaps, doors, windows, sliding panels, etc.

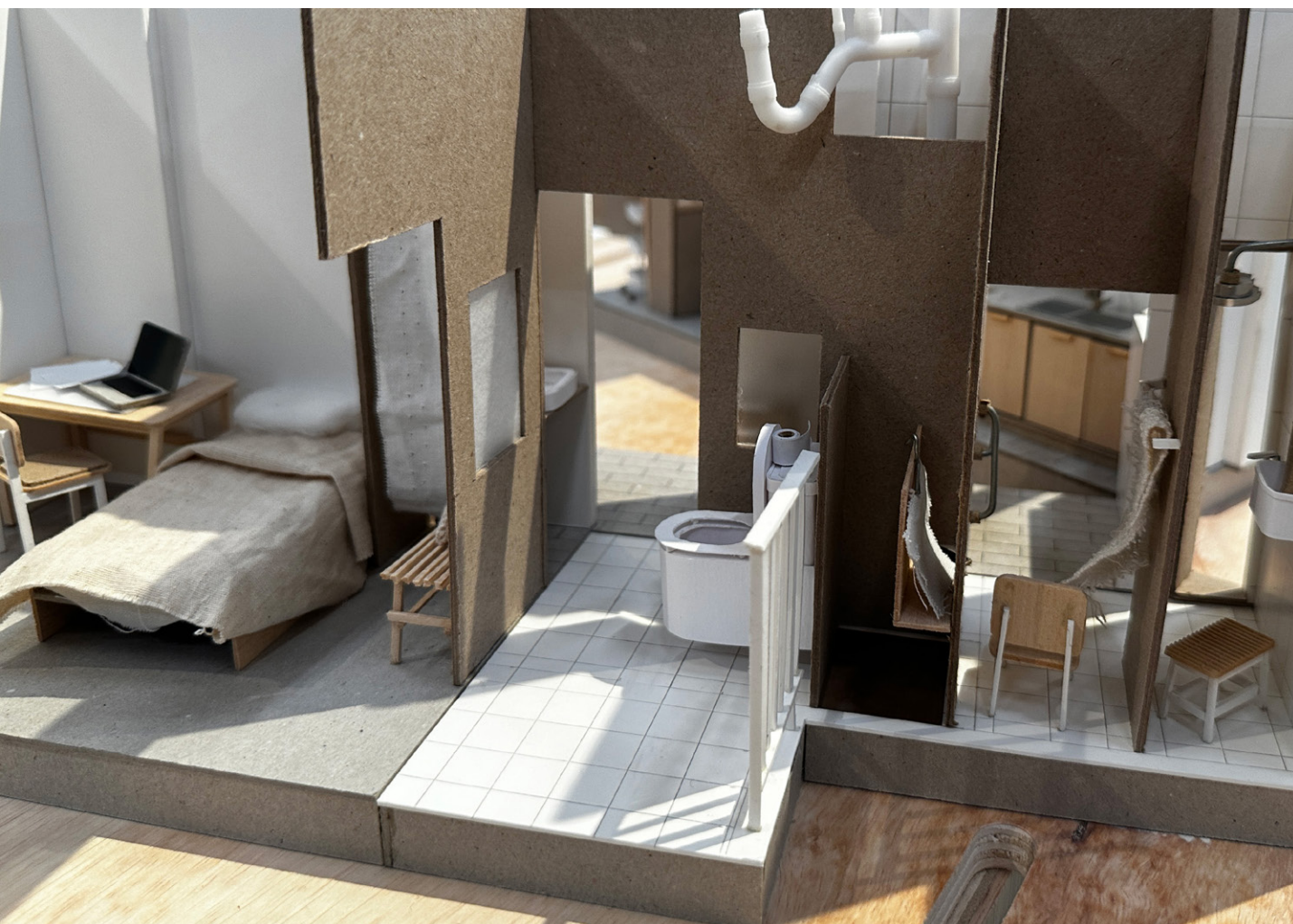
34 Scale model (1:20) of caregiver bedroom and kitchen bathroom threshold

35, 36 Scale model (1:20) of kitchen intervention

35



34



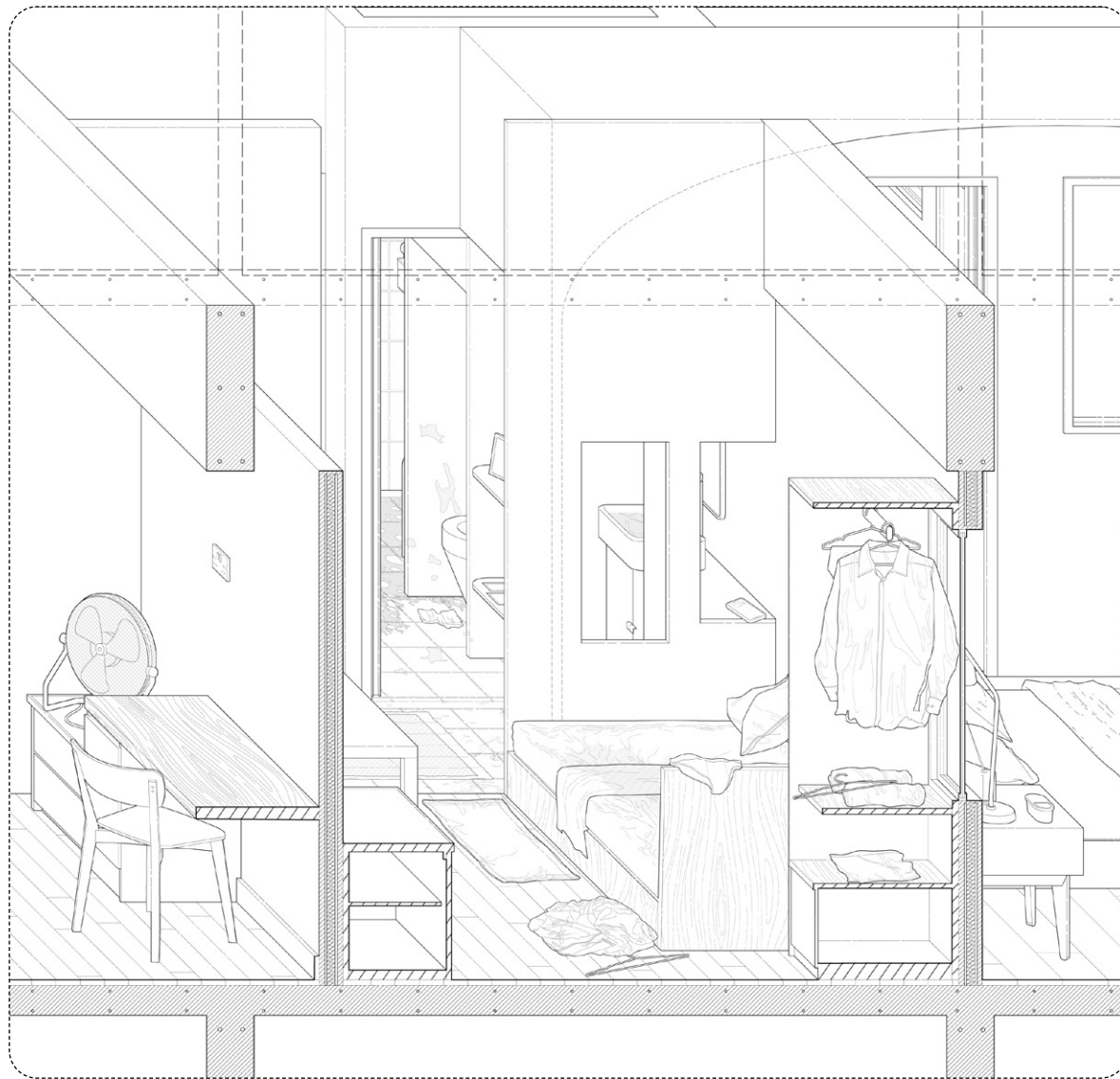
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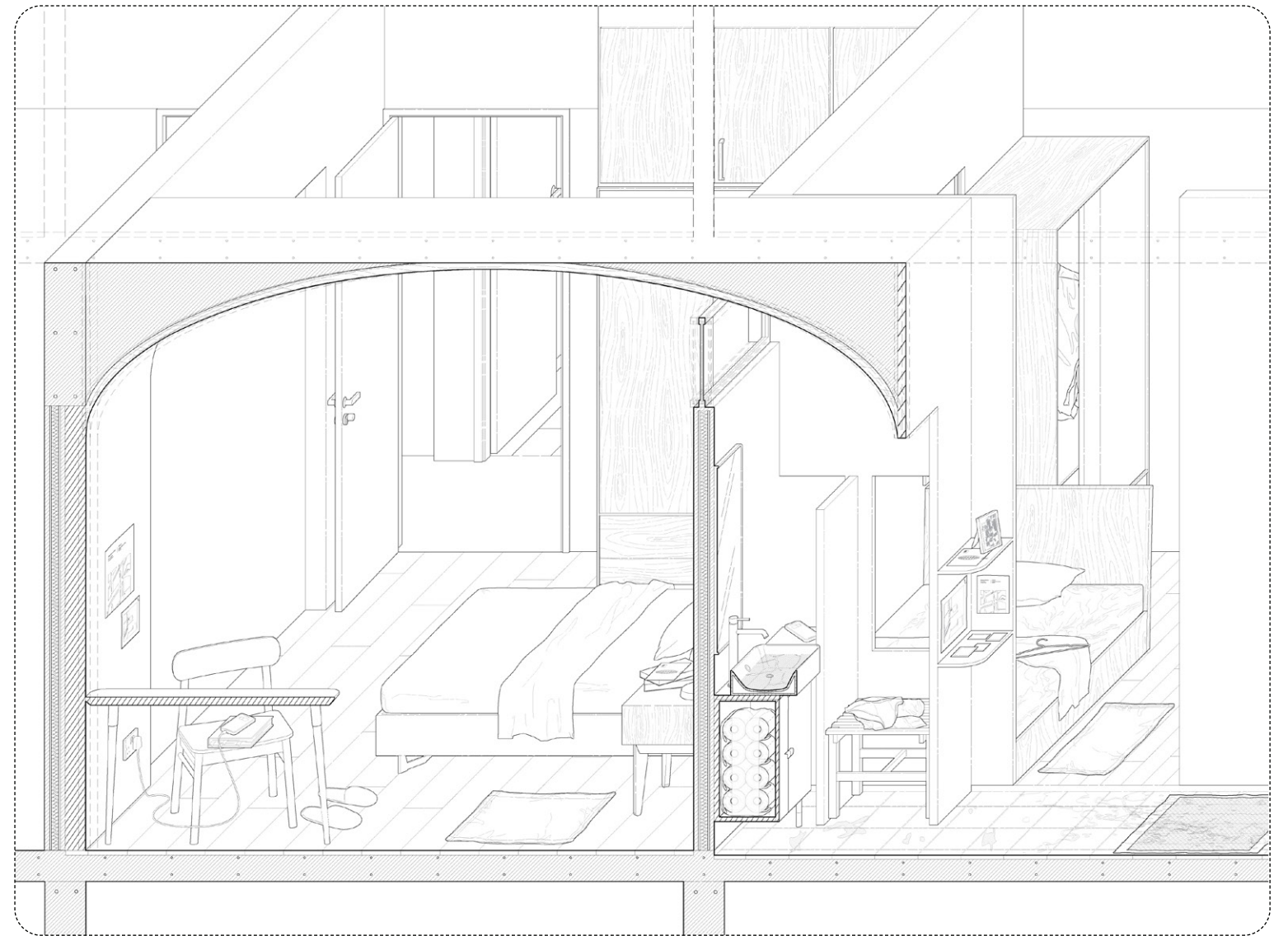
37 Rummaging episodes
produce flittering lights
in the window through
to the neighbour's master
bedroom

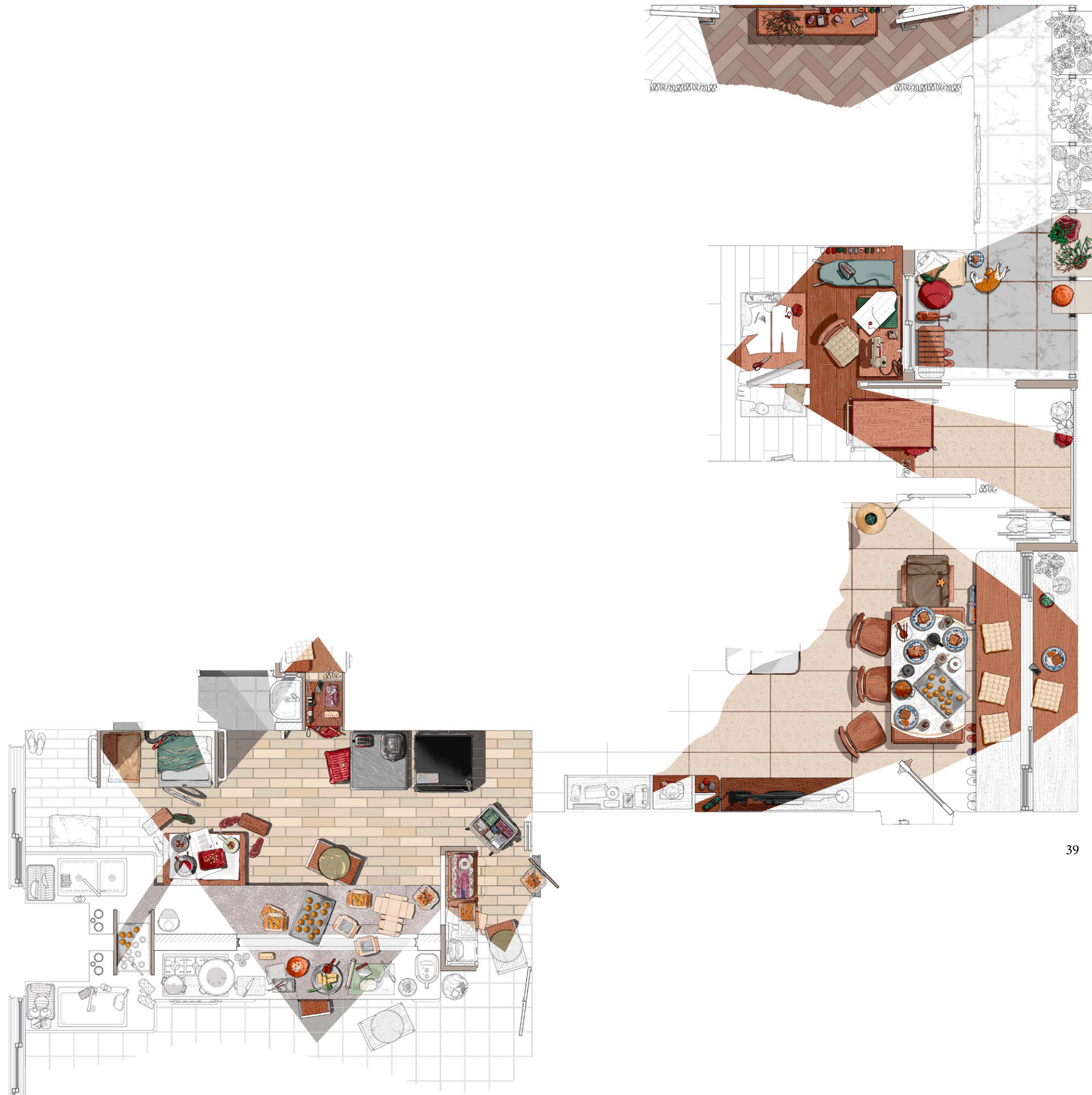
38 Whispering gallery
carries sounds of spitting,
gargling and washing up
over to the work desk in the
adjacent unit's bedroom

37

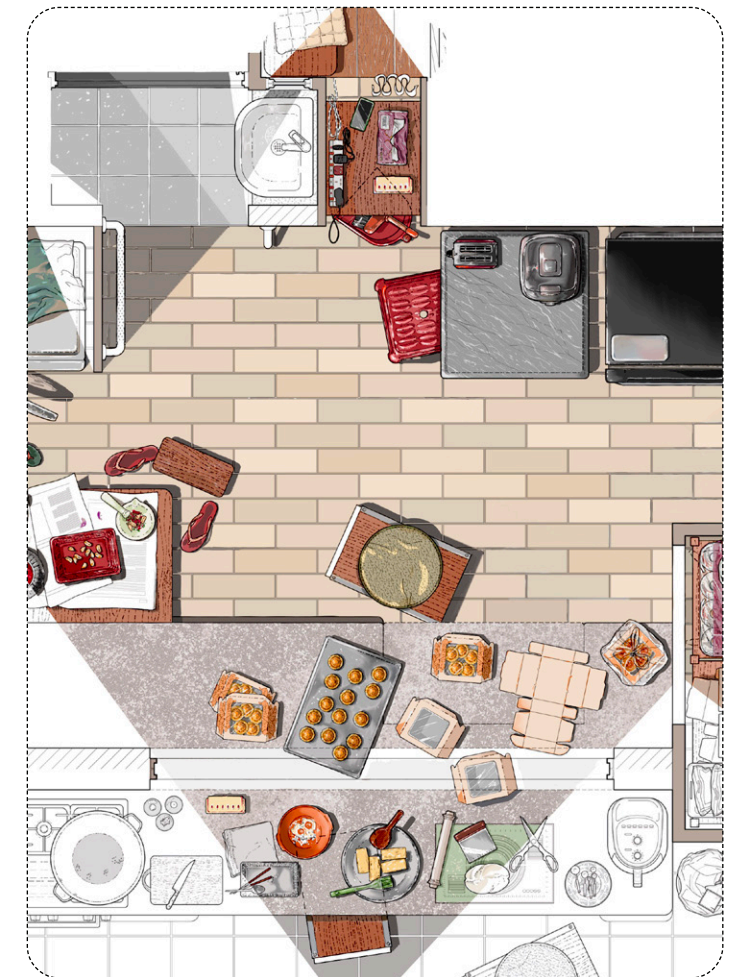


38





39



39 Mealtime

Plan drawing of lunch preparation itinerary, delineating a route through three adjacent housing units.

Mealtime depicts a travelling sous chef — my grandfather — as he meanders across adjacent units during meal preparations to oversee his neighbours cooking techniques. Mealtime is part of a trilogy of domestic cartographies investigating leaky typologies of daily rituals for a Lewy Body Dementia elderly who inhabits the home through a magical worldview. The fragmented illustrations are a continuation on the obscura method derived from the film set design studies derived prior.



40 Kitchen courtyard stack connecting four adjacent units with a caregiver station doubling up at the home baker's storeroom

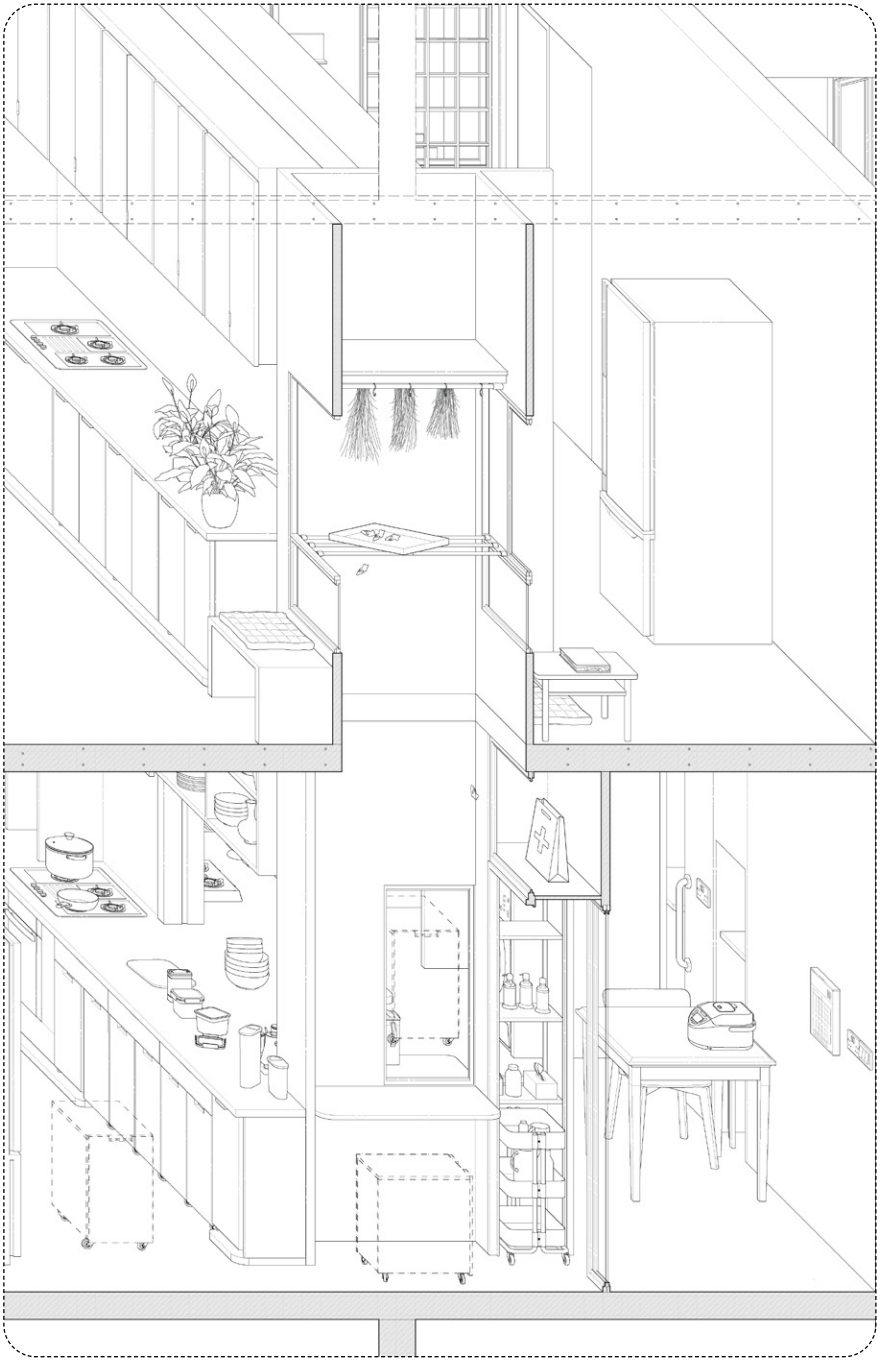
41 Kitchen courtyard stack; pass-through window; laundry service shelf; and chili pounding platform in Gong Gong's kitchen



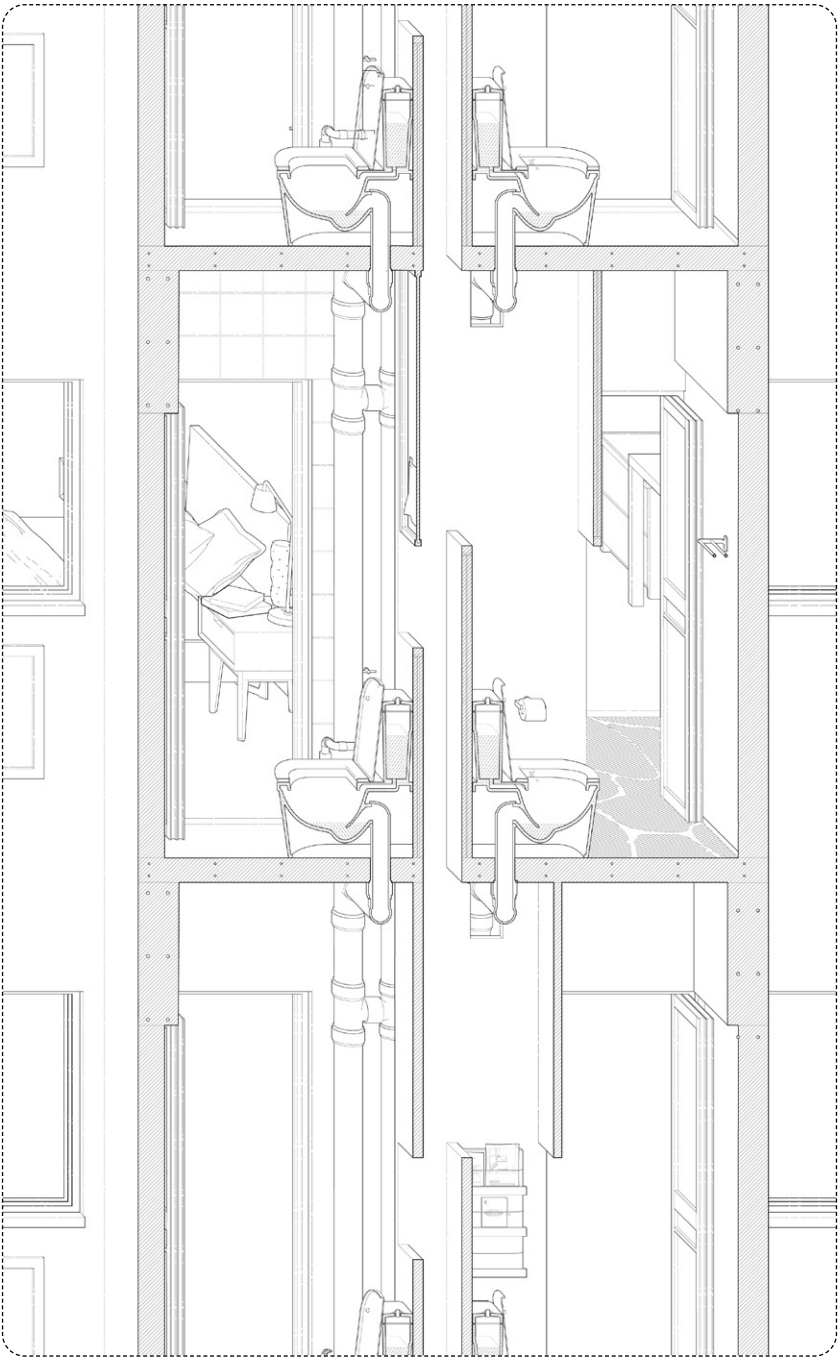
42 Kitchen Courtyard

43 En suite bathroom stack

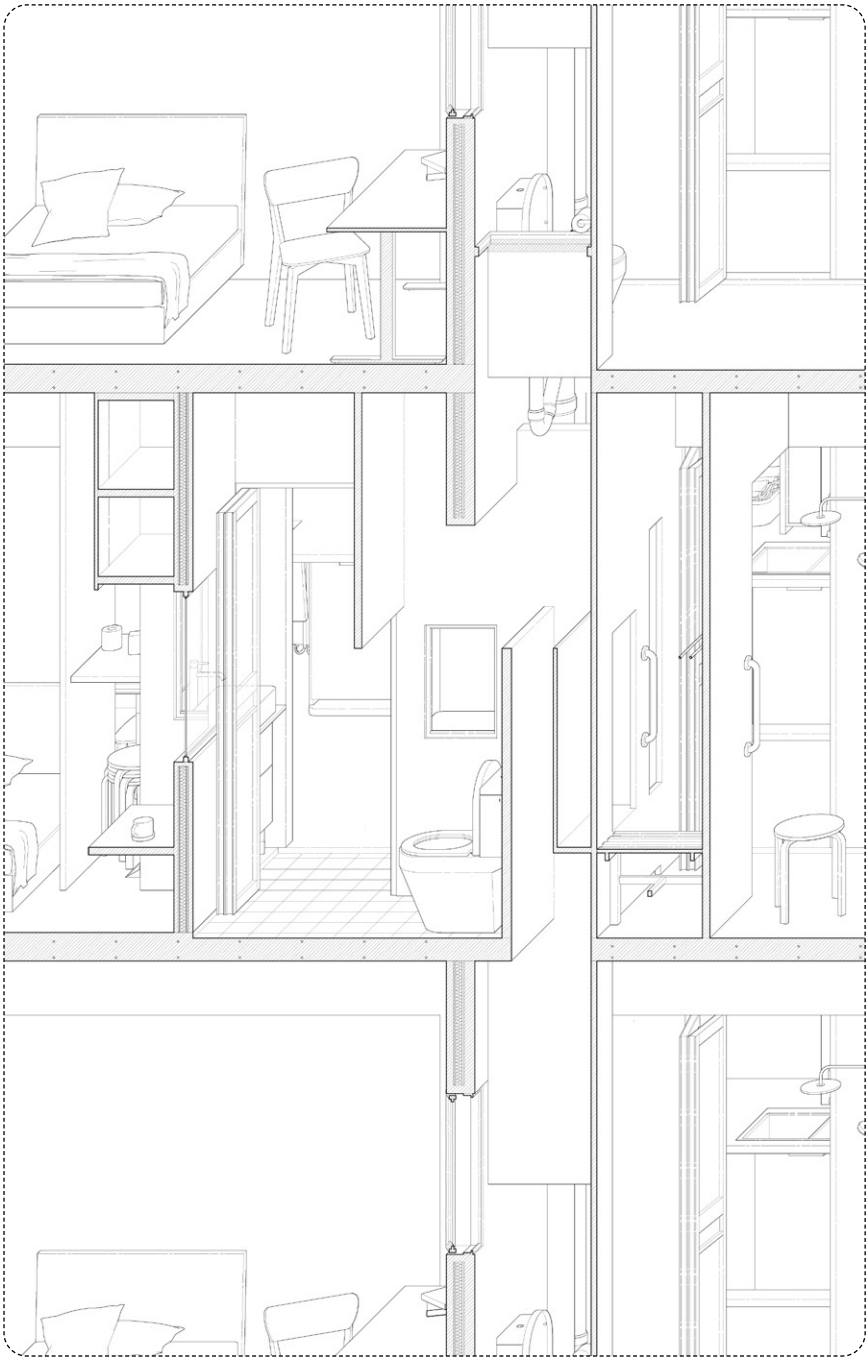
44 Kitchen bathroom and adjacent bedroom stack



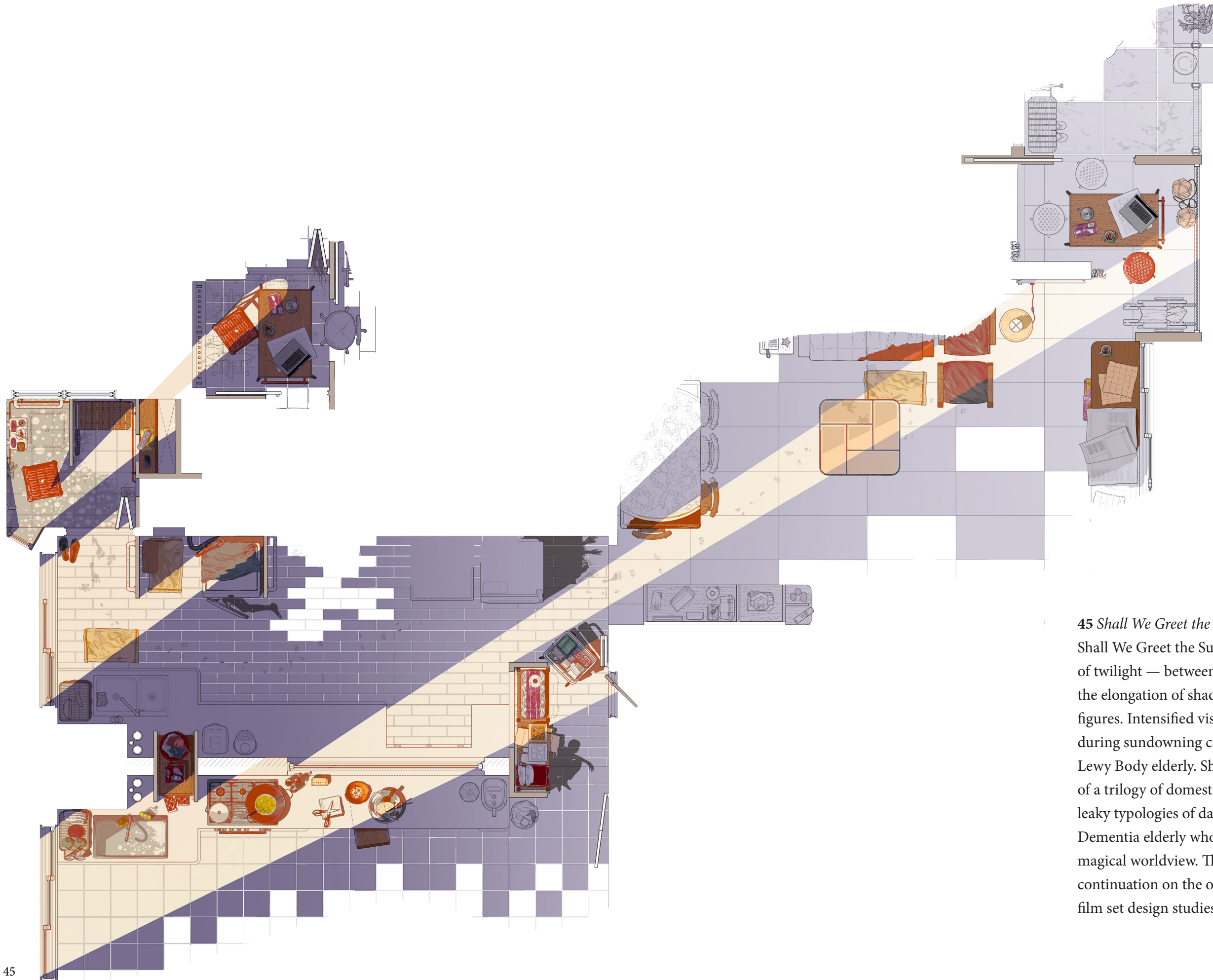
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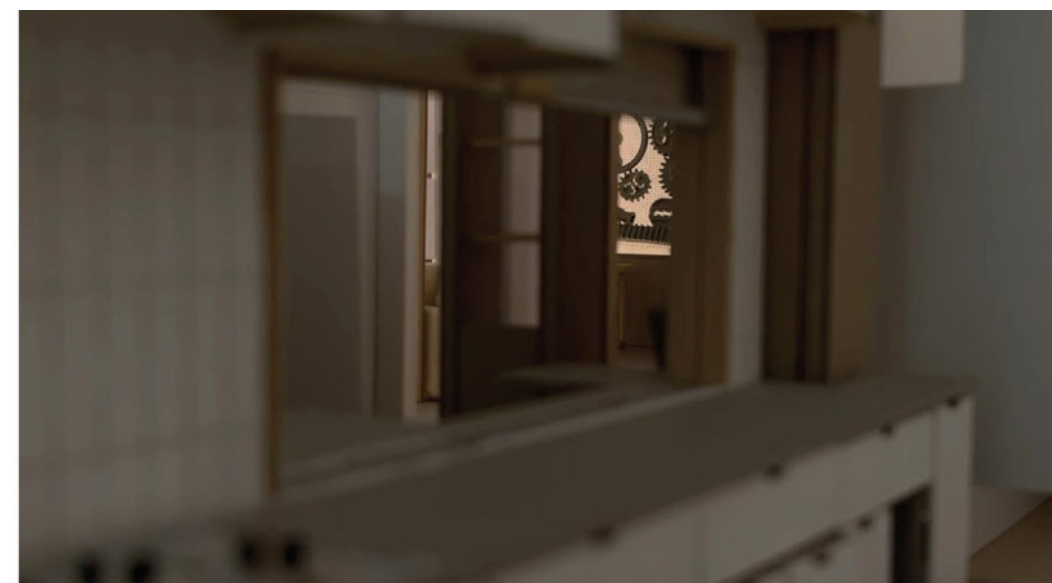
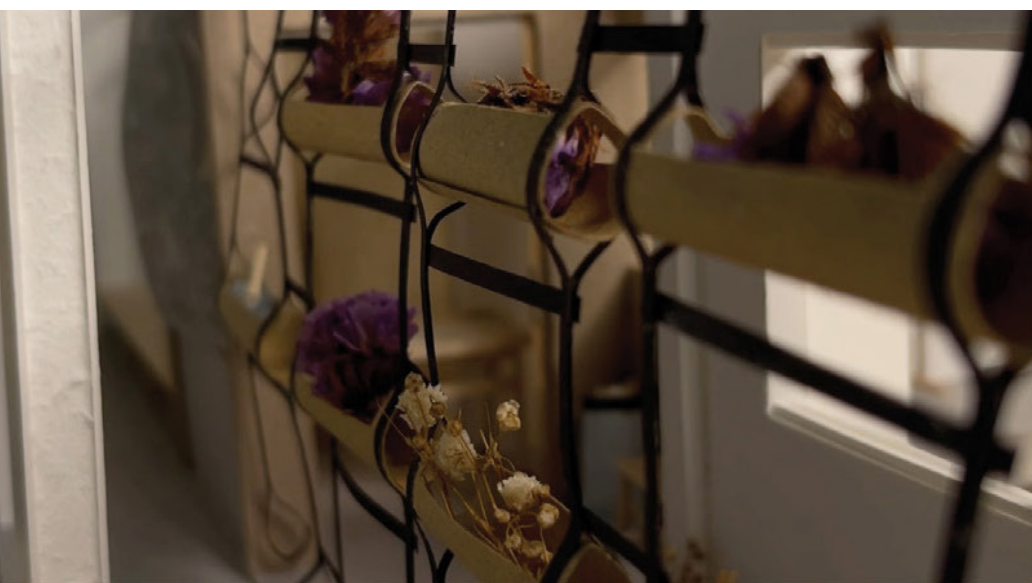
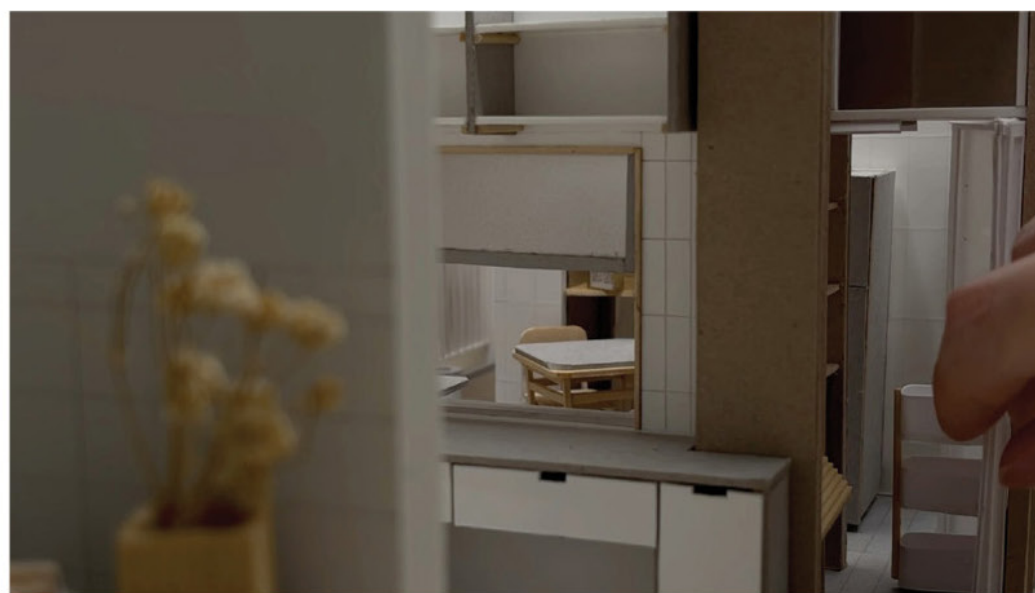


44



45 *Shall We Greet the Sun*

Shall We Greet the Sun looks at the liminal moment of twilight — between sunrise and sunset — where the elongation of shadows carve out phantasmic figures. Intensified visual and auditory hallucinations during sundowning causes spectral anxieties to the Lewy Body elderly. *Shall We Greet The Sun* is part of a trilogy of domestic cartographies investigating leaky typologies of daily rituals for a Lewy Body Dementia elderly who inhabits the home through a magical worldview. The fragmented illustrations are a continuation on the obscure method derived from the film set design studies derived prior.





the home leaks the score

On the film methodology for
Leaky Bodies (2023)

Keywords:
**representation, affect, method,
HDB, seepages**

46 Gong Gong's mattress lined
with a plastic sheet protector as
a precaution against night-time
incontinence.

80% of Singaporeans reside in HDB dwellings, yet the “public” in public housing refers to a very particular and narrow section of the populace, whilst the communality assumed of a public residence is ellipted by a systemic adoption of atomistic living through standardised spaces of care that have been relegated to the peripheries of public housing.

This essay unpacks the methodology of my experimental documentary *Leaky Bodies* (2023), examining its use of scenography in staging the home as a set from which to read medically infirmed bodies. The film explores how traces of domestic rituals are made evident through architectural and bodily leakages. At times the film overlays the conversations and labour exacted in coordinating care across physical and virtual home geographies, within an otherwise insular HDB block. Here the film's use of medical titles, oral conversations, close shots of objects and thresholds afford a means of seeing through a frame of care and neurological decline, uncovering caregiver makeshift modifications to the home. Familiar scenes and affects of domesticity are rendered unfamiliar through the leakages across medium and the tight framing of the camera.

Referencing existing literature on care, maintenance, ageing, film representations and methodologies, the essay describes the house as a condition of the medical body, made possible by an intimate and sensitive reading of infra-thin seepages whilst questioning existing regimes and spaces of maintenance in Singaporean public housing.

Pipes in Kitchen Cabinetry, Pipes in the Bathroom

The nook between a 35mm horizontal pipe and a vertical 135mm sanitary pipe makes an invisible right angle. Perfect as a niche to enshrine a Fairprice moisturising hand soap. Why is this hand soap even perched on pipes? I cannot say for sure, but its inside does not hold paraben free “Violet and Jasmine” hand soap. Instead, it holds a clear liquid. I sniff it and its cleaning detergent, the kind you use for toilet bowls. Did Yati place it here? No, Dad did, because of the smell and the urine splotches. These appeared as soon as gong gong started to forget where he lived.

Where he lived, where he lives, is a 4-room HDB flat. A home where he made his own modifications like constructing a cupboard door around a water pipe in the kitchen by the sink. I open that door and see a variety of wire scrubs stashed away in the nook between the pipe and the wall. Strange stains trailing down the white plastic pipe. Is it funny that these weird storage solutions Gong Gong came up with when his mind was younger and lucid are the same ways we organise detergent refill, a sponge, metal tongs, a squeegee, a scrub, a Swiffer and a mop? All stacked and built-away within

The essay adopts a non-conventional structure with two formats of texts meant to be read in conjunction with one another. One outlines the filmic techniques employed to reconcile the neurotypical mundane caregiving with neurodivergent ways of embodying space through the lens of the LBD subject. The other stories the flat through excerpts of used objects as they describe spaces of care through rituals of bodily maintenance. The film and essay sets out to question whether existing modes and infrastructures of care in public housing are adequate in enabling non-normative bodies to live dignified lives and continue to be cared for without excessive burden.

Disembodied Dwellings

Despite the film serving as a description of my grandfather’s condition and the spatial relationship with his caregiver, the visual subject is not a human one but that of the house itself. Here the film uses a typical 4-room HDB flat nestled in a mature heartland estate of Jurong West as a conduit for the viewer to step into microsites of caregiving and the neurodivergent world of LBD. The choice to obscure visual representation of my grandfather and his caregiver was in part to respect their agencies as real people beyond subjects of documentation, but more importantly to subvert tropes of disability programmes often premised on the “presentation of the body as the ‘signifier of difference’” (Pointon et al, 1997).

In *Disability and Documentary*, Pointon describes the tendency for documentaries on disability to centre on an individualised experience as opposed to a structural one, noting that “there is rarely a challenge to the system within which that individual operates” (Pointon et al, 1997). By eliding faces or full shots of the disabled individual and his caregiver, the film seeks to straddle the subjective and specific peculiarities of my grandfather’s condition. Yet leave room for the audience to relate and imbue their own identities, associations and experiences

the thin sliver of plumbing in a bathroom. Things get recessed and decluttered, away from Gong Gong’s eyes. We try to make it easier for Yati as well since cleaning the bathroom is an everyday affair.

onto the home and the conversations held within. Instead, the film opts to portray the corporeality of domesticity for a disabled body through non-human entities like surfaces, and objects. Allowing the focus to be on the flat itself and its materiality in order to critique the standardisation in Singaporean public housing as in-built systems of disablement.

47 Cloth peg on grab bar and top of fridge adapted to rest a bamboo pole of laundry, still from *Leaky Bodies*, 2023.

47



grab bar, cloth peg, bamboo, fridge | kitchen makeshift support for drying laundry on the grab bar and top of the fridge alongside the wall



**Grab Bar, Cloth Peg,
Washing Machine, Fridge
and Detergent Pail**

Ever since Yati became Gong Gong's live-in helper, she has been finding ways to maximise space for laundry. I have seen her stack 4 poles of laundry from a chair onto a table in her bedroom. I think she was trying to separate her laundry load from Gong Gong's. Maybe it is her practice as a foreign domestic helper, perhaps things she did in Hong Kong where she cared for her previous elderly employers. Or maybe she fears that gong gong will rummage through her clean clothes.

Repressed Rituals

The slab block presents an exemplary typology of repressed dwelling with neatly compartmentalised parallel bays of units. Predicated on the nuclear family as the normative ideal, public housing and its maintenance spaces are a persisting product of post-independence rehousing schemes in the 1960s, alongside presentations of modernity, and the housing authority's fidelity towards state "politics of comfort and control" (George, 2020). Aging, infirmity and neurodiverse lives are naturally assumed to be absorbed by an all-encompassing model of home with time in situ. In reality, maintenance for the body revolves around a series of discrete tasks that change in complexity with age and disorder, spanning the processes of dressing, grooming, cleansing, drying, excreting and nourishing the body. Yet the space in which the HDB flat has afforded these mundane tasks are often collapsed into highly functional hermetic rooms to contain and conceal their expressions. The collapse of these familiar and intimate

She used a cloth peg attached to the top of a grab bar and the top of a fridge to leverage resting a bamboo pole of garments precariously by the kitchen wall. I noticed she often does the laundry in the late afternoon instead of in the morning. I wonder if it is because she is too busy attending to him in the day when he has energy, or because she is trying to keep the clean clothes away from him as much as possible.

Beside the washing machine is a green pail filled with blue Mr Muscle cleaning detergent and a mop cloth folded on the rim of the pail. This pail is perpetually there every time I have visited. Apart from feeling with our feet, the absence of an accumulation of dust, this pail and the dampness of the mop cloth sitting on its rim becomes an indicator for us to tell if she has been cleaning on the regular. Especially when things like urine, clippings and moisturiser become daily ephemera.

01 Kitchen sink and hanging laundry shot from the bathroom mirror, still from *Leaky Bodies*, 2023.

spaces further exacerbates the defamiliarisation brought on by neurosis, disease and disability. The flat's hyper specificity and fixity become debilitating liabilities to bodies no longer able to interface with the home in normative ways. Effectively rendering care work and the care recipient more disabled than perhaps necessary.

Laundry rituals central to the maintenance of garments and upholsteries are systemically relegated to interior conditions. Drying infrastructures have receded into the house in more recent years through a language of the "built-away". Previous pipe-socket fixtures on mature HDB blocks that allowed the migration of bamboo poles and garments around and out of the house have now been spatially fixed within indoor service yards, prescribed with patented collapsible drying racks in current iterations of Build-to-Order flats. HDB's regulation over the presentation and space of domestic technologies produce frictions with the inherent leakiness and decentralised nature of maintenance rituals. The notion that practices of maintenance threaten domestic propriety, "highlight dissent between the idea of a shared national housing project and the liberties assumed of the domestic realm" (Chee, 2017).

Laundry routines, nonetheless, continue to sprawl and spill out into unplanned spaces. Appropriating window grills, chairs and corridor spaces to seek out prevailing winds and ultraviolet rays. These functional climatic concerns have unfortunately become secondary to prescriptive aesthetics of exterior façades under the national housing authority's purview. In the case of my grandfather, the need to conceal clean garments away from his curious gaze, entails hanging laundry in the caregiver's own bedroom. Yet her bedroom sees no direct sunlight. The deep plan of older slab block flats, the solidity of interior partition walls, and the social mores against unsightly laundry along common access corridors all work against the presence and production of maintenance and rituals of care.

***Pails Under Pails,
Under a Marble Table,
Under an Egg Crate***

*Red and white pails nestled like
Russian dolls underneath Gong
Gong's marble table in the kitchen
piqued my interest. There is also
a plastic chair stuffed underneath.
Soiled garments and worn clothes
are layered between the pails.
One of them is labelled "Yati". I
see she has found her own way
to organise Gong Gong's clothes.
Separating the ones soaked in
urine from the ones that just have
dead skin cells and perspiration.
Separating them from the ones
that are hers. Better to keep them
out of sight from Gong Gong,
less he goes taking them out to
wear. Or starts placing clean
clothes together with them like the
previous incident.*

*A plastic egg crate covers the open
electrical outlets of an extension
multiplug atop the marble table.
I can see the way in which Yati is
looking out for his safety. But also,
a multiplug in a wet area like the
kitchen and the toilet is inherently
risky, so some form of covering is
essential. This is where she resides
in the day and when we come
over to visit. Her handphone
plugged into the socket, her chair
pulled out from underneath the
table.*

The Unravelling Flat

The film's portrayal of makeshift design hacks and awkward solutions employed reflexively by my grandfather's caregiver underscores the flat's inadequacy in absorbing the needs of the living body. These design hacks are a practice of making do with the existing space and as a response to my grandfather's inability to differentiate categories and typologies. They are born out of concern of smoothening the processes of care work by reducing competing visual cues and simplifying care spaces for the LBD subject. By presenting these modifications in a filmic format, they foreground the "sometimes tedious maintenance of a relation" by imagining "situations of care, as oppressive burden, as joy, as boredom" (De La Bellacasa, 2017). Illuminating the invisible labour of maintaining a spatial dynamic between caregiver and care recipient.

The decline in spatial cognition for the LBD subject, spells the unravelling of the HDB's atomic notions of 'room' and domestic propriety. For my grandfather, the space for laundry leaks into the space for dressing, the space of cooking leaks into the space for storing garments, the space for sleeping leaks into a space for excreting. The film employs montage as an architectural device to extricate conventional means of transcribing programmatic space through the delineation of walls and doors, and instead describes space through a series of surfaces, fixtures and personal affects. By framing these objects as microsites, they become "architectural fragments", producing a "layering of meaning over function" (Lau, 2016). The montage collapses temporal and spatial boundaries, stitching them into a sequence to elucidate the expansion, contraction and migration of rituals throughout adjacent spaces within the flat. A porosity of space and edge conditions in the rituals of the LBD subject is reflected through leakages across room typologies and afforded by the visual continuity of a montage. In effect, the film presents this leaky form of spatial patterns, not as a defective way of living, but as a

*Her microworld when she is
in between attending to gong
gong and doing other rituals of
maintenance within the kitchen.*

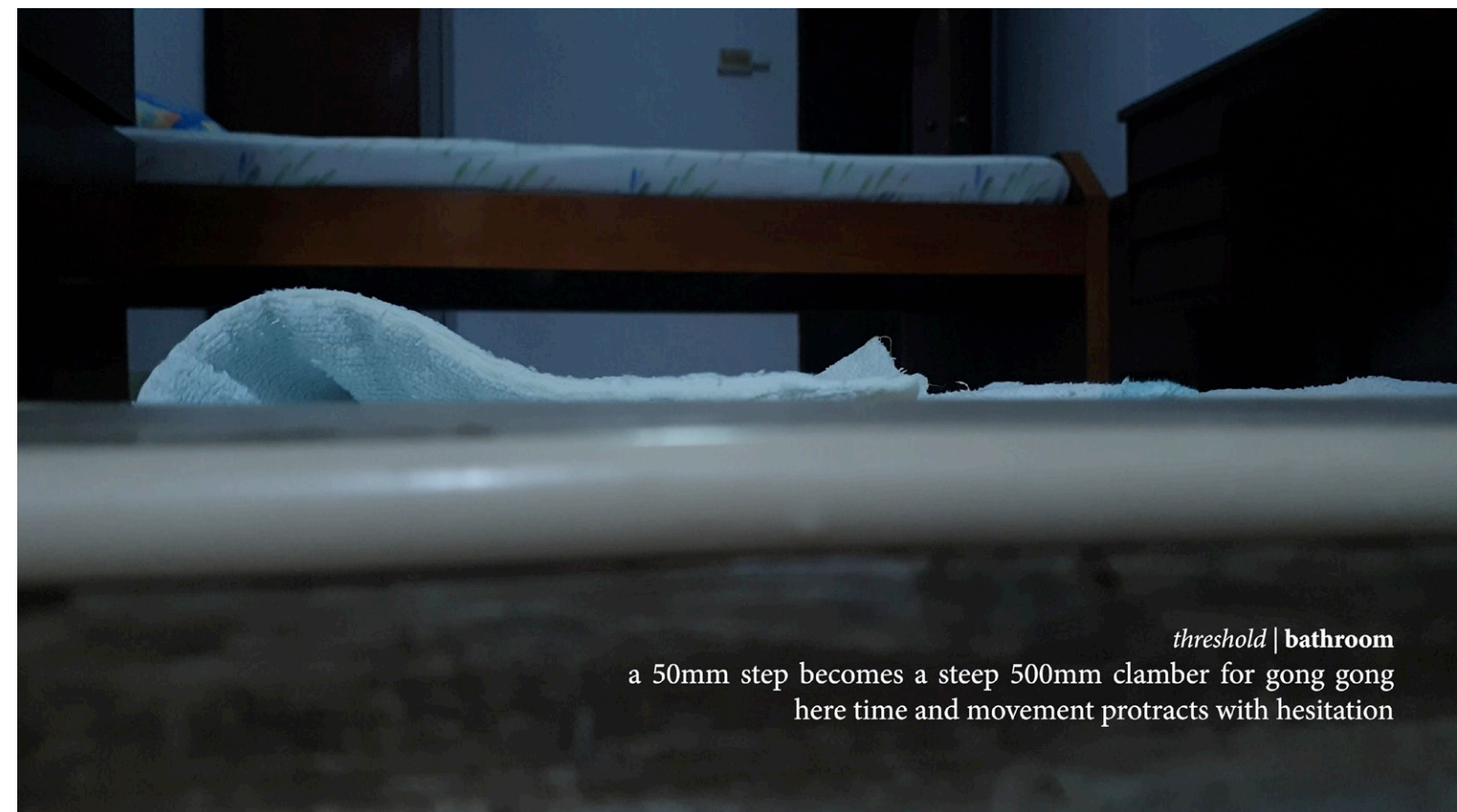
49 Low angle close up of step
from the en suite bathroom into
the bedroom, still from Leaky
Bodies, 2023.

failure of atomistic modes of living with one another within the hegemony of public housing.

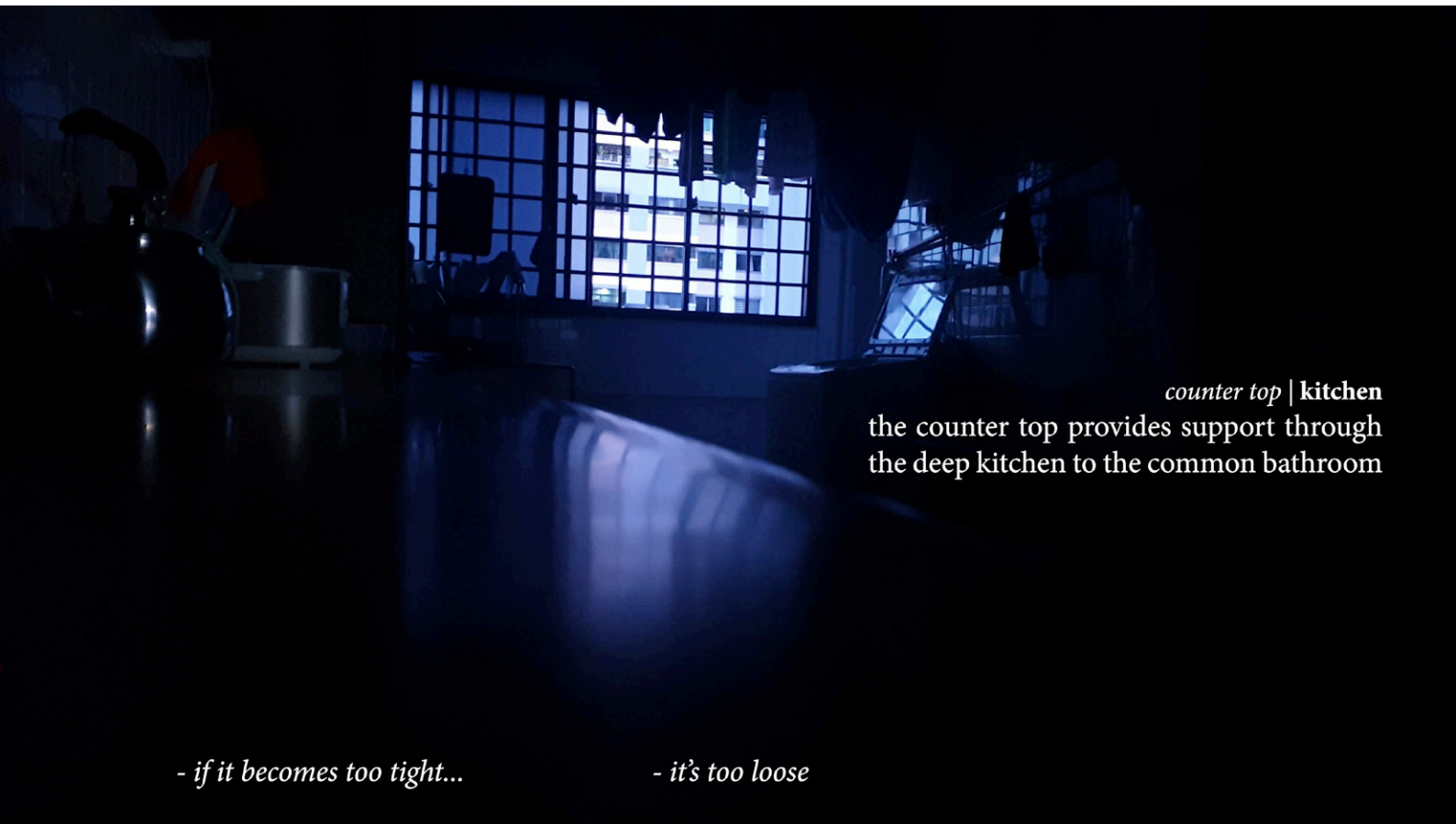
Unfamiliar Ubiquities

Close shots of surfaces and objects were utilised to narrow the distance between the viewer and spaces of care within the flat to allow one to scrutinise the texture, inhabit furniture or perch on surfaces. The technique of close ups also fragment the notion of spatial and narrative continuity as they "reveal only a small portion of the 'mysterious goings on'" (Lau, 2016). The camera's low angle and depth of field pull focus on the tactility of moisture or rustling, attempting to flatten the hierarchies of optical and haptic perceptions of a wet toilet seat, a plastic sheet over beddings and a glass table top. Tightly framed compositions

49



threshold | bathroom
a 50mm step becomes a steep 500mm clamber for gong gong
here time and movement protracts with hesitation



50

Casement Window, Sofa, Coffee Table, Shoe Cupboard, Wheelchair and Dining table

A living room houses the living body and evokes rituals of communality, where other living bodies may coincide. This space is one of conversations and catching up. What is gong gong's mental state today? Does he know what date it is? What time it is right now? Where he is? Who we are? The sofa is his control station, where he grooms, naps, eavesdrop, survey, converse and watch. This is where we parse out his condition and his wellbeing, whilst reconstructing our identities with each other.

of familiar household objects like a dressing mirror and a window casing defamiliarise their everyday presentations, and approximate my grandfather's perception of depth as distorted through LBD. These cinematographic choices afford the viewer the opportunity to enact LBD's affect on spatial cognition and the ability to easily distinguish object categories and room typologies, by extending the limits of our own consciousness to "create affinities with bodies other than our own" (Troiani and Kahn, 2016). The viewer takes part in the embodiment of my grandfather's cognition, and the affective qualities of space, alongside me, the filmmaker, and the film subject, the HDB flat. In doing so, the viewer is invited to empathise with the debilitating nature of the flat in betraying one's ability to perceive space neurotypically, whilst co-producing multiple interpretations of the visual and textual fragments.

50 Kitchen engulfed in darkness foregrounded by a brightly lit HDB internal facade, still from *Leaky Bodies*, 2023

I remind him who I am, he reminds me who he is, and we re-establish our roles each time we meet at the sofa.

The mirror top on the coffee table has seen his feet, smears of moisturiser from aftercare, photo albums which we have taken out when we packed his house after his fall. A tissue box is a mainstay there to clean up spills and contain clippings of hair and nails from his grooming sessions.

The window by the corridor is his picture frame into the outside.

His mobility confines him to the chair, that even getting up requires him to rock back and forth furtively until he gains enough inertia and mental preparedness to rise. Sometimes he needs a helping hand to grip his trousers and provide him that extra lift. That window is where we peer into whenever we visit. To say a first hi to gong gong, and to peer discretely into Yati's care work. The window is a frame for a transitional form of care, a hi-bye transaction of passing attention and concern, and a scrutiny into the dynamic between caregiver and care recipient. Is Yati caring for gong gong?

Close shots were also largely necessitated by the fact that the design hacks reside largely in peripheral thin spaces of the flat like nooks between a wall and pipes, thresholds, grab bars and the underside of a table. The fine grain of informal interventions contrasts the larger grain of standardised HDB dwelling and room layouts. Thus the framing of the film, beyond a device to inhabit the medical condition, was also a reaction to the internalisation and shrinking spaces of care within the home. In order to perceive traces of rituals within the flat, and therefore read the fluctuations in condition of the LBD subject, one is required to adopt a mode of seeing at the scale of the ultrathin. Observing attentively the presence or absence of water stains, patterns of moisturiser smears on a sofa and the momentary gurgling of sewage waste in pipes. Loewen explains in her *Inframince* project, that "sometimes translated as 'infra-thin,' *inframince* connotes a barely perceptible thinness" (Loewen, 2020), detailing a shift in perception of nuanced states of being or 'difference' that subvert neurotypical modes of observing space.

Shadowy Worlds

The film was taken in the evening just after sunset to capture the liminal transition between daylight and artificial lighting. Sometimes termed as nocturnal delirium, sundowning is not a diagnosis but a description of neuropsychiatric symptoms aggravated by "low lighting and increased shadows" (Khachiyants et al, 2011). By filming at twilight, the lighting conditions capture a shift in mood and spatial affect by dramatising the everyday mundane. The harsh shadows, film grain and low exposure add to obscuring the visibility of outlines and depth, furthering the experience of delirium, visual inaccessibility, and a betrayal of the sense of sight. In *Managing the Sundowning Patient*, Duckett suggests that inequalities in illumination throughout a hospital "may not be readily apparent

The shoe rack is often blocked by his wheelchair. We started to do that to prevent him from wearing his shoes indoors on occasions where he experiences sundowning and restlessness in the evening.

A game of “Upwords” and “Build the Fun Marble Run Combine Set” sit atop the shoe cupboard. Mum is the only one that can really engage gong gong into taping into his procedural memory. Perhaps its her way of conducting care work that is palatable and inviting for gong gong, even when he often forgets who she is or misidentifies her. Last time me and sis tried to get gong gong to play upwords he was very reluctant.

Wardrobe, Bed, Dressing Table, Threshold, and Toilet Seat

Gong gong’s wardrobe and bed has seen overhauls ever since the onset of his illness. We had to change his mattress from king size to super single and reduce the height of the bed and frame to prevent him from rolling off the bed at night. After his open wound from scratching his arm against the wooden bedframe at night, we rotated the bed to be flushed lengthwise against the wall. Hopefully he doesn’t bump into it anymore, mum said “the elderly have butterfly skin”.

to the healthy eye” (Khachiyants et al, 2011). Cinematography allows for these visual fragments to be frozen and made three-dimensionally apparent through contrast in light and shadows for the cursory eye of the abled bodied. Often overlooked and imperceptible, these traces of use constitute the object of objects, shifting its significance from function to script. Changes in the condition of these objects allow the viewer to insightfully read patterns of rituals and conditions of the body. But only if one is perceptive enough, which the film tries to advocate for — a care for detail and difference.

In institutionalised long-term care facilities, lighting and wayfinding are hallmarks of architectural design concern that inadvertently “provide links to such stereotyped identities” of the aging and infirmed (Adams and Chivers, 2015). Adams and Chivers reflect on the use of “tropes of immobility and darkness” in Sarah Polley’s *Away from Her* and its use in emphasising “cultural associations between dementia and elements of old age that the western liberal subject is most taught to fear” (poi and Chivers, 2015). In addition, this darkness is often depicted in contrast to the “light of possible medical advance”. In *Leaky Bodies*, scenes of the home are depicted in darkness whilst medical intertitles are washed in brightly exposed stills of the home. These tropes of light and dark are used ironically as the depictions of everyday objects, subtitled excerpts and background conversations are narratively more accessible to the average viewer than the impersonal medical dictions on LBD. Thus the use of lighting serves to cast light on the discrepancies in knowledge between institutional medical literature from that of lived realities and embodied experiences.

Just seeing the yellow iodine saturated wound and exposed flesh makes me feel oozy. His mattress crinkles every time he shifts around in bed because of the plastic lining we had to install to make cleaning up night time incontinence more efficient.

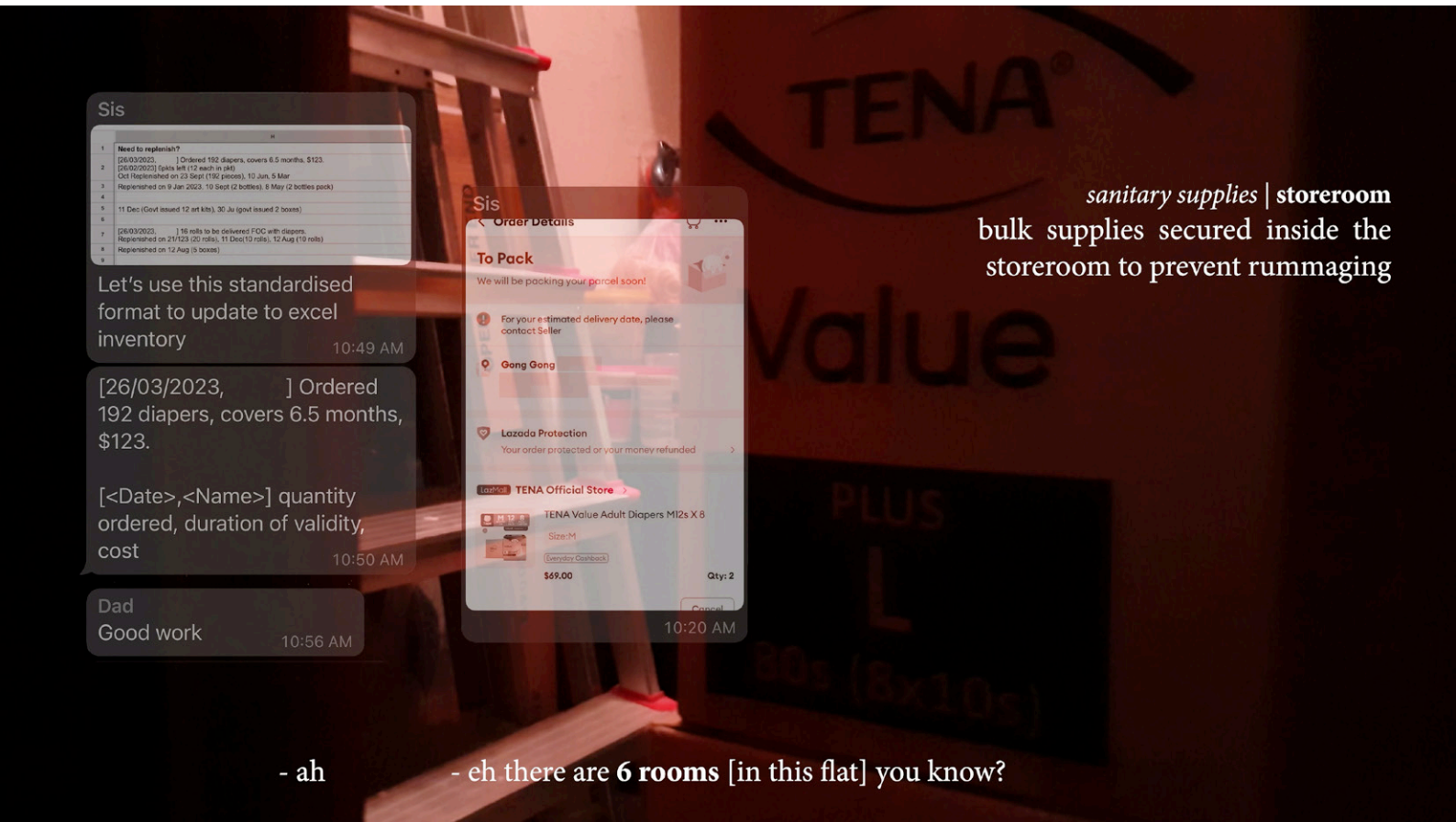
51 Close up of illuminated beads of moisture on toilet seat, still from *Leaky Bodies*, 2023

Conversations and Medical Diction

Leaky Bodies is conceptualised as a caregiver information package for neighbours in adjacent units to my Grandfather’s flat, from caring households willing to step into the role of caregivers. Although the premise of this scenario is entirely hypothetical, its implication informs the need for the film to serve as a proxy to understand my grandfather’s way of seeing and inhabiting space, as well as providing insight into the contiguous world of caregiving. As such the film sets out with the intention of enabling neurotypical bodies to inhabit, vis-à-vis a filmic sequence, the auditory and visual hallucinatory world of my grandfather as it interfaces the functional aspects of care work.



droplets | bathroom
every morning is a detective game of [guess that moisture!] is it water, urine, soap or something else?



sanitary supplies | storeroom
bulk supplies secured inside the
storeroom to prevent rummaging

52

His bed also bears witness to his rummaging episodes in the wardrobe, taking hangers after hanger of clothes out and placing them onto the mattress lining. Sometimes I think these episodes occur because he is demanding to shower outside of his scheduled bath time. He forgets he bathed in the morning and insists on taking another bath. Other times he resists going to shower, delaying our own time to shower.

His dressing table is somewhat defunct now. After all it belonged to popo when she used to doll herself up. Now the photos underneath the glass topper serves as a repository of memories and lifetimes, estranged from my gong gong's reality. In these

The interjection of background conversations between me, my grandfather and his helper produce layers of spatial, cognitive and linguistic relations between the three of us. The mixing of Chinese, Hainanese and Cantonese dialects marks the difficulties in transcribing identities within a model of care inside the HDB flat. Light-hearted banter becomes an affective medium to express the tensions between the fleeting agency of a medicalised body and the strained agency of his caregivers. The reading of visual artefacts with dialogue between the three of us also unveil the bittersweet reality of familial caregiving in the sense of grieving over slippages in identity, memories and relationships. A scene where a tissue box with the words “Forget Me Not” printed on a floral cardboard package is contrasted with audio of my grandfather rediscovering my identity as his grandson, thanks to his caregiver’s nudging reminder. Such juxtapositions of audio and microsites allow for a more personal and emotive relaying of the lived experience of LBD beyond the subject itself as it

52 TENA value adult diaper
bulk supply in storeroom, still
from *Leaky Bodies*, 2023

*pictures he remembers who
is Kun Yi (me), who is mum,
and who is sis. This same glass
surface provides him the support
he needs to make his trip to the
bathroom, especially at night.*

*A 50mm step presents as a
500mm cliff drop or wall to scale
over. Gong gong takes a long
pause everytime he reaches the
bathroom door. Just like when
he gets up from the sofa, you can
see him revving his engines, both
muscle and mental. Preparing
himself to shift his body and
launch it into a new posture, a
new protraction of space. That
moment of entering the bathroom
feels like an apprehensive
eternity, pronounced in time,
distance and anxiety.*

*His toilet seat is all wet. I can
smell hints of urine. I am honestly
not sure if it is just his medicine
that is making the fumes of his
excrement ever so acrid. Or the
smell is because somewhere, if
I look closely enough and sniff
attentively enough, I might
find a spot where there is pee,
a drenched toilet paper, or a
suspiciously damp rag. Every time
he uses the bathroom, it is a game
of “what is that scent” or “seek
the moisture” for me. Luckily the
presence of water droplets over
the toilet seat and cover suggests
that he washed down the area
after he used the bathroom.*

impacts his family and caregivers, producing a more complete
image of care.

The film’s audio and texts inherently exacts a labour of imagining
the gaps between image and sound, insisting that the viewer
partake in an aural and visual hallucinatory experience. To this
effect, “voices that are otherwise invisible become sensuously
visible”, as the voices are disembodied the viewer is made more
“attentive to subjects and the sensuous world” (Troiani and
Kahn, 2016).

Leakages in Representation

Visual fragments, disembodied voices and the use of montage
affect the viewer to participate in drawing new connections
between sound and image, body and home, individual and
system, literature and embodied experiences. In attempting
to represent the home as inhabited and perceived by the LBD
subject, leakages across modes of representation become
crucial to providing a means to better elucidate the complexities
of domesticity and care for non-normative bodies and their
caregivers. A layering of media within the film and between
film and text, reflect the inherent leaky condition of the body,
the home, and the nature of care work. Public housing policies
and structures that enshrine an atomistic way of life require
questioning to reassess cultural and systemic resistances
towards seepages and slippages of maintenance routines and
“deviant” ways of making space. With 2030 projected to have
more town demographics maturing like Queenstown, with
more than 20% of residents aged 65 and above (Teo, 2023), the
urgency is mounting for spaces that can accommodate the aging
and infirmed. Perhaps by embracing leaky presentations and
structures of domesticity, a new form of care might emerge —
one that seeps across households to enact collective caregiving
and define a way of life that accommodates a broader spectrum
of neurodiversity.

Phew.

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part 1:

how does a bathroom meet a body?

facing page Kharchenko-
Shabanova BS1sph(8/6)7_98, Lila
LoCurto and Bill Outcault, 1999

How does a bathroom meet a body?

Drawing a bathroom as it is experienced through a medicalised body and mind, I argue, is quite similar to mapping a spherical globe onto a flat projection. The transposition from three-dimensional space to two-dimensional surface inevitably distorts, stretches and splices the surface topology through the point-to-point transcription.

Conversely, drawing a medicalised body and mind through the lens of a bathroom is steeped in its familiarity with intensive and recursive bodily postures.

What does a toilet bowl see of a bulimic body, whose head is far too familiar with the inner walls of its porcelain receptacle. A seat that meets a mother's stretch marks, or a raised ledge that meets the joints articulating the ailing limb of a Lewy Body Dementia elderly.

The fixity of bathrooms tears at the seams of a body implicating the construction of self. How might a bathroom whose toilet bowl has seen a bodiless head hover above it so extensively, more so than an anus or thighs, meet this particular body with its own set of peculiarities? Is the body but a throat, the middle and first fingers, a stomach and bile from the liver? Conversely, would drawing space through the lens of these non-normative bodies produce similar distortions in mapping domestic cartographies in relation to neurodiverse states of being and seeing?



cover ^c appearance wash ^a chamber attending ^r weave extent ^e repose
knit dressing moisten familiar washing plait burial sufficient
intertwine evacuate privy bath wrapper web intermissionrecover
warp cloth evacuating wet garment loom toilette yarn
canvas mockup enclose self canvas mockup yarns body
garment loom yarns body warp cloth enclose self
wrapper web toilette yarn intertwine evacuate evacuating wet
washing plait intermissionrecover knit dressing privy bath
attending weave burial sufficient cover appearance moisten familiar
wash chamber extent repose extent repose wash chamber
moisten familiar cover appearance burial sufficient attending weave
privy bath knit dressing intermissionrecover washing plait
evacuating wet intertwine evacuate toilette yarn wrapper web
enclose self warp cloth yarns body garment loom
yarns body canvas mockup enclose self canvas mockup
toilette yarn garment loom evacuating wet warp cloth
intermissionrecover wrapper web privy bath intertwine evacuate
burial sufficient washing plait moisten familiar knit dressing
extent repose attending weave wash chamber cover appearance
attending weave extent repose cover appearance wash chamber
washing plait burial sufficient knit dressing moisten familiar
wrapper web intermissionrecover intertwine evacuate privy bath
garment loom toilette yarn warp cloth evacuating wet
canvas mockup yarns body canvas mockup enclose self
warp cloth enclose self garment loom yarns body
intertwine evacuate evacuating wet wrapper web toilette yarn
knit dressing privy bath washing plait intermissionrecover
cover appearance moisten familiar attending weave burial sufficient
extent repose wash chamber wash chamber extent repose
burial sufficient attending weave moisten familiar cover appearance
intermissionrecover washing plait privy bath knit dressing
toilette yarn wrapper web evacuating wet intertwine evacuate
yarns body garment loom enclose self warp cloth
enclose self canvas mockup yarns body canvas mockup
evacuating wet warp cloth toilette yarn garment loom
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wash chamber cover ^a appearance extent repose attending weave ^s

↗

c

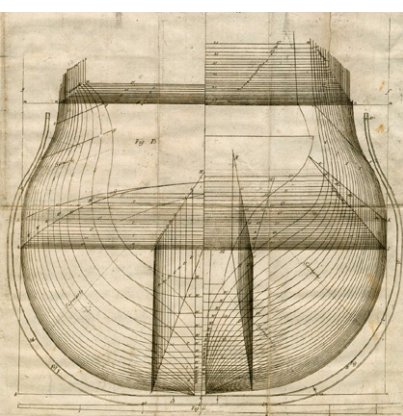
↺

why is a bathroom?

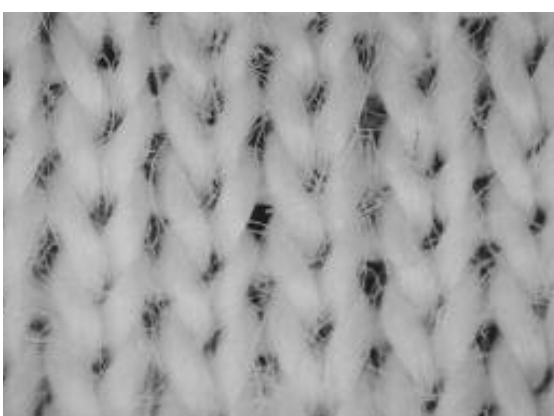
If we are to deduce what else a bathroom is beyond its ontic perhaps we should be asking how or “why is a bathroom” as opposed to “what is a bathroom”. A phenomenological inquiry then follows, exploring the shifting worlds of the toilet and its shifting models of reference. Simply put, how do plural bodies inhabit plural worlds?

Etymology enables us to trace societal notions as they evolve and adapt over time before arriving at their current iteration. As meanings get adapted, appropriated and elided by cultural shifts across time, their implications to the vapid mundane of habits and rituals become more and more inconspicuous. In particular, our hostility and inability to speak openly and explicitly about the bathroom and our bodily functions that occur within the space further alienates the bathroom from academic discourse and everyday conversations. We talk around it, employ euphemisms, allude to it or simply dismiss the subject at hand all together. This antipathy extends to the models of bathroom fixtures, surfaces and technologies, reflecting different cultural degrees of aversion and standards of hygiene and sanitation. So... *why is a bathroom* so repressed today?

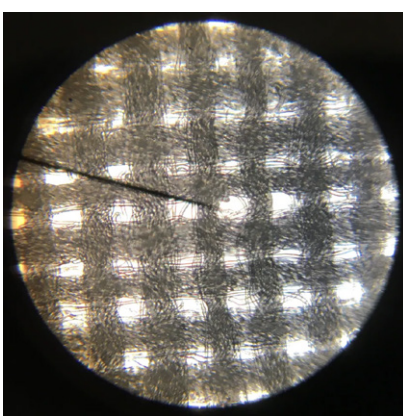
facing page Linguistic threads derived from bathroom eytmologies suggest a semiotic synthesis towards bodily notions of digestion, care and traces of the self



steg/deck; enclose



knit; single yarn



web; multiple yarns



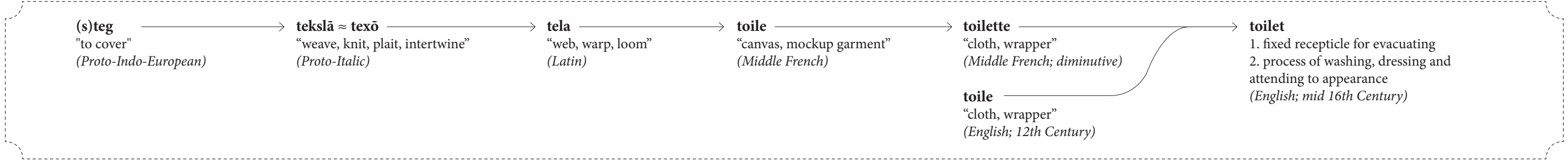
canvas; body



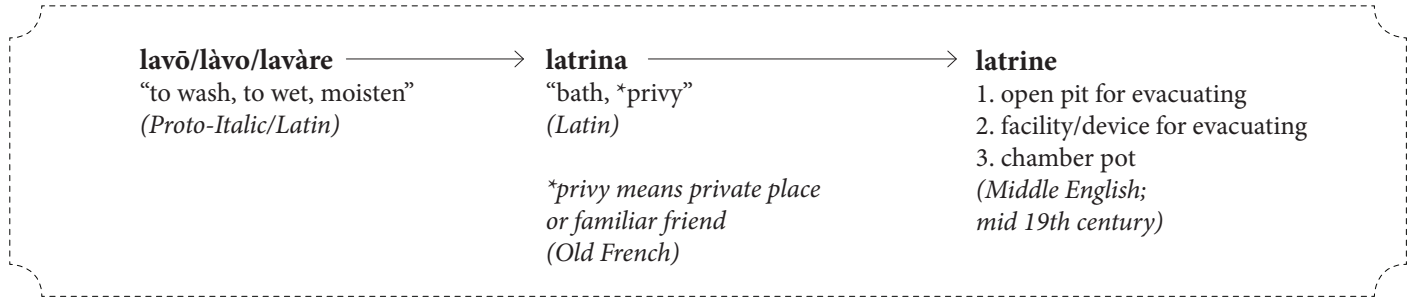
wrap; table de toilette



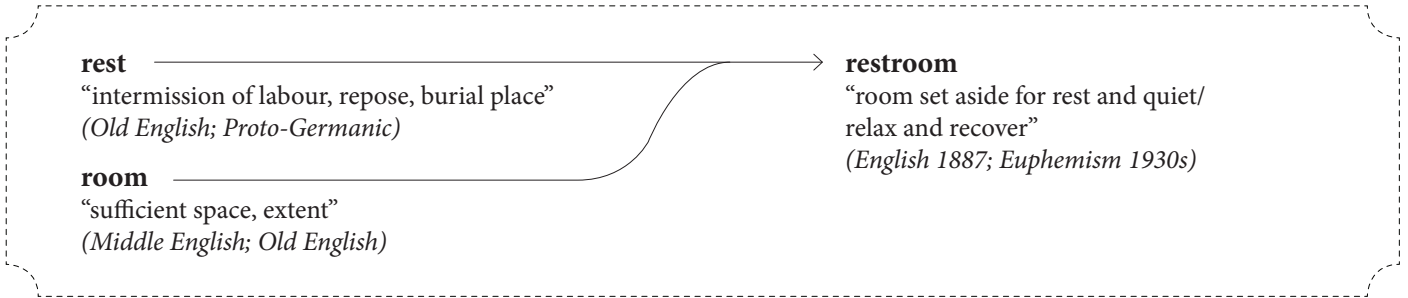
attending; self



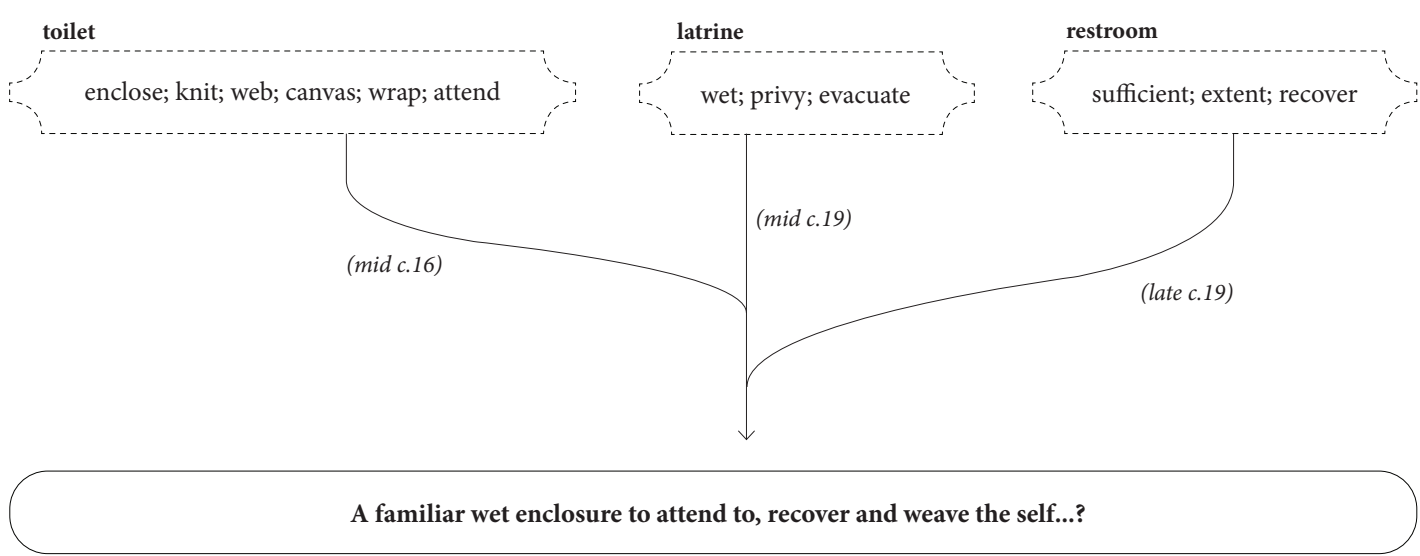
toilet (mid c.16)



latrine (mid c.19)



restroom (late c.19)



etymology chart

Linguistic Metaphors for the Familiar Self

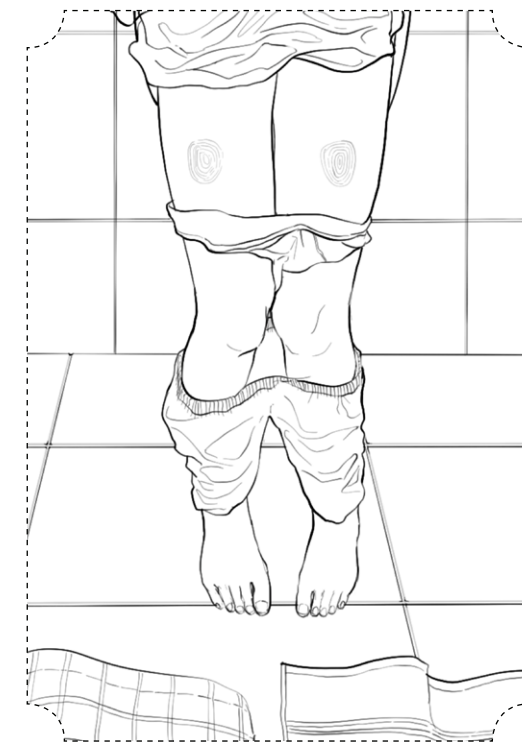
“Toilette” dervies from the diminutive of “toile”, a small cloth wrapper to protect garments from dirt. “Toilette” developed from wrapper to shoulder-cloth for containing fallout from hair dressing, to the dressing table itself, and finally to refer to the entire process of washing, dressing and grooming (Weiner, n.d.). Linguistically, its etymology implicates excremental traces as transgressive, requiring an aseptic barrier to enclose the body from contamination. The phrase “to make one’s

toilet” suggests a construction of a subjective toilet. Tailored to a deconstruction and reconstruction of the self through the processes of enclosing, wetting, attending to, recovering, and weaving an appearance to present upon exiting. In this sense, the toilet straddles the restrictive and inventive, providing a backstage for the body. From preshow to intermission and afterparty, the toilet is inherently concerned with concealing the body’s performance of maintenance and care by containing its traces.



facing page Evacuation_Cross-Categorical Models and Deviant Exemplars

below drawing my bodily postures — fowler’s and foetus position — suggests underlying psychosomatic conditions relating to the affects and intimacies of the bathroom



objects of affection

Making One’s Toilet

What object first comes to mind when mentioning a bathroom: is it a porcelain bowl, handbasin, shower stall or perhaps even ceramic tiles? Eleanor Rosch’s prototype theory hypothesises that some objects are more central to their conceptual categories than others within the same family (Aitchison, 2012). Objects of evacuation like water closets, faucets and shower heads belong to their own categories like one might peruse in a bathroom catalogue, suggesting a fragmentation of the bathroom into microsites. Prototype theory suggests that the manner in which an individual experiences and knows of a category, and by extension a bathroom, is specific to their social milieu and subjective habits and rituals. In Singapore, the central prototype of water closets is

the colonial import of the British washdown model, equipped with S-bend traps in high-rise HDB flats. Prototypes are, however, subjective “truths” or as Mark Cousins terms “best fits” in *Worlds Without Ends* (Cousins, 2021). The act of categorising is a managerial task, requiring an inherent reduction and accusation (from the Greek “katēgoria”) of an object as belonging to a family of similar objects sharing similar characteristics or qualities. This act of flattening and typification is central to the modern bathroom’s extensive list of fixtures and fittings, tailored more so to manufacturing, expenditures and standardisations and less so to the body and its rituals. Evacuation, however, is not solely typified by the water closet model, as one can imagine other deviant

categories of evacuation like squat pans and flying toilets. These deviant categories suggest another graded classification of centrality. Aberrations that veer from containment to contamination, concealment to exhibition, and decorum to disgust.

They say that objects of affection go by many names of endearment, perhaps the most beloved object today is the modern flush toilet. The loo, john, potty, privy, throne and crapper, amongst other euphemisms for the toilet suggest a linguistic pattern of isolating the act of bodily elimination from the body. A disdain to speak in scatological terms when denoting the labour of digestion and bodily maintenance devolves into our cursory attitude towards the space and objects of cleansing and evacuation.

The modern water closet reads as a ubiquitous piece of technology shaped into furniture to articulate the juncture between the inlet and outlet of a pipe, an engineering feat no doubt. Tracing its etymologies, however, reveals intensive and extensive notions of evacuating and cleansing that lie congruent to that of identity, presentation and a convenience of water. What does it mean to make one’s toilet? How and why should it matter to us? Perhaps referring back to the definition of “attending to” allows us to arrest some of these notions back to the body, back to a labour of self-care. The thesis thus proposes to reinstate the body back into the bathroom through a phenomenological reading of the processes of making one’s toilet and the labour of care, not excluding the excremental traces that transgress yet lay evident to an otherwise repressed labour.

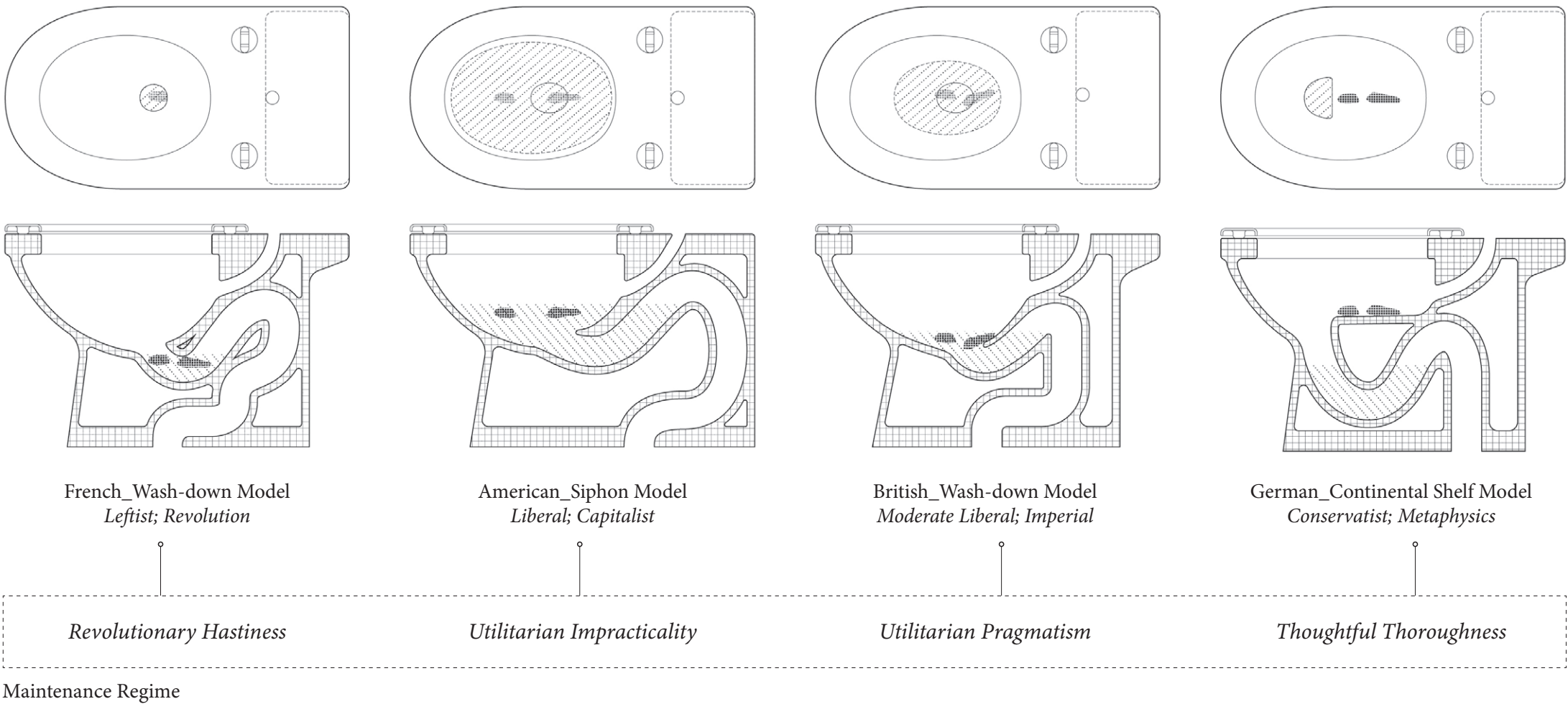
prototype hermeneutics

In Front, Behind and Floating

Water closet models vary across countries and speak of a culture towards excrement and by extension towards corporeal functions. Slavoj Žižek delineates these inflections by relating them to a toilet hermeneutic reading of political systems. A traditional German toilet possess a scheiße, a mid-plunge ledge that lays and displays excrement for thorough inspection of bowel health and contemplation. British prototypes pragmatically suspend faecal matter in standing water, masking the olfactory experience whist still affording an ocular survey. American water closets enact a belligerent drowning out of smell with an excess of standing water in exchange for the impracticality of backsplash against the nether regions. In the French prototype, the outlet is smaller and located further back for radical elimination upon defecation.

In this sense, one can observe a gradation of cultural maintenance regimes, from disavowal to engagement with excremental traces and their sensorial transgressions against the body.

right Adapted from *The Plague of Fantasies*, Slavoj Žižek, 1997; Water Closet Prototypes_ Excremental Ideology_Maintenance Regime





how does a body meet a bathroom?

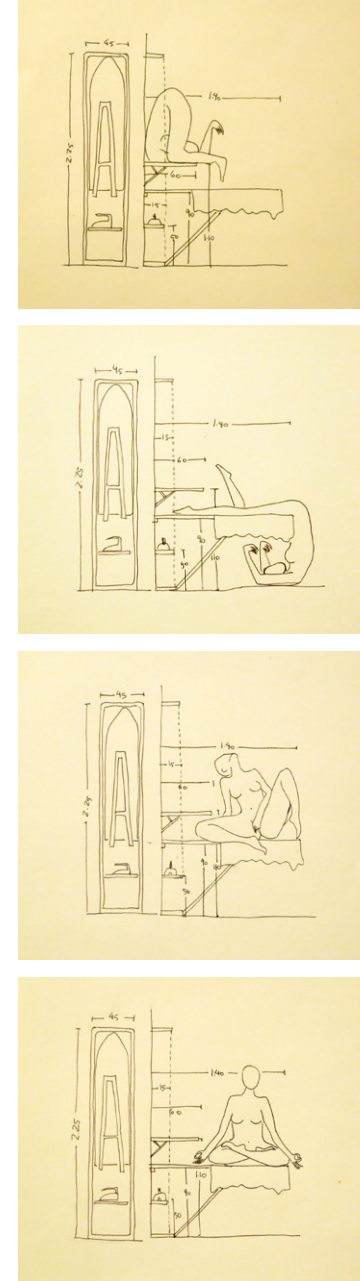
above *Triptych*, May-June 1973, Francis Bacon, 1973

In *Triptych*, May-June 1973, a dying body inside a bathroom can only be drawn as the door has been omitted. By breaching the enclosure things spill and seep out beyond the threshold, exposing the body in its deteriorative state. This chapter attempts to depict the familiar, made unfamiliar by the violent omission of the body and its functions. An exercise in removing the proverbial closed door of the bathroom so that the body may meet it more honestly.

Modern sanitation is largely a persistence of British cleanliness standards and hygiene ideologies. The water-based flush toilet owes its seminal introduction to John Harington in 1596, whilst the S-trap's use of standing water was patented by Alexander Cummings in 1775. These imperial exports of cleansing and evacuation technologies have been immortalised into the bathrooms of her colonies and trade partners.

As Zizek has outlined, British sanitation is largely concerned with a provision of a utilitarian solution with an endeavour for pragmatism bordering on hyper-functionalism. But bodies are not always pragmatic or functional. They are sometimes neurotic, sometimes inventive, and sometimes deteriorating. An expertly placed cistern atop a porcelain throne approximates a sturdy slipper chair for an employee to snooze against, away from the office gaze. Smooth surfaces tiling a hermetic enclosure in a shower stall affords reverberation for singing whilst a running shower masks it from prying ears. For another, the bathroom door allows one to ellipt a compulsion to regurgitate the remains of lunch into a receptacle to be swiftly whisked away with a flush of water.

The functional bathroom polices the body to enact a labour of erasing its excrements and extensions; sonic, salivary, acidic, solid, liquid and gaseous. These extensions serve as evidence for spectating and speculation by another body that stumbles upon it, betraying the body that leaks. But these extensions are also markers of labour, surfacing the act of digestion, excretion, cleansing and grooming. Critically, the functional bathroom coerces us to censor our bodily functions.



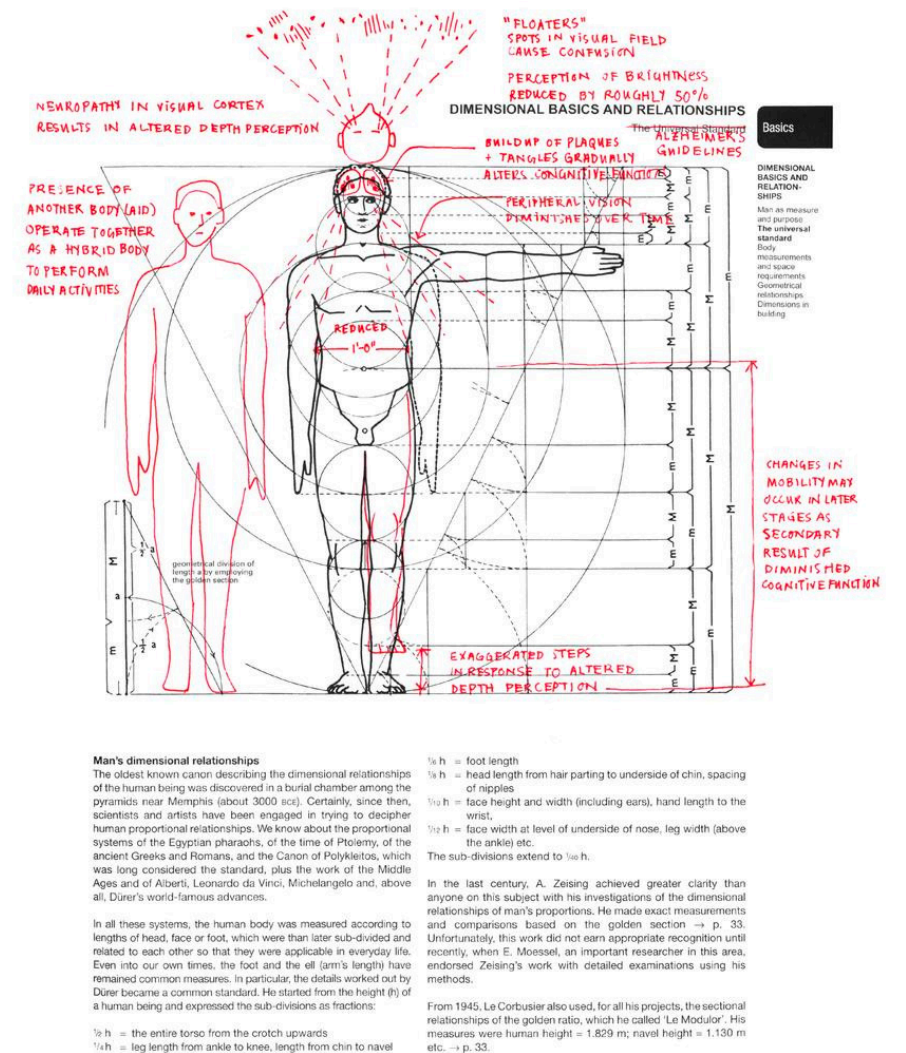
bathroom index

Bodies of Infliction-Affliction

top left 'Alzheimers, Decentering Norms', Rachel Mordaunt , n.d.

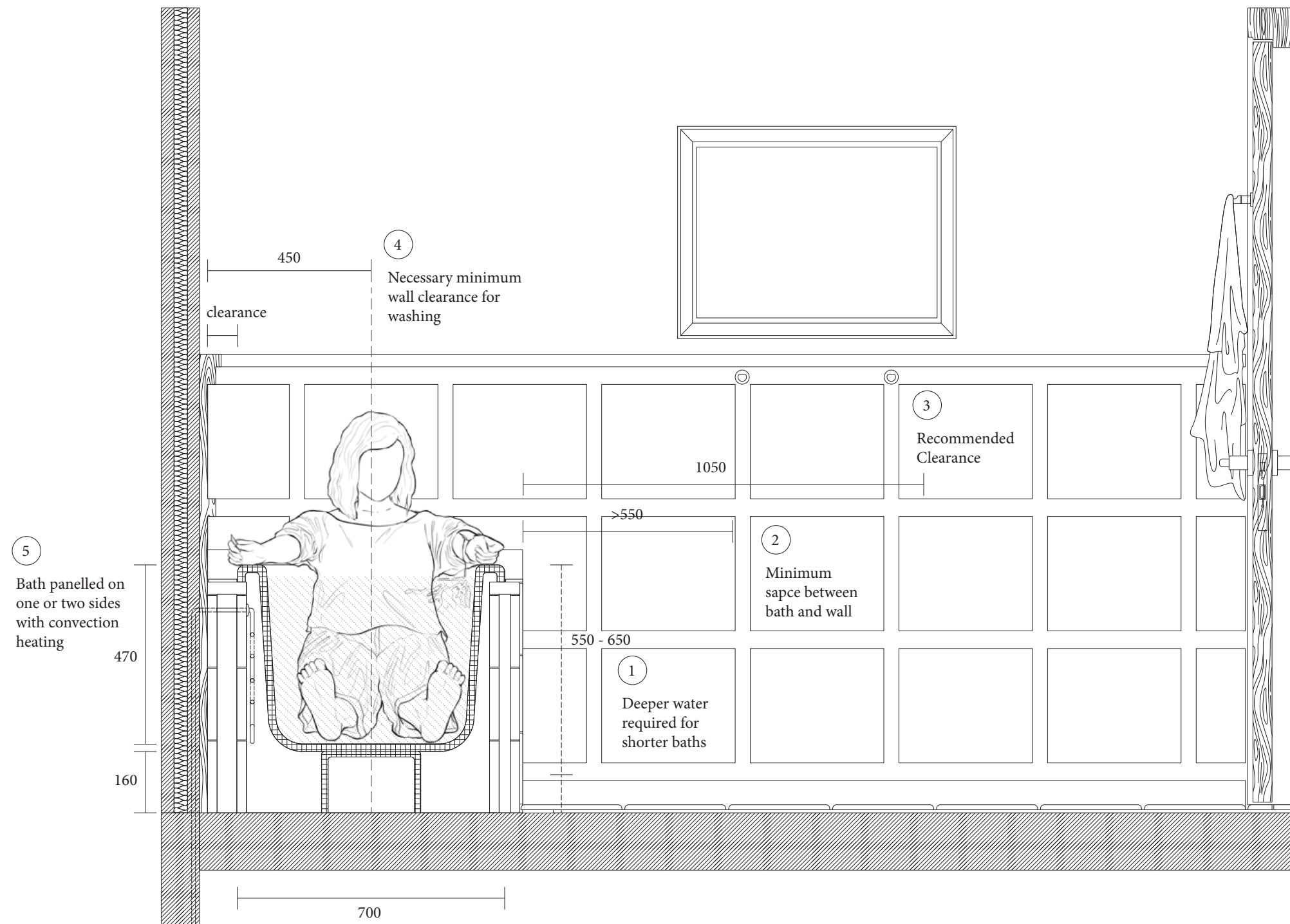
top right *Neufert Architects' Data Second* (International) English Edition, p60, Ernst Neufert, 1991

above 'Disturbing Neufert', Raqarq, 2014



What is a toilet bowl, a sink, a bathtub, a cubicle? What are the dimensions for recovering a dead body from a bathtub? How do we defecate, urinate and wash our hands? Neufert has an answer for all our queries, we need only look as far as the index of *Architects' Data*. Ernst Neufert's "theory of planning" introduced the universal standard body, based on a male body of relative proportions as a yardstick for dimensioning space and fittings.

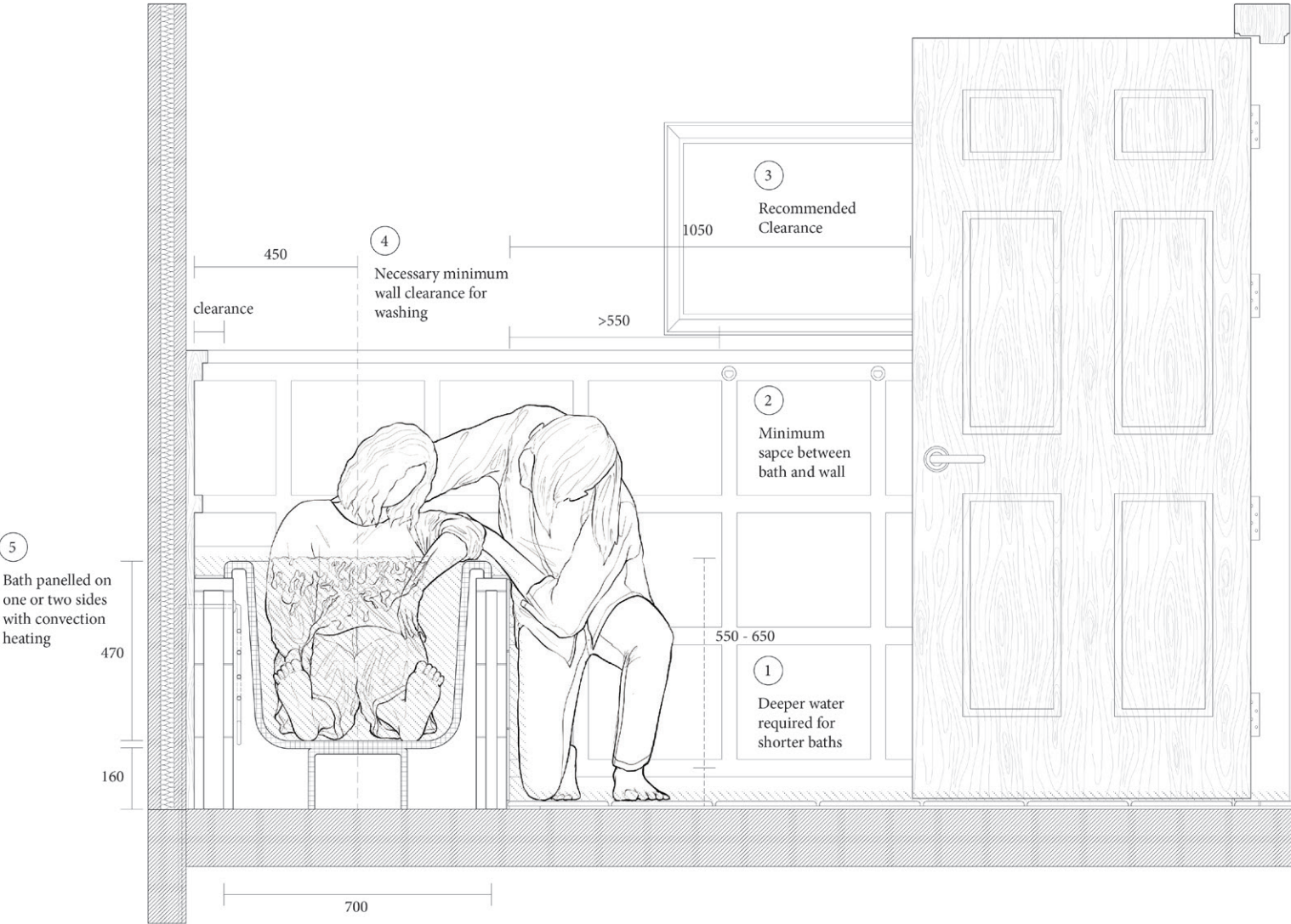
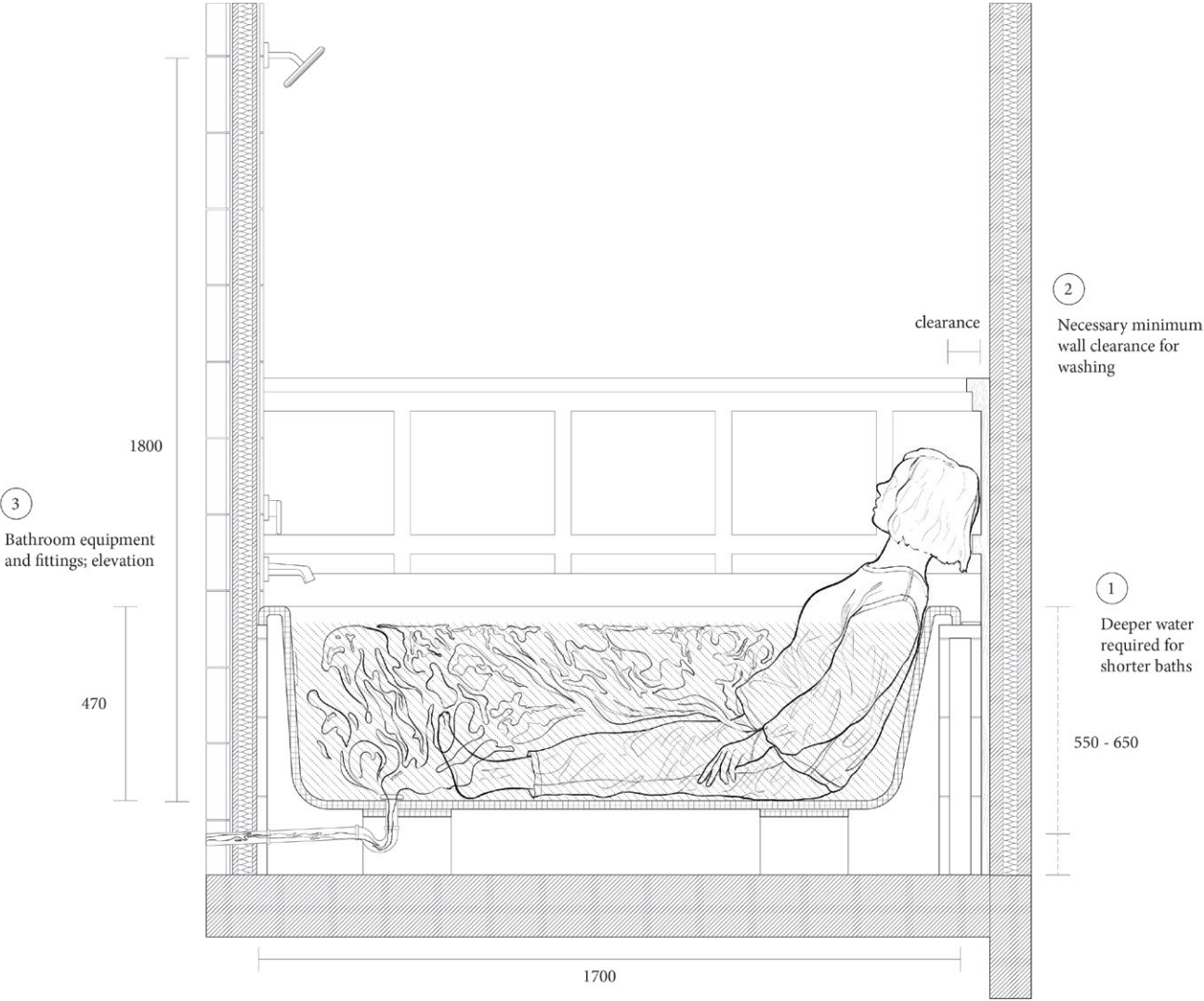
Non-normative bodies like the infirmed, deteriorating and abused become precarious. Their bodies constantly deformed and reformed, lying between the gaps of Neufert's indexical proportions. Dimension-saturated diagrams enact a reification of the body, systematically flattening it and its methods of cleaning and evacuating.

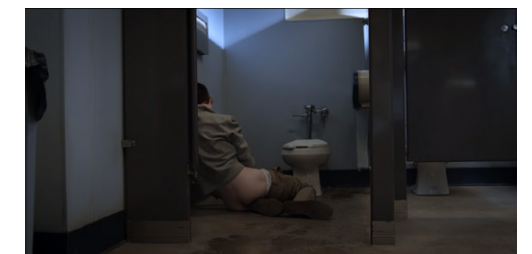
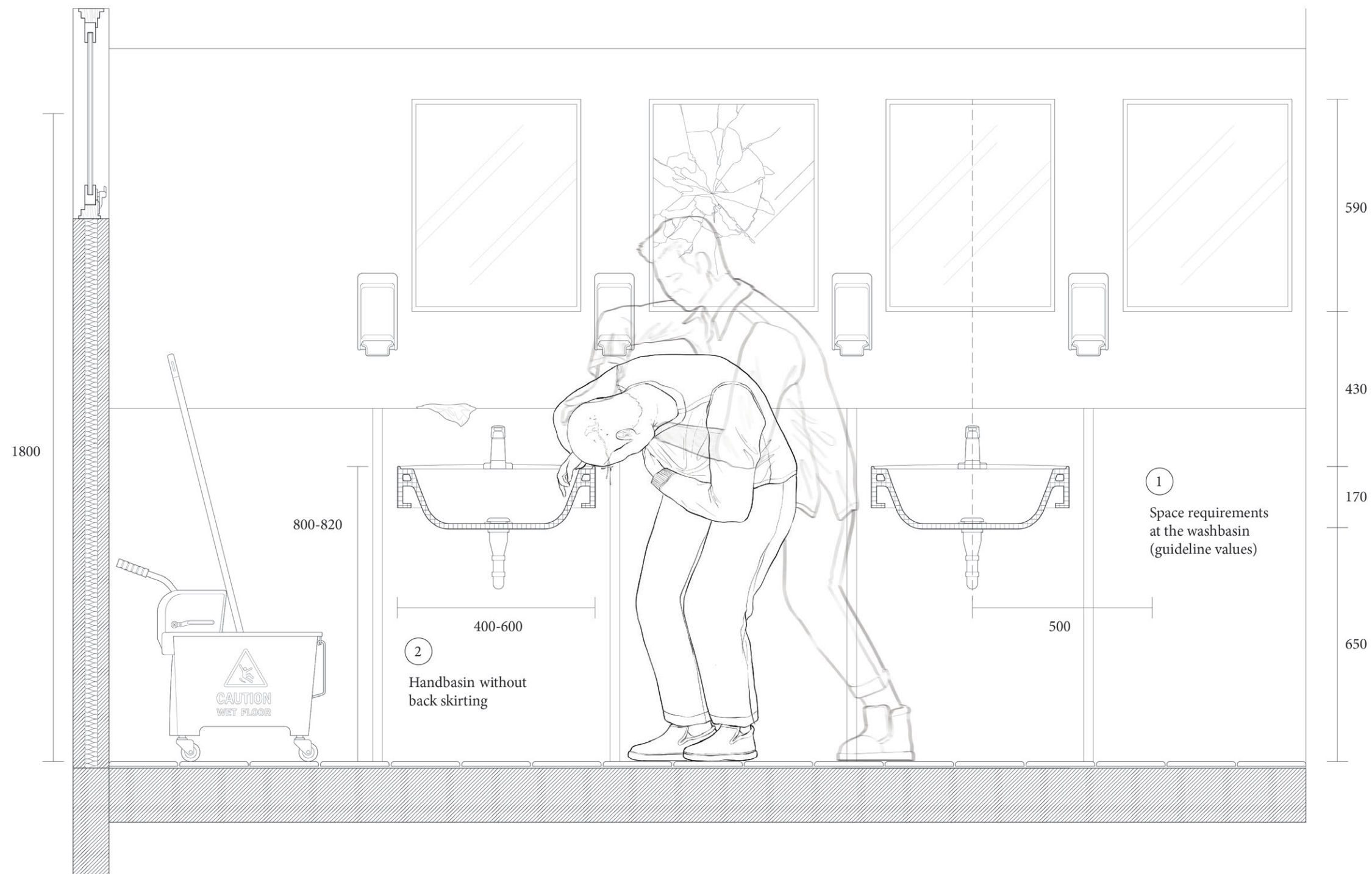


The lip of the bathtub provides her with a firm brace to anchor an upturned arm, baring veins for emptying. A water coffin, gradually filling up to embalm her decaying form, her posture primed in fowler's position drains the blood out of her vessels efficiently. Pristine cream floor tiles become a colouring book, with grout lines for the blood to zip through like outlines. The door entombs the site, less the water seeping from beneath the floor gap, drenching the carpeted corridor. In its finality, the tub wall acts as a last barrier, denying a mother an easy recovery of her daughter's limp and lifeless body.

above Stills from *13 Reasons Why*, Season 1 Episode 13, "Tape 7, Side A", Brian Yorkey, 2017

left Section_Architects' Data_Built-in Bath_Afflict

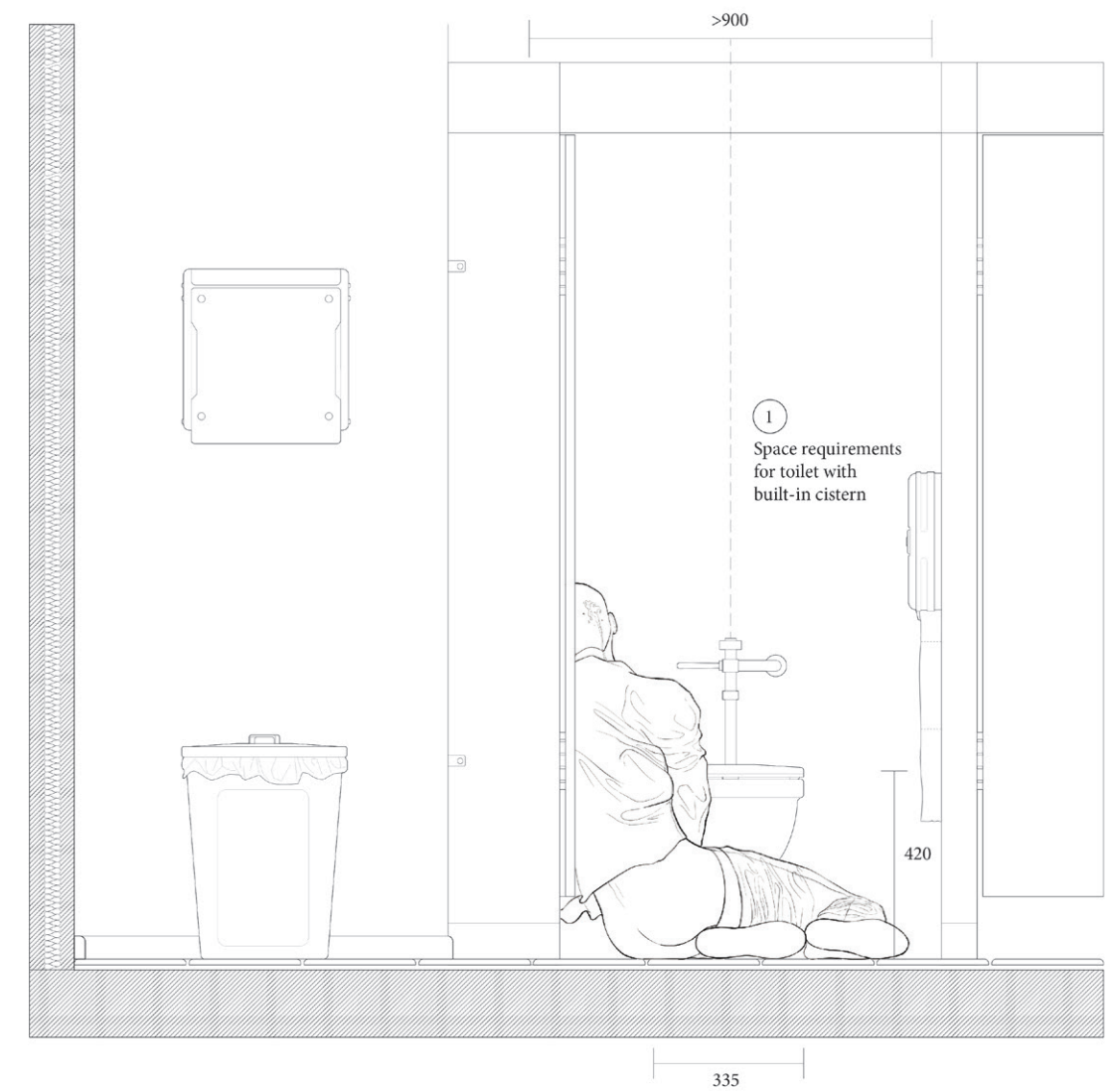
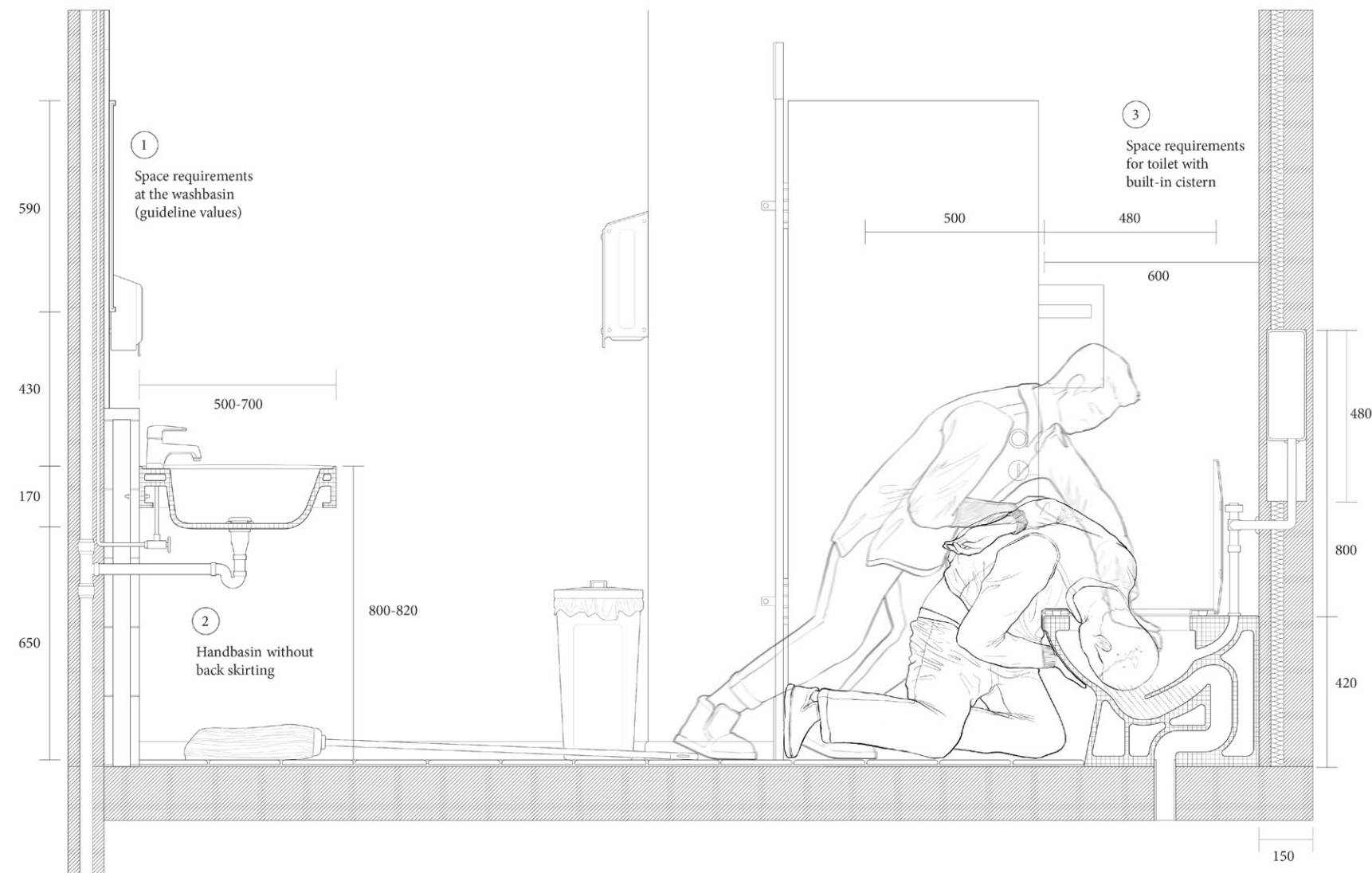


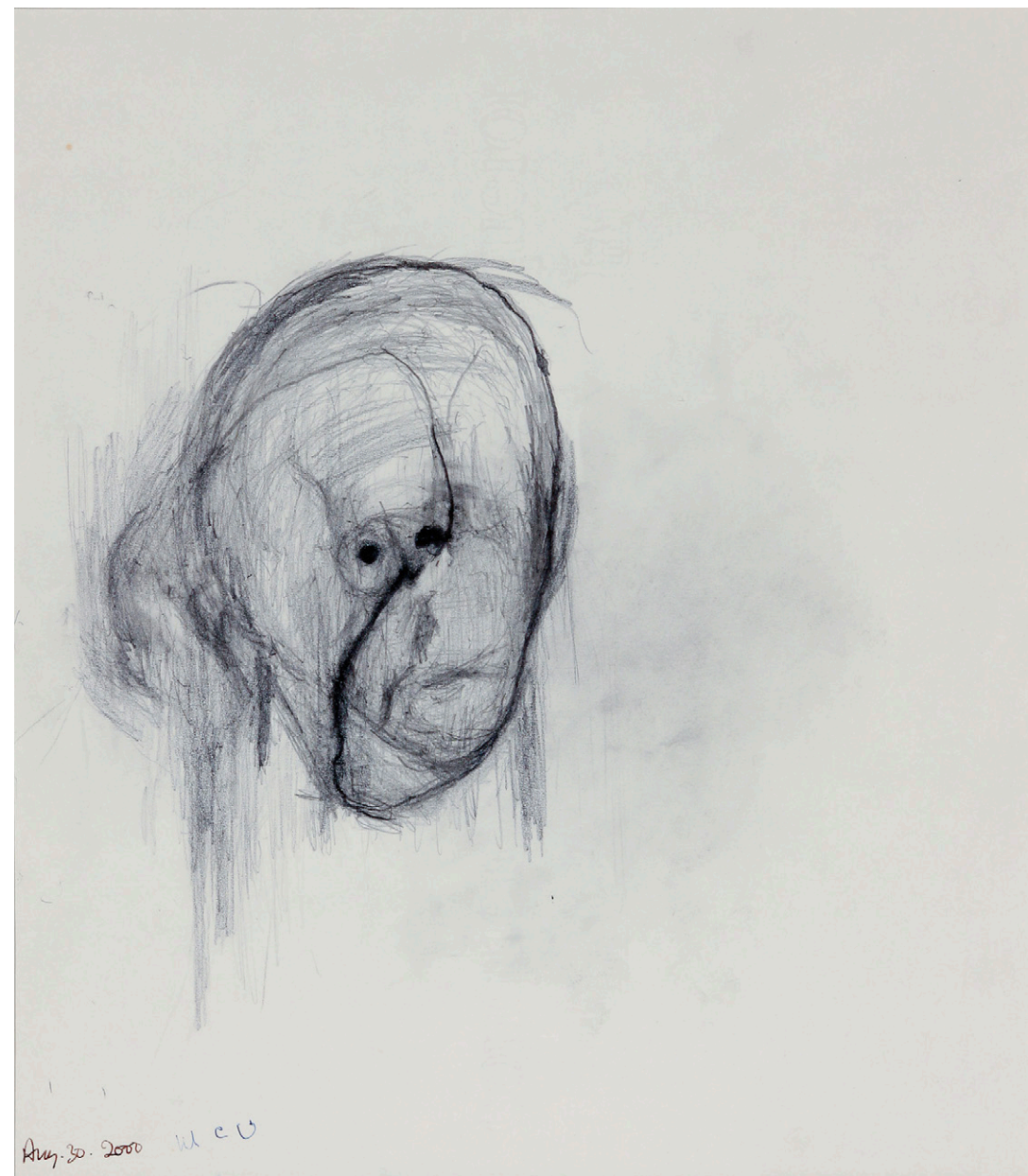
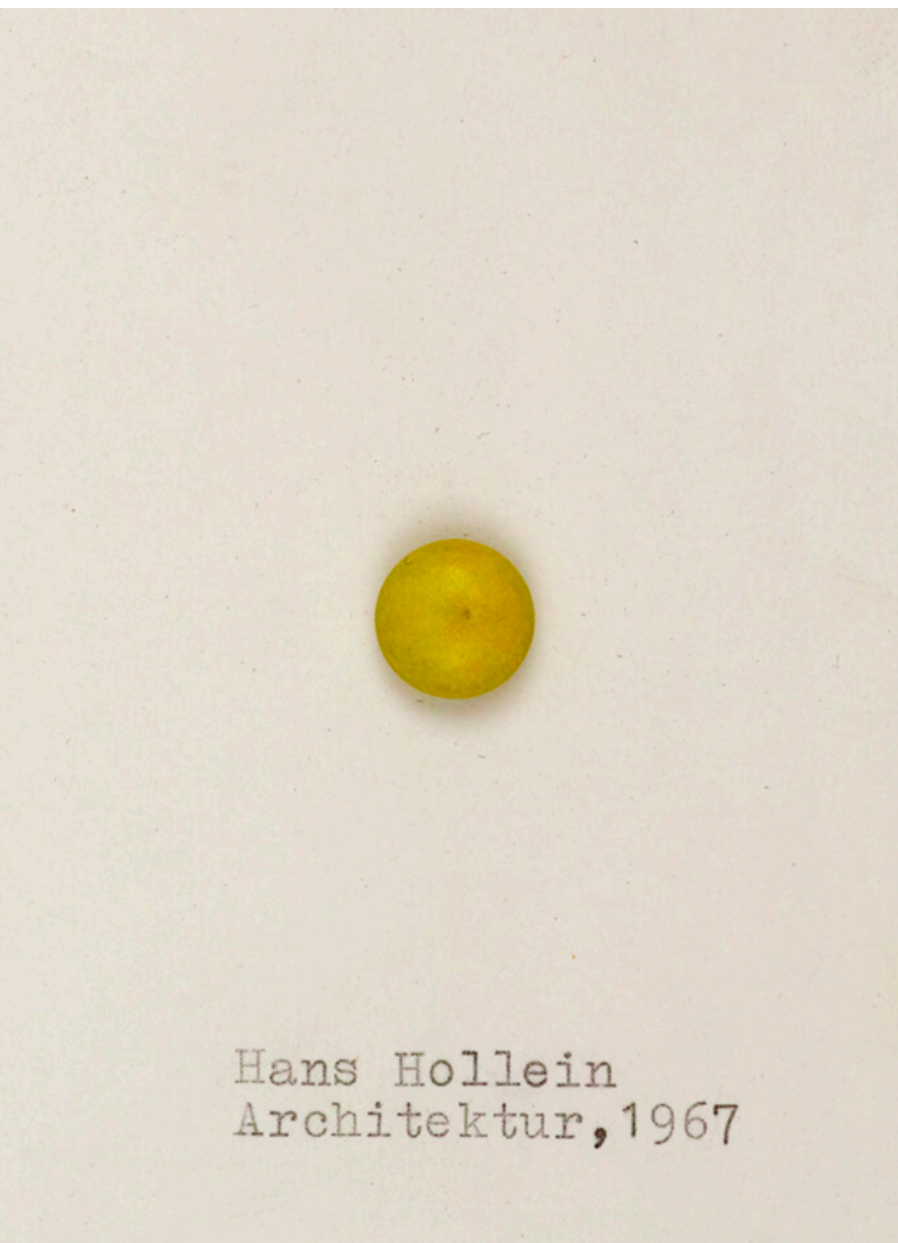


The school washroom can be a site of trauma for people afflicted within an intimate setting, defamiliarised by the transgression of violence. The school washroom mirror becomes a surface of laceration on which to open a gash in the skin. The raised lip of a porcelain handbasin becomes a pivotal weapon for blunt force trauma to the skull. The functional water closet becomes storage not for excrement but for an asphyxiating head. After a series of violent altercations, the swung open stall door embraces the abused body as it reels in affliction, struggling to process the passing event.

above Stills from 13 Reasons Why, Season 2 Episode 13 "Bye", Brian Yorkey, 2018

left Section_Architects' Data_Handbasin_Inflict





toilet transcripts

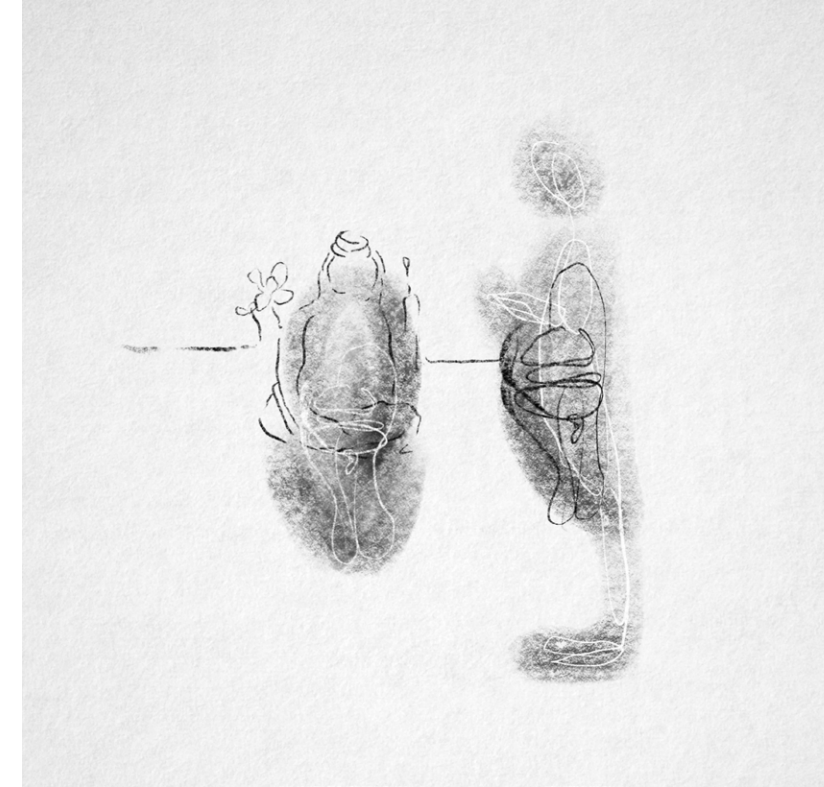
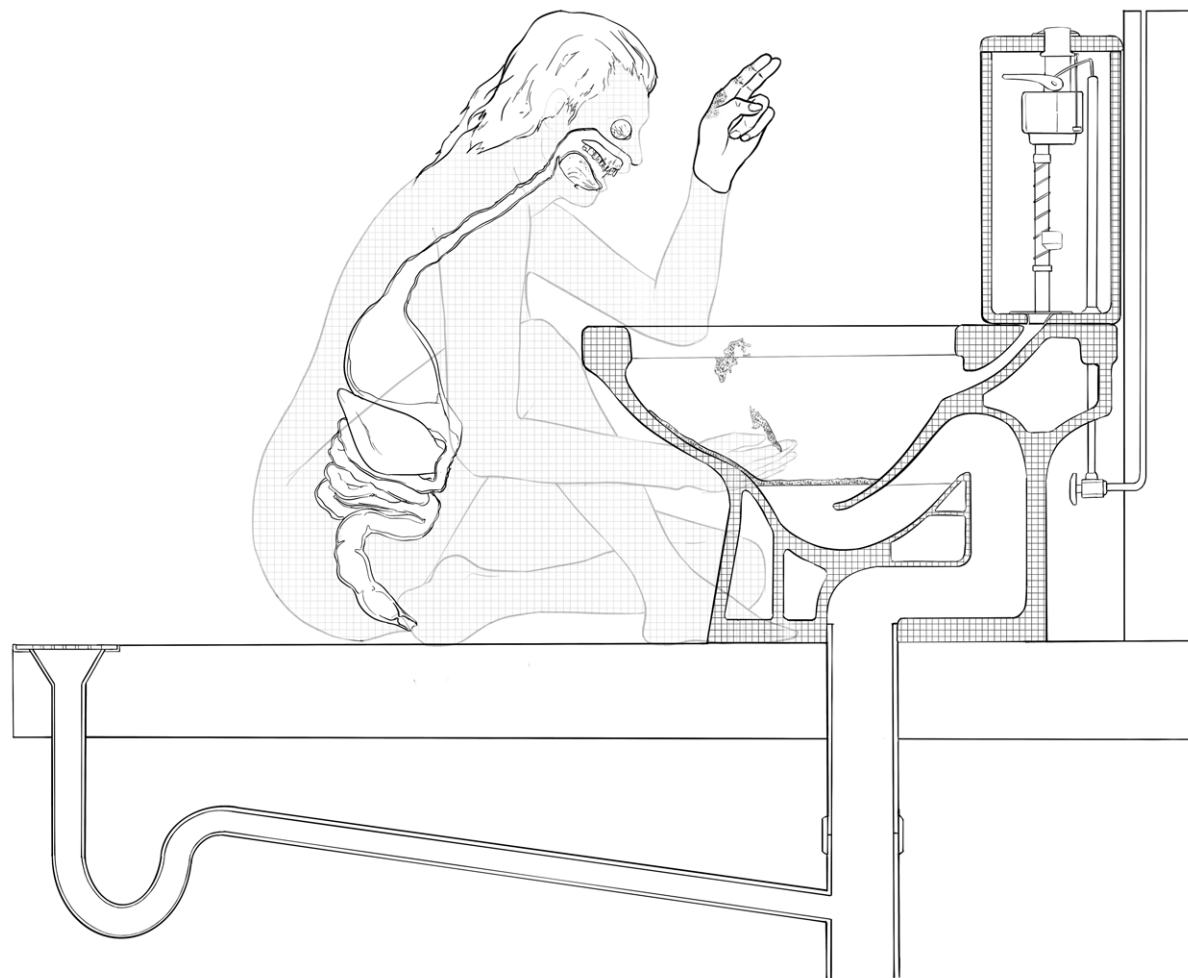
Neurotic and Deteriorating Bodies

The bathroom is a nexus of beginnings and endings. We orientate and construct the body every morning and reflexively and reflectively deconstruct it at night before retiring to bed. A simple act of disrobing is a transitional act for a working mother, shifting in mental capacity, from working professional to maternal homebody. The bathroom can thus be seen through a lens of mental faculties, and a weaving of specific identities and bodies.

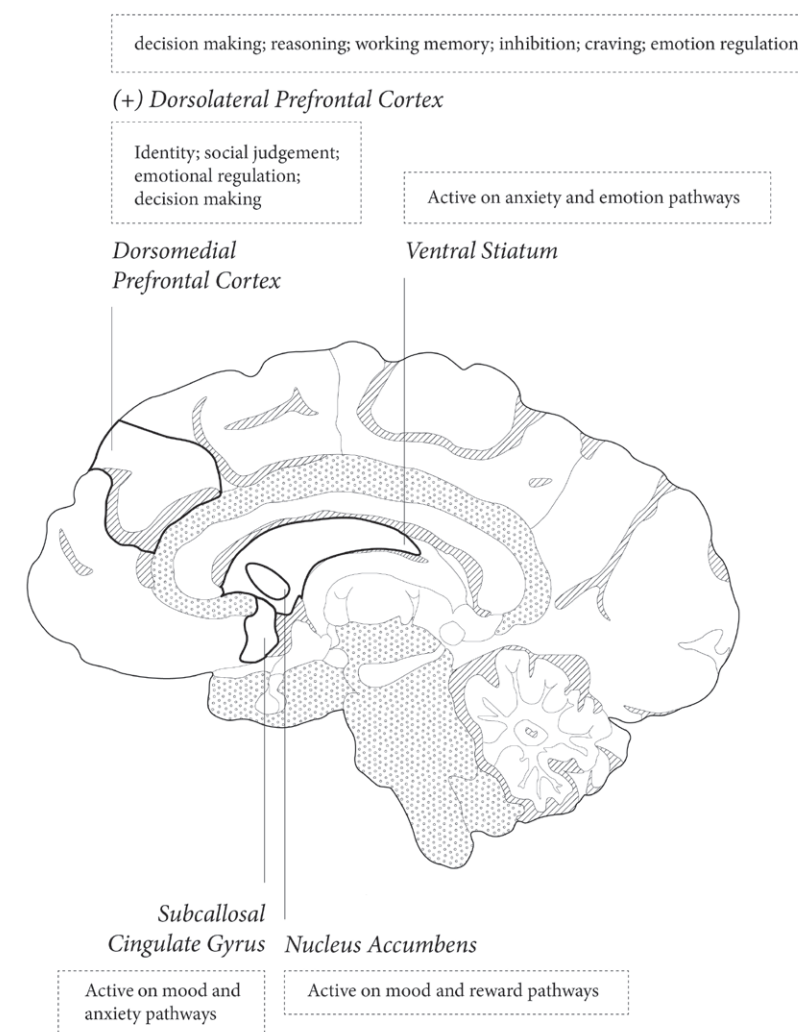
A psychosomatic body has an intensity of repetitive actions centred around specific postures and particular organs. For a bulimic body, the bathroom is reduced to a water closet, whose ability to offload and carry away mental and physical weight, elevate its role from functional to sanctified. For a postpartum depressive body, the bathroom is a space of guilt, and the changing table a reminder of the disparity between order and disorder; baby scent and maternal stench. The Lewy body afflicted may instead find the bathroom strange and deceptive. With fluctuations in visuospatial cognition affecting the ability to recognise and distinguish object categories, the faucet becomes a shower head, objects begin to blur and territories collapse into one another. Every fixture, every surface then becomes a prime real estate of support for a weakening set of limbs.

far left Architektur, Hans Hollein, Non-physical environment, photographed by Roland Krauss, 1967

left Self Portrait - Head I, William Utermohlen, Pencil on Paper, 2000



Collaborative sketches were made whilst in conversation with a friend who had recently recovered from an eating disorder with anorexia and bulimia nervosa. For her, the bathroom houses her stash of laxatives and provides her the privacy and seclusion to binge in secret.

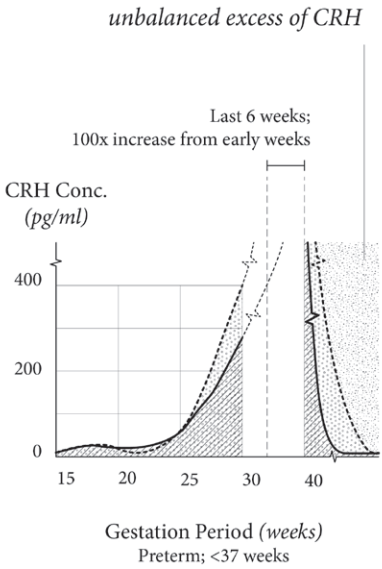
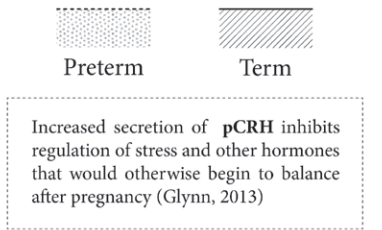
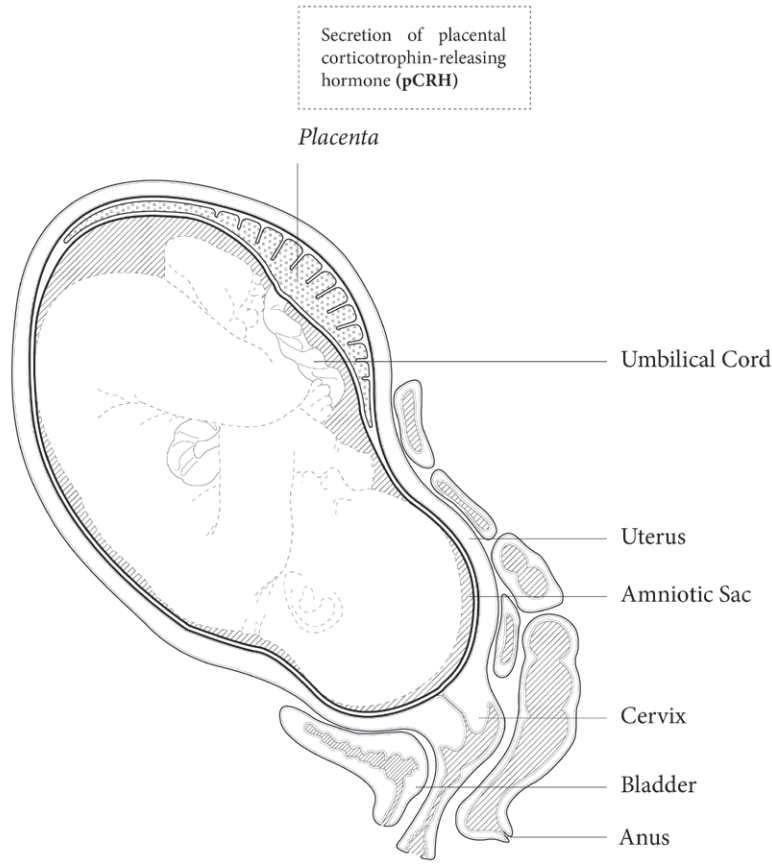
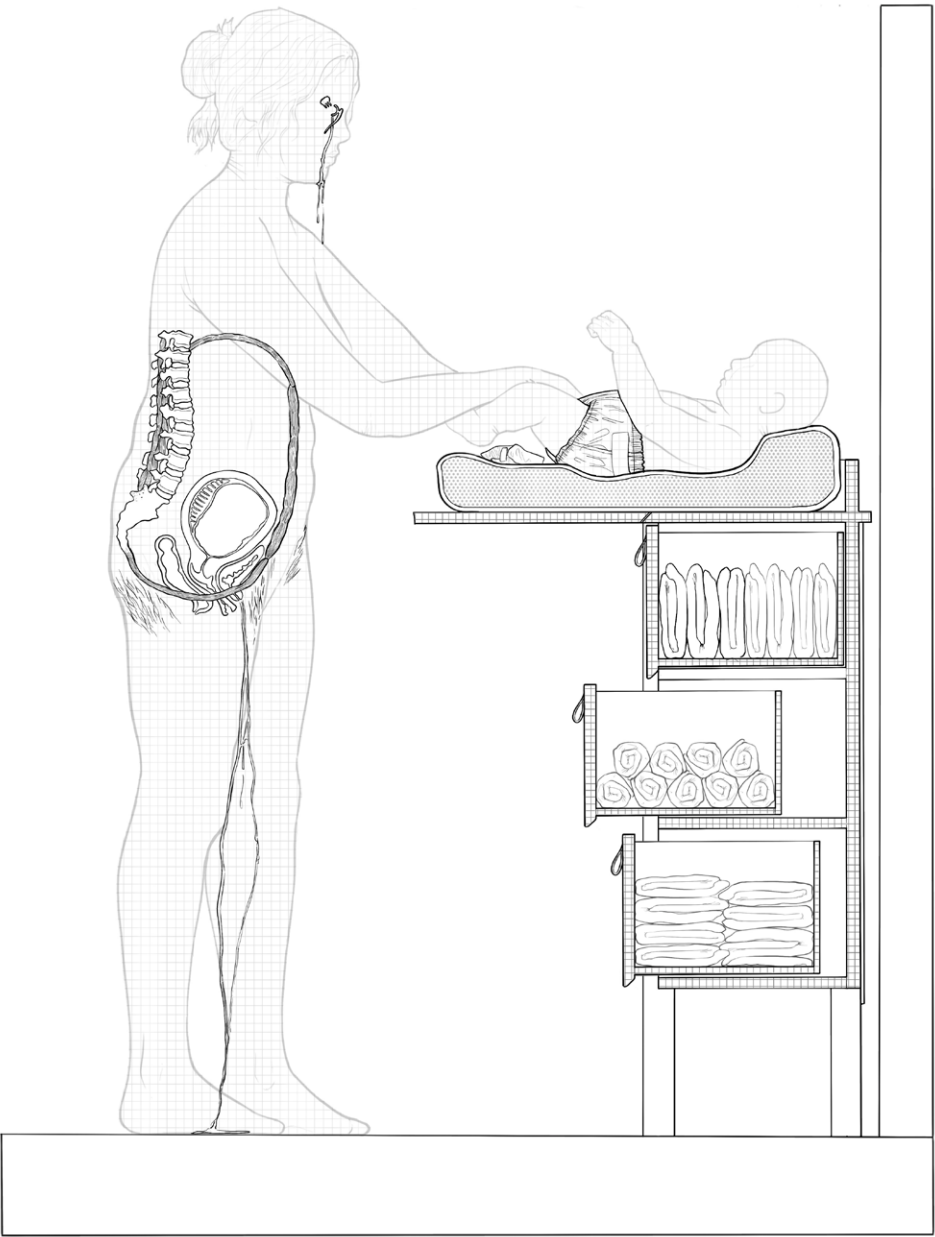


“[the toilet bowl] it’s like a shrine to me — it carries away my worries and anxieties about my body [it carries away] my physical and mental weight”

above ethnographic collaborative sketches, pencil and ink on paper

left Brain Production_Sagittal Section of Brain_Postpartum Depression

Brain activity during neurotic patterns of behaviour and thought showing a physiological and neurological link in psychosomatic disorders and disregulation.



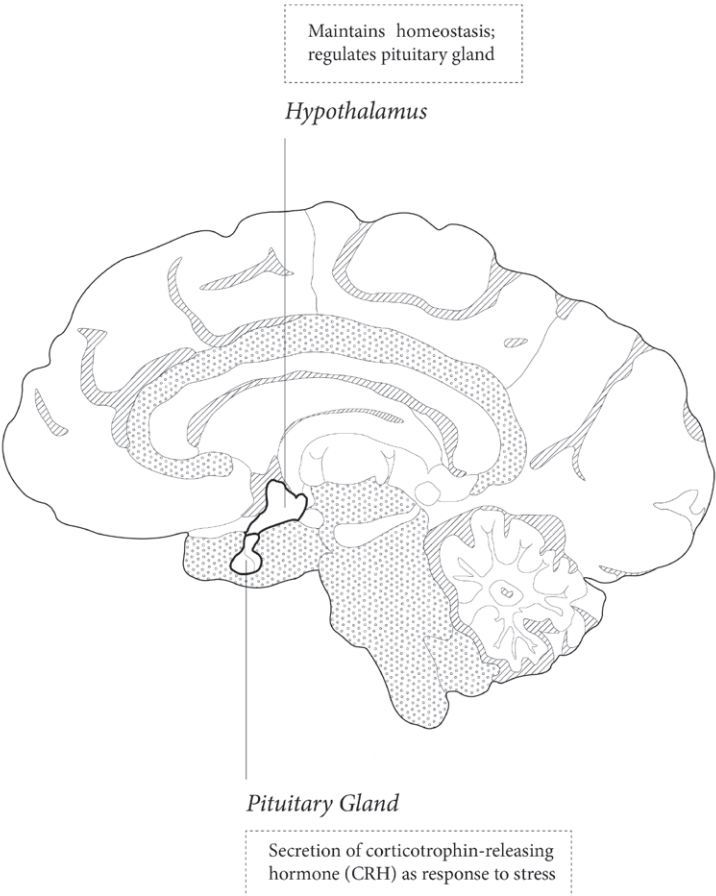
“I would count the number of stairs because I couldn’t sleep... I would wake up [my husband] because if I cannot rest then everybody has to stay up with me”

above Corticotrophin-Releasing Hormones during Gestation

top left Placental Production_Sagittal Section of Uterus;

bottom left Brain Production_Sagittal Section of Brain

Recent medical studies into the role of hormonal dysregulation of corticotrophin-releasing hormones (CRH) post pregnancy suggest a hidden physiological factor attributed to the onset of postpartum depression.





anatomising a bathroom

facing page Water and oil stains on metal faucet

left Stills from Ripolin paint commercial film on a Paris boulevard wall, Félix Mesguich, 1898

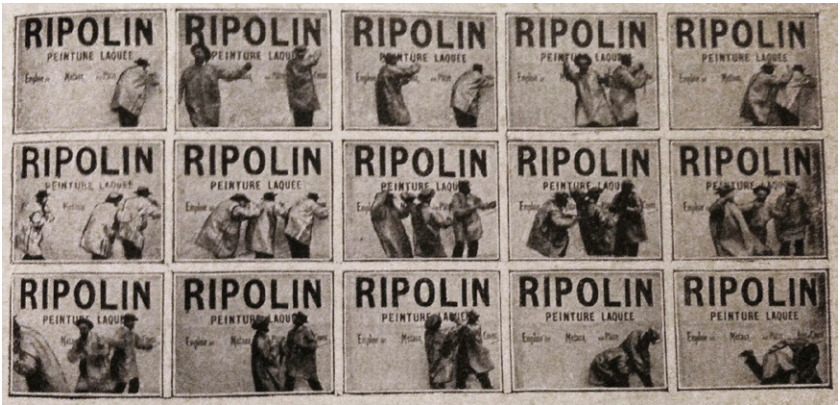
Mark Wigley’s essay “Chronic Whiteness” explores morality, race and sick architecture in the practices of whitewashing or the radical eradication of dirt as an effect of colonialism, imperialism and modernist ideals.

Bathroom interiors and surfaces are often points of contention and confrontation with moral decorum. Despite the perceived privacy bathrooms afford us, there is a persistence of self-policing and whitewashing that occurs within the space. We establish a fabricated state of perpetual cleanliness, laminating waterproof tiles with Clorox and delaminating surfaces with a bristle brush. All while concealing the labour of maintenance itself, as though the bathroom is an object in itself to be perceived and not for the body to occupy it.

The insidious nature of whitewashing is that it is often invisible, just like the traces of oils and water stains on ceramic tiles and metal faucets, requiring one to peer at just the right angle, close enough to the surface, to perceive its outlines and speckles. This intimacy of the ultrathin, or as Marcel Duchamp terms, the inframince, is crucial to a reading of bathroom traces and the fragments of bodily extensions.

As Nick Haslam states in Toilet Psychology: “Shame reflects a belief that the self is soiled or spoiled, whereas disgust reflects a perception that something outside the self is contaminating” (Haslam, 2012). Bathrooms expose the unreliable nature of our leaky bodies and responds with an array of enclosures and mediums to mask and seal away our bodily excrements within the confines of its interior walls and surfaces.

This chapter looks at confronting these excremental affects of shame and disgust, through a forensic explosion of bathroom traces and objects, to see the stories they tell of the body, the bathroom as it is fragmented, and the bodies they construct from these fragments.



The Stockings, why shou'd I expose,
Stain'd with the Marks of stinking Toes;

Or greasy Coifs and Pinners reeking,

A Pair of Tweezers next he found
To pluck her Brows in Arches round,

Or Hairs that sink the Forehead low,
Or on her Chin like Brittles grow.

Of *Celia's* magnifying Glafs,

The smallest Worm in *Celia's* Nose,
And faithfully direct her Nail
To squeeze it out from Head to Tail;

And must you needs describe the Chest?

He lifts the Lid, there needs no more,
He smelt it all the Time before.

The Vapours flew from out the Vent,

And up exhales a greasy Stench,

Send up an excremental Smell,
To taint the Parts from whence they fell,
The Pettycoats and Gown perfume,
Which waft a Stink round every Room.

As Mutton Cutlets, Prime of Mear,
Which tho' with Art you salt and beat,

The Fat upon a Cinder drops,
To stinking Smoke it turns the Flame
Pois'ning the Flesh from whence it came;

Her Ointments, Daubs, and Paints and Creams,
Her Washes, Slops, and every Clout,

Of all the Litter as it lay ;

And first a dirty Smock appear'd,
Beneath the Arm-pits well besmear'd.

The various Combs for various Ufes,

Fill'd up with Dirt so closely fixt,
No Brush could force a way betwixt.

A Paste of Composition rare,
Sweat, Dandriff, Powder, Lead and Hair ;
A Forehead Cloth with Oyl upon't

Here Allum Flower to stop the Steams,
Exhal'd from four, unfavoury Streams ;

Here Gallypots and Vials plac'd,
Some fill'd with Washes, some with Paffe,
Some with Pomatum, Paints and Slops,

And Ointments good for scabby Chops.

Hard by a filthy Bafon stands,
Fowl'd with the Scouring of her Hands ;

The Scrapings of her Teeth and Gums,
A nasty compound of all Hues,
For here she spits, and here she spues.

When he beheld and smelt the Towels,
Begumm'd, bematter'd, and beslim'd
With Dirt, and Sweat, and Ear-Wax grim'd.

Here Pettycoats in frowzy Heaps ;

Nor be the Handkerchiefs forgot
All varnish'd o'er with Snuff and Snot.



above *The Lady's Dressing Room*, Jonathan Swift, 1732

-facing page Excerpts from *The Lady's Dressing Room*, Jonathan Swift, 1732

celia's bodies *The Lady's Dressing Room*, Jonathan Swift, 1732

A 1732 Georgian satirical poem titled *The Lady's Dressing Room* by Jonathan Swift provides a scathing inventory list of objects used and excremental traces produced by a lady — Celia. The stanzas adopt a derisive posture, exposing Celia's unseen processes of grooming, cleansing and elimination (or lack thereof). Strephon, the male narrator, assumes the gaze of the reader, mirroring our own affects of shame and disgust towards bodily fluids and functions. The poem culminates with the unveiling of Celia's commode to reveal the abject horrors of humanity — the very fact that she (we) excretes.

The poem affords its reader a means to reconstruct Celia, through her sweat, stains, scrapings, pastes, lotions and paints. We collapse all instances of her bodily extensions across all mentions of excreting and dressing by consolidating an index of traces left behind from the labour of maintenance and care she has exacted.

Nor be the Handkerchiefs forgot
All varnish'd o'er with Snuff and Snot,
And Ointments good for scabby Chops.

Here Allum Flower to stop the Steams,
Exhal'd from four, unfavoury Streams;

Here Gallypots and Vials plac'd,
Some fill'd with Wafhes, some with Paffe,
Some with Pomatum, Paints and Slops,

Or greasy Coifs and Pinders reeking,
A Pair of Tweezers next he found
To pluck her Brows in Arches round,

Or Hairs that fink the Forehead low,
Or on her Chin like Bristles grow.

Of all the Litter as it lay;
The various Combs for various Ufes,

When he beheld and finelt the Towels,
Begumm'd, bematter'd, and bellim'd
With Dirt, and Sweat, and Ear-Wax grim'd.

A Paffe of Composition rare,
Sweat, Dandriff, Powder, Lead and Hair;
A Forehead Cloth with Oyl upon't

The Scrapings of her Teeth and Gums,
A nafty compound of all Hues,
For here she spits, and here she spues.

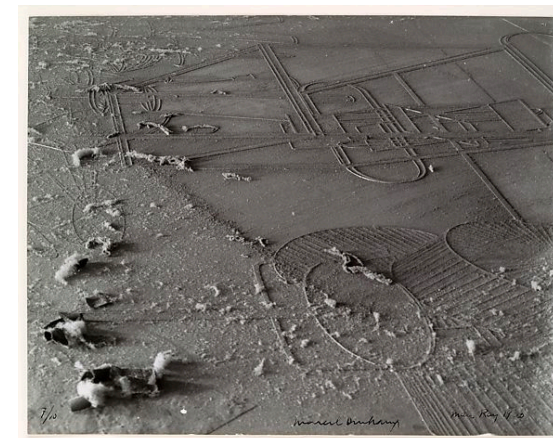
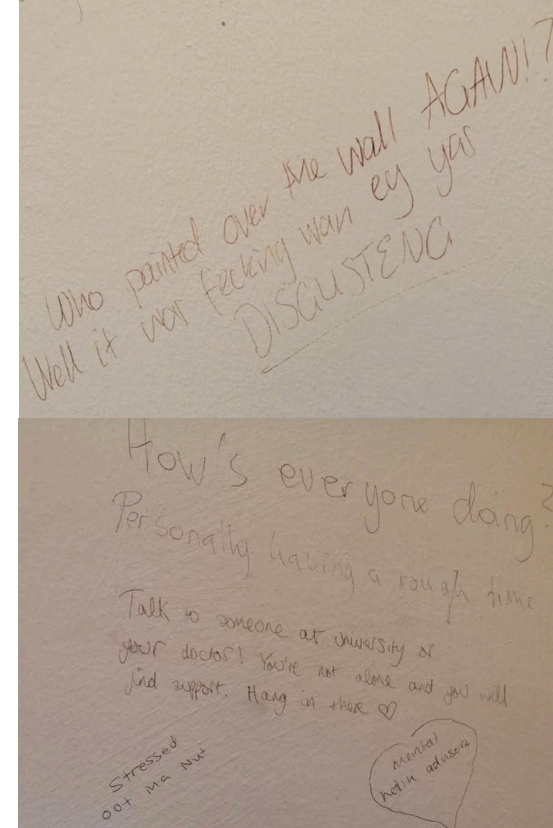
Of *Celia's* magnifying Glafs,

The smallest Worm in *Celia's* Nose,
And faithfully direct her Nail
To squeeze it out from Head to Tail;

Her Ointments, Daubs, and Paints and Creams,
Her Wafhes, Slops, and every Clout,

Fill'd up with Dirt so closely fixt,
No Brush could force a way betwixt.

oil blotting paper
mouth scrappings
spit and toothpaste
begummed towels
ear wax grime
used tissues/hankerchief
greasy hair ties
tweezers
stained undergarment
combs and brushes
perfume
jars and vials
moisturiser
hair oil
mirror/magnifying glass
hairs and dandruff
commode



top left *Latrinalia*, Mabel
Victoria, Scottish university, 2020

top right *hi <3_Condensation*,
Oil and Mirror, author's own

above *Dust Breeding*,
photographed by Man Ray,
Duchamp's *Large Glass with Dust*
Motes, 1920

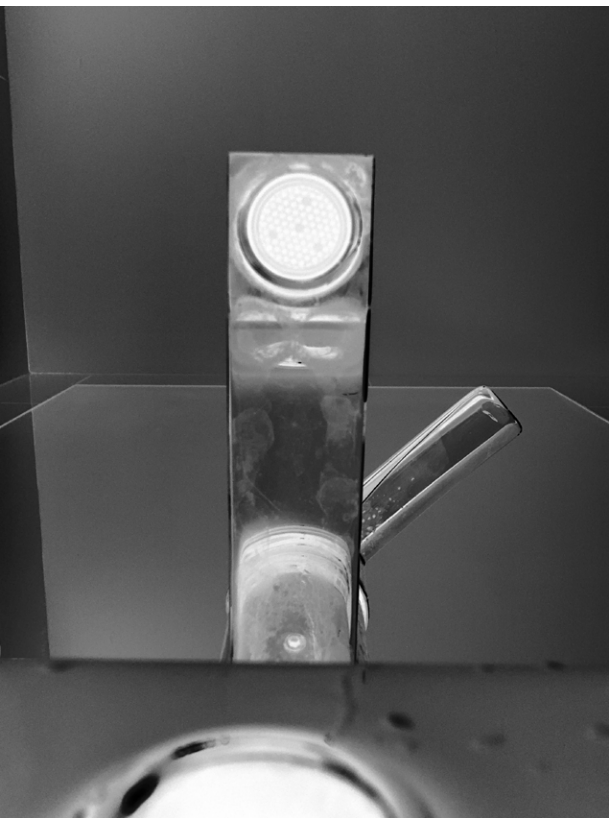
facing page *Lady At Her*
Bathroom_Making A Toilet

agency of traces

Inframince

The endeavour to represent traces of cleansing and evacuation requires me to go down to an infrathin scale of scrutiny. A method of forensic photography is utilised to capture the minute indiscernible inflections and changes in surfaces and materials. If the body is both perpetrator and victim to and of the bathroom, the bathroom itself lays witness, whilst the body's traces are the evidence of its transgression. But the evidence themselves are bodies, bodies that themselves perpetrate and transgress into other adjacent spaces and bodies. A whiff of a fart, a squabbling two floors down between mother and uncooperative son during bath time, and the remnants of water stains on marble from brushing one's teeth all serve to remind us of our presence and co-presence in an otherwise markedly private enclosure.

Oil and scaling underside metal faucet



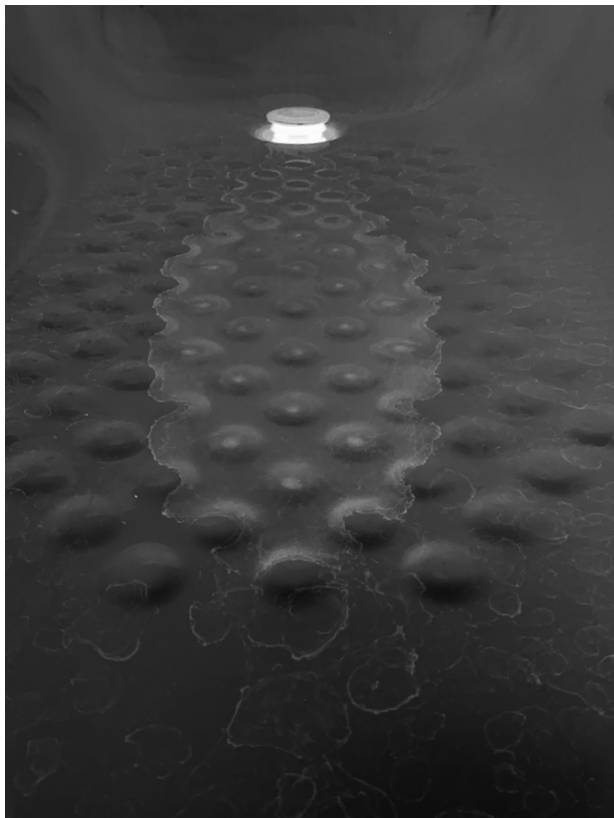
Oil and water stains on metal faucet



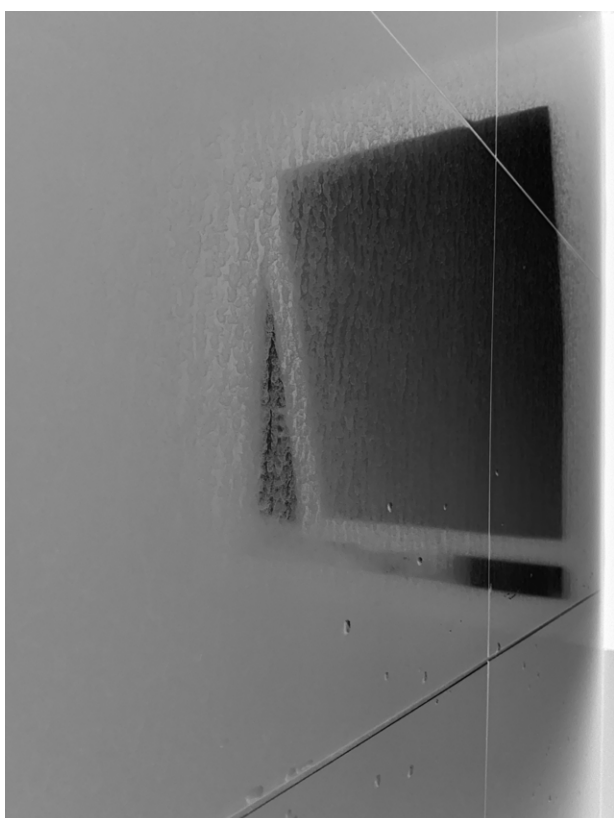
Water stains and scaling on grab bar



Water and dust layers in bathtub



Water stains on acrylic sliding panels



Oil, water and toothpaste stains on mirror

Dust particles atop sliding screen channel

Water stains and droplets on acrylic screen

Water stains and droplets on ceramic tiles

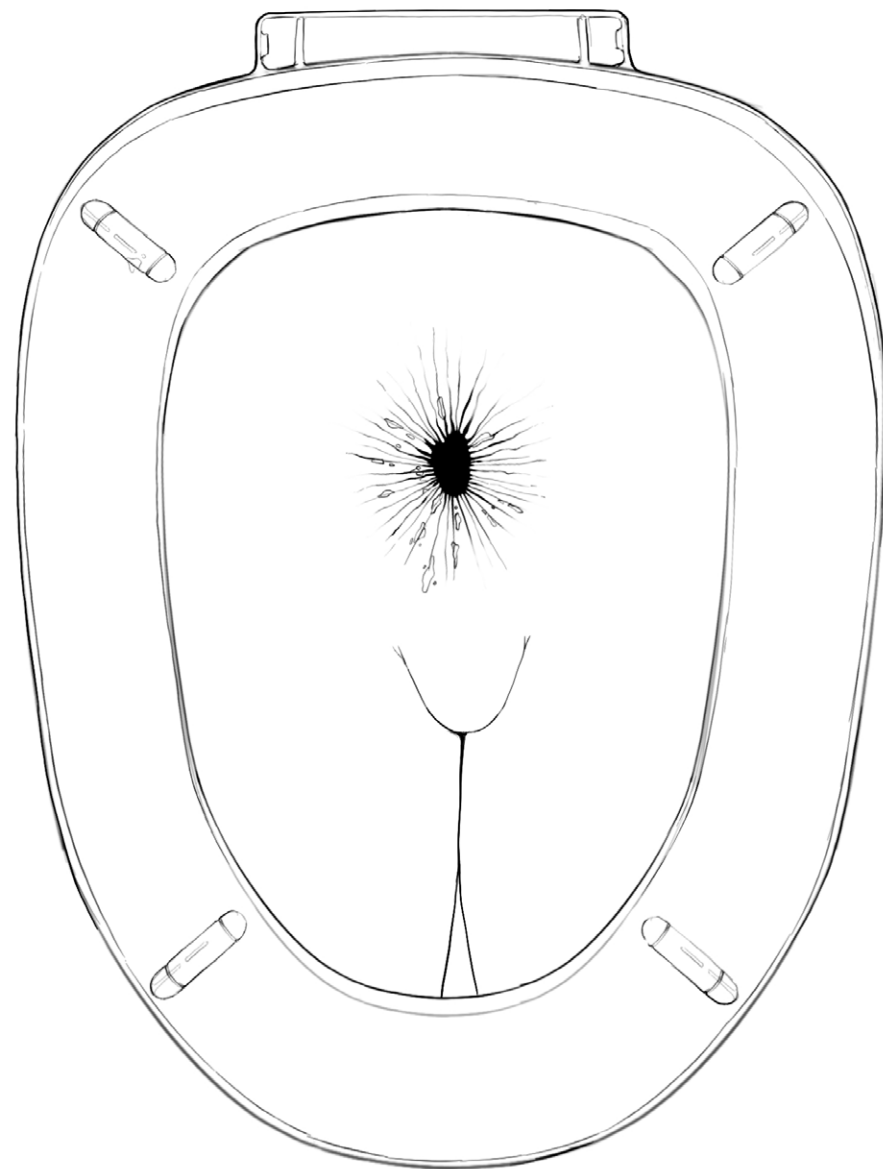
Oil and condensation on mirror

thresholds and cavities

Thresholds are the slivers in between worlds and bodies, between bathrooms and traces. They mediate the diffusion of gases and trickling of water, allowing displaced air particles to propagate into and out of enclosures. As explored in previous chapters, these gaseous and liquid bodies constitute plural extensions. Thresholds are thus crucial in engendering a co-presence of these plural extensions across bathroom microworlds and across bodies. A layering of boundary walls and fenestrations produce an intensity of slippages and stoppages, tempering, harnessing, and mitigating the visceral extents of excremental expressions and their proximity to the body.

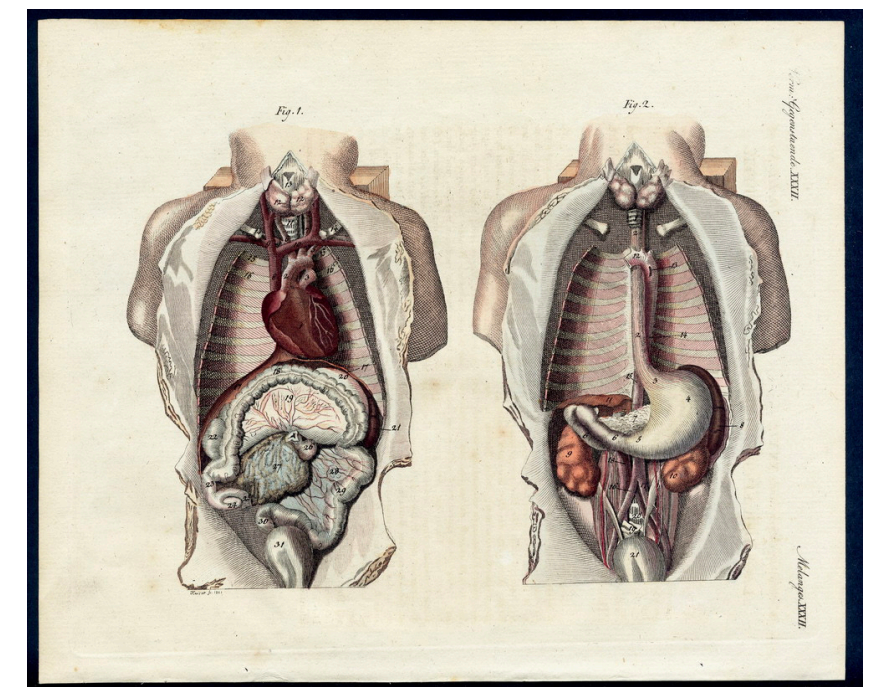
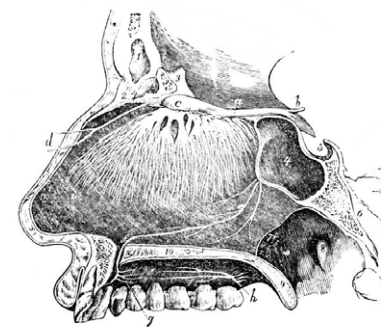
We typically read excremental traces like nicotine vapour drifting from under a stall divider or nicotine stains accumulating on a divider as transgressing a cubicle conceived for the body to inhabit. An unwanted foreign body that threatens a precarity to the perceived privacy of the bathroom's enclosure. An architectural treatment of traces demands an explosion of its space from two-dimensional surface to three-dimensional space. Spaces that perform like cavities, leaking and filtering like a nasal cavity would with mucus and air particles.

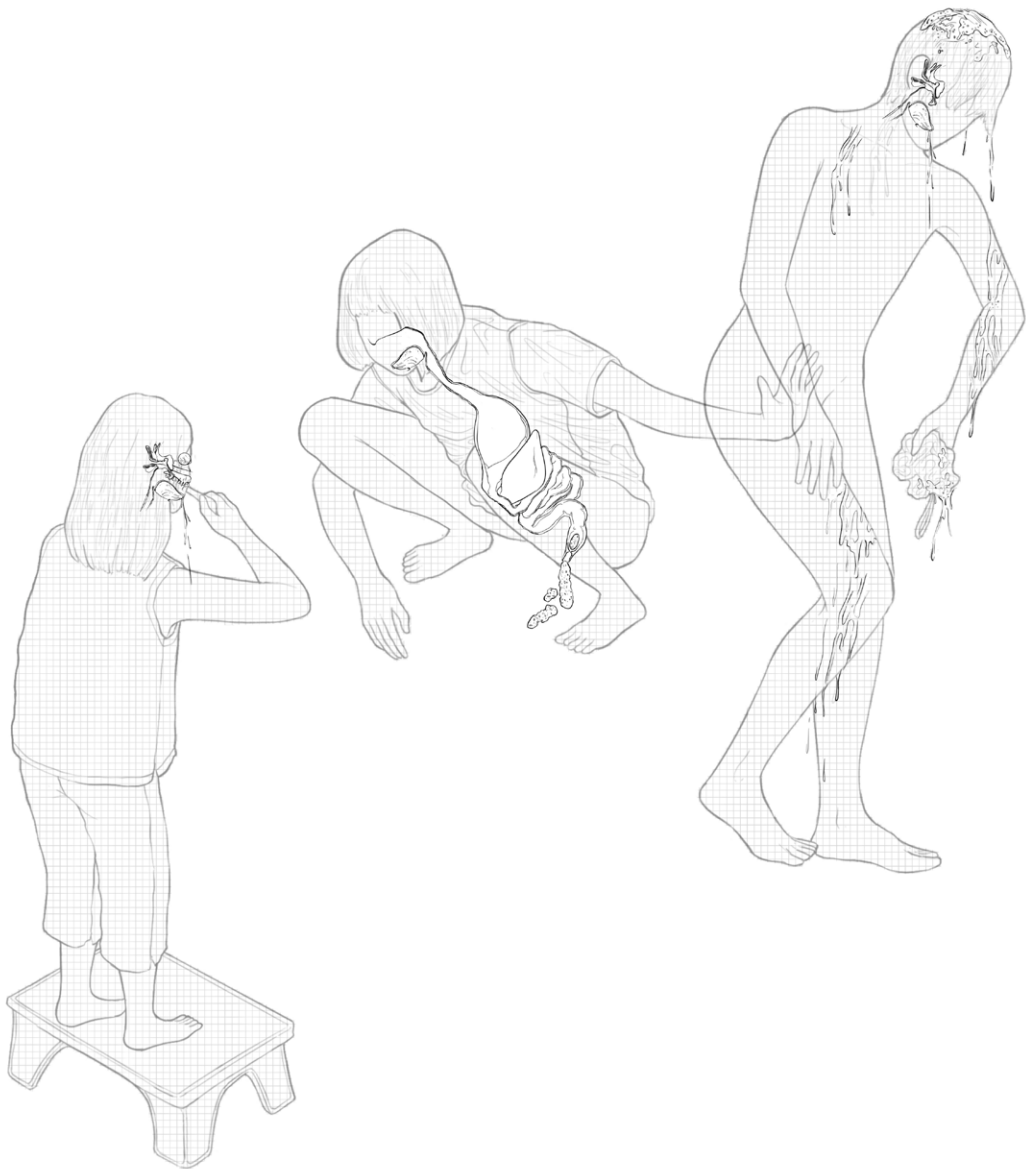
By conceiving these cavity spaces as very own cubicles for the traces themselves to inhabit, we inverse the relationship between bodies and traces, transgressor and transgressed. The toilet then becomes an immanent space centred around a practice of confronting different degrees of visceral expressions, of experiencing a presence of multiple selves and co-presence of multiple others.



below Nasal Cavity in the *Old Book Human Body Anatomy* by Dr. Holstein, Vol. 4, S. Petersburg, 1861

bottom right Anatomical illustrations of the the chest and belly of the human body after removal of certain intestines and organs, *Bilderbuch für Kinder* Volume 3 Plate No. 99, Weimar, Bertuch Friedrich Johann Justin, 1798





*“I saw mummy touching
daddy’s butt”*

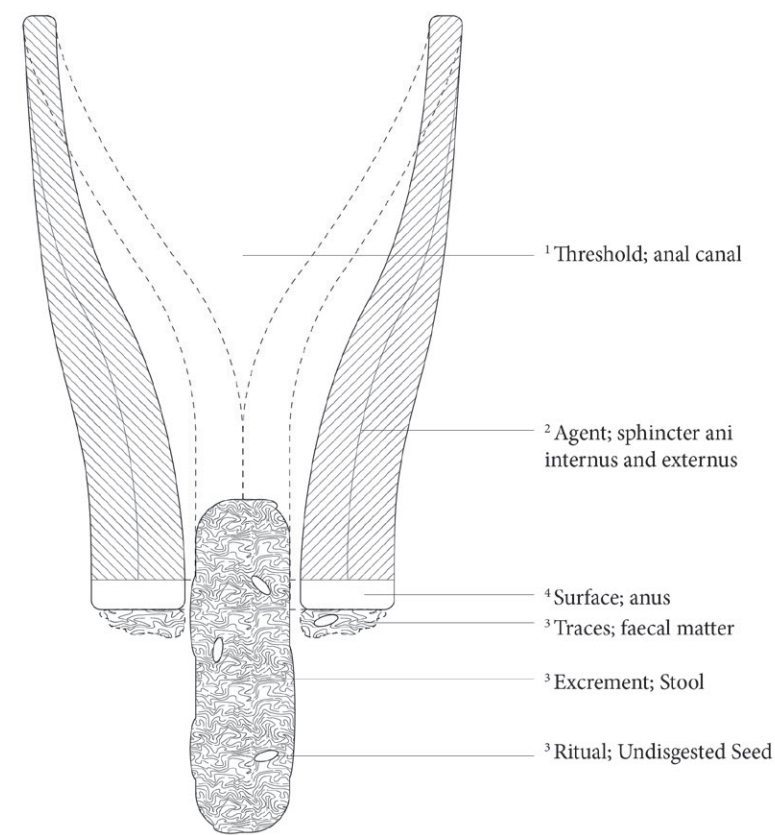
*“Ugh I hope he doesn’t hear
my poop plopping in the
water”*

“ew the soap tastes bitter”

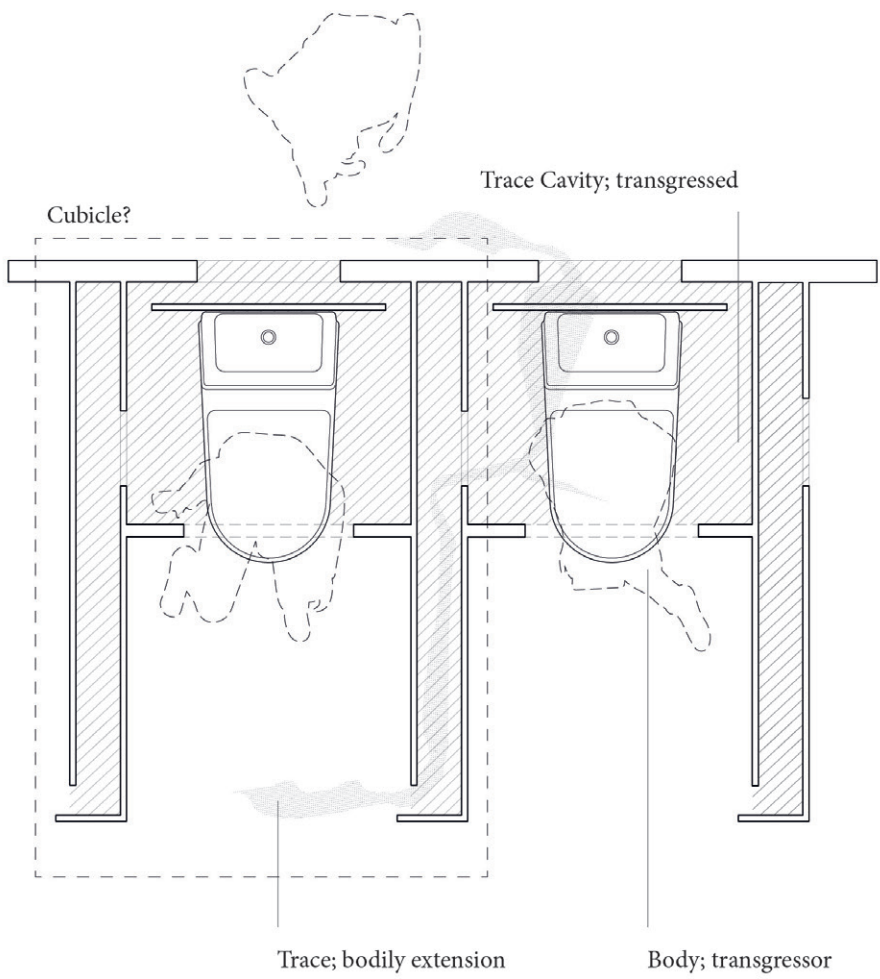
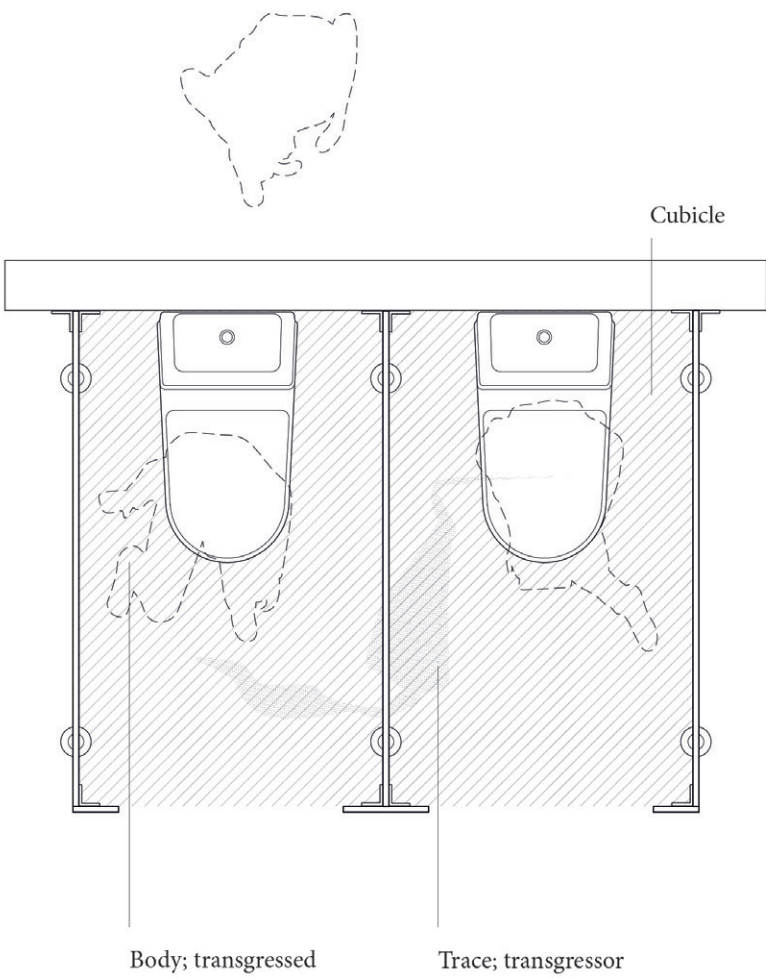


below Schematic
Diagram_Coronal Section
of Anal Canal, from Toilets,
Thresholds and Traces,
author's own, 2022

right and facing page
Plan_Body and Trace_
Transgressor and Transgressed

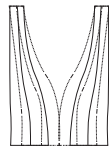


1. Transgression of thresholds;
2. Intentional and unintentional togetherness;
3. Bodily extension of excremental traces;
4. Maintenance of immanent surfaces



schematic thresholds

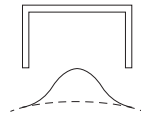
Bilayer



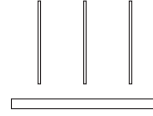
Pleating



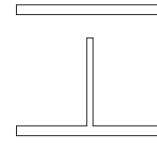
Niche



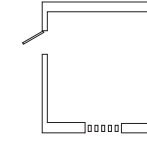
Layering



Half Wall



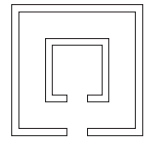
Aperture



Frame; Step

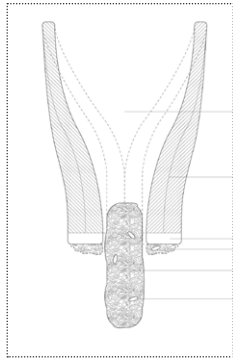


Nesting



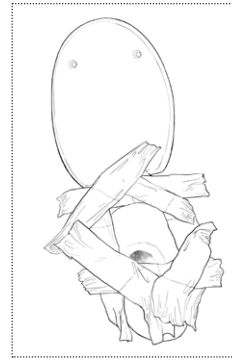
threshold typologies

Sphincter



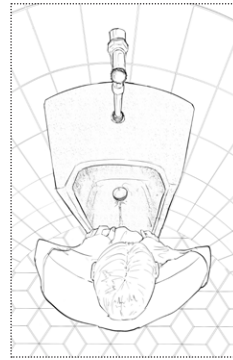
Intra-Intra; Organ

Seat



Intra; Body

Shell; Garment

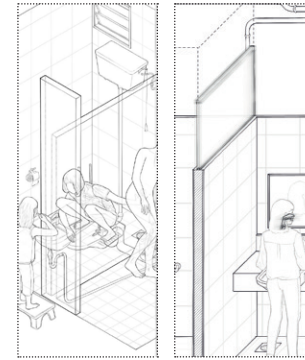


Partition



Inter; Partition

Wall

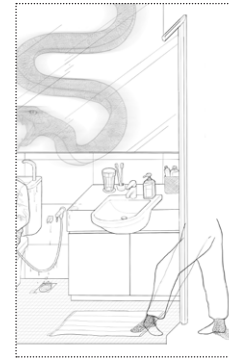


Inter; Room

Window; Plumbing

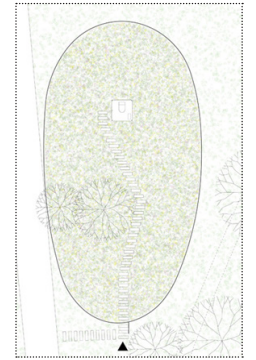


Doorway

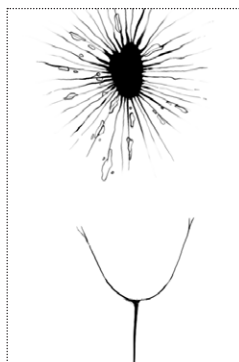


Inter-Inter; Multiplicity

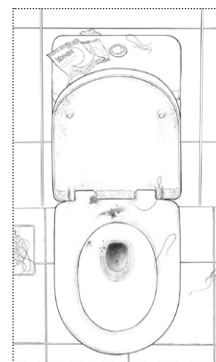
Passage



corporeal ephemera



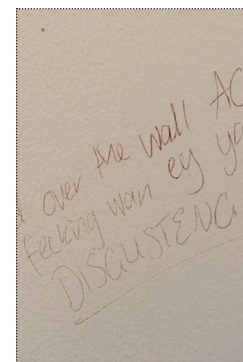
Excrement



Smears; Sweat; Waste



Heavy Vapour



Latrinalia



Reverberation;
Scent



Non-humans



Condensation

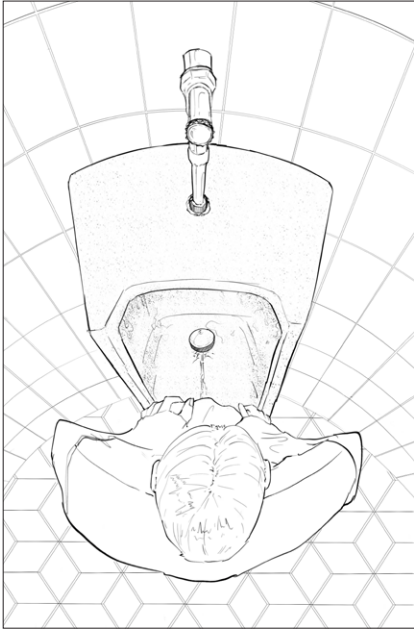
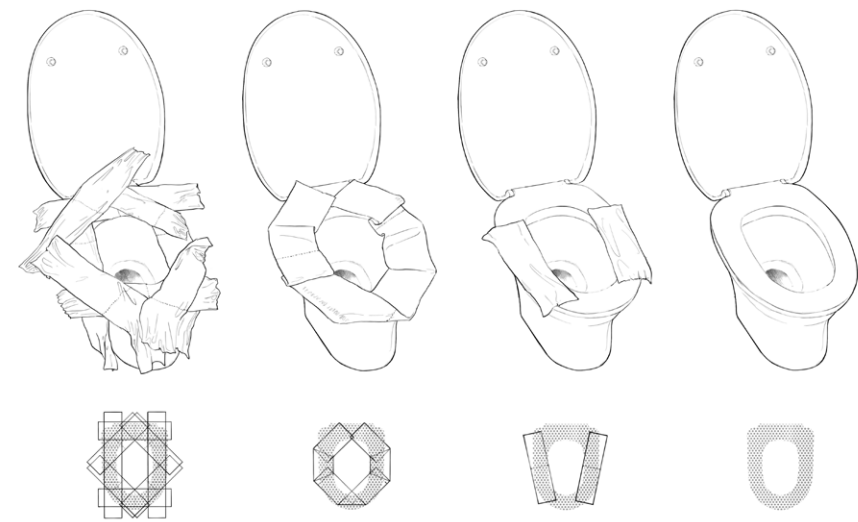


Maintenance

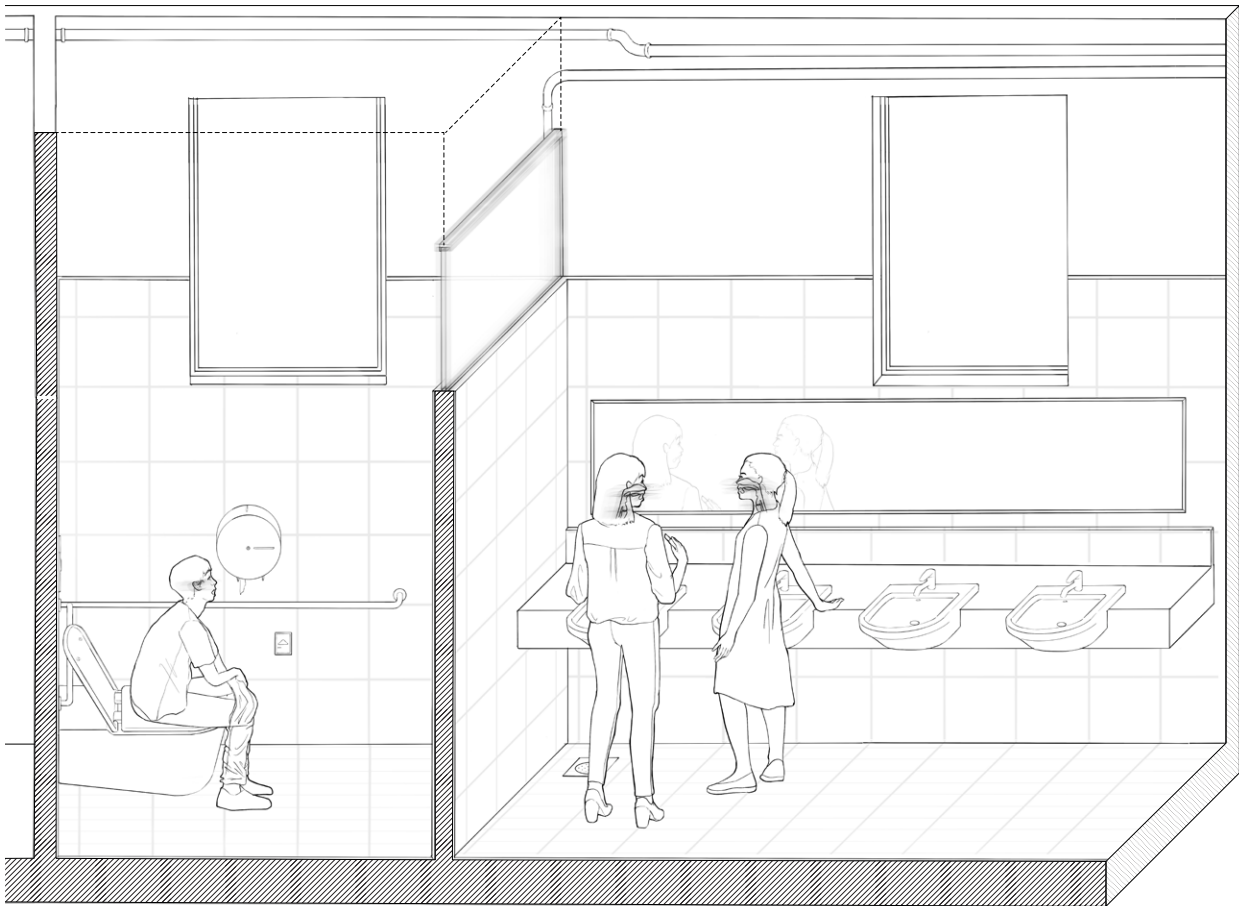
Immediate to Body
Visceral Expression of Trace

Distant from Body
Subdued Expression of Trace

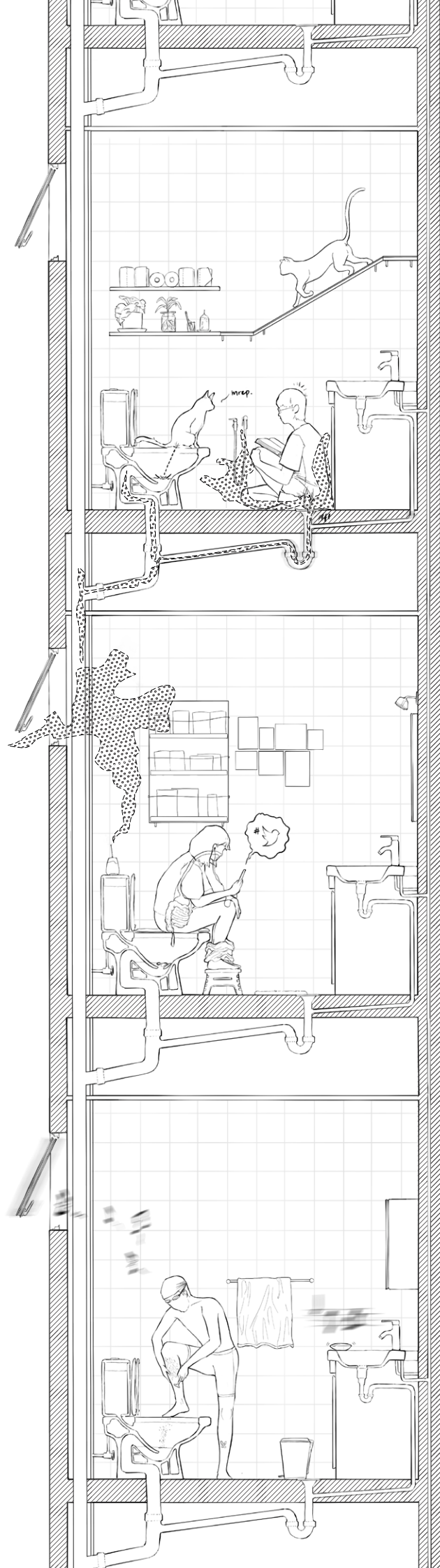
below Axonometric_Toilet Seat; Plan Perspective_ Urinal Shell and Garment Hem; Plan Oblique_ Traces of Another; Drain Flies and Plastic Lid



middle Section Oblique_Half Wall_Mutterings; Section Perspective_Cubicle Divider_Liquid Vapour and Toilet Paper



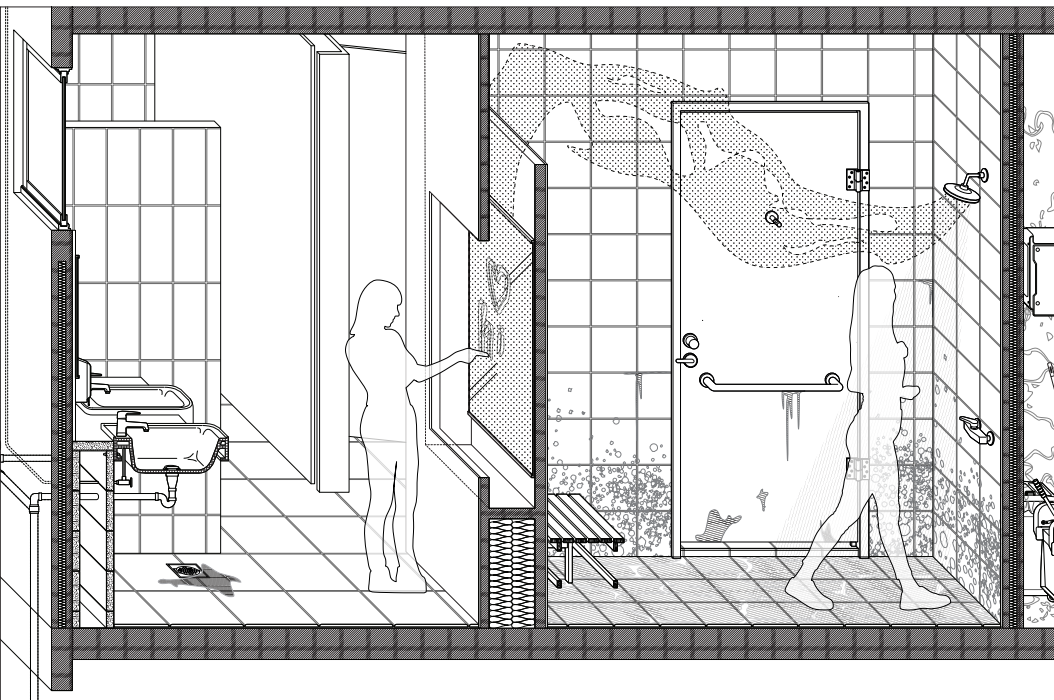
right Section_Vertical Bathroom Stack_Plumbing Network





spread 1:20 scale model exploration of thresholds, traces, co-presence and bodily extensions in a network of stacked communal bathrooms





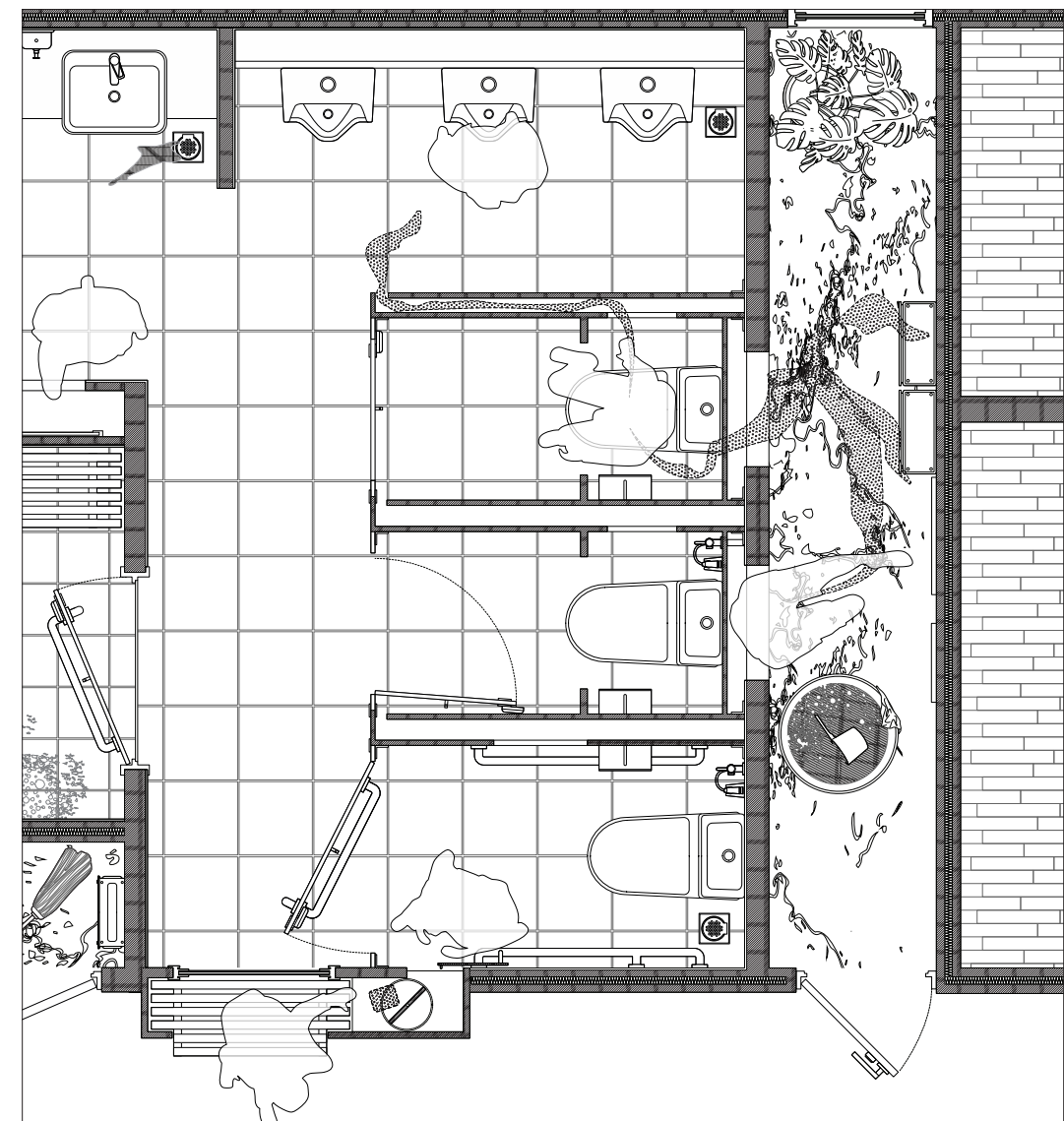
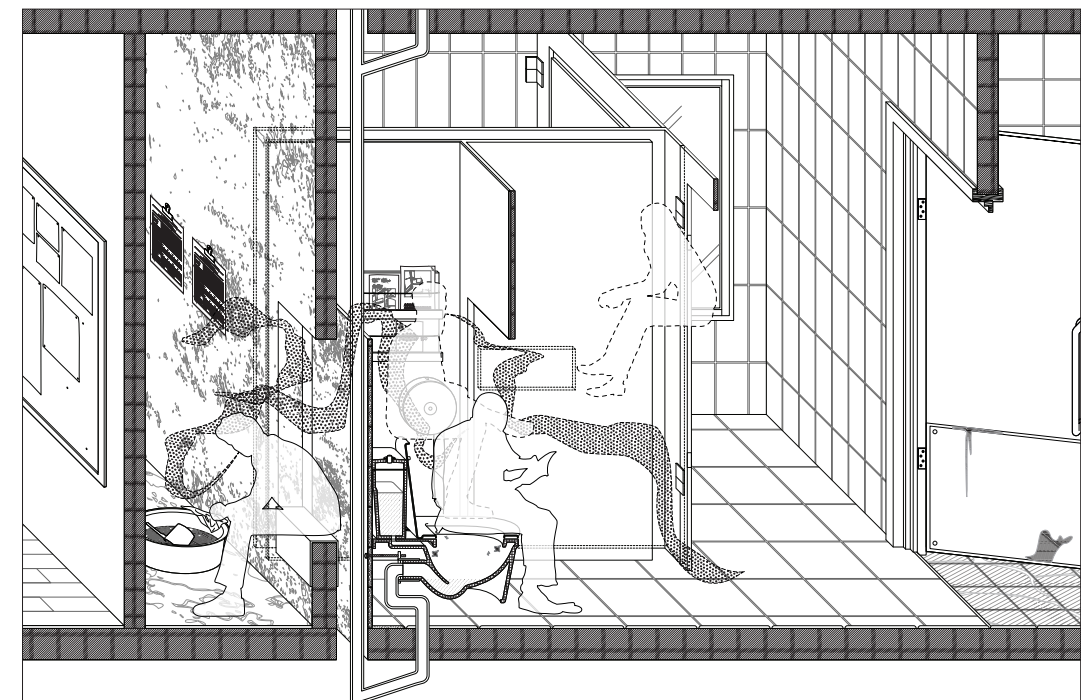
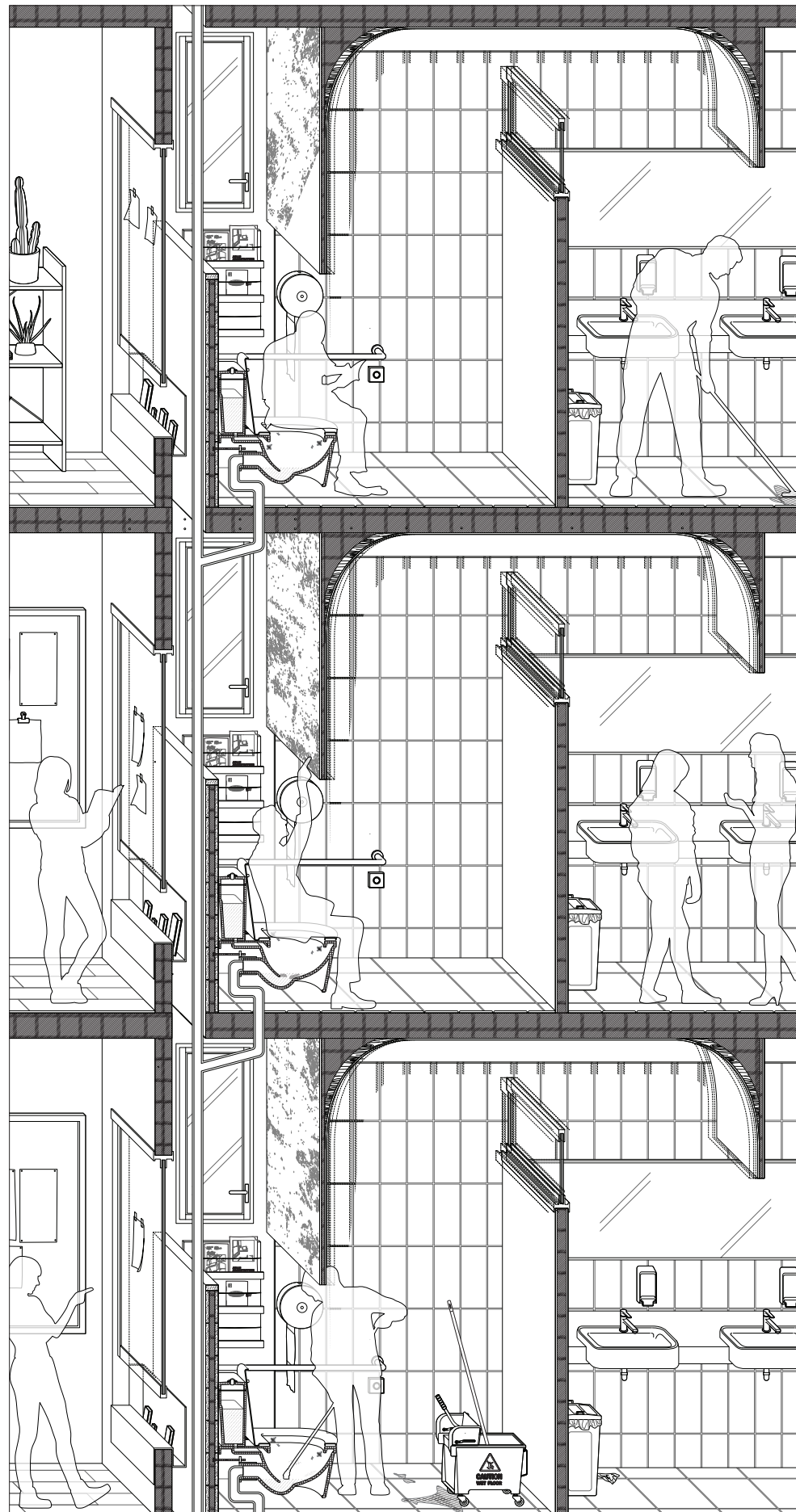
above Mirror Cavity_Water Vapour
Condensation, Oils, Dust and Water_
Section Oblique_1:10

middle Social Plumbing Network_
Mutterings, Maintenance and
Media_Section Oblique_1:10

facing page top Vapour Channels_
Nicotine Vapour and The Vaping
Janitor_Section Oblique_1:10

facing page bottom Vapour
Channels_Nicotine Vapour and The
Vaping Janitor_Plan_1:10

Explorations in thresholds, traces,
co-presence and bodily extensions
in a network of stacked communal
bathrooms



Self-Disclosure of Research

I certify that except where due acknowledgment has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the project is the result of work which has been carried out since the official commencement date of the approved research program, any editorial work, paid or unpaid carried out by a third party is acknowledged, ethics procedures and guidelines have been followed.

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please
give
公公
/gōng gōng/
a call

*For Gong Gong,
from Kun Yi.*