

Dimensional and Situated At-Home Cyberspace: An Autoethnographic Study of Chinese Women's Experiences During the COVID-19

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Acknowledgements

In the early months of 2019, I began my doctoral studies with my daughter by my side. Since then, we have navigated through the tumult of a global pandemic, which has taken a heavy toll, including the heartbreaking loss of friends to the virus. Amidst the upheaval of numerous changes to my supervisory team and the personal trials of caring for my daughter during her illness, as well as managing my own battle with depression, I have reached the completion of my thesis. This accomplishment stands as a testament to the incredible support and help I have received from many, and it is with a profound sense of gratitude that I recognise their contributions.

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Abstract

Since the onset of COVID-19 lockdowns, the shift toward online conferencing and digital technologies has transformed the space at home into a multifunctional cyberspace, interfacing with the external world. This study explores these technologically transformed home spaces through digital, architectural, cultural, and emotional dimensions. Specifically, it seeks to unravel the intricacies of cyberspace utilisation within the domestic environment to the post-80s generation of Chinese women during the pandemic. By adopting autoethnography, the research incorporates the researcher's positionality as a Chinese woman and a single parent. This methodological approach allows for rich, descriptive insights into user experiences, demonstrating that cyberspace is situated, reflecting culturally and socially significant realities dependent on context, and multidimensional, mutable, continuously reshaping under the influence of digital technology. The study offers a nuanced comprehension of the cultural factors that shape interactions within cyberspace, thereby broadening the scope of architectural research to include a wider array of user experiences. The empirical data generated provides valuable contributions to interdisciplinary research and practical applications. Additionally, the adopted methodology establishes a framework for future research to decipher the complex relationships between humans and technology.

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Declaration

I hereby declare that the thesis submitted is my own work and has been generated by me as the result of my own original research. I confirm that:

1. I have read and understood the University of Sheffield's Guidance on the Use of Unfair Means (available at *www.sheffield.ac.uk/ssid/unfair-means*). I have adhered to the University's expectations regarding fair conduct in the completion of this work.
2. This work has not been previously submitted for an award at this or any other academic institution.
3. Where I have consulted the published work of others, this is always clearly attributed.
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
5. I have acknowledged all main sources of help.
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.
7. I understand that failure to declare any of the above may result in the annulment of any degrees or awards provided by the University of Sheffield based on the undetected use of unfair means.

To date, there have been no publications arising from the research presented in this thesis.

Signed:
Date: 19th Feb 2024

1 Introduction

1.1 Introduction

This introductory chapter presents the focus of this thesis, which is to examine how digital technology-formed cyberspace impacted homes for Chinese women during the COVID-19 lockdowns in the UK. The chapter also presents the research questions, objectives and terminology used in this study. Furthermore, it discusses the primary research methodology - autoethnography - and explains how it will be used to collect and analyse research materials. To provide a framework for the thesis, it will give an overview of the thesis structure.

1.2 Statement of the Problem

This section introduces the impact of digital technology on architectural spaces and situates it within the context of domestic environments affected by COVID-19 lockdowns. It then identifies a gap in research concerning the experiences of Chinese women during the pandemic, underscoring the importance of this study to understand the broader implications and the potential for informed interventions to the home environment.

1.2.1 The Studies Focus of Digital Technology Influences Architectural Space

Although the concept of spaces holds significant theoretical value in numerous research disciplines, the impact of digitalisation on these spaces still needs to be clarified. Focusing on how digital technology influences architectural space encapsulates a broad and dynamic range of impacts and transformations. The focus includes altering the perception and experience of physical spaces through augmented and virtual reality, which blurs the boundaries between the physical and the digital and between the public and private realms (Freitas, 2010; Mütterlein & Fuchs, 2019). It involves the creation of entirely digital spaces that facilitate new forms of social interaction and community building independent of geographical constraints (Mütterlein & Fuchs, 2019). In the realm of urban and architectural design, digitalisation is pivotal for integrating smart technologies and sustainable practices, reshaping how cities and buildings are planned, constructed, and interacted with. In urban public spaces, digital technology has transformed the landscape, offering new experiences and economic opportunities (Cheng & Niu, 2010). The digital transformation of the public arena has been characterised by the emergence of new infrastructures that mediate and govern information (Jungherr & Schroeder, 2021).

The influence extends to changes in work and office spaces, where digital tools enable more flexible, hybrid environments.
Digitalisation allows for expanded access to information and resources in educational and cultural contexts, transforming traditional learning and informational spaces. In academic libraries, technology has driven changes in physical space, necessitating its evolution to remain relevant (Becker, 2015). Environmental monitoring and management benefit from digital advancements, enabling more efficient and effective stewardship of natural resources. Likewise, the retail and commercial sectors are undergoing a digital revolution, affecting how products and services are marketed and consumed. Furthermore, the influence of digitalisation extends to social and humanitarian spaces, impacting various aspects of life (Grigorev & Grigorieva, 2020). In intercultural communication, digital technology has led to a paradigm shift, standardising and unifying digital space (Cherkasova, 2021). Finally, this focus also brings to light critical challenges and ethical considerations, including issues of privacy, data security, and the digital divide, underscoring the complex interplay between digital technologies, architectural spaces, and societal impacts.

The COVID-19 lockdowns catalysed a transformation in the role of digital technology within the home. Valizadeh and Iranmanesh (2021) and Bonenberg and Lucchini (2021) emphasise the merging of public and private spheres, advocating for residential redesign to support diverse functions like work and learning. Martin, Hauret and Fuhrer (2022) correlate the adoption of digital tools with improved work output, albeit with an increase in job-related stress. Risi, Pronzato and Fraia (2020) and Lim and Wang (2021) discuss the challenges of juggling multiple roles amid pervasive digital presence. Massar (2021) andNewbold, Rudnicka and Cox (2021) link digital device usage during lockdowns with altered sleep patterns and general wellbeing. Bielecki (2021) observes a spike in home energy use due to remote activities, while Cuerdo-Vilches (2021) reports that many homes are ill-equipped for telework needs.

The COVID-19 pandemic, while presenting global challenges, also provided a unique window of opportunity for an unprecedented autoethnographic study into the rapidly evolving digitised domestic spaces. I regard the breakout and the resultant international lockdown as a pivotal moment to explore how the enforced passive staying at home within an enclosed indoor environment affects women, particularly when they are at home with family—in my case, with my daughter. Using digital technology to communicate and work under the threats and pressures created by the pandemic added layers of complexity and richness to the study of digital impacts on home environments. This period of intense digital integration became a living laboratory for examining the shifts in spatial dynamics through a feminist lens, highlighting how these changes affect gender roles and interactions within the home. The lockdowns not only forced a pivot to digital mediums but also created conditions that amplified the visibility of nuanced gender dynamics in domestic settings, offering a distinct opportunity to analyse and interpret the impacts of digital technologies on personal and societal levels.

This thesis presents a thorough analysis of the general population's experiences in home environments during the pandemic, which serves as a basis for identifying areas for further study, particularly for groups that may be more vulnerable. Among these, the situation of Chinese women emerges as a significant gap in the literature, necessitating focused academic inquiry.

1.2.2 The Absence of Chinese Women's Space Studies during COVID-19 Lockdowns

Since 2010, so prior to COVID-19, live streaming became established in China as the leading one-way visual communication method with 5.2 billion Chinese users. Added to this single-directional communication, online video conferences or other video-based multi-directional communication started to be integrated into people's daily lives. The global COVID-19 pandemic, beginning in the winter of 2019, persuaded over two billion people to stay at home internationally (Cherkasova, 2021), and the subsequent lockdowns forced online visual-audio interactive technology into private homes. Within a short term, it transformed people's domestic spaces into multifunctional spaces, profoundly changing how people communicate, work, and socialise.

Since the COVID-19 pandemic, a number of studies of this home based online-created screen cyberspace have been published, mainly in the fields of public health, management, and psychology, focusing on efficiency and impacts on mental health. However, an advantageous aspect of online meetings is in their capacity to save time and cost (Ghooi, 2020), Particularly noteworthy amid the pandemic, online meetings serve as a useful instrument, facilitated by a range of platforms available for conducting online lectures and assignments (Alfatmi, Kulkarni, & Gawali, 2020). But they also present challenges, including maintaining work-life balance and personal connections (Arora & Chauhan, 2021). When providing support for parents with young children, there are concerns about the lack of informal spaces and the unusual nature of group conversations (Lucas, 2016).

Although there are studies covering women at home during COVID-19, their focuses have been on domestic challenges of balancing work and home responsibilities (Cynthia & Rajarajeshwari, 2022; Jasrotia & Meena, 2021), or on domestic violence (Kaur, 2022; Fleming & Brown, 2021; Rani et al., 2021; Nanda, 2020; Nigam, 2020). According to two important think tanks in China, for women in China, the digital technology assistant working-from-home model is the increasing point to the economy (EO Intelligence, 2023) and allocating more time to familial obligations (Yao et al., 2022). There are only two published research studies in the Chinese language covering the potential issues or disadvantages of women working from home during or before COVID-19. These are women who have been engaged with more housework at home (Zhang & Yang, 2023), and the epidemic more negatively impacted their jobs compared to men (Zhang & Zhou, 2021).

The reason of forming the research gap in Chinese women's experiences during COVID lockdowns can be partly ascribed to societal factors and traditional norms. While the Chinese government officially promotes gender equality, societal practices continue to place women in lower social statuses within families, media, and employment, including healthcare. Additionally, the COVID-19 pandemic has underscored the need for gender-sensitive policies, which are lacking due to traditional norms and the early stage of gender studies in China. This disconnection between policy and practice contributes to a research gap concerning women's specific experiences and needs during the pandemic.

It is expected that niche sectors such as feminist research might take a back seat to the country's economic growth, even though the use by Chinese women of online video conference systems contributed 49.1%, comprising over 2.58 billion individual consumptions in 2019 (iiMedia Report, 2020). The portion of female broadcasters reached around 49.2% in 2018 (iiMedia Report, 2019). In particular, Alibaba owned retail video conference systems attracted over 80% of female broadcasters many coming from non-first-tier cities to work full-time (Taobao List & Taobao Live, 2019). The lack of research into the work-from-home conditions for women is not a reflection of its insignificance but rather a result of the oversight of women's issues in China's primary research domains. The escalation of the COVID-19 pandemic amplified the necessity for remote work, highlighting the pressing need for research into the experiences of Chinese women in home-based work environments.

Studying how digital technology influenced women's at-home experiences during COVID lockdowns is essential for the following reasons:

- Reveals the unique challenges Chinese women faced with the integration of digital technologies in domestic settings during lockdowns. For example, it uncovers the nuanced ways in which the sudden shift to digital mediums for work, education, and socialisation specifically impacted women, who often must balance multiple roles at home.
- Highlights the additional responsibilities Chinese women often manage, such as increased unpaid care work, amidst the digital shift. Women often bear a disproportionate burden in the spheres of unpaid care work, domestic responsibilities, and managing the challenges of work-life balance, especially when resources and external support systems are limited.
- Contributes to understanding the mental and emotional impact of prolonged digital engagement on Chinese women's wellbeing. Understanding these experiences is vital for designing more inclusive technologies and spaces that cater to the diverse needs of women during such crises.
- Provides data to advocate for gender-sensitive policies and support systems in China during public health emergencies. Understanding these experiences can inform more equitable policy responses, ensuring that all genders' needs are

met during crises, and addressing systemic inequalities that are often exacerbated in emergency situations.

- Addresses the cultural and societal expectations placed on Chinese women, exacerbated by the crisis, within the context of digital spaces. Additionally, the methodologies and findings from this research could provide valuable insights for broader studies on women in different cultural and social contexts.

Based on the points above, this thesis adopts the topic within the above stated problems. The primary goal of this PhD research is to elucidate the transformation of domestic spaces for Chinese women through online video conferencing during the COVID-19 lockdown, thereby advancing our understanding of cyberspace's evolution within the home environment.

1.3 Research Background

The genesis of the COVID-19 pandemic in late 2019, originating from Wuhan, China, and quickly necessitated a global response, with the UK initiating its first lockdown in March 2020. This period marked the beginning of this research's fieldwork in the UK, navigating the lockdown as a single Chinese mother, an expatriate PhD candidate, and an architect. all from my flat that also served as my workplace. This personal and professional convergence transformed my home into not just a living space but also a dynamic research and work environment.

My research was carried out in my flat, where the online visual-audio communication (see **Error! Reference source not found.**) took place during the UK COVID-19 lockdowns (see Figure 1.2). The research equipment consisted of internet-connected devices and the space in which the process of online visual-audio communication (usually called online video conference systems) took place. The space connecting to the screen was conditioned either by the audience participating in a video conference,

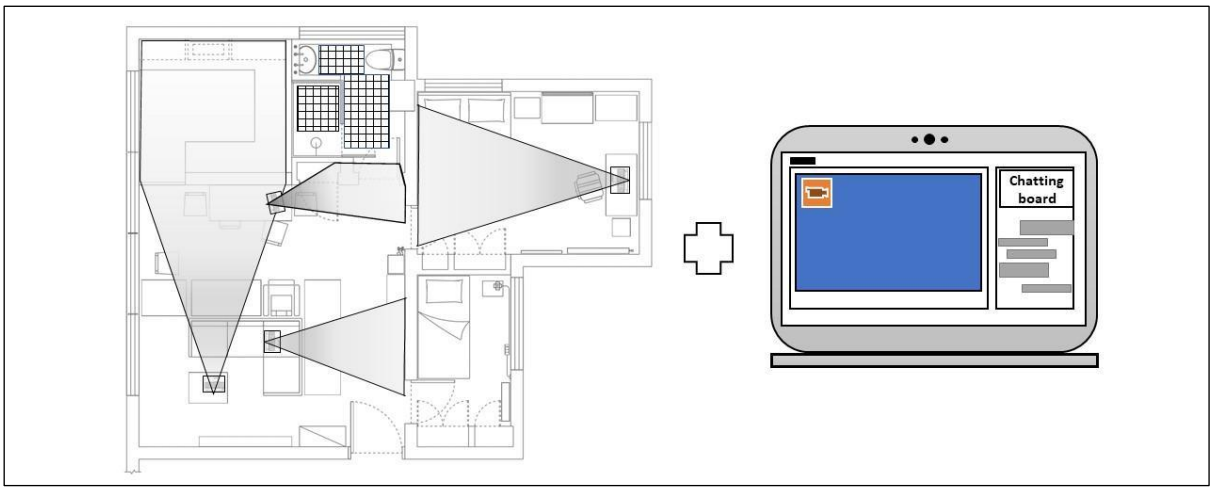


Figure 1.1 Research setting (made by author)

or as the host for the audience being addressed by the broadcaster though cameras and microphones. Video conference systems interface allows one to one, one to many, and multiple users real-time visual-audio interaction, and usually comprises the window of the video conference systems content and the interaction chatting board being shared by both the audience and the broadcasters. Figure 1.1 shows my residential flat, the research setting, and the shooting range of the daily video conference systems utilisation. The grey area shows the area (limited by the camera's range) being received on the screen during the live stream.

The space within the camera's range is converted into digital data, which is transmitted, translated, and placed on the receiver's screen. In this process, a part of the space of the home is 'cut out' and converted into a publicly accessibility space (see 5.3), which, together with the sound signals, is transmitted to the space between the screens. Typically, the space between the screens is referred to as cyberspace. However, these 'cut out' spaces of the domestic space still exist within the home environment and function in parallel. In this thesis, this part is called the 'at-home cyberspace'.

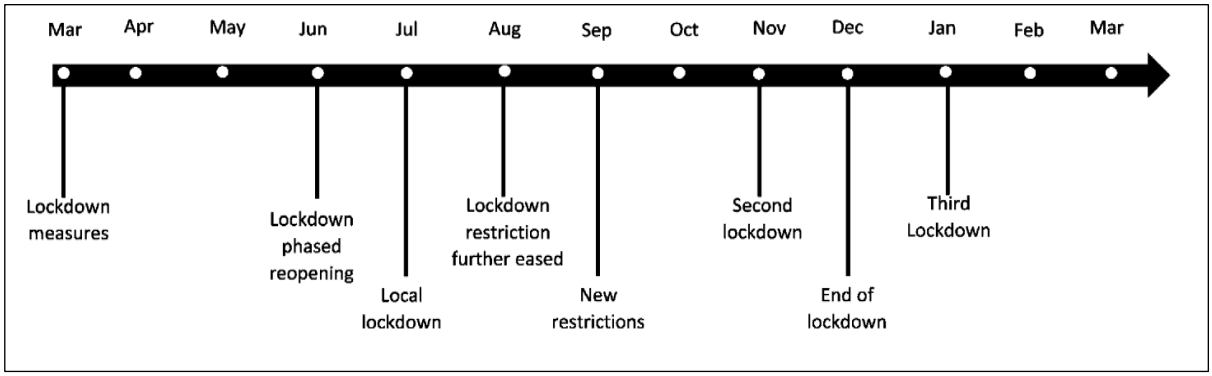


Figure 1.2 UK Lockdown Timeline (made by author)

The online conferencing impact space participates in the domestic space functions for my home, my work and other daily activities. The space challenges my perceptions as a new digital space, as part of the domestic space, by connecting with other people in different geographic locations worldwide for office, entertainment, communication, shopping, education and other functions. Its spatial form is fixed by the camera's angle and focal length and the microphone's range, presenting a clear three-dimensional spatial identity. Like any other architectural space, it is functional through the experience of its users; it is emotional and expressive.

Unlike traditional architectural spaces, the home cyberspace for this thesis was used in a more enclosed indoor environment during the COVID-19 lockdowns. By connecting and being open, home cyberspace is staged by and affects the users. My identity as a Chinese woman and single parent who worked alone raising a five-year-old daughter, produced a unique experience for this utilisation. This experience interacted with the building, the culture, and my roles as a child abroad to my parent

in China, during the pandemic and allowed me to understand and document my research into this space.

My unique experience as a Chinese woman and single mother, working and parenting in a foreign country during the pandemic, has provided a profound insight into this space. My special positionality gives me a specific angle in conceptualising the spatial notion as a Chinese woman of the Y Generation. This personal interaction with 'at-home cyberspace'—infused with emotional and cultural dimensions—forms a significant part of my thesis, exploring its architectural qualities, functional uses, and emotional expressions.

1.4 Research Question, Aims and Objectives

The main research question of this thesis is as follows:

- How has online video conferencing reshaped the domestic and conceptual spaces for Chinese women during the COVID-19 lockdowns?

To answer the main research question, four sub-questions were asked. The digital dimension of the research object started with a discussion about the relationship between cyberspace, science fiction, and public space will be provided to set up the concept, which is connected to the cultural and situational context in relation to my identity as a post-1980s female Asian.[1] The architectural mechanism is used to explain how cyberspace reformed the home space to accommodate the users (my daughter and I) during COVID-19 lockdowns. The cultural aspect aims to understand how cyberspace within the domestic setting of Chinese women is influenced by, and is a reflection of, Chinese cultural norms, gender roles, and family values during the pandemic. And the last sub-question is to ask how cyberspace reshaped the emotional space at home for users during the worldwide pandemic.

1.4.1 Research Aims

This research's primary aim is to develop a comprehensive understanding how cyberspace intertwine within home environments and experienced by the post-80s generation of Chinese women during the COVID-19 lockdowns. This understanding has redefined the tangible (physical) and intangible (cultural and emotional) of domestic space. This aim encompasses analysing the architectural transformation of home spaces facilitated by digital technologies, exploring the interplay of Chinese

[1] The post-1980s generation is the Chinese counterpart to the early Generation Y in the Western world, as the first post-Cultural Revolution generation, and the first to grow up entirely within the Reform era.

cultural norms, gender roles, and family values within these settings, and investigating the resultant changes in emotional experiences and dynamics among its users.

This research foregrounds the positionality of the investigator as a Chinese woman, a single parent, and an overseas academic striving to generate specialised knowledge that will enhance design practices and considerations for women. This perspective is interwoven with the aim of cyberspace as experienced during the COVID-19 lockdowns, enriching the analysis with a deeply personal and culturally informed experience.

1.4.2 Research Objectives

Building upon the aims and the specific positionality of the researcher, the research objectives can be articulated as follows:

1. To develop an understanding of cyberspace within the cultural and situational milieu of an Asian female identity from the post-1980s generation. This will entail a comprehensive review of literature to trace the origins and evolution of the concept of cyberspace, delineating key definitions and discussions. The review will also consider the temporal and geographical influences that have shaped the author's perspective.

2. To analyse the transformation of family spaces due to the integration of cyberspace, concentrate on how family members interact with the space during the COVID-19 lockdowns. This analysis will involve a detailed description and characterisation of these spaces, drawing on tangible experiences, including perceptions and behaviours.

3. To probe the interplay between Chinese cultural paradigms and the utilisation of cyberspace in the home environment, this study will delineate the connections between Chinese women's engagement with digital spaces and their cultural milieu. It will scrutinise how cultural norms and familial values inform and are manifested in the online behaviours and practices of Chinese women throughout the pandemic's duration.

4. To explore the emotional landscape of the domestic sphere in the context of a global pandemic. This will be carried out to pinpoint the critical elements by which online video conferencing has reshaped emotional interactions and support networks within the home.

These objectives align with the stated aim and research questions and the researcher's positionality, ensuring that the research is grounded in a specific cultural

and personal context while aiming to produce broader insights into the design and practice of cyberspace from a female perspective.

1.4.3 Research Significance

The research holds considerable significance as it ventures into relatively uncharted territory by intersecting the realms of cyberspace, domesticity, and gender within the context of a global health crisis. Its contributions are multifaceted:

1. Cultural Insight: It offers an in-depth cultural analysis by examining the specific experiences of Chinese women, a demographic whose digital interactions are often underrepresented in academic literature. This study will contribute to a more nuanced understanding of the concept of cyberspace and how cultural norms and family values shape and are reshaped using technology.
2. Architectural and Spatial Dynamics: By exploring the reconfiguration of physical spaces into functional areas that accommodate remote work and family life, the study provides valuable insights into the adaptive use of domestic architecture. It may inform future designs of living spaces that are flexible and responsive to the needs of a digital-centric world.
3. Psychological and Emotional Wellbeing: The research underscores the psychological implications of prolonged cyberspace interaction on emotional wellbeing. Better understanding these emotional landscapes can guide the development of digital communication tools and platforms that promote mental health and emotional support.

4. Representation: Through autoethnography, this study provides a platform for the voices of Chinese women, allowing their experiences and cultural contexts to inform our understanding of digital interactions. This approach adds a rich, qualitative layer to the academic literature on how cultural norms and family values shape and are reinterpreted in the digital realm.

5. Methodological Innovation in Architectural Research: Incorporating autoethnography into architectural research demonstrates the value of qualitative methods and personal narratives and drawings in understanding how spaces are experienced. This methodological diversity can inspire an all-inclusive approach to research in the field to benefit the minor user groups.

6. Empirical Contribution to Gender and Technology: The study enriches the discourse in gender studies by showcasing how technology can affect gender roles within a domestic setting, particularly during lockdown situations. It contributes to knowledge of how women negotiate their identities and responsibilities in the face of rapid technological change.

7. Policy and Practice: The findings may have practical implications for policymakers and educators in developing strategies and resources that support single parents and working women, particularly in times of crisis that necessitate a shift to digital media.

In summary, the research not only contributes to academic scholarship but is also poised to inform practical applications in architectural design, technology development, and policymaking, with an empathetic focus on the intersection of gender, culture, and technology.

1.5 Defining the Terms of the Research

The research explores the digitally impacted space at home from four dimensions: the digital, architectural, cultural, and emotional scopes. The term ’cyberspace’ is used to describe the virtual computer environment in which communication over computer networks occurs. The concept, first coined by Gibson (1986), refers not just to the physical infrastructure but also to the social interactions that take place within this digital landscape. In this study, cyberspace focuses on the environment at home recorded by the camera. The understanding of cyberspace for Chinese women is discussed in Chapter 5 of this thesis. The ‘cyberspace assistant home’ will be further explored by encompassing both the architectural configuration of online spaces and the sociocultural dynamics that unfold within them, particularly as experienced by Chinese women during the COVID-19 lockdowns.

The term ‘architectural’ within the scope of this research pertains to the physical attributes and the intrinsic mechanisms of space as experienced by its inhabitants. It encompasses the spatial structure and spatial awareness, including the generation and transformation of spaces, as well as their alienation and disappearance. This includes considerations of the spatial layout, openings, and boundaries that define the interactions and flow within the environment. The architectural dimension interrogates how these elements coalesce to shape the lived experience of the domestic setting during the COVID-19 lockdowns.

The ‘cultural’ aspect refers to the rich tapestry of social history and current practices that inform the use of space within Chinese households. It encapsulates the dichotomy of privacy and public spheres, the traditions and customs that relate to women’s interactions with their home environment, and the family values and social norms that guide daily life. This cultural lens allows for an exploration of how historical and contemporary societal constructs shape the domestic experiences of Chinese women and how these experiences are negotiated within the virtual confines of cyberspace.

The ‘emotional’, in the context of this study, examines the space as a ‘sense of place’—a concept that transcends the physicality of the home to encompass the

feelings it evokes. It is distinguished from transient ‘moods’ and instead reflects the deeper, more enduring emotional connections that individuals form with their living spaces. This perspective delves into how spaces within the home become imbued with emotional significance, serving as a sanctuary, a place of comfort, and a repository of personal and shared family memories, especially during the heightened emotional circumstances of a pandemic.

These definitions provide a framework for the multifaceted examination of how online video conferencing and the broader implications of cyberspace have influenced the domestic sphere of Chinese women during the lockdowns through architectural changes, cultural interactions, and emotional engagements.

1.6 Research Methodology

This research adopts a qualitative methodology, utilising autoethnography to explore the nuanced impact of online video conferencing on the domestic spaces of Chinese women during the COVID-19 lockdowns. Anchored in post-structuralist thought, this approach facilitates an examination into personal and cultural narratives that shape and are shaped by cyberspace. The methodological journey begins with a reflective narrative, capturing the lived experiences through writing and drawing, and transitions into a critical analysis of spatial reconfigurations. This study not only reflects on the changing architectural and emotional landscapes, but also engages with the cultural discourse, offering insights into the interplay between technology, space, and societal norms.

The first research objective is to understand the concept of cyberspace through a digital lens. To achieve this, the research begins with an extensive literature review, tracing the genesis and development of the concept of cyberspace as it has emerged in the Western world. This lays the groundwork for an in-depth exploration of the realm of Chinese science fiction and selected Japanese science fiction, particularly influential among China’s Generation Y. The research then extracts themes related to the notion of publicly accessible space within the home, drawing on autoethnographic practices. The culmination of this process is to distil the characteristics of cyberspace that resonate with Chinese women, thereby delineating their identity within this specific cultural and generational context.

Objectives two to four are realised by examining the data chronicled in the research journal, encompassing written narratives and hand-drawings to visual depict my residential experience amidst the COVID-19 lockdowns. The study dissects the reconfiguration of familial domains prompted by cyberspace, focusing on the dynamics of familial interactions within these altered spaces during this period. An in-depth portrayal and analysis of these spaces’ utilisation is conducted, leveraging concrete experiences that include observed perceptions and behaviours. Additionally, this

research scrutinises the nexus between Chinese cultural frameworks and the engagement with cyberspace within domestic settings. The aim is to elucidate the relationship between Chinese women's digital space interaction and the overarching cultural context. Through analysing the autoethnographic data, the categories that emerged were critically examined through materialism. Assessing how established cultural norms and family values are influenced by and reflected in their digital practices during the pandemic. Moreover, the emotional dimension of home spaces during the global health crisis are explored. Autoethnographic data formed themes, pinpointing the pivotal factors by which virtual communication mediums have redefined emotional exchanges and support systems within the home. The emergent research themes, derived through autoethnographic practices, are reinterpreted and envisioned in the original materials, culminating in a comprehensive narrative from Chapters 5 to 8, forming this thesis's core findings and discussion.

1.6.1 Why Autoethnography, My Flat and My Family

Autoethnography was not my first choice. Growing up in a family environment that valued traditional upbringing and collectivism, I always felt that drawing attention to oneself was impolite. Moreover, in research, placing oneself at the centre of the study requires immense courage to expose, reflect, and even criticise. When my first supervisor, Dr. Florian Kossack, asked me, "*Why are you pursuing this research? Why should you be the one to conduct it?*" I began to contemplate these questions. How could my experiences and I benefit the research topic? What research methods could I employ? What personal growth did I hope to achieve through this study? I was advised by female colleagues more than once: Why not make your daily life with your daughter the subject of your research? Feminist scholars questioned, why not dare to be a pioneer?

Encouraged by all, when I placed myself in the research landscape, uniting with my own experiences, what I saw was an irreplaceable role. My background, my perspectives, the training I received as an architect, and the challenges I faced as a mother post-divorce—formed an integral part of me. A wealth of life experiences gave me the courage to scrutinise myself, especially during times of self-doubt. Architectural training equipped me with the ability to draw, write, and reflect. In the multicultural environment of the United Kingdom, I situated my own culture and expanded my boundaries. Integrating culture, experiences, my home environment, and my life into research became a rational choice.

1.6.2 My Flat

My flat in the UK is a top floor two-bedroom apartment, situated on the south side of the main road in Sheffield (see **Error! Reference source not found.**). I chose this

place primarily because it is the most affordable option within the school catchment area. Moreover, it gives me a sense of being closer to my home in China. While we could not completely escape the sound of passing cars during the night, the wailing sirens of ambulances during COVID-19 were even more unsettling.



Figure 1.3 My flat (made by author)

The apartment features long casement windows that offer a view of three magnificent trees: two cherry blossoms and a Hawthorn tree. The Hawthorn's expansive canopy fills the air with a delightful fragrance for three seasons of the year. When I initially moved in, my home was devoid of furniture. I was fortunate to have the assistance of two female colleagues who eagerly helped me assemble the Ikea furniture I had purchased. Later on, a piano was moved in. After the breakout of the pandemic, the small bedroom was transformed into my personal study. Eventually, I rearranged the sitting room into a bedroom for my daughter. It was at this point that my journey into autoethnography truly began.

1.6.3 My Family

Hailing from Shandong, China, situated in the northern region characterised by its straightforward and cheerful disposition, my family history is marked by resilience and determination. My father, who himself was an orphan, descended from a lineage that had faced adversities. My grandpa, a doctor, also faced a challenging early life, as he was left orphaned in the aftermath of World War II in Northeast China. He was fortunate to be adopted by his great-grandfather, who undertook a daring journey to

retrieve him and bring him back to Jinan. Tragically, my biological grandparents, as scholars, are believed to have perished during the tumultuous Cultural Revolution.

My mother, the youngest of six siblings, grew up in a military-owned residential area. Our family, much like countless other ordinary Chinese households, held strong values of respecting elders and cherishing the young. Additionally, we were influenced by the conservative values prevalent in Shandong, which often favoured sons over daughters. I, however, diverged from my family's expectations in two significant ways: I did not follow in my grandfather's footsteps to become a surgeon, and I chose the path of being a single mother. In 2018, I made the difficult decision to dissolve my marriage due to unbearable violence and the pervasive patriarchal atmosphere within my marital family. Taking my daughter with me, I embarked on a journey to live independently. In the spring of 2019, I arrived in the UK to formally commence my PhD research.

The traditional Chinese concept of the family-state relationship defines the family as the smallest social unit, often extended to include the clan. Following my grandfather's passing, our extended family gravitated towards my mother's side, forming a tight-knit unit spanning three generations, encompassing both men and women, totalling 24 members. At its core is my inner family home, housing my parents, my daughter, and myself. My parents have been instrumental in caring for my daughter since she was just a year old, forging a strong bond between them. Despite the inevitable concerns and challenges that all families encounter, the bedrock of our family lies in the deep connections and love we share for one another.

I have been residing in the UK with my daughter, Angela, since the spring of 2019. Despite her challenging start to life, where she spent a significant portion of her early years in the hospital due to her premature birth, she has grown into a resilient and sensitive child who brings immense joy to our entire family. Throughout the COVID-19 lockdowns, my spirited daughter became a source of solace and happiness, providing much-needed comfort during these trying times. Her age, being over five years old when the research began, allowed her to be an active participant and keen observer within our home environment. Her interactions and experiences during the COVID-19 lockdowns provide a unique and intimate perspective on the reconfiguration of our domestic through the use of cyberspace.

1.7 Overview of Thesis Structure

This thesis comprises nine chapters and an appendix section. The thesis structure is presented in **Error! Reference source not found.**.

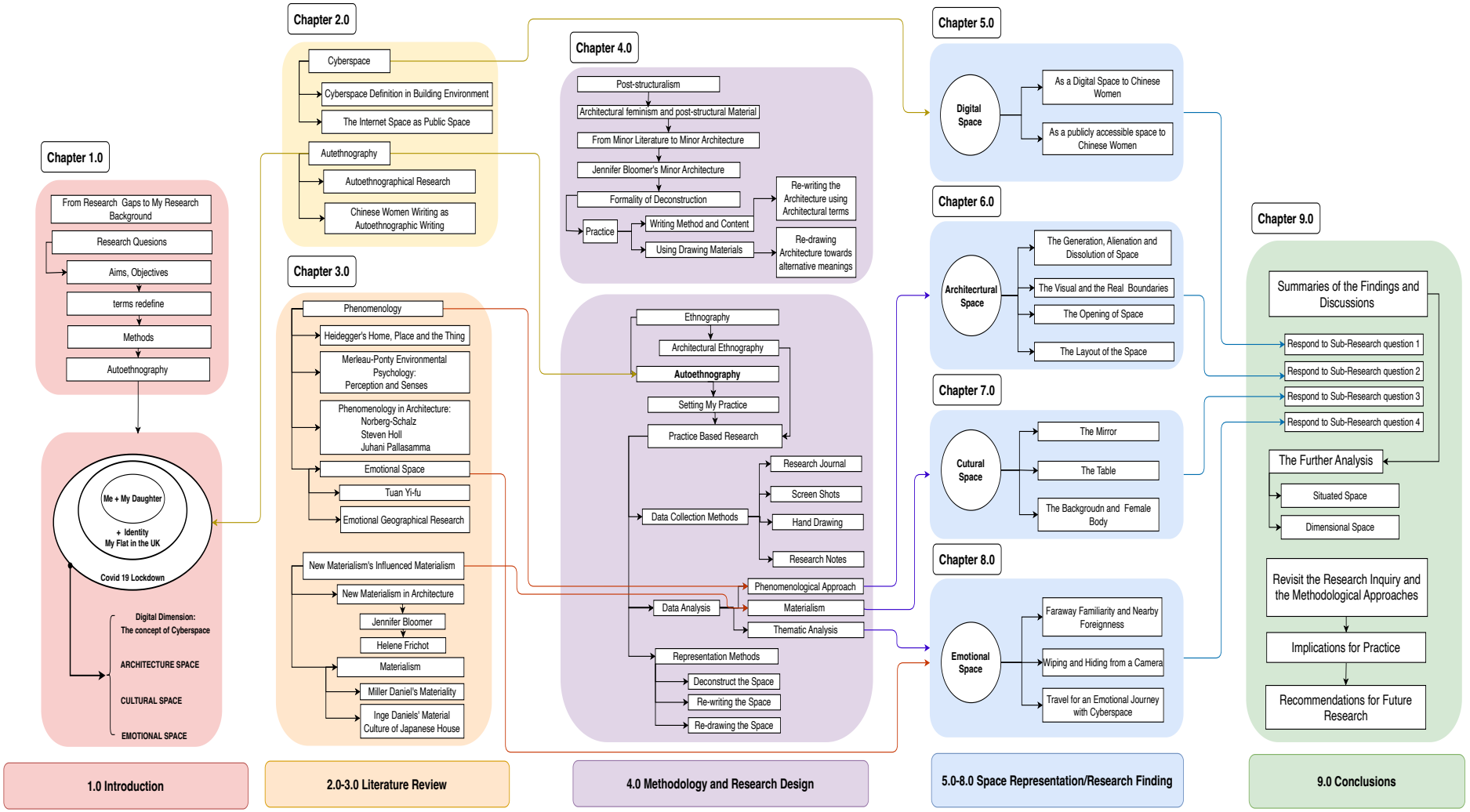


Figure 1.4 The Thesis structure source (made by author)

Chapter 1.0 Introduction: This chapter first introduces the research focus and the purpose of conducting research regarding Chinese women and digital technology at home, following the research background to situate the topic within my place of residence during the COVID lockdown within the UK. This is followed by the research questions, aims, objectives and terminology. Autoethnography was introduced as the research methodology, followed by the methods to link the research objectives and the data. The thesis structure overview serves as a framework for the research network. Ultimately, I am starting autoethnography with my flat and my family to introduce the conversation within my research field.

Chapter 2.0 The Literature Review on Cyberspace and Autoethnography: This chapter first reviews the term cyberspace within the building environment and its role in the digital spatial concept within the research field, followed by a discussion about publicly accessible space it created drawing from the internet space's focus of the public space. The second section of this chapter briefly reviews the methodology of autoethnography and how it has been implemented within the relevant research field. Chinese women's writing as one of the practices is reviewed, and the characteristics are identified.

Chapter 3.0 The Literature Review on Phenomenology, Emotional Space and Materialism: This chapter first introduces phenomenology as the spatial philosophy underpinning this research and as the method for analysing the research material. The reflections on emotional space focus on introducing the three concepts of emotion adopted for this research. Materialism and New Materialism are introduced as methods and used to analyse the autoethnographic materials.

Chapter 4.0 Research Methodology: This chapter first positions the research within its philosophical stance and then links it to Minor Architecture to introduce this research as a practice with writing and drawings. The methodologies of ethnography and autoethnography, and how I implemented these within my study, are introduced. This is followed by a detailed description of my research process with cases to demonstrate the data analysis towards the re-interpretation in the findings and discussion chapters from 5.0 to 8.0.

Chapter 5.0 The Digital Space at Home: This begins with an explanation and definition of the author's domestic cyberspace. Starting from the perspective of a Generation Y Chinese woman within her household, it explores how the concept of cyberspace is constructed through the author's Asian knowledge and experiences. By reflecting on the author's identity as a Chinese woman, Asian science fiction literature, and online feminism, it demonstrates a different understanding of cyberspace from a Western perspective. The concept of ‘publicly accessible space’ is introduced to re-evaluate the intersection of digital and physical spaces, unfolding a unique landscape of social and personal interactions in digital spaces during the pandemic, set against the backdrop of China's state control and social norms.

Chapter 6.0 The Architectural Cyberspace Created at Home: Examines the spatial characteristics of cyberspace from an architectural point of view, describing the process of digital space throughout its lifespan, starting from the whole process of birth, alienation, and extinction of space. Several descriptive features of cyberspace-influenced domestic space are captured, including visible and invisible boundaries, spatial openings, and spatial layout. The text explores how digital interventions are transforming architectural spaces and are influencing the way people experience and interact within them. It also delves into the impact of these interventions on individuals' identities, particularly in the context of COVID-19 lockdowns and how they have affected people's interactions and definitions of self within their homes.

Chapter 7.0 The Cultural Dimension of the Cyberspace at Home: This explores cyberspace in the home through the lens of Chinese culture, focusing on mirrors, tables, screens, and the female body as important elements of the digital landscape, categories that were sifted through the research data. This chapter explores the digital spatial positioning of Chinese women through the intersections of Chinese history, culture, and technology in the homes during the COVID-19 lockdown.

Chapter 8.0 The Emotional Dimension of the Cyberspace at Home: Focuses on the cultural dimension of cyberspace within the home, explaining how these emotional spaces are shaped by both the physical structure of the space and the cultural context of its users. Beginning with an explanation of the process of constructing an emotional space within the digital home environment, the research emphasises how the physical home environment can positively affect emotions, particularly one's mood, then delve into the personal significance of the roles at home, particularly the Chinese home and its connection to UK culture, framed within the concept of 'lifeworld' in human geography. Ultimately, it turns to the deconstruction of the impact of new forms of domestic space shaped by digital realms on emotions and moods.

Chapter 9.0 Conclusion: This chapter summarises the findings and discussions from the previous four chapters and further concludes that home cyberspace is a situated and dimensional space. The course of the research is self-evaluated by revisiting the research question, methodology and objectives. The potential for further research and implications for practice are discussed.

Summary

This chapter has introduced the focus of my research and explored the digital technology created in cyberspace that influences the home for Chinese women. This research is set against the background of the UK COVID-19 lockdowns. It then outlined the research questions, aims and objectives, and terminology. The research methodology - autoethnography - was then explored, describing the methods used to

link the research objectives to the data collected. This was followed by a self-narrative to introduce the research site and the researcher's background as the beginning of the research. Finally, an overview of the thesis structure set the research framework.

2 Research Defined Cyberspace and Chinese Context

2.1 Introduction

This chapter delves into key concepts pivotal to the discourse of this thesis, namely the notions of cyberspace and home, and an overview of autoethnography as a methodological tool and its significance within the realm of women's studies. The delineation of digital space within the built environment is explored, subsequently articulating the concept of internet space as an integral element of public space discourse. Furthermore, an exposition is presented on the digital home by the user of Chinese women. Ultimately, autoethnography is introduced, presenting two key approaches: visual expression and female writing.

2.2 The definition of Cyberspace in the building environment

Following a concise exploration of cyberspace in the built environment context, this research directed its attention to the notion of extended cyberspace at home, emphasising the significance of understanding cyberspace as a situated concept. William Gibson introduced the term ‘cyberspace’ in his science-fiction short story ‘Burning Chrome’ to describe a world of interconnected digital technology. Later, he further developed this idea in his novel Neuromancer. He aimed to create a new sense of ‘realm’ and ‘agency’ that could ‘cobble’ the reality with hints linked to the reality of his fictional world through technology.[2] The initial step in comprehending this technologically defined new world begins through understanding the space and its functions, which require slight modifications to the physical environment. Subsequently, the concept of virtual reality[3] was interpreted via computer technology, in which it gained communication as an additional function.[4] This connection to Information and Communication Technologies (ICTs) became apparent in the early 2000s.

[2] https://www.brainpickings.org/2014/08/26/how-william-gibson-coined-cyberspace/, the original words of William Gilson were “I wanted that sense of other realm, a sense of agency within my daily life, looking for bits and pieces of reality that could be cobbled into the arena I needed.”

[3] “Cyberspace is a globally networked, computer-sustained, computer accessed, and computer-generated, multidimensional, artificial, or virtual reality”. Kitchin. B (1998) Cyberspace: The World in the Wires (Chichester: Wiley, 1998.) pp2 “cyberspace is a globally networked, computer-sustained, computer accessed, and computer-generated, multidimensional, artificial, or virtual reality”.

[4] “Interactively between remote computers defines cyberspace… it is the space set up by those who use remote computer to communicate.” Michael Batty (1997)” Virtual Geography” Futures 29:4/5, pp343-34

In terms of explaining cyberspace, a layered structure is used to describe the space based on the architecture of its physical design. This approach stems the layered architecture of the Internet itself, which shows a structure of 'layers' representing different functions when it was first designed. This perspective of looking at and understanding issues related to internet technology has been widely applied in many disciplines. Benkler (2000) divided the information environment of the Internet into three layers: the physical infrastructure layer for sending and receiving devices, the logical layer for delivery approaches, and the software/content layer for exchanging content. Expanding on this, the Internet space is a virtual space comprising foundation layers, the network connections, and online spaces. constituting a virtual space with its own value and capabilities, which could be able to reproduce, distribute, exchange, and consume political views compare to traditional media (Ma et al., 2020). The China Information and Communication Institute further defined the Internet as an application network layer and foundational network by functions, modified into a proposed model at the national core layer, regional layer, and the local scaled structure (China Information and Communication Institute, 2017).

The visualisation of the Internet reveals a network structure that directly shows the interconnectedness and interactive nature of the Internet. Dodge and Kitchin (2001) organised the maps created to visualise cyberspace according to the categories of physical structure and traffic, network connectivity, social interactions in terms of conversation and community, and human imagination, providing comprehensive methods for mapping and understanding the space created by the Internet. By providing a visual explanation for this abstract concept, cyberspace could be considered as a describable space when compared to specific geographical spaces. Furthermore, the content of the atlas was beyond the traditional realms of living environment design, offering a new perspective on overlapping actual human interaction online with the designed physical environment in urban design.

In urban design, the concept of cyberspace is more phenomenological and descriptive. Christine Boyer saw it as an invisible substitute for urban space and urban experience (Boyer, 1996). Graham and Aurigi(1997) stated that,

> *electronic spaces are constructed using computer software that gives the experience of transcending normal physical space and entering an almost limitless range of new electronic environments - distributed all over the planet, all from the humble home or office.*

Cyber-psychologist Mary Aiken pointed out the distinction of cyberspace as access to a distant place depending on awareness and consciousness.[5] Cyberspace emerges

[5] "The cyberspace is a place you may be accessing it from a familiar environment, like the comfort of your own home, but as soon as you go online, you have travelled to a different location in terms of your awareness pre consciousness, your emotions, your responses, and your behaviour-which will vary depending on your age, your physical and mental development, and your distinct set of personality

as a space co-structured by experiences both online and in the physical environment. Mitchell (2003) destructs a traditional city to compare it with the Internet-structured city, it is interactive and virtual, offering multiple points of entry; it is temporarily inhabitable by specific individuals; it facilitates the sharing of spaces over the network while users adopt pseudonymous identities; it maintains a balance between public access and private ownership; and it comprises logical connections, akin to 'pathways', that link various digital spaces. Entrances, occupiable, identified with users, with publicity, privacy and ownership, associated with paths, were used as a way of describing the physically constructed environment. "Many places in cyberspace are public, like streets and squares." He described interactions within cyberspace as happening at 'the point' akin to agreed-upon physical locations (Mitchell, 2003, p.152). In the digital realm, the traditional modes of introduction and interaction through spoken language and physical gestures have been supplanted by textual communication and the simple action of double-clicking icons. Aiken (2017) observes that the scope of interactions cyberspace affords its users can significantly surpass that of our traditional social groups, highlighting a distinct characteristic of this new environment.

Within sociology, cultural studies, and social geography, Kellerman (2007, p7)[6] defines cyberspace, as "a virtual space" delivering internet users' experiences, communicating "through fixed and mobile telephones". This definition combines the material basis and the functions of ICTs together with an acknowledgment of its virtual nature to allow exploration within specific dimensions. In 1999, the architectural practice MVDRV (1999) analysed megacities into data and then applied the planning and design of 'datacity' by extrapolating Dutch statistics, where cones mark the location and amount of data in the city and use the height of the columns to calculate the number of people in each building. This visualisation reveals a transformed landscape, with data dunes spreading organically and the population columns modestly concentrated at a lower level. This shows how significantly cyberspace has grown in fixed building environments, and how populations have created a data space beyond the physical constraints. The practice of visualising an abstracted, conceptual, and imagined space is one of the attempts to represent the use of cyberspace within the urban environment.

The evolution from early descriptive definitions to contemporary, functionally driven and content-based interpretations mirrors technological advancements, knowledge innovation, and the progression of human understanding in the study and comprehension of cyberspace.

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traits." Mary Aiken (2017) "The Cyber Effect: A Pioneering Cyber-Psychologist Explains How Human Behaviour Changes Online", Hachette UK

[6] "Cyberspace Classification and Cognition: Information and Communications Cyberspaces"）

This study delineates cyberspace within the architectural discourse, tailoring its definition to address the research questions focused on visual and physical spaces. Accordingly, cyberspace is conceptualized through three fundamental elements: its facilitation of public social interactions, its engagement with visual perception, and its reliance on digital devices and internet connectivity. In essence, cyberspace is envisaged as a virtual realm where public social exchanges are mediated by individual experiences through internet-enabled digital devices. It encompasses both the interactive digital interface and the resultant human social behaviors that extend beyond the screen.

2.2.1 A Systematic Spatial Concept Manufactured by the Internet

Beaude (2019) suggests that considering the Internet as a real space could be described based on its technical, economic and social characteristics, and that people describe 'space' by 'going' online, 'browsing and surfing', 'encountering the firewalls and virtual spaces'. He points out important characteristics of the space created by the Internet, which are both local and global, synchronous, and asynchronous, symmetric and asymmetric, permanent and ephemeral, genetically derived from the technological advantages of a telecommunications tool. The Internet's reticular structure facilitates information exchanged, wherein 'territorial distance', can be discerned and strengthened through collective intelligence, the wisdom of crowds, crowdsourcing, can be hierarchised and recognised by geolocation, territories and the network. This 'hybridisation' of space is characterised as massive yet individualised, disintermediated, and dematerialised.

He also raises two important proposals, demanding the reconsideration of two criteria, highlighting conflicts between the time scales of the cities' materiality with "the relatively short ones of the Internet" including (the citizens') physical bodies' senses, disembodied identities and co-spatiality (reality) (Beaude, 2019). The interplay between the Internet, physical spaces, and societal structures complicates our understanding of the origins, development, and widespread impact of certain phenomena. This complexity necessitates a reassessment of our social environment's nature and the agents of change within it.

The definition of Internet space highlights its functional character, emphasizing the role of telecommunications that connect devices and servers. In this space, the data transmitted wirelessly constitutes the content that delineates its boundaries. However, it also acknowledges that the material perspective, is temporally and spatially affected by the Internet space within in the real world. The bodies of citizens with the temporally defined space connected to the Internet at home belong to this concept.

The exploration of cyberspace has adopted architectural and urban design concepts like layers, streets, and entry points, drawing parallels to public spaces through its capacity for social interaction and the notion of specific ownership and occupancy.

Additionally, in the context of cybernetic organisms, end-user devices at the Internet's periphery have become extensions of humans, enhancing brain capacity. These technologically advanced, 'disguised' organic entities are governed by information systems, textual interfaces, and ergonomic design. These systems are designed to maximise labour, desire and reproduction. In the process, cyberspace has entered physical space through cyborgs, and digital technology has become a dynamic extension of mind and flesh. With the changes in communication technology, the 'transplant revolution' has been unleashed (Pau Virilio, 1992).

2.2.2 From Public Space to Publicly Accessible Space

Online conferencing spaces, host functions such as business meetings, teaching or social gatherings, and public spaces have gone through a transition in real life, moving from emphasising commonality to promoting the admission and juxtaposition of diversity. Jan van Grusven (MVDRV, 1999) believes that public space serves as a symbolic representation of the community, but it has now been substituted by transitional space owing to the need to accommodate a high degree of individualism prevalent in modern society (Maas, 1999). Arno van der Mark (MVDRV, 1999)points out that the new kind of public space is a communication space acting as a kind of 'traffic', which could be the Internet itself (Maas, 1999).

According to different research purposes and knowledge backgrounds, scholars often give a relatively clear definition of public space within their own settings. Further literature supports these definitions. The concept refers to openness and citizenship, complementing private space in European urban studies. Conversely, exclusive political space represents the justice and tolerance of society. This area is accessible to everyone as a common property governed by shared norms, with supervision from society as a whole. Defined in design practice, the purpose of this space is to promote community cohesion through the hosting of traditional festivals and providing a stage for daily life. It serves as a harmonious meeting place for both acquaintances and strangers Carr et al., 1992), offering services for politics, religion, business, and sports (Walzer, 1986a). Matthew Carmona suggests that the term ‘public space’ should be defined as a place with unrestricted access for all, including buildings, streets, squares, and areas used by residential, commercial, and community properties, as well as open spaces and parks. This definition covers all public and private spaces during the daytime and includes interfaces between internal, external, and private spaces that are accessible to the public. 'The Principles of Urban Planning,' published by Beijing Construction Industry Press in 2001, defines urban public spaces as open spaces located between urban and architectural entities. These spaces provide external areas for public social life and support diverse public activities. They comprise streets, squares, parks, green spaces, and outdoor areas for residential use. In both form and function, urban public spaces can be either internal or external spaces.

Blackmar (2005) notes that in Europe and North America, the regulation of laws present challenges to making the commons public, particularly with an entitled owner and manager of the land. Accessibility and communication are the two mains ‘necessary qualities’ to bring all the other properties together to the triumph of the public space (Tonnelat, 2019). Publicly accessible spaces, including online domains, offer open access and embody certain notions of public exposure. These spaces often present challenges in terms of supervision, management, and ownership, especially as they are co-created through the collaboration of various stakeholders, including infrastructure providers, software developers, hosts, and users.

2.3 From Home to The Digital Impacted Home for Chinese Women

This section reviews the concept of home within the key literature, then discusses the concept of the family within the Chinese culture and women in the domestic environment in digital technology-impacted homes.

2.3.1 A Brief Introduction to the Concept of Home

The scholarly exploration of ‘home’ is a nuanced concept tracing its roots back to the 1970s, marked by seminal works in phenomenological geography (Buttimer & Seamon, 2015; Dovey & Stark, 2012; Tuan, 1977; Relph, 1976). This body of research underscores home as a dynamic entity, shaped by the tapestry of everyday experiences and the richness of memories, epitomised by Tuan's (1977, p145) observation that home is "a place where each day is amplified by the accumulation of past days". The multifaceted nature of home encompasses the intertwining of place, relationships, and experiences (Gillsjö & Schwartz Barcott, 2011), painting a complex picture that extends beyond physical boundaries to include emotional and experiential dimensions.

The discourse on home has broadened to address themes of displacement and identity, especially concerning Third World contexts, highlighting a distinct contrast between the notions of home and ancestry (Hassan, 2023). In social work, the concept of home is dissected to reveal its material and emotional layers alongside the intricate politics of belonging (Zufferey, Yu, & Hand, 2019). The scope of home as a field of study has expanded further to encompass critical aspects such as food, care, deprivation, and the pivotal role of women, advocating for a comprehensive understanding of home (Niehof, 2011).

Mallett (2004) provides a literature review that spans various disciplinary lenses—sociological, anthropological, psychological, human geographic, historical, architectural, and philosophical—prior to the twenty-first century. This review suggests that the definition of home is contingent upon the features of place and scope while also being deeply embedded within a broader historical and social framework. The advent of the digital era, marked by the proliferation of smart home technologies, has sparked a re-evaluation of the concept of home. This new perspective emphasises a holistic understanding that integrates security, control, activity, relationships, continuity, and identity (Gram-Hanssen & Darby, 2018), thus reflecting the evolving nature of the home in response to technological advancements.

2.3.2 From Chinese Family to Digital (Impacted) Space for Chinese Women

Kang-Hu (1930) notes, the Chinese family is a complex and evolving institution deeply rooted in Chinese culture and has been a central element of Chinese civilisation. The Chinese culture at home is represented through the family (including the structure of the family, family members and their individual privacy and territory), Chinese tradition and customs, the individual's family and social roles, and ideology. The family is traditionally patriarchal, with a strong emphasis on filial piety and respect for elders (Sheng, 2005), and remains a cohesive unit in which members depend on each other for support (Hsu, 1985). Chinese Women's daily activities and behaviour space are limited, and the requirement of parents' duties orient their lives at home and provide care to family members as homemakers. The pandemic brought about economic changes, which affected women's domestic role orientation more than men (Xiong, 2019).

Digital technology affects the domestic space through the use of digital devices and connection to the network by going online. Digital technology has brought benefits to Chinese women by expanding their territories in the digital realm; for example, they can participate in and experience digital games (Liu & Lai, 2022). Through the establishment of feminist digital activism, they can establish gendered and political subjectivities, politicise private matters and form new coalitions (Hou, 2020). The digital technology assistant forms the public sphere that contains the subversive potential for Chinese feminists (Wang & Driscoll, 2019).

However, research has found that the transition has also led to an unequal division of digital labour in parenting, with mothers shouldering most of the burden at home (Peng, 2022). Huang's (2020) study of the Chinese digital diaspora in the US, finds that two distinct representative gender roles of 'miserable homemakers' and 'successful career women' both take on more conservative roles in the realm of reproduction for motherhood and domesticity after migration, defined as re-feminisation, representing their increased performance and valorisation of domesticity. His critique points out that

re-feminisation is seen as a resistance to hegemonic Chinese gender norms that devalue domesticity but do not challenge the sexual division of labour that underlies patriarchal gender norms in both China and the US (Huang, 2020).

This section continues by contextualising the theme from a Chinese cultural perspective, focusing on space brought into the Chinese family, space and customs, and women's role in the home. Later, the literature review introduces the research methods of autoethnography and autoethnographic writing practice by a Chinese Woman to position the theme as a Chinese woman.

2.4 Autoethnography

Autoethnography is a qualitative research method that combines the subjective, autobiographical elements of the researcher's experience with cultural analysis and interpretation. This approach is particularly valuable in social sciences, humanities, and areas of study where understanding the nuances of personal experience and cultural context is essential. Below, the theoretical foundations are outlined, along with the methodological approaches, and ethical considerations of autoethnography, as well as an examination of its contributions to knowledge production, social justice activism, and transformative research practices. Autoethnography is grounded in postmodern and constructivist theories that emphasise the importance of personal narratives in understanding broader cultural and social phenomena. It challenges traditional notions of objectivity and distance in research, arguing that the researcher's experiences can offer unique insights into the cultural contexts being studied. This approach mostly draws from three theoretical foundations (Adams, Holman Jones, & Ellis, 2022a; Orbe, 2013):

- Symbolic Interactionism: Focuses on the meanings that individuals ascribe to their experiences and interactions within a society.
- Phenomenology: Emphasises the importance of individual experience and consciousness.
- Critical Theory: Challenges power structures and aims to illuminate social injustices through research.

Autoethnography utilises diverse methodological approaches to examine the intricate relationship between personal experience and cultural context. These approaches include narrative autoethnography, which employs storytelling to convey the researcher's experiences and their cultural significance; analytic autoethnography, which involves a more structured analysis of personal experiences in relation to broader social phenomena; and ethnographic autoethnography, which combines traditional ethnographic methods, such as participant observation and interviews, with the researcher's own experiences(Adams, Holman Jones, & Ellis, 2022a; Orbe, 2013;

Reed-Danahay, 1997). Researchers engage in reflexive practices, critically examining their own positions, biases, and contributions to the research process. Data collection is often deeply personal, involving journals, memoirs, interviews, and other forms of personal and cultural artefacts.

Autoethnography contributes to knowledge production by providing deep, nuanced insights into the lived experiences of individuals within specific cultural contexts. It challenges dominant narratives and offers alternative perspectives, enriching academic discourse and contributing to a more inclusive understanding of social phenomena (Adams, Holman Jones, & Ellis, 2015a, 2022; Orbe, 2013). Autoethnography is particularly powerful in social justice activism and transformative research practices due to it providing a platform for voices that are often marginalised or silenced in traditional research. It emphasises issues of inequality and injustice and highlights the importance of giving a voice to those who are often unheard of. By sharing personal stories, autoethnography can foster empathy and understanding among readers, promoting social change(Chang, Hernandez, & Ngunjiri, 2016a). Moreover, it can critique and challenge existing power structures through the examination of personal experiences in relation to broader social and cultural dynamics. Overall, autoethnography is a powerful tool that promotes inclusivity, understanding, and social justice(Adams, Holman Jones, & Ellis, 2015a; Orbe, 2013).

In sociology and anthropology, it has been particularly effective in exploring personal narratives within the broader contexts of culture and society, shedding light on topics such as identity formation, racial dynamics, and gender roles. In the realm of education, autoethnography offers introspective insights into pedagogical practices, capturing the nuanced experiences of educators and learners within diverse educational landscapes. Health and psychology fields have harnessed autoethnography to articulate deeply personal health narratives and mental health experiences, providing a window into the subjective patient experience often absent in clinical research. Moreover, communication and media studies have leveraged autoethnographic approaches to examine the interplay between personal lives and media, and in business and organisational studies, this method is used to investigate internal cultures and personal leadership journeys within corporate environments.

The data formats in autoethnographic research have been as diverse as the fields of study. Narrative essays and reflexive journals have continued to be staple formats, allowing researchers to weave compelling stories from their lived experiences. With the digital revolution, visual autoethnography has gained traction, incorporating photographs, videos, and other multimedia elements that enrich textual narratives. Performative acts, including dance, theatre, and spoken word, have also been recognised as powerful autoethnographic expressions, offering audiences an embodied understanding of the research narratives. Furthermore, the rise of digital platforms has given way to digital storytelling through blogs, vlogs, and podcasts, expanding the reach and impact of autoethnographic work.

2.5 Feminist Autoethnography

In this review, autoethnography is situated within the broader framework of feminist inquiry. It is subsequently associated with the practice of female writing in China, utilising four distinct case studies to highlight how this research approach is employed in investigations centred on female experiences.

2.5.1 Autoethnographic approaches

Feminism and autoethnography both critique the traditional Western concept of detached, objective knowledge by challenging the hierarchical structures inherent in research settings. They aim to dismantle power disparities by actively engaging with subjects traditionally excluded from research narratives while also addressing intersecting forms of oppression. Both are driven by a commitment to social justice, emphasising the importance of the knowledge-seeking process and the experiences of marginalised groups. By identifying and maintaining consciousness of our cultural assumptions and biases, the process of reflexivity (Harding, 1983) also comes from autoethnography to allow the researcher to identify and critically examine the convergences of individual identity and societal structures, the specific and the universal as well as the intimate aspects of one's life with broader political issues (Berry & Clair, 2011). In comparison to traditional ethnography, autoethnography offers a chance to provide a deep and critical portrayal of cultural norms, behaviours, and personal experiences by showcasing a creative and analytical narrative of the self-driven process (Adams, 2015) It navigates the complexities between the intimate understanding as an insider and the detachment of an outsider, as well as the dynamics between societal engagement and restrictions. Autoethnography achieves a harmony of scholarly precision and methodological thoroughness with emotional depth and imaginative expression (Reed-Danahay, 2009), empowering the voice of the hidden audiences. As a form of participatory action research, feminist research directly influences the research on social justice. The evaluation of autoethnography is still contested, with two opposite opinions on including the researchers' experiences compared to traditional research projects. Adams (2015, p14) points out the "narrow view that personal, autobiographic, and aesthetic work cannot be assessed for its explanatory power, scholarly insight, or ability to cultivate social change". However, feminism provides the lenses to look through it with the identified gender study issues and perspectives to generalise the 'new views' to the research context with 'richness and understanding' (Starfield, 2015).

The use of visual materials in autoethnography has been a significant methodological development in qualitative research. Visual materials, such as drawings and poetry, are not mere supplements to written narratives but are integral to the process of representing complex personal and cultural experiences. These materials provide a multimodal approach that can capture the nuances of emotion, identity, and

experience often left unarticulated in traditional academic prose. Arun-Pina(2021) combines personal narrative with graphic analysis to explore the concept of 'floating homes' in the context of Bangalore's urban landscape, offering an interdisciplinary approach to understanding spatial experience, with a particular focus on gender and sexuality in the urban environment. The article delves into the emotional and psychological dimensions of urban life, discussing the intersection of identity, space, and social norms and bringing together the spatial organisation of the building and the use of spatial fluidity expressed through colour. The findings are discussed and presented through re-drawings. Zebracki's (2016) study uses drawings as part of the research data for interpretation, self-remembering, reflection, and, ultimately, expression to communicate directly with the reader without the transference of words to represent the bodily experience in the space of electronic dance music. Scarles (2010)explores the role of visual autoethnography in understanding tourist experiences. The research question probes how visual autoethnography can access and articulate the embodied, sensual, and emotional aspects of tourists' encounters with places. The methodology is a blend of autoethnographic experience and photo-elicitation, using visuals as a bridge to connect researcher and participant insights. This approach is beneficial as it transcends verbal limitations, fostering a deeper mutual understanding and revealing hidden embodied knowledge. It particularly emphasises the power of images in eliciting and sharing complex sensory and emotional experiences that words might fail to capture. Visual materials in autoethnography contribute to a more inclusive research practice. They provide alternative ways of knowing and understanding that honour diverse cognitive and cultural backgrounds. This inclusivity is particularly important when researching marginalised or underrepresented groups whose experiences may not align with traditional academic discourse.

This research is building on the practice of writing and drawing as feminist autoethnographic approaches to explore the research question. This chapter presents a brief introduction to the minor practice of writing by Chinese women to set up the social and cultural context for female roles in Chinese society and identify the advantages and effects of using autoethnographic writing as a method of research and the potential impacts on the societal life for Chinese women. Autoethnographic research published by Chinese researchers in academia, their works represented a similar social context and pathways in pursuing deep cultural, social and personal topics as Chinese women. The discussion focuses on how autoethnographic writing helps them to structure the research and represent the research results.

2.5.2 Feminist Autoethnographic Writing in China

Autoethnography was mostly recognised through the practice of writing: “Accounts that foregrounded dialogue, incompleteness, the impossibility of separating or

collapsing life from and into texts”(Ellis, 2011) agreed with key ideas of feminist research about empowering, recognising the experiences and creative methodological approach in acting it. The writing was practised through the situation, as Livholts and Tamboukou (2015) named it: situated writing, strategically combined with feminist theorising of the situated knowledge (Haraway, 2022), operating both methodologically and post-academically (Livholts & Stanley, 2020a). Through situated writing, I examined the intersections between personal experiences, social identity, and the larger social and historical context to produce more nuanced and cultural sensitivities to communicate and reproduce.

The flourishing of women's writing lays the foundation for the development of feminist autoethnographic writing in the West. On the contrary, female writing and autoethnographic research walked into a different pathway in China. It is an ongoing and underestimated research methodology in academia, considering there are under five published research articles between 2013 and 2023 using the Chinese language in relatively formal academic publications, based on the search through the top five academic databases in China. However, the unrecognised methods strived outside of academics profoundly influenced Chinese society. Chinese literature like ‘Wuhan Diary’, ‘Raising a Child in Difficulties-Study Nurturing in Culture Genealogy in China’, ’Grassroots Women’ and ‘The Past is Not Like Smoke’ stand as pioneers, leading the trends of thought, and generating significant discussions and reflections in Chinese society.

By introducing the writing outside the academic field, I explained how the characteristics and the purposes of ethnographic writing are represented in these works and how sharing similar reasons for starting the writing and research, sharing sympathies, and empowering the readers were used in my research. The research papers of using writing as a practice to investigate Chinese culture and Asian identity provided the context of the research background, giving the reasons for justifying storytelling/writing/nonfiction-academic in academic research starting from a small place of her/himself, to “place the real-life story within a larger social, political, or institutional issue or research question” (Goodall Jr, 2018, p34).

2.5.3 The Chinese feminist autoethnographic practice

Autoethnography, despite its growing global presence, remains on the periphery of recognized research methodologies in China, much like feminist ethnography, which has yet to penetrate the mainstream of the Chinese research milieu. The formal adoption of feminist autoethnographic approaches is particularly scarce. The nearest approach to such scholarship in the Chinese context is self-narration, with a historical emphasis on the period from 1955 to 1965, known as 'Up to the Mountains and Down to the Villages'. Notably, biographical narratives authored by women have found popularity since 1919.

This analysis considers four autoethnographic texts, each distinct in format, authorial background, generational perspective, and field of expertise. Table 1 presents a comparative overview of these works, delineating their characteristics, structural compositions, and the extent of their respective impacts.

Table 1 Analysis of the Chinese Women's Autoethnographic Writing

Name of the Work	**The Past is Not like Smoke**	**Wuhan Diary**	**Grassroots Woman**	**Visiting Mothers as A Woman and A Researcher**
Features	-Under government pressure -Life writing	-Diary (writing during pandemic) -Under government and social pressure	-Voice from bottom -Mult-media spreading -collective work with other women	-Written by female scholar -Stem from rigid research
Forms	Books	Starting from blog to books	Starting from live streaming, WeChat public account and short video to books	Starting from academic research to popular magazine
Influences	-Present a forgotten memory -speak for the stigmatised people -Used gentle and calm language against the sharp criticism and silence from the government	-Represent the people in Wuhan during the first lockdown in the world from COVID-19 -Speaking out another voice from the mainstream -Her 'fight back' won the support and encouraged others to stand with the right side	-Empowering women from the bottom of society -Regaining confidence for vulnerable and invisible women -Provide platforms for them to communicate -She encouraged herself and got support from others	-She punctured and penetrated the unspeakable quagmire for educated women - Confronted the Chinese traditions to women in modern society -Resolved the anxiety and made peace with her mother and past

Among the works examined is 'The Past is Not Like Smoke' by Zhang Yihe, a renowned figure with a storied life, who penned this volume during her tenure at the Chinese opera research institute within the China National Academy of Arts. Her memoir offers a vivid portrayal of the lives of eight nobles during the nascent years of the People's Republic of China. Zhang's narrative, spanning from her childhood to adulthood, unveils an alternative tableau of high society of the time. A mere two

months following its release, the book faced an official ban, with orders from the CPC Central Committee's Publicity Department to cease its reprinting. It was censured by state-controlled media on the mainland for allegedly glorifying hedonism and opulence. The memoir distinguishes itself by intricately weaving detailed accounts and emotive recollections, interspersed with the author's contemporaneous responses and subsequent contemplations. Zhang initiates her story with the candid musings of a child, capturing a sense of purity and naivety. As the narrative unfolds, the reader is escorted through the author's maturation amidst significant events, thereby inviting a re-examination of that epoch, divergent from the prevailing state narratives, within the very rooms and scenes of her personal journey marked by suffering and bewilderment.

The act of writing this book served as an introspective dialogue aimed at soothing the disquieting emotions experienced by both the author and the readers in the face of harrowing narratives from a tumultuous era in history. The literary approach maintained the integrity of autoethnographic values, as it provided insight not only into the lives of deposed aristocrats during the 1940s but also fostered a connection with these figures through the author’s personal lineage as the progeny of a prominent family. This connection offered a deeper comprehension of the fluctuations inherent in Chinese cultural and familial principles.

The work's verisimilitude and explicit representation of homosexuality elicited the discontent of the authorities; however, it engendered empathy among readers towards the intellectuals in decline. These individuals were perceived not merely as embodiments of justice and conscience, or even arrogance and whimsy, but as ordinary people engulfed by sweeping historical and political upheavals, engaged in an ineffectual struggle. The narrative suggests that their human flaws did not merit the ultimate price they paid. The likelihood of obtaining official funding for research into this subject is negligible, given that most archival materials have been expunged and direct testimonies from that generation are scarce, often coerced by political forces. The author’s distinctive role as a researcher, witness, and narrator, informed by her unique identity and positionality, lends a singular depth of understanding to this historical account.

In contrast, 'Fangfang's Diary' emerges as a candid portrayal of life during the Wuhan lockdown, offering unvarnished insights into the daily realities and governmental responses to the COVID-19 pandemic. The diary’s transition from online posts to a published book symbolizes a broader struggle for narrative autonomy in the face of political and societal pressures, embodying the challenges faced by vocal female figures in contemporary China. Additionally, there are negative reflections on the government's possible future reactions to similar events. The author wrote an account of events, which she published online but subsequently deleted within 48 hours. She documented the reactions of both the local and central government to the incident. She was once hailed as a courageous truth-teller but later became reviled for making seemingly ‘negative’ comments, which some believed were tantamount to handing

ammunition to hostile Western forces. As a Chinese woman, she committed the same mistakes as other women who spoke out against unfair treatment or disagreement in China by revealing the negative aspects of their family or country. The traditional Confucian text, 'The Analects 13 Zilu,' states:

> *子路:*
>
> *叶公语孔子曰:“吾党有直躬者,其父攘羊,而子证之。”孔子曰:“吾党之直者异于是。父为子隐,子为父隐,直在其中矣。”*
>
> *Zi Lu:*
>
> *The Duke of She informed Confucius, saying, "Among us here there are those who may be styled upright in their conduct. If their father has stolen a sheep, they will bear witness to the fact". Confucius said, "Among us, in our part of the country, those who are upright are different from this. The father conceals the misconduct of the son, and the son conceals the misconduct of the father. Uprightness is to be found in this.7*

If the father and son should conceal the misconduct, logic is applicable to the country, and a woman must never reveal the truth, which was against the family and the country unconditionally. Unfortunately, female ethnographers always suffer mostly from the sequelae of traditional Chinese patriarchal society.

The almost timely paralleled[8] writing happened during the Wuhan lockdown from 23rd January 2020 to 28th April 2021. By telling the truth as an ordinary woman, Fangfang, standing in front of the powerful bodies, confronted the no-criticism, no-negative-news environment and traditional patriarchal society. She also fought back when opponents came attacked her personal life, identity and standing points. The fundamental transformation into a highly influential autoworker was not by the widespread of her blogs; it was by her own stigmatisation of herself.[9] Her book was not allowed to be published in China. The mother whose sick child was saved through the attention on her blog turned back to accusing her a liar to gain games after the book got criticised.

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[7] Translated by internet source, accessed on 30 May, 2022 https://ctext.org/analects/zi-lu/ens?searchu=%E7%88%B6%E7%82%BA%E5%AD%90%E9%9A%B1%EF%BC%8C%E5%AD%90%E7%82%BA%E7%88%B6%E9%9A%B1%EF%BC%8C%E7%9B%B4%E5%9C%A8%E5%85%B6%E4%B8%AD%E7%9F%A3%E3%80%82

[8] The UK implemented several lockdowns between March 2020 to March 2021 since the outbreak of the COVID-19-19-19 pandemic. After that, people were still getting COVID-19-19 and stayed at home for 10 to 14 days' quarantine until the next spring.

[9] She was first 'found' in an inappropriate relationship with someone then cleared for false accusation.

A female scholar[10] and a few other people were punished or silenced online for supporting her in public.

'Grassroots Woman' by Wang Huiling shifts the lens to the lived experiences of women at the societal margins. Originating from multimedia platforms, Wang's narrative traverses her journey from a village in Anhui to the urban sprawl of Shanghai, confronting gender and class disparities. Her work serves as both a personal testament and a collective voice, empowering the silent segments of society through shared stories and experiences.

I initially discovered her through her Bilibili Channel, where she worked as a broadcaster on a Chinese online platform similar to YouTube. Her ability to tackle the various challenges and predicaments affecting women, particularly those who are most vulnerable, based on her personal experiences, captivated my attention. She discussed the unequal treatment she experienced from her parents at home, in comparison with her brother, that made her angry. She explained how she relieved the financial and mental burden of supporting her adult brother unconditionally. She shared her courageous escape from her abusive ex-husband and harassment at work, and described overcoming her guilt for not adhering to Chinese filial piety and going against her parents' wishes. Women face unfair treatment at work compared to their male counterparts and experience social bias due to marriage, childbirth, parenting, and family duties. Wang Huiling covers almost every major feminist issue currently affecting China in a clear and concise manner that speaks directly to women in difficult situations.

Throughout her book, she shares her own experiences and interviews herself to answer the question of how she saved herself and found happiness in Shanghai as a grassroots activist. The guidance acted as an elder sibling imparting insider tips for navigating a metropolis like Shanghai. The author provides practical advice and reassurance to her readers. Other young women who attended her talks and later became her friends had their experiences recounted in the book. The author interwove her own encounters to highlight issues such as gender bias, class, and income discrimination.Her actions against intersecting discrimination in China were evident through the hateful comments and public boycott, which is a rare and admirable stance from grassroots women. Nonetheless, in the comments section, readers and audiences congregate to provide each other with support on the platforms she created.

Lastly, 'Visiting Mothers as A Woman and A Researcher' by An Chao offers a scholarly perspective rooted in her dual roles as an academic and a mother. Her work navigates the complexities of gender and generational dynamics within the context of cultural and societal transitions. An's writing extends beyond personal account to encompass

[10] Ling Yanping Professor, School of Literature, Hubei University, China, was removed from her teaching role and given a demerit punishment.

a broader sociological inquiry, bridging the divide between academic discourse and lived experience.

Through her plain language and candid storytelling, she recounts ‘flowing’ from the village to the city with her parents, the ‘unstable’ life lodged under another person’s roof, the ‘uneven’ treatment by her family for being a girl, being an outsider to the city children, and the hard-to-quit natural response cultivated from her rural and economic background. She also wrote about the ‘wild’ nature, and how ‘reading’ nurtured her mind, and the kindness she encountered empowered her later. Like most women, ‘tradition’ in China was the mountain you will always carry on your shoulders no matter ‘how far you go’, ‘how much you earn’, or ‘how educated you are’, you will always be powerless within the social environment. The hurting mostly comes from the same gender and the most loved ones, who were just trying to deliver the reader to a peaceful mind and better life. Through her narrative, she offered thinking, pain, and unsettled feelings and struggles, as well as the comforts and compromising with her growing up. Through the going transcendent to a female scholar and ‘looking back’, she was saved by other strong and intelligent women, by becoming a mother, and by the writing process.

This autoethnographic study is presented better through the re-living and re-structuring of the memory in a reader’s mind. Through reading her writing, as a Chinese mother, I recreated my stories. I related my own experience of growing up, giving birth, escaping from my marriage for my daughter’s sake, and the ‘tradition’, and the way to pursue my own going beyond. Similiarly, we both started our research based on personal experiences inspired by other, strong, intelligent women and men, complete with a personal and academic closure. Her interview as an autoethnographic practice bridged the gap between the academic and ordinary via mass media.

These works, collectively, underscore the multiplicity of Chinese women's autoethnographic writing. Each text, with its distinctive narrative approach and thematic focus, contributes to the feminist autoethnographic discourse by articulating the spatial and cultural significances from a uniquely female perspective. They collectively advocate for the minority voices that are often overshadowed in the domestic sphere, particularly during the convergence of work and child-rearing. This review, by examining the nuanced interplay between personal reflection and societal commentary, asserts the transformative potential of feminist autoethnography in China.

2.5.4 Autoethnographical Research as a Chinese Woman

Autoethnography empowers women by elevating identity-informed experiences to a level of knowledge. Ngunjiri (2010) and Bochner and Ellis (2022) emphasise the potential of the method to understand the connection between self and others and to humanise the social sciences. Based on this, the undercurrent of this method is to

communicate with the reader through empathy and understanding rather than through evidence and logic. In the structure of a male-dominated society, women's experiences are easily overlooked due to their invisibility. Autoethnography, as a method, has the capacity to direct the narrative to the reader in order to reveal the invisible (Hedditch & Vyas, 2021; Throsby, 2018). In addition, it can challenge the generalisations and uncover the influence of gender inequalities on women's experiences (Anderson, Goodall, & Trahar, 2020;McParland, 2012). Autoethnographic research, applied to a specific group of researchers with the intended characters, could extend the research to deeper and more specific topics, such as feminist performative work (in a particular social context) and understanding gender and age in different races (Swafford, 2022; Klinker & Todd, 2015).

Women engage in autoethnographic research in a variety of ways. Writing is a prevalent tool in autoethnographic research; as Ellis (2011) argues, self-narrative is a politically and socially conscious act that challenges traditional research methods. Autoethnographic writing serves as a way to challenge stereotypes and explore the complexities of identity tools (Anderson, Goodall, & Trahar, 2020). For example, female athletes can write about how they have been overlooked (Throsby, 2018), immigrant female teachers can use autoethnography to understand what happens to women of colour in American academia (Faith Wambura Ngunjiriet al., 2010), and two mid-career women used this method to understand what motivated them to become professors (Klinker & Todd, 2015). It has also been used to explore older women's experiences of illness (Ettorre, 2005) through the articulation of personal experiences such as international adoption (Wall, 2008b) and gay and single parenting experiences.

The intersection of women, writing and ethnography has been a focus of anthropological and feminist gender studies, with Behar and Gordon (1997) and Behar (1993) emphasising the need for women's voices in ethnographic writing to challenge male-dominated fields. Hussain (2017) and Walter (2020) explore the role of women in diasporic and decolonial literature, while McNamara (2009) and Stack (2018) discuss the challenges and opportunities of feminist ethnography. Chaudhry (2014) examines the work of African women writers, stressing their engagement with political issues. Wall (2008) and Swetnam (1999) draw practical and theoretical perspectives on the challenges and meanings of self-representation in women's life-writing. Neimanis (2020) and Patty (2010) emphasise the importance of the accessibility and value of self-reported ethnographic work in gender studies and the need for radical idiosyncrasies in mothers' writing.

Summary

The chapter began with an explanation of cyberspace in the built environment and urban design, pointing to the layered structure of the Internet, architectural and public space perspectives, and how it has been visualised and conceptualised, noting the evolution of the definition and use of public space in the digital age. The concept of home and how it has been affected by digital technologies was then discussed with a focus on Chinese women, highlighting how traditional roles and spaces have been transformed by the digital age, and how this has affected Chinese women's lives and domestic roles.

The chapter them moves onto an introduction to autoethnography, the qualitative research method, its theoretical foundations, and methodological approaches. It highlights the value of autoethnography in giving voice to personal narratives and connecting them with broader cultural and social contexts. It also mentions the importance of autoethnography in social justice activism and transformative research practices. Finally, feminist auto-narrative ethnography as a specific application of the method is discussed, focussing on Chinese women's experiences and writing practices. A case study demonstrates how autobiographical writing has been used to explore and articulate the experiences of Chinese women.

The upcoming chapter explores the theoretical frameworks utilised in this research, featuring a comprehensive examination of phenomenology and its practical implementations, a thorough analysis of materialism focusing on cultural materialism, and a thought-provoking discourse on emotional space.

3 The Phenomenological and the Materialist Space

3.1 Introduction

This Chapter focuses on the theories that build an understanding of space from the architectural dimension through phenomenology, the cultural dimension through materialism, and the emotional dimension directly from framework established by emotional geography and human geography. To explain the theories, I begin by exploring how they help understand the research angle, the methods and tools used in the research field, and finally, I explain the selected topics within the field that relate to my study.

3.2 Phenomenology to Phenomenological Approaches in Architecture Research

This section aims to establish the concept of the research space from Heidegger's theories of the dwelling and the thing (Heidegger & Hofstadter, 2013). After a brief introduction to Merleau-Ponty's theory of perception, the phenomenological approaches at the applied level in architecture and the built environment are reviewed and compared, ending with a review of phenomenological autoethnography to explore the architectural and emotional dimensions.

3.2.1 Phenomenology of Understanding the Space

According to Heidegger and Hofstadter (2013 p. 156) in 'Building Dwelling Thinking',

> *Building puts up locations that make space and a site for the fourfold. From the simple oneness in which earth and sky, divinities and mortals belong together, building receives the directive for its erecting of locations. Building takes over from the fourfold the standard for all the traversing and measuring of the spaces that in each case are provided for by the locations that have been founded.*

A transformed home space adopts the spatial concepts as explained by Heidegger's 'building', 'dwelling', and 'fourfold', through the understanding of the space and his later discussion of 'things'. The meaning of the dwelling, the dwelling through 'building', the preserve of 'fourfold', the concept of 'things', and the structure of the concepts paves the way to my understanding of the space, the reasons to divide it into three

dimensions of space (recall the architectural, cultural, and emotional spaces), and to bring the objectives to present the spatial practice.

3.2.1.1 Understanding the concept of Space

'Dwelling', the way of *being* and the distinction, grants us "the manner in which we humans are on the earth", with a responsibility to treasure, reserve, nurture, and care for Gaia. The dwelling's building has a dual role: to serve and nurture living things and to build non-living things such as appliances in the home (Heidegger & Hofstadter, 2013). The 'fourfold', including earth, sky, divinities and mortals, involves: saving the earth, liberating all things, allowing them to be present in their 'essence'; accepting the sky, receiving the movement of the sun, moon and stars, moving according to the rhythm of day and night; waiting for the gods, opening oneself up to the message brought by their presence in obscurity; and guarding the essence of man as the one who will eventually die.

Heidegger's 'dwelling' meets Chinese spatial philosophy in the relation between the concept of the thingness and the concept of the 'void or empty space'. Heidegger used the word 'jug' to explain the concept the jug, with a base and walls, is a container with a holding role, and as a container, it can be self-supporting, have independence and thus become an object (Heidegger & Hofstadter, 2013). But objectivity must have its counterpart in the subject. According to Heidegger, because the jug's objectivity is represented through the will of man, it does not really exist (Heidegger & Hofstadter, 2013). Similarly, between 400-300 B.C., Laozi posed his spatial concept through the vessel in the Tao Te Ching:

> *Mold clay into a vessel. From its not-being (in the vessel's hollow)*
> *Arises the utility of the vessel.*
> *Cut out doors and windows in the house (-wall),*
> *From their not-being (empty space) arises the utility of the house.*
> *Therefore by the existence of things we profit.*
> *And by the non-existence of things we are served.*[11]

Laozi appears to be explaining how the house as a home is generated and operated through building the architectural elements of the doors and windows around 'the vessel's hollow'. The *building* connects the inhabitants to nature and creates utilisations for the 'non-existence of things' to serve. For example, a cave is just a cave until someone lives in it. Users feel and view the natural world through its doors and windows, something which is reflected in Chinese traditional architecture and classical garden design. The inward-looking quadrangle building is a particular instance of the

[11] Laozi, 'Chapter 11 The Utility of Not-Being', in *Tao Te Ching*, ed. by Liu Xingqin, trans. by Lin Yutang (Taiwan: CHENG CHUNG BOOK COMPANY, 2009), p. 167 Translated by Yutang Lin From 埏埴以为器，当其无，有器之用。 凿户牖以为室，当其无，有室之用。故有之以为利，无之以为用。

former, consisting of houses on all four sides surrounding a space in the centre, planted with seasonal vegetation to welcome weathered nature. The viewing line starts from the seat mat, develops through the opened wall, continues along the outside corridors, and points to the flowering plants in the foreground, a pavilion in the middle ground, and mountains in the background (perspective). The owner of the house configures the space using the objects or elements according to changes in daily life. People operate on the objects or elements, and the 'walls' remain the same, but the 'hollow' changes.

The concept of the container links Heidegger's 'thingness of dwelling' and Laozi's 'vessel' and 'hollow'. The self-supporting nature of the jug comes from the shaping of the manufacturing process, constituting itself for the purpose of containment. Its materiality lies in the way it exists as a vessel. When we pour the wine in, we know that it is the 'empty' space within the jug that characterises it as a container. The potter shapes the clay into a jug to create the void within it. Its emptiness defines the materiality (or 'thingness'), but not any of the constituting raw materials. The 'void', whether the material is clay, metal, or wood, does not affect the character of the jug as a jug; the 'void' creates a containment that can take and keep what is poured into the jug, and when the jug is emptied, the *essence* of the containment is revealed. What is poured out of the jug is the contents, Heidegger's 'to give', and the holding 'essence' of the jug's void is gathered in the action of 'giving'.

3.2.1.2 Approaching the Contents

Heidegger considered the 'building' as part of the dwelling, instead of treating building and 'dwelling' as two separated steps (Heidegger & Hofstadter, 2013). He thought the schema obstructed our insight into the essence, and that the practice of daily life guided and shaped the 'building' (Heidegger & Hofstadter, 2013). A similar adaptation is seen in cutting out the vessel's openings as the doors and windows. There is a pathway to architectural operation to the home from 'dwelling' through 'building'. The practice of reconfiguring the room arrangement, changing, and blurring the layout of the original plan driven by function-oriented design in modern architecture belongs to the 'building'. This limited rebuilding is my method of dwelling with my culture, my daughter, my identity in a foreign home during the COVID lockdowns. Between nature, the divine and the human, the dynamic of the emerging, the formation and dissolution of the space, the process of building boundaries or openings in the layout of the fourfold dwelling in a home.

The essence of man's dwelling is presented as a thing, an object; the fourfold elements exist within it through its use as a dwelling (Heidegger & Hofstadter, 2013). The 'vessel' becomes a house or home, embodying nature, and Taoism's natural belief in the unity of heaven and man in the empty space. The space contains the content or essence, represented through 'giving' to reveal it to the outside. The concept of a space, co-

structured physically and digitally, lies at the heart of this thesis. It focuses on the pouring process, the contents and the 'giving' of the people using the space. The contents take the form of a three-dimensional structure, an architectural, cultural, and emotional space.

Norberg-Schultz (1985) interprets the concept of *dwelling* based on Heidegger. He argues that there is a meaningful connection between people and their *dwellings*, established by the act of identity, and that dwelling implies this relationship. In what he defines as the fourth kind of private dwelling, a person's home, the things inside and outside it connects the world in which he lives. The objects bring this life's world into being. It thus embodies the logic of the process of knowing and using things to access this world (Norberg-Schulz, 1985).

The above discussion constructs my home, sited in the UK, as the container and a relatively stable space before the pandemic, wherein dwelled my identity and the material elements of Chinese culture. To study a transitional space under the impact of online conferencing and lockdown, Merleau-Ponty's bodily space and lived space are borrowed to make the connection between the space and the human body (Merleau-Ponty & Landes, 2014a).[12] While the relationship between the body and space has been extensively explored,[13] there is currently no direct application of the theories of bodily space and lived space to the study of transitional situations in architecture.

Merleau-Ponty's perceptual subject is an embodied subject, leading to a world of transcendental transparency. The perceptual subject located in the body takes the object out of consciousness and is given in living sensation. He argues that perceptual immanence and transcendence can go beyond a particular perspective towards the object. It is the being-for-me and being-in-me that make the object real. the body, which has perspective and perception, is "the vehicle of being in the world and, for a living being, having a body means being united with a definite milieu, merging with certain projects, and being perpetually engaged therein" (Merleau-Ponty & Landes, 2014, p.92). Developed from Heidegger's realisation of being-in-the world (primarily on the basis of the apprehension of being), Merleau-Ponty considered being-in-the world as based on pre-consciousness and pre-personality. The body is being-in-the world. He departs from the views of Kant, Hagger, Husserl, and Heidegger, because the introduction of the body into the definition of subjectivity, and the consequent transformation of the conscious subject into a perceptual subject, implies two things.

[12] This thesis used Donald A. Landes translated Maurice Merleau-Ponty, Phenomenology of Perception, (London & New York: Routledge Press, 2014)

[13] The relationship between body and space have been discussed by Stephen Priest, see Chapter 6 in Merleau-Ponty (New York: Routledge Press, 1998) and David Morris the Sense of Space (Albany: State University of New York Press, 2004) and Scott L. Marrano, The Intracorporeal Self. (Albany: State University of New York press, 2012).

First, that our behaviour is not simply directed by consciousness; and second, that our behaviour is not only produced by consciousness, but the body also has the capacity to intend it.

Merleau-Ponty considered the body as “a posture toward a certain task, actual or possible” (Merleau-Ponty & Landes, 2014 p96). Following his thought, we can conclude that body is not an objective reality, and that the spatiality for bodily space is situational rather than positional spatiality. According to Merleau-Ponty and Landes (2014 p. 103),

> *Bodily space can be distinguished from external space and it can envelop its parts rather than laying them out side by side because it is the darkness of the theatre required for the clarity of the performance, the foundation of sleep or the vague reserve of power against which the gesture and its goal stand out […] and the zone of non-being in front of which precise beings, figures, and points can appear.*

The structure of bodily space exhibits a figure-background and point-horizon relationship, with the latter serving as its fundamental element. The figure-ground structure assumes a ternary form wherein the body implicitly represents the third term: “each figure emerges prospectively against the dual horizon of external space and bodily space” (Merleau-Ponty & Landes, 2014, p. 103). This process establishes a framework in which the body, engaged in tasks, generates space, accentuating figures or points against the background to create a contextual spatiality from a specific perspective. Moreover, it justifies the investigation by focusing on the emergence of figures or points within the situational spaces derived from the figure-background structure nested within the original spatial relationship between online conferencing-affected spaces and domestic space. It is important to note that the situational spaces are not juxtaposed entities; instead, they possess their own unique qualities.

Merleau-Ponty's concept of *lived space,* also known as phenomenological space, transcends mere physical dimensions and geometrical properties. Lived space encompasses the entire phenomenological realm of our embodied experiences, incorporating sensations, emotions, memories, and cultural influences. It presents a dynamic and relational understanding of space, where individuals and their environment mutually influence and shape one another. When humans enter a space with altered spatial characteristics, over time, a profound connection is established between the body and the world. As Merleau-Ponty states,

> *My body is geared into the world when my perception provides me with the most varied and clearly articulated spectacle possible, and*

> *when my motor intentions, as they unfold, receive the anticipated responses from the world.*
>
> (Merleau-Ponty & Landes, 2014, p. 261).

This modified spatial experience originates from the body's inhabitation within the environment, thereby transforming the objective body into an intentional body and the physical body into a virtual body. As the actual body aligns with the virtual body within the contextual setting, the virtual body engages with the changing scenes, giving rise to the experience of lived space. The shifting context and the process of ‘gearing in’ contribute to the creation of changing scenes and the integration of various online scenarios. By exploring the virtual body within the field of perception, the phenomenological space can be described and examined through the dynamic interplay between bodily theories and theories of lived space.

3.2.1.3 Phenomenological Methods

Phenomenology, as a traditional theory, seeks to 'experience' the world from people's perspectives (David M & Sutton, 2011). The operational social reality could be seen as a social structure, which is closely related to constructionism. Seamon (2000) identified phenomenology as the examination and portrayal of phenomena, with phenomena being understood as entities or experiences precisely as they are perceived by individuals. Any object, event, situation, or experience that a person can see, hear, touch, smell, taste, feel, intuit, know, understand, or live through is a legitimate subject for phenomenological inquiry. From Heidegger to the widespread discussions linking 'living' context to 'being-in-the-world', it has been powerfully applied in the field of space-place studies and has proved productive within architectural visual perception research.

However, philosophers of the phenomenological movement and humanists of applied phenomenology have different understandings and applications of phenomenological methods. H. Spiegelberg (1975), an American scholar, argues that any study of self-proclaimed phenomenological methods must meet at least three requirements and must be directly explored:

1. From the beginning we should pay special attention to the way these phenomena are presented, without doubting whether they are real or not.
2. We must grasp the essential structure of these phenomena and the fundamental relationship between them.
3. We should explore the composition of these phenomena in our consciousness, that is, the formation of these phenomena in our classics. The way of formation is tested.

Therefore, the phenomenological approach is a way of studying conscious experience and trying to reveal and understand the process and meaning of this experience. The

phenomenological approach does not start from a general understanding, but from a phenomenon or experience itself. Phenomenological research is like watching a film from the middle, and to understand the film, we need to ask the questions: What is the content of the story? Where does it start? Which parts are important? Which parts do not matter? (Loren S. Barritt et al., 1983). Meinan (2003 p. 34) believes that phenomenological research begins with context and is "the analysis, explanation and explanation of a typical conscious node embedded in this context", to reveal the general structure of this phenomenon in a comprehensible and descriptive way. To this end, he also provides a basic operating method and procedure within the education field, which are also applicable to other realms. In the actual research process, they can be alternated or carried out simultaneously. The use of these methods and procedures relies more on the explanatory sensitivity, creative thinking, intellectual wit, and writing ability of the researchers.

Phenomenology methods provide advantages in producing descriptions related to personal, transformable, and visually perceptive experiences, which explain cyberspace from an important architectural perspective. In addition, it provides a structure to conduct data collection, data catalogue, and analysis as a path to follow with related research examples (Daniels & Andrews, 2018; Pink, 2004; Pollio, Henley, & Thompson, 1997), which are directly linked to theories (Thwaites & Simkins, 2007), and practice to benefit architectural space studies.

3.2.1.4 Phenomenological Autoethnography

Autoethnography, as a phenomenological method, situates upon the philosophical basis of phenomenology, which reclaims the pathway to the essence of a social world through personal points of view. Descriptive and systematic analysis of personal experiences as the results of the research approach makes autoethnography both a process and a product (Ellis, Adams, & Bochner, 2011a).

Ethnography sets up the broad data gathering range, allowing the drawings, diagrams, notations, and the interactions between written and graphics from an architectural background (see Chapter 4). During this process, the mapping and other drawings could be considered as a way of showing information and the negotiations for the non-linguist elements among specific contexts, which are “instrumental in developing the theoretical standpoint of the text” (Lucas, 2016, p.169).

The benefits of employing autoethnography allows the researcher to focus on direct connections between the individual and the fact, without the social setting logic of phenomenology, with the self-producing process through the empirical methods of ethnography. Without thinking about the reason, what people do in everyday life is different from what they say they do in the interview, thought theory and analysis. It goes beyond the gatekeeper and the informant to get the appearance of the essence.

3.2.2 Perceptions and Senses-The Direct Tools in Architecture Studies

The physical world transmits information which is picked up by the senses through the perceptions that the brain gathers and transmits to the experiencers in the environment, including active and passive responses and reactions to colour, sound, smell, and temperature of the objective environment. The senses interact and complement one another. Gifford (2011) believes that when visual and auditory information are input simultaneously, the interference of the auditory information on the visual information is relatively large, however, the interference of the visual information on the auditory information is rather small. Normally, vision is the most important method of gathering information from the environment, with visual perception being the core content of our relationship with space. It is a process that builds on feelings and further organises, recognises, and understands the sensory information to help the audience understand and express the environment. It incorporates the dimensions of time, thought, memory, and other subjective factors that characterise individuality and commonality due to variations within personal experiences and environments.

To describe the process of perception, the 'horizon of expectation'[14] is hardly ignored. As an approximately a priori positive awareness, it significantly affects the informational output of the environment to people, thus affecting people's perception and understanding of the environment. The establishment of a common awareness could be built by providing the partials and details, which overlap with the horizon of expectation, to the comprehensive atmosphere of the environment (Enyang, 2008). This environmental identity established through the intended incomplete physical environment can be extended to cyberspace to enhance the design process to create proposed cyberspace or film scenes and could also be used to reverse deconstruct its composition and meanings. However, the different constructions and dynamics between cyberspace and film scenes could also be identified through the two-way interaction. The social interaction could break the ritual sense and time concept given by the scene at any time.

The collective consciousness and personal connection involved in the perception of public space reflects the overlap between cyberspace and urban public space. Lynch (2006) states that although individual intentions vary widely, they are close to public intentions. However, under different conditions, public intentions can show mutual tolerance and conflict with individual intentions. Based on this, the interaction created

[14] Erwartungshorizont is a term fundamental to German academic Hans Robert Jauss's reception theory. It means that the reader has built up conceptual and thinking patterns during the reading of the literature, which point out the expectation and direction of an imaginary reception (personal understanding based on the Chinese literature of Tong Qingbing, (2008) Theory of Literature Theory (Fourth Edition). No. 4, Dewai Street, Xicheng District, Beijing: Higher Education Press, p324. (In Chinese 童庆炳 主编．《文学理论教程》（第四版）．北京市西城区德外大街 4 号：高等教育出版社，2008：p324).

a new environment, a subordinate environment, adjacent to the individual's life needs and feelings, and changing according to the individual's consciousness (with the material public space in which it is located).

In late medieval and renaissance art, the human body's perception of the environment was defined in terms of five types that form a hierarchy of perception, in order of importance: sense of sight, sense of hearing, sense of smell, sense of taste, and sense of orientation. Among these, the visual sense is considered to be the most essential type of sense, placed at the centre of the perceptual system and playing a vital role in the design and construction of future cities (Holl & Pallasma, 2007). In concurrence with Pallasmaa's (2007) conceptualisation of kinesthetic, haptic, and multisensory perceptions of the human body in architectural theories, psychologist James Jerome Gibson (1986), notably recognised for his ecological approach to visual perception, extends this perspective by positing that the senses function as active tracking mechanisms rather than passive receivers:

- Visual sensing system: mainly affected by light and shadow.
- Auditory sensing system: Emphasises the coherence of people's understanding of spatial experience. At the beginning of entering the space, the audio effects expressed welcome and rejection. Sound can help people to measure space, allowing them to further understand scales, materials, and ecological environment (for example, children's activities, and the wind blowing leaves). Additionally, it establishes a 'personal' relationship between people and the environment.
- Olfactory taste sensing system: The nose and the tongue urge the eyes to remember things, which created a modern concept of sensory urbanism.
- Tactile sensing system: Establishes a person's understanding of weight, texture, density, temperature, and the shape of three-dimensional objects, such as an old polished wooden door and a bright brass statue.
- Orientation sensing system: Clear awareness of the positions of several people, depending on other senses to form a comprehended system.

Yilan and Hai (1999) divided the human experience of the environment into three categories, the visual senses representing the most intuitive experience; time and space senses representing the ongoing experience during movement; and logical senses, used to describe the assisted thrust and association of ideas of environmental experience. The environment affordance theory stated by Gibson (1986) illuminated the connection between human behaviours and the environment. Affordance, in the context of the environment, encompasses the elements made available to the user by the environment. Human perception of the affordance associated with environmental functional units occurs through both direct actions and indirectly connected operations. Despite its objective existence, affordance necessitates human engagement for its discovery and recognition through behavioural manifestations. This theory underscores the interactive nature of the environment and the perceptual role of human actions in discerning and acknowledging affordances.

In subsequent studies, affordance was further categorised according to the different research priorities. Based on the feature classification of the environmental elements, Heft(1988) divided affordance into 10 categories, including relatively smooth ground, relatively smooth slopes, vegetation and wildlife, gradable or separable objects, attached objects, non-rigid attached objects, climbable objects, holes, microclimate, mouldable materials (snow, sand, mud and so on), and water bodies. Affordance was divided into positive and negative, based on the various types and roles of the associated emotions (Maier, Fadel, & Battisto, 2009). To discard its influence, (Kyttä, 2002) included social and environmental opportunities as an affordable expressible object to describe the extent of the contributions to improve the social interactions between people. According to the dynamic interaction between people and the environment, affordance can be separated into perceived affordance, used affordance and shaped affordance. The first item belonged to the passive implementation of the affordance classification, while the latter two were included in the active implementation scope of affordance.

3.3 From Cultural Materialism to Immateriality in Architecture Research

Materialism and cultural materialism provided the theoretical basis for structuring the cultural dimension and methods for analysing the selected artefacts, linking them directly to women and Chinese culture through personal experiences.

3.3.1 Materiality to Cultural Material Research in Asian Home

Materiality is based on materialism and relates to the explanation or self-appearance of humanity through evidence. The conventional way of seeing materiality is linked to culture studies within archaeology, as it is usually referred to by the term ‘object’. The practice is to explore the stories behind artefacts (within museums) to introduce their history and culture or hiding meanings within the picture of globalisation (MacGregor, 2012). The re-writing of the lives of the Brontë sisters’ stories through nine objects, including the books, domestic stories with servant, out walking, family animals, fugitive letters, the alchemy of desks, death-made material, albums, and relics, drags the readers in front of the vivid living scenes to form a complete picture of that era (Lutz, 2015). The research work on Ada Lovelace uses artefacts (letters and diaries) to investigate her life and to uses creative writing to re-write and re-structure facts about her life, regarding her contributions to inventing the first computer (Sikarskie, 2016). The artefact is the materiality, as the media positions the research subject on the network to connect the different periods and geographic locations in front of other characters, allowing the reader to wave their understanding through the objects to form a complete understanding of the raised questions. In this research, the artefacts

present in online activities through the spatial operation were introduced separately, following their own stories with Chinese women. The situation is re-organised to form the topics in the discussion chapter following the logic of the above practices.

The term material culture is linked to the concept of ‘things’ as another way of understanding materiality (Miller, 2010). The ‘frame analysis’ theory met post-structuralism in positioning the research subject as the absence because it is the frame that determines human behaviours as the constitution (Erving Goffman, 1986). Archaeologist Bourdieu and Nice (2013) questioned structuralism as the daily things that occur through the interactions between everyday engagement. They both emphasise the social and environmental contexts in building people’s characteristics through expectation. Bourdieu (2013) used the categories, orders, and placements of objects to analyse the spatial oppositions at home. Miller (2010) points out that Bourdieu’s practice of using orders to compare gender and social hierarchy as the second nature or habitus combines Marx’s material practice with Merleau-Ponty's (2014) ‘orientation’ (see 3.2.2).

I have been particularly drawn to Daniels and Andrews's work (2018 p.14), which highlights that the researcher balances the “tensions between individual actions and social obligations” by analysing the “ongoing, ordinary dynamics of everyday life within the individual family”. Positioning family members with their roles and social identities within the culture explicates the hidden relations between the artefacts, things, and matters and the space within the cultural context to Western readers, among the cultural materialism research about Asian homes. Within the Asian home, the female is the primary operator. Daniels and Andrews (2018), in their study of material culture about the Japanese house, noted that interviews conducted in relatively closed Asian domestic environments also encourage hostesses to create stories about themselves (and their families). The stories happened at home through the operation of the objects in the room. In the process of signifying objects, the most apparent material characteristics and attributes of the object are voluntarily abandoned. The weight, shape, taste, smell, roughness, or fineness of the object are removed, amounting to a reduction in these interactions with the owner through a specific claim (Colloredo-Mansfeld, 1999). However, the material world is more than just an environment for the movement of the human body; it also imposes a socio-spatial configuration in which the material medium prescribes a programme of action and organises and monitors our daily activities (Olsen, 2003). In everyday life, people not only deal with objects through critical reasoning but also actively and passively interact with objects through bodily actions such as moving, placing, cleaning, eating, sleeping, and leaning. The conceptualisation of objects and space is dialectically aligned with material properties.

3.3.2 Cultural Material Research in Chinese Home

In Chinese culture, home is the place of self-discovery and the ultimate resting place for the soul (Su, 2014). Home is an emotionally charged and empowering concept (Duncan, Johnson, & Schein, 2004) that provides opportunities to understand society and its spatial structure (Mona Domosh, 1998). The home of mine, in this research, is a Chinese home, a home for Chinese women and a transitional reconstruction shelter in a foreign land. The cultural concept of the studied space is the double reconstructed space within this home.

3.3.2.1 Chinese Home in Cultural Material Research

In building the concept of a Chinese home, Knapp (1999) delves into the symbolic meanings and cultural significance of dwellings in Chinese culture, revealing the dynamic nature of homes as expressions of family vitality. Furthermore, He (2012) highlights the role of architecture, furniture, and rituals in shaping Chinese identity by analysing the subjects; he explores the diverse nature of houses, homes, and families in China, concluding that the elementary space in which a family lives and works resonates with the tensions between continuity and innovation that characterise China today. As a dynamic instrument of socialisation and a domain of propriety, its 'inner' and 'outer' spaces, as well as ornamentation and ritual, helped shape the identity of the Chinese and simultaneously serve as a reflection of this identity.

The concept of home can be defined fluidly between rural and urban, native and immigrant. Feng (2014) explores how urbanisation processes in suburban Guangzhou challenge traditional notions of home, as different population groups, such as residents of gated communities, villagers, and rural migrants, compete and interrelate in constructing and defending their sense of home. Kochan (2016) examines the complexities of home for internal migrants in China, tracing the evolution of their conceptualisation of home through ancestry, city, and material perspectives emphasising the importance of flexibility and mobility in their home-making practices.

Kuo (2021) reviews books that focus on family correspondence within Chinese migrant families, emphasising the connections between ethnicity, language, and the sense of nostalgia for home among Chinese diasporas, using cultural material in cultural studies of a Chinese home. In summary, these papers contributed to the understanding of the cultural material of the Chinese home, suggesting that home for Chinese people encompasses various aspects such as architecture, rituals, family connections, and a sense of nostalgia and that it can vary between different contexts, including within China and among Chinese diaspora communities.

3.3.2.2 The Gendered Home to Women

Home and family life have also been important in the studies of home. In mainstream popular culture and media discourse, home is a gendered space imbued with maternal ideologies (Chee, 2012), but the characteristics and meanings of home as portrayed in the media does not fully correspond to women's own everyday experiences, For women who spend a lot of time at home caring for their children, the home is a multilayered and complex space, and they do not want their home to be defined as a place for caregiving activities (Yantzi, Rosenberg, & McKeever, 2007). However, the dominant ideologies of popular culture continue to have a profound impact on women's everyday practices and attitudes. A study of women living in a decaying area of Dublin, Ireland, found that because of the childcare responsibilities assigned to the domestic space, this private space limited women's access to self-focused leisure and recreation, thus shaping their perceptions of what it means to be at home (Quinn, 2010). In Brickell (2014) examination of the marital dissolution experiences of abandoned or divorced women in modern Cambodian homes, found that both the material and symbolic orientations of the home are affected by, and in turn influence, women's life decisions and marital experiences, thus exemplifying the complexity and fluidity of modern Cambodian housing.

The kitchen, as a typical gendered space in the home, has a complex interaction with gender in its planning, design and spatial arrangement. While in the 1930s the kitchen was a separate 'work' place such as in Finnish homes, in the 1950s the kitchen became the centre of the spatial layout, a ‘visualisation’ of the kitchen. This change in the ‘visualisation’ of the kitchen reflects the changing status of women’s labour in the household (Saarikangas, 2006). In post-World War I Britain, women became the designers of kitchens, but also the users of kitchens, breaking down the dichotomy between the workplace and the home, and closely related to the broader social context of women's changing roles at the time. Llewellyn (2004) concludes, however, that efforts to redefine women's space not only reinforced traditional gender roles, but also involved women in the process. Women design kitchens, but they are also designed by women (Llewellyn, 2004).

Sara Ahmed explored women’s role at home during the COVID 19 pandemic, finding the women juggled multiple roles while working from home, facing challenges perpetuated by patriarchal norms (Maviza & Thebe, 2023). Chen (2023) highlights gender inequality in the family during the pandemic, with women shouldering more responsibilities and facing pressure. There was no significant shift in men's attitudes towards care work; the care work for women had intensified (Munodawafa & Zengeni, 2022). Women's ability to manage the household and carry out domestic sector jobs increased during the pandemic (Napsiah et al., 2021). The pandemic has brought changes to women's roles at home, with increased responsibilities and gender inequalities.

3.3.2.3 Transnational resident and the reconfiguration of home

The notion of home becomes even more important for transnational resident families who are travelling to other countries. For transnational migrants, the practice of perceiving and constructing a home involves both new destinations and places of origin, as well as cross-border experiences, making it difficult to understand the concept of transnational migrant home from a fixed and bounded perspective. It is widely recognised by scholars that home is not a fixed location but a series of social networks, a concept of immobility and mobility (Su, 2012). Nowicka (2007) examines professionals working in transnational organisations who are on the move for long periods of time but do not have difficulty in constructing their home; thus, 'home' is based on a dynamic process of localising particular social relations rather than being dependent on a particular place. Singaporeans working in Beijing, for example, reproduce the culture of their homeland through ritualised ways of celebrating festivals, maintaining traditional practices, gathering together, and reading newspapers from their hometowns - a process that creates boundaries of difference and similarity and produces what is known as a 'Little Singapore', and strengthens the identity of Singaporeans by reproducing and sustaining their 'home'. According to Kong (1999), This process creates boundaries of difference and similarity, producing a so-called 'Little Singapore', strengthening Singaporean identity, and reproducing and maintaining a sense of 'home'. Similarly, New Zealanders living in London frequently use email, telephone and Skype to conduct their daily lives across borders, and their identities are constructed on a collective imagination of 'home'. This collective imagination of home has given these New Zealanders who have left home a new sense of home and has created a strong sense of community among them. This notion of 'home' does not come from a 'nostalgic' past or a utopian future but from the realities of everyday life (Wiles, 2008).

In addition to social relations, specific objects are also important in creating a sense of home and belonging. A study of Asian households in London found that visual cultural objects such as photographs, pictures and drawings in the home were imbued with meaning and value that went far beyond the textual content of the objects themselves and carried connections to the previous home, the natural environment, and family life (Tolia-Kelly, 2004). Family photographs and the way they are displayed are vehicles for connecting people, places, and time (Rose, 2003). Walsh (2006) uses an anthropological study of British families living in Dubai to illustrate how migrants experience and construct a transnational 'home' through the use of three objects in the home: paintings, plastic bowls, and DVDs. He further explores the masculinity of transnational migrant families, emphasising the importance of the material culture of the home in understanding men's relationship with the home (Walsh, 2011). Cultural material has become an important basis for research on transnational families.

3.3.3 From Materiality to Immateriality at Home

Barad (2007) contends that a significant paradox emerges in contemporary discourse, positing that “there is an important sense in which the only thing that doesn't seem to matter anymore is matter” (Barad, 2007, p. 132). This assertion underscores a complex re-evaluation of the significance attributed to materiality in current scholarly conversations. Building on this, (Gamble, Hanan, & Nail, 2019) astutely observe that investigations into the absence of the immaterial often suffer from a notable oversight, neglecting or dismissing the intrinsic dynamism and meaningfulness associated with this dimension.

Lyotard (1985), in alignment with Barad's sentiment, proposes a nuanced understanding of 'the immaterial.' Rather than positioning it in opposition to the material, Lyotard conceptualises it as a novel manifestation of industrial materialism, emergent from advances in telecommunication technologies. Notably exemplified by the Minitel computer, this immaterial dimension, frequently denoted as 'the digital' in contemporary discussions, assumes a foundational role in elucidating the contours of the postmodern condition (Hui, 1985). In this context, immateriality is not divorced from the material world; instead, it signifies a transformative mode of materiality.

The digital, often characterised by the imperceptible connections facilitated by digital technology, bestows distinct properties upon digitalism. Spatiality undergoes a redefinition, influenced by this newfound factor that governs processes and shapes other elements within the framework of pre-existing technologies and communication paradigms. Paul’s (2010) argument for the materiality of digital artefacts, such as software and digital products, posits their substantial existence even before physical instantiation. Immateriality, within the digital realm, manifests prominently in the virtually co-constructed meeting or conference room. This extends beyond the virtual confines, permeating physical spaces as disparate rooms converge into a co-imagined and co-created spatial environment. The cognitive processes involved in this phenomenon alter individuals' perceptions and understandings of the materiality inherent to their original physical locations.

3.4 From Feminist Emotional Space Research to Women’s Emotional Space at Home

There are over 100 terms to describe emotions’ continuum process (Buckley, 2015). Emotions vary across individuals and cultures (Dehaene, 2014; Johnson-laird & Oatley, 1989). The definition of emotion space has been profoundly used in science research as an abstract concept to describe setting up spatial conditions for scientific experiments. In the architectural research field, Kim (2022) reviews studies that use biometrics to quantify emotions in architectural environments, identifying design

variables such as form, layout, material, colour, furniture, and lighting that elicit positive emotional responses. Juan-Vidal 2015 explores the incorporation of emotions into the architectural design process. He finds that 3D images can evoke quantifiable emotions related to design parameters. Kozlovsky (2015) discusses the role of architecture in encoding attitudes towards children and their emotions, highlighting how architectural culture reflects the historical development of emotional and caring attitudes towards children. Ebrahimi (2022) introduces the history of the relationship between architecture and emotions, emphasising the need for architectural research to systematically address the history of emotions.

The above explorations and a large number of studies in neurophysiology and environmental psychology have focused on transferable experiences, which could be recognised mutually between the researcher and the participants, through the psychological analysis of the experiences over the descriptive terms of the emotions. This process is conducted mostly through language communication based on the module and selected semantic phrases. Some of the studies mention that emotional experiences are only comprehensible to the first-hand material holder, like extreme outdoor sports (Allman et al., 2009), military combat experiences (Dunlap, 2021), and identity-related emotional spaces (Zamantakis, 2022). These studies always request long-term research periods to collect the slowed-time perceptions (Buckley, 2014). Therefore, autoethnography could provide descriptive data for the research to analyse. Compared to conventional ethnography, the data through autoethnography is more in-depth and less breadth, which provides a way to explore the emotional space within a social-cultural framework.

3.4.1 Emotional Space and Nostalgia to Home

The classic module in human geography transforms the spaces within the environment into places by adding feelings and attaching personal or collective meanings, through the concept of ‘lifeworld’ (Bondi, 2005). Tuan’s (2011) concept of topophilia refers to the strong connection or affection that people have for specific places. This bond encompasses the emotional, mental, and cognitive relationships that individuals form with their environment. It is a multifaceted phenomenon where the sense of place and personal well-being are intertwined through memories, ideas, preferences, and feelings that people associate with particular settings. The concept of home to Yi-fu Tuan is associated with the culture and religion linked to personal and shared emotions among humanity. He (2011) talks about the home based on his rooted-cultural religion of Tao and Christianity, originally from Europe, and how emotional attachment and nature coexist and interact in constructing the concept of home to migrate. He states “Home is elsewhere”, and “home has become so sickly layered with sentiment that to leave it is to abandon an important part of oneself, the result is homesickness” (Yi-fu Tuan, 2011).[15] In his work, he examines the building

[15] This is a quotation from Yi-Fu Tuan’s video lecture: *Home is Elsewhere, taken on 15th May 2011, and published by the University of California.*

blocks through his aesthetic experience - sight, hearing, smell, touch, and taste – and gradually expands his analysis to include the most elaborate of human constructs, including art, architecture, literature, philosophy, music, and landscape, to point out the vital position of aesthetics and emotion in human life and society (Tuan, 2013). Standing at the geographical turning point, Tuan's work contradicts the objectiveness of generalising knowledge within a systematically structured world. Self-directed studies are narrative and descriptive, which corresponds to poststructuralism through the positionality of the minority and the limited and peripherical knowledge production. In Tuan's memoir, the methodology he adopted could be improved by centralising his homosexuality and second-generation American Chinese identity when he established the concept of the 'home' to a wandering stranger in a cross-cultured family to his roots (Tuan, 1978).

Massey(2013) perceives spaces as a collection of numerous narratives, where space intersects with a multitude of stories, capturing the essence of our collective existence at any given moment. Consequently, this interplay between space and time establishes a profound and interconnected relationship.
The concept of space, as articulated by Massey (2005), integrates the dynamics of time and change, suggesting that space is continuously shaped and reshaped by both temporal elements and the entities within it. She (1994) thinks social structure, political character and 'local' culture co-produce the place and its identity through their interactions, agreeing with phenomenological approaches to explore the perception and meanings attached to places for individuals. Based on her spatial theory of the on-changing spatial dynamic, the idealised, supposed inhabits are contradicted by current "fragmentation and disruption" (Massey, 1994, p.15, 16, 21). The space-bound through the 'had control' and 'knew where they were' reveals more when the person or group leave the place.

The emotions of home can be individual and closely linked to the identity defined by culture, religion, social interactions, and experiences. The space keeps changing and is with the attached emotions and the building of the personal meanings during the process.

3.4.2 Embodied Situation and Feminist Emotional Space

Embodied situation studies the emotional space from the immediate surroundings of the researcher. The body is the instrument to feel and explore. As Callard (1998) states, the body is material and fluid, referring to subjectivity and identity. The boundaries between the space and the body are easily broken by natural physiological responses, including urinating, bleeding, menstruation, pregnancy, giving birth, vomiting, breastfeeding, flatulence, and ejaculating. Longhurst's (2001) practice uses the external body as the methodology and theory to investigate the spatiality of public,

private and other corporal spaces (the bathroom or a square) through the internal body of emotions.

Ahmed's (2015) discussions about emotional practice embodiment of the materiality of the body's surface, situate the body within the context of making connections among the individual, the community, and the nation through her rhetorical explanation of emotions. She argues the materiality of emotions, as they "align some bodies with others, as well as stick different figures together, by the way, they move us", as they generate massive affections and hate, which gather the power to ground social movements to form a political and emotional space (Ahmed, 2015, p.195). Through the feminist approach, the emotional space pervades the social and physical environment and overcomes the boundaries between subjectivity and individuality.

Feminists suggest the discussion of the spatiality of emotions towards gender equality, together with the principles of feminism for gender equality. Klingorová (2020) argues for the inclusion of feminist approaches in the geographies of religion, emphasising the relevance of personal experience, emotions, embodiment, and everydayness in understanding relationships between religion and space. By focusing on intersectionality and the spatiality of emotions, the role of emotions in (re)producing intersectional dynamics is highlighted, suggesting the use of emotions as pointers to intersectional inequalities (Rodó-Zárate, 2023). The feminist emotional space positions emotional space within the network of the patriarchal society and culture context.

Feminists also provide a way to research emotional space from the perspective of poststructuralism. By deconstructing binaries, the understanding of the emotional space no longer considers gender differences and self and others as the framework in research. It works with subjectivity individuality and bodies.

3.4.3 Women's Emotional Space at Home

This review examines the intersection of working from home (WFH) and the dynamics of caregiving for children without special medical needs, against the backdrop of the COVID-19 pandemic. It explores the scholarly discourse on the demands of daily childcare and its impact on the home as a workspace, as well as the emotional labor invested by parents juggling work commitments and familial roles. The review also addresses the concept of work-family conflict, highlighting how cultural expectations, particularly in Asian contexts, shape the experiences of parental caregiving during times of unprecedented professional and personal overlap.

3.4.3.1 Working from Home (WFH) with Caregiving to Normal Children

The bodily daily care needs, such as cooking, bathing, dressing, and toileting, threaten the home from its physical structure, aesthetics and atmosphere (Pettersson et al., 2021). Although the labour involved may be less intensive compared to caring for a sick child, the repetitive, tedious, and tiring nature of caring for a child involved in daily activities demands emotional investment from parents amidst busy daily routines, work commitments, and pandemic-induced mental pressures.

Work-family conflict occurs when the demands and expectations of roles in both the professional and family spheres are mutually incompatible (Greenhaus & Beutell, 1985). Working from home during COVID-19 contains the process from work to family or from family to work, which crosses the boundaries of the domains shaped by the different roles. According to boundary theory, the domains of work, family, and public life are maintained through the boundaries. People create them by simplifying and organising their environment. Alam, Ezzedeen, and Latham (2019) argue that incompatible roles can trigger inter-role conflict due to the totally different obligations and requirements the two roles demand. Especially in Asian culture, a mother's role is a family role, which should always be separate from the working environment, necessitating psychological disengagement during such transitions (Louis & Sutton, 1991).

The interface between professional and parental roles, along with boundary management, is impacted by the online conferencing environment at home. The transition happened in accordance with the changes of the emotions according to the residue of the job pressure and the caring duty. Sonnentag and Fritz (2015) note that it is the overlapping between job stresses and taking over the family creates the work-to-family context, through the high cognitive and emotional demands of today's working culture. In addition, individuals are always constrained by the society they lived in, through social norms, and expressions of emotion is aligned with the rules of the society and community. In my case, it is my family within the Chinese society. In the research field, the work-to-family context is critical but limited due to the lack of data on individuals' management of emotions (Alam, Ezzedeen, & Latham, 2019). During COVID-19 lockdowns, working from home depended on the mode of online working. Sitting in front of the screen, clicking the mouse, the roles and space swiftly change. The interface between work and family roles occurs almost instantaneously, eliminating the transition time typically spent commuting.

The daily care plans, routines, and activities required to meet the health needs of children in care are often found throughout the home, rather than being compartmentalised or confined to specific rooms. The integration of caregiving with everyday activities poses many challenges to the use and organisation of space. Research consistently shows that working from home can lead to longer working hours

and increased work-life conflict (Dockery & Bawa, 2017). However, not all workers can feasibly work from home, nor is it a sustainable long-term option for combining childcare and work (Redmond, 2020). One mother described her experience of caring for a child with asthma, which is very similar to my situation during the lockdown:

> *Like what can you do like I would love to have my daughter in another room, but I know that she throws up and she has asthma at night and we have to lift her in and out of our bed and I just think it would just compound things and make it worse. You know? Like now, I don't have another bedroom that's close…it would be a nightmare to just have a kid screaming in the other room and I might not hear to get up […] It is so much, there's so much things you can do and things you can't do.*
>
> (Yantzi, Rosenberg, & McKeever, 2007)

3.4.3.2 As a Mother and Daughter away from the Hometown

Parreñas (2005) notes that cultural norms, in terms of physical and emotional care, particularly along gender lines, are maintained, particularly in transnational families. In this, China shares similarities with countries such as India, Africa, and Spain in terms of caregiving (Joseph, Belford, & Lahiri-Roy, 2022; Cadet et al., 2021; Sun, 2012). Such caregiving is closely related to cultural background and family structure (Grillo, 2008). Father-mother communication and visits were replaced by video communication during the pandemic, but the frequency increased rather than decreased, and daily care that could not be done personally was replaced by other behaviours, with women putting more emotional labour into family caregiving (Clough, Halley, & Hardt, 2008).

This emotion reflexivity is further explored through autoethnography, examining the experiences of operating in a remote home as a transnational daughter to Chinese parents. The practice of the space and the emotional culture study contribute to the gender, ethnicity, and cultural heritage in Architecture. Home becomes the operation site for my caregiving through the shifting roles between a mother working from home, and a family member remotely caring for my daughter and my parents.

The emotional dimensions of the COVID-19-influenced home space in relation to the author's identity, culture, and home space are explored. By examining the daily spatial practice at home, this study establishes connections between emotional space and the researcher's identity as a Chinese mother and transnational daughter within a crossed-cultural home in the UK, shaped by online video communication.

The first section of the literature review has introduced the digital context to engage in the context of Chinese women at home. It also discussed autoethnographic writing by

Chinese women, emphasising the connection between the researcher's positionality and digital dimension. Theoretical underpinnings of phenomenology, cultural materialism, and emotional spatial practice were introduced to underscore the architectural, cultural, and emotional dimension discussion. The next chapter presents the research design.

Summary

The literature review focused on three perspectives to explore the multifaceted dimensions of space: phenomenology for understanding the essence of space, cultural materialism for examining space under cultural mappings, and the concept and research angles of emotional space. It delved into phenomenological analyses and methods related to dwelling and home, emphasising Heidegger and Merleau-Ponty's theories and their application in architectural research. From the perspective of Asian residences, it explored cultural materialism, particularly the role of material culture in expressing cultural identities and gender dynamics. Additionally, it investigated the emotional space within homes, particularly from a feminist research viewpoint, revealing how emotions and cultural practices shape the perception and experience of space. This comprehensive overview demonstrates how space is perceived, constructed, and experienced through architectural, cultural, and emotional dimensions, laying the groundwork for further research into these intersecting fields.

4 Methodology

4.1 Introduction

The purpose of this chapter is to explain the research design of this qualitative study, which uses autoethnography as the primary method. Focusing on my personal experiences within my private UK residence during the COVID-19 lockdowns as a Chinese mother and child, the methodology revolves around the practice of videoconferencing, writing and drawing within a domestic environment. The chapter begins with an overview of the feminist theory related post-structuralist philosophical stance, bridging the epistemological framework with the research inquiry. It then outlines the research design created to address the specific research question, providing insight into the rationale behind the methods chosen. A comprehensive account of the research process, accompanied by illustrative examples, explain how the findings and sources are analysed and presented. To portray its subject matter, which is rich in complexity, identities, relationships, and lived experiences, this research uses creative methods. The goal is to go beyond traditional knowledge production by blending personal narratives, literary and artistic elements, emotions, embodiment, and art exhibitions. These creative methods enable a deep exploration of the discovered materials while keeping them rooted in the diverse identities, relationships, and lives that influence them. Ethical considerations, limitations and potential risks associated with the use of this methodology are discussed in the concluding sections.

4.2 Research Focus

The central focus of this research is to investigate the influence of online videoconferencing on the domestic and conceptual spaces available to Chinese women amid the COVID-19 lockdown. To systematically unravel the complexities of this temporary space, the main research question is further deconstructed into three interconnected sub-questions. These sub-questions serve a progressive purpose, facilitating the gradual development of comprehension by, first providing a definition of this cyberspace; second, offering a descriptive account of its transformation during the lockdowns; and third, an interpretation of the impact of online videoconferencing on space across architectural, cultural, and emotional dimensions specifically for Chinese women.

In my role as a researcher, I deliberately placed myself at the centre of the research. This involved positioning my social and political identity, as well as my physical presence, within the object of research, aiming to use personal experience as a means of describing and understanding the complexities of the space. Reflective narrative was done through a combination of written narratives and drawings, allowing for a

holistic exploration and engagement with the spatial dynamics. Using writing and drawings can directly speak to the readers, providing care and sympathies for individuals in similar situation, seeking ways to manage their lives, make decisions, and understand the significance of their challenge, as working-from-home women or as a single working parent during lockdown (Bochner & Ellis, 2006).

In line with the focus of my research question, which centres on the development of culture-based spatial concepts, ethnographic research is used as a method that “describes and interprets culture” (Creswell, 2013, p. 15). This approach involves a comprehensive exploration of “learning and shared patterns of behaviour, values and language” within the cultural context under study (Creswell, 2013, p.17). In this context, ethnography serves as a valuable tool for unravelling the nuanced layers of cultural dynamics and providing a deep understanding of the intricate interplay between space and cultural elements. Particularly in architecture practice, ethnography describes “aspects of their culture” through “vocabulary terms and underlying the structure of their thoughts” and “interprets creatively”, for architects to "find something profound” (Cranz, 2016, p.11). In order to respond to the explanation of the emotional space, I used my body as the “instrument of research” and my cultural background within the context, through reflexivity, to answer the questions of the emotional experience (Longhurst, Ho, & Johnston, 2008, p. 208).

This is achieved by illustrating how autoethnographic research can produce rich, in-depth, detailed, as well as concrete and first-hand material about the spaces under study, both as results or outcomes and as sources for spatial representation (Chang, 2016). Furthermore, through the practice of drawing and writing, the research design orchestrates the process of rewriting and re-drawing the acquired materials, using theoretical and analytical tools to interpret the research diary. This involves the use of narrative analysis, mapping (visual content) and cultural objects through three lenses: architectural, cultural, and emotional. The aim is to engage in a direct dialogue with the reader, fostering empathy and resonance, with the aim of co-producing knowledge, generating care and effectively enhancing understanding. The presentation of the research findings is organised in the final section of the thesis, where architectural, cultural, and emotional spaces are presented to address the research questions.

4.3 Research Philosophy

At the philosophical level, this research is located within the poststructuralist spectrum, specifically guided by Deleuze and Guattari’s (1988) ideas and Jennifer Bloomer's reformed concept of ‘minor architecture’ from the concept of ‘minor literature’ (Bloomer, 1992, 1993, 2000). This section explains why the researcher adopted poststructuralism and how I apply ‘minor’ to my research subjects.

4.3.1 Poststructuralism

The first part of this section provides a brief introduction to poststructuralism and its positioning within the context of my research. This is followed by a brief argument about applying feminist theory to poststructuralism within this research.

4.3.1.1 Poststructuralism and My Research

This research uses post-structuralism as a philosophical stance, followed by its ontological path and inquiry. This section presents a brief introduction to post-structuralism in the field of research and its relationship to my research in terms of knowledge production, understanding of culture and how deconstruction has influenced the authors understanding of space through my experience in space.

Post-structuralism is a movement in philosophy and the humanities that peaked in the 1960s and 1970s. Michel Foucault, Roland Barthes, Jacques Derrida, Jacques Lacan, Gilles Deleuze and Julia Kristeva have been identified as the most influential poststructuralists. It has had a strong influence on a wide range of fields, including art, literature, cultural studies, history, sociology, and politics, and has a controversial relationship with science because of its lack of evaluative standards. Poststructuralism understands reality as a highly contested and socially structured concept and attempts to give meaning to the meaninglessness (Agger, 1991). Recognising that knowledge is contextual and inherently unstable, representation and interpretation serve as avenues for revealing knowledge through language. Language itself encapsulates reality and establishes ‘on-positivist literary strategies’ for researchers to deconstruct and interrogate their own (art) work, a process aided by the application of reflexivity (Williams, 2005).

De Saussure’s sees languages as a system of signs with specific rules. A linguistic sign is consistent with the symbol and the phonetic representation. There is an arbitrary relationship between the signifier and the signified. Differences in languages create meaning, and the understanding of a term arises from the definition of ‘what is not’. The organisation of the signs are the conditions for meaning. The importance is the differences, but what is set in the relations of the differences is not so important. The shift of the focus of knowledge revealed the main disagreement between poststructuralism and structuralism about the positionality of knowledge. Instead of relying on centres or binary opposition (of structuralism), poststructuralism took a marginal position, that is so it “folds the limit back onto the core of knowledge” (Williams, 2005). Therefore, the understanding stands anti-essentialist, with and on to a settled understanding of the true and the good in a very radical manner. The limit is not compared with the core, balanced with it, or given some kind of tempering role, for example, a majority listening to minorities. The limit, the absence and the minor stepped into the core of the knowledge.

Jennifer Bloomer deconstructed the architecture theory by using allegory as a construct to restructure theory with practice. Therefore, theories are no longer a solid 'foundation or relic'; they become "dynamic, tracing a fragmentary process of object-making" (Bloomer & Frascari, 1989). In the specific process, for example, she captures the mother tongue in which Finnegan's Wake is written. Its involution and curvature in the syntactic/semantic realm of signalling, approaching, and even reaching out to other 'languages' as she interprets/deconstructs the language of Finnegan's Wake and compares the concepts to architectural categories: structures, geometries, and elements are always sliding into other conceptual and physical categories, to conclude that the structural system can always be perceived and can never really be separated.

This research adopts similar concepts within the spatial description. When structuring the space as an architectural, cultural, and emotional space, the researcher deconstructed the traditional concepts of elements and geometries. Through the re-writing, the architectural space was reformed by a dynamic and fluid process, which was not only based on the physical changes of the digitally impacted space in the flat, but also showed the relations between the virtual and physical space, in comparison with the stable, dual, functional understanding of the architectural space. Later on, Bloomer adopted feminism into her practice, which contributed to her theory of Minor Architecture (see 4.3.2), among the poststructural male architects (such as Tschumi, Eisenman, Himmelblau, and Libeskind) who dominated the industry.

This present research subject explores the online conferencing formed space inhabited by a single Chinese parent residing in a home physically located in the UK, during a particular pandemic-caused lockdown period. The investigation of this space resides on the edge of the spatial analysis, pointing to special situations for women through reflexivity against the grand narrative of big data-dominated research trends in academia. As Aggers argues, such an approach "both filters out subjective contaminants, and, where perspective cannot (and should not) be eliminated altogether, it raises an author's deep investments to full view and thus all readers to enter dialogue with them" (Bloomer & Frascari, 1989). This approach grants the research the opportunity to pursue an auto-oriented study, facilitating a dialogue between the outcomes and the reader (see 2.5.1).

Poststructuralism to me as a researcher also means I cannot position myself at the neutral point of conducting my research or looking at the world as an outsider. By being involved in the discourse, I am influenced by the existing structure around me, social norms, and cultural context to understand and interpret the world from my perspective. Standing aside with Foucault's genealogy of the limit as the historical constitution of later tensions and problems. "Genealogy, as an analysis of descent, is situated within the articulation of the body and history" (Foucault, Rabinow, & Rainbow, 1991, p. 143). Its task is to expose a body totally imprinted by history and the process of history's destruction of the body. The body is the artefact in the space when the woman/subject leaves the room. The artefact becomes the agency, contextualised

within the history of Chinese culture and the Chinese family, restructuring the body visually with the reader through the stories in writing and drawing. The body is also the Chinese woman, freed from the bondage of Western categories (see 7.4.2)

4.3.1.2 Poststructuralism and Feminism in My Research

This section explores the relationship between gender-related topics, feminism and poststructuralism in regards this research. First, from the perspective of poststructuralists, gender is a fluid, shifting concept within developing categories (Cheek, 2000; Cornwall, 2007). To feminism, the definition of gender and sex have gone through three transitions. The understanding of gender definition could be linked to the concept of deconstruction from this movement, and the outcomes of the second wave of feminism as gender is socially constructed. Social role, position, behaviour, and identity contribute to gender structure in a society (Beauvoir & Zheng, 2015). In the 1990s, feminists claimed biological gender and social (structured) sex, nature and culture are socially constructed (Antony, 1997; Butler, 1990). In the 2010s and early 2020s, along with the medical and technological development, biological gender issues could be intervened towards personal choices. The distinction between sex and gender is considered to be shaped by social and cultural phenomena contextualised by their independent positions (Alcoff, 2006). Dembroff (2020) suggested genderqueer from the critical gender kind theory, as it is a category whose members collectively destabilise the binary axis or the idea that the only possible genders are the exclusive and exhaustive kinds of men and women. Until now, the binary in gender has been deconstrcuted through the argument of how language dwells on the definition of gender and forms the categories to understand within society. Associated with deconstruction, poststructuralism challenged the naturally born gendered identification and the solid, dual oppositional concept related to this notion, emphasising fluid processes of gender distinction and unstable forms of acts.

Secondly, poststructuralism has encountered feminism effectively in post-colonialist critical practice against the exclusion and inferiorities the non-western communities under the structure of West-dominated global political and epistemic orders (Spivak, 1999, 2013). Spivak used poststructuralism to inquire about the non-western races' ability to resist injustice under categories based on geography, race and gender set up by Western subjectivity. She pointed towards the poststructuralists' ostensibly critics relying on the speeches, reasons, and universal subjectivity were the categories themselves (Nelson & Grossberg, 1988). They were the players and the referees, dominating the subject and the only subject capable of resisting. Al-Saji (2010) talked about how the "Western perception and representation" of Muslim women was through the image of the bodies of women to the veil instead of the women themselves toward a political and phenomenological racialisation. Harding called this categorising of non-Western women as fetishisation (Harding, 1986). The perception and representation of Asian women have been seen in media and cultural studies. Aside from the

disadvantage of using poststructuralist approaches, poststructuralism provided opportunists from a philosophical level. Weedon (1987) borrowed Foucault's genealogy and provided the understanding of producing women's subjective positions in historical contexts, femininity and role, identity, and women's place on the network of social power relations.

This present research uses feminism to break the boundaries of gender concepts, removing the words' femininity' and 'masculinity', to consider singular parents (including any single parents or parents who singularly carry the parental duty) during the lockdown period. The understanding of the Chinese women was through the practice-based day-to-day life experiences by the researcher herself. The description of the culture embedded in the women's stories in China and family reveals the power structures within the space both physically at home and online. The cultural materials and stories are produced by or based on Chinese women and Chinese scholars to allow the culture teller to be under the eyes of the East.

4.3.2 Minor Architecture

The adoption of minor architecture, a theory that intersects architecture, feminism, and poststructuralist material with influence drawn from Deleuze, serves as a guiding framework in this research. This deliberate choice situates the researcher within a context that encourages practical application, facilitates an approach to the research subject, and cultivates a specific perspective aimed at recognising and elucidating spatial phenomena.

4.3.2.1 From Minor Literature to Minor Architecture

Minor architecture is rooted in the concept of minor literature, as explained by philosophers Gilles Deleuze and Félix Guattari, and notably reflected in the works of Kafka and his living context. Within this theoretical framework, three primary characteristics associated with minor literature - deterritorialisation, the dissolution of individuality in political contexts, and collective enunciation - serve as fundamental principles (Stoner, 2012; Ricco & Mitchell, 1998; Bloomer, 1991).

By linking the characters to feminist autoethnographic writing, deterritorialisation can be positioned within the blurred boundaries between disciplines, classes, races, cultures, and even species in feminism. The "loss of the individual in the politics" (Deleuze & Guattari, 1988) is addressed through positioning the 'individual' events in direct confrontation with the structure. The use of the 'collective enunciation' (Deleuze & Guattari, 1988) as a direct voice speaking for all, in responding to minor literature,

collective, anonymous and ‘bastards’ (of languages).[16] Technical terms are explained upon first use and the language is clear, concise, and objective without bias or ornamental language. “A major architecture implies the presence of another architecture, which by its logic would be a minor architecture” (Bloomer, 1992, p. 55). The impulse behind the creation of the major architecture brought forth the operation of the minor architecture in the spaces in between. In comparison to the grand narrative, an individual within a specific community is placed in a disadvantaged position. The research topic is relatively insignificant compared to the main topic and the researcher's personal identity has limited influence in the field. The topic presents itself as a minor aspect of the architecture field, much like women amidst a period of rapid digitalisation, depicted by a narrative of economic growth and a fresh increase in national industry. This is in spite of the government's unapologetic oppression and setbacks to feminism in China. Under the large-scale operation of the major, the minor operation survives in its own logic, presented on the surface by the majority, while being represented by itself through the minor practice of the collective individuals.

> *A minor literature does not come from a minor language; it is rather that which a minority constructs within a major language. But the first characteristic of minor literature in any case is that in its language is affected with a high coefficient of deterritorialisation.*
>
> *(Deleuze & Guattari, 1986, p. 16)*

The 'coefficient of deterritorialisation’ from minor literature has been profoundly applied in decolonial and colonial research and writing. Concerning the language and writing in this research, minor literature has assisted me in positioning myself as a deterritorialised author using English to articulate a woman's experiences within Chinese society. I view my practice of writing in English as a form of minor literature, subtly drawing attention to the minor architectural space constructed in domestic settings for Chinese women and subverting gender solidarity among women. In the section on Chinese women's writing (see 2.5.3), collectively, these writings offer an alternative viewpoint and voice that deterritorialise established literary traditions typically dominated by males and the national narrative. By presenting perspectives deviating from the national narrative, these writers represent the ideological marginalised minority. Given limited language ability, the risks associated with using English to write include the inevitable loss of nuance within the narratives. In an optimistic light, Nuria (2022) observes that niche literature documents differences in vocabulary and linguistic competence (fluency), combining them with the author's personal background and the context of creation. While unveiling the linguistic and material privilege underpinning literature, it stretches the mimetic potential of the text

[16] The term *bastard* borrows its original meaning of ‘half breed’ (Deleuze & Guattari, 1988, p. 98) and ‘mixed blood’ (Deleuze & Guattari, 1988, p. 379) to represent the disadvantaged position of the minor languages, which are not the mainstream official language.

to its limits, utilising the distance between the text and the world to evoke the experiences of minorities.

The three characteristics from Kafka's minor literature were analysed to link with my own research. The deterritorialisation Minor expressed the expectation and potential to break down and re-join with diverse varieties. The movement of the individual enunciation positions the author herself in front of the major society or politics (or ideologies), and the language processed information or voices became deterritoralised and communicated collectively among different places. Kafka's language and stories talked to me in my youth with intensified simple and dry worrisome language through the very familiar narratives around my life back in the 1990s in China. The loss of individuals in politics Minor uses its direct meaning to represent the minorities. Positioning the individual experiences (or problems) in the centre, instead of 'inserted' in a social environment, the discussion brought the marginal and vulnerable people/space to the front "immediately with the political". The 'political' is not aimed at applying to the individual problem. It fights back to the political issues over time and culture, as Kafka's literature uses the story of allegory to speak out about political oppression and social exploitation. In collective enunciation, the author serves as the speaker, but the language articulates the experiences and perspectives of minorities as a collective whole. In collective enunciation, the author serves as the speaker, but the language articulates the experiences and perspectives of minorities as a collective whole. The language was used and communicated across different communities beyond the limits of the culture and boundaries through the shared feeling within similar situations during crisis moments. I was concerned by the familiar stories Kafka told when I was an adolescent. I understood the cold truths of the stories in my 30s. I will make peace with the unevenness of the memories in my declining years.

In a particular context, Kafka serves as the conveyor of a message related to people, race, and nemesis. His characters, along with the themes and tribulations that consistently weave through the narrative, align seamlessly with the concept of myth. The deliberate absence of names or the lack of necessity for such information, coupled with the omission of details about their appearance, origin, or location, positions these characters as dynamic and interchangeable elements in a vast, chance-driven configuration that shapes a sense of inevitability. This underscores the profound deterritorialisation experienced by each character, emphasising a universal connection where each individual becomes a reflection of both oneself and others (Sergio, 1983).

Deleuze and Guattari's notion of a minor science is an alternative to the major science, which should be stabilised, institutional, replicable, and anticipated with identities and territories (Deleuze & Guattari, 1988). Based on the general understanding of minors, Deleuze and Guattari inspire and guard creatively and freely of knowledge producing against the way of relentless institutional totalisation (Stoner, 2012). Major and Minor

concepts have been applied in many disciplines and subjects, including theatre, architecture, music, cinema, and sports.

Kafka (1986) describes the space using blocks, segments, strata, connectors, rhizomes, planes of immanence, and lines of flight, cooperated with the narrative to formulate the configuration of the ‘minor’ in the major. Bloomer’s minor, coming from the material tradition, practices built through rewriting and through “subverting it from inside” the major, a “criticism from within” of the gendered nature of architectural aesthetics (Bloomer, 1993, p. 26). Frei’s (2009 cited in Crawford, 2010, p. 385)minor means to “renounce the representative functions of significant architecture in charge of the ruling order and global acting corporations”, focusing on its re-proposition and performances. The minor in this research stands closer to Bloomer with her method of deterritorialised practice. Considering the research as a minor in architecture in practice, I have followed Bloomer’s practice to deconstruct my research subject.

4.3.2.2 Minor Architecture in this Research

Bloomer was the most prominent poststructuralist feminist theorist between 1987 and 1992, based on the time when she developed her famous project ‘Big Jug’. In the architectural field, this research adopted Bloomer’s definition of minor architecture, which is developed from “Minor literature is writing that takes on the conventions of a major language and subverts it from the inside” (Bloomer, 1993). As Burns pointed out, the definition of the practice of minor architecture is an analogy of using Deleuze’s literary of “a minority constructs within a major language, involving a deterritorialisation of that language” (Burns, 2013).

Bloomer essentially uses the architectural language of employing materials, structure, and the normative description of architectural cultural work to rewrite or re-do architecture. In her essay, she reintroduced the rural hatchery, located in the southern USA, as it overlayed the “architecture, writing and the body” (Bloomer, 1992). In writing, she described the unpleasant, untidy, and vulgar building within the catalogue of architecture, concluded its "architectural form offered a way of conceptual human beings as animals’ for being a writing machine (…) and is a multiple-constituted, collective, anonymous, authorless body” (Bloomer, 1992). In the same year, her project ‘Abodes’, a large-scale installation accompanied by her essay, was published. The project included an installation and a text. The physical structure aimed to mimic the barnacle, a cowhide, using a local building technique called tabby to imply an organic female body. Following the text, the traditional architectural norms, such as bi-axial, symmetry, structure, columnation and ornament, were radically rewritten with a strong personal emotion. The writing-architecture process reimagines the project as a human body, susceptible to takeover by animals of beasts and barnacles and become one.

In general, Bloomer (1992) disarticulated the linear system by using elements, dynamics, order, and patterns, disorganising information and pieces into moments and scenes, re-allegorised the topic with literature, philosophy, religion, myths, her personal life within her family, and even common sense. Her emotions and the pieces of arguments crossed the boundaries between East and West through her unique methods and languages, which "allows a reterritorialisation capable of elevating the circumstances of an individual or a collective to the degree of political". In the above two practices, the same traditional architecture terms are spoken through the lens of her background and emotions of a woman's life experience, with historical stories, myths, and local legends, to "go deeply into the within, into the conventions of architecture's collusion with the mechanism of power" to form the alternative but essential understanding of architecture and space about feminism and minority.

This research selected the concepts of the architectural space, including its process from generation to dissolution, boundaries, openings, layout, and the physical (building) materials of mirror, table, the user's body, and background as the topics from the preliminary investigation of my flat. Drawing on my own identity, cultural background and emotions, borrowed Chinese literary and mythological elements to describe, explain and criticise the temporary space, to give "meaningful materiality" to the "unsaid of culture", keeping the distance from the lexicon of the grand narrative of major architecture (Bloomer, 1992).

In addition, as a Chinese woman, I saw Bloomer's minor architecture as a revolution in my understanding of seeing, feeling and thinking about architecture as a discipline and a practice, reconfiguring the paradigm or challenging the paradigm towards the pathway to the traditional enquiries. Some realities lie beside the use and wave of different materials from myth, religion, linguistics, film theory, nursery rhymes, personal anecdotes, and poststructuralist, Marxist, and feminist criticism. Minor architecture practice provides a way to create a new reality in understanding a temporary structured space along with feminism by not approaching the topic from the key routes in the traditional architecture discipline. Bloomer's practice provides a way to talk about family life with a theoretical grounding, using allegorical stories form minor literature's language and content to lure similar structural logic and metaphors to the discussion. I am using the formula from the semantic analysis to architecture topics to the extension of the semantic analysis and using direct facts as the ending to evoke string resonance and imagination.

4.4 Research Design

Coming from a rigorous social science background, burdened with the ideology and tenets of a Confucianism-dominated intellectual system, I grappled with the expectations ingrained by the Chinese version of Marxism, which permeates philosophy across the nation. The education system in China directly defines the

boundaries between research and design in most higher education institutes. My initial hurdle involved summoning the courage to delve into creative and unconventional research methods, embarking on a journey to embrace the knowledge-producing framework inherent in art praxis.

Nelson's (2013) 'multi-mode epistemological model for practice-led art research' provided invaluable guidance, delineating three interconnected and co-structured knowing processes within art practice research (see Figure 4.1). Adhering to Nelson's conceptualisation, my research aligns with the realm of 'know-what,' wherein tacit knowledge is rendered explicit through critical reflection, navigating through the realms of 'what methods' and 'what impact' (Nelson, 2013). In my specific context, comprehending the impacts of the autoethnographic method entailed a critical and reflexive practice manifested through the mediums of writing and drawing.

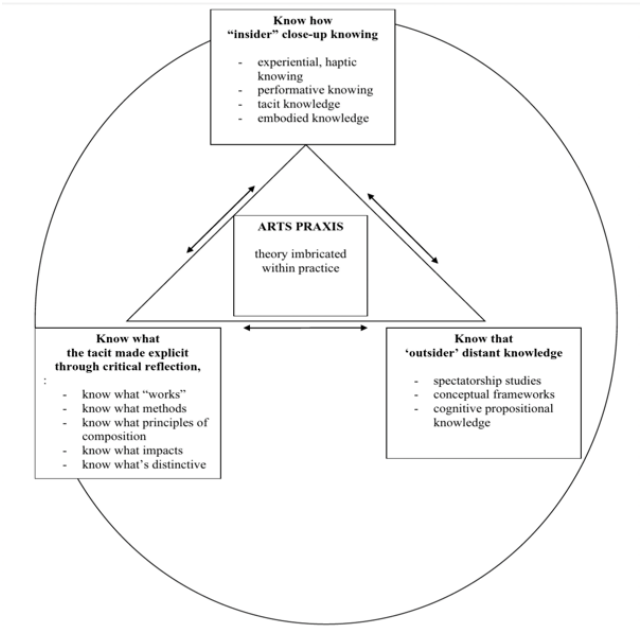


Figure 4.1 Modes of Knowing: Muti-Mode Epistemological Mode for PaR. (From Nelson, Robin, Practice as Research in the Arts, 2013)

Following the map of 'A model of creative arts and research processes: the iterative, cyclical web of practice-led research and research-led practice' (see Figure 4.2) my research is located within the domain of practice-led research, which uses creative practice to "explore and extrapolate from the ideas", with the process of "subjective or systematic idea selection" to "develop selected ideas" (Smith & Dean, 2009). The difference in the results of the output with artwork, my thesis considered both writing and drawing derived from autoethnographic practices as direct results. These serve not only as a representation of the research materials and data but also as recreation of 'artwork' from the raw notes and sketches (Nelson, 2013).

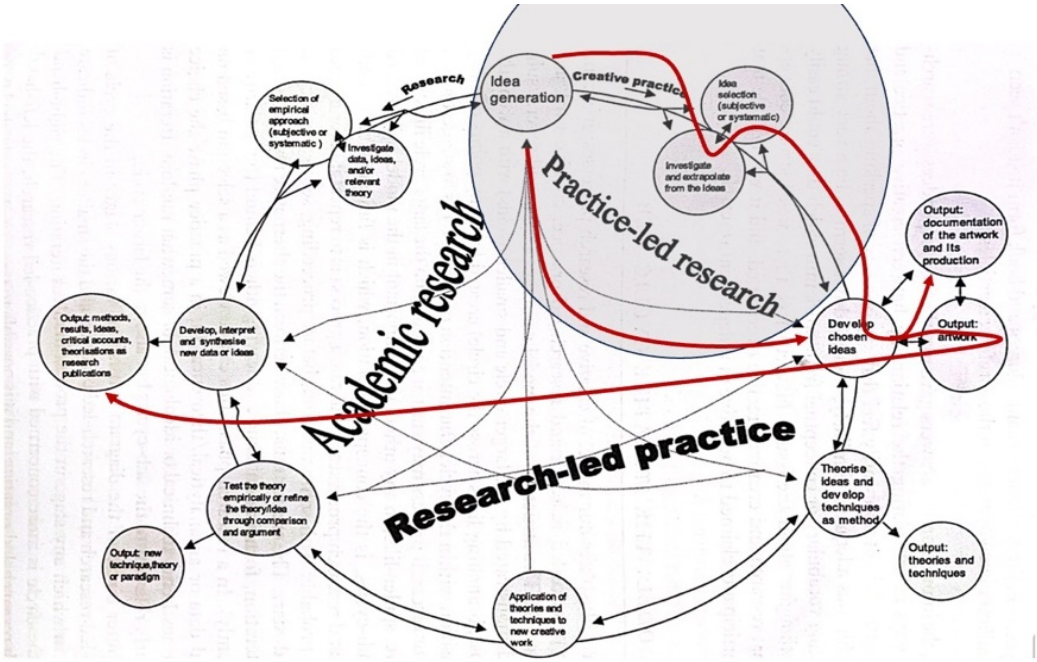


Figure 4.2 Modified from 'A model of creative arts and research processes: the iterative cyclic web of practice-led research and research-led practice', (From Hazel S. and Roger T. D practice-led Research, Research-led Practice in the Creative Arts, 2009)

My research methods are rooted in my dual role as an architect and researcher. Hauberg (2011) articulated an epistemological process for research by design in architecture, which contributes a comprehensive research strategy involving moving "between the descriptive and ideographic, the nomothetic and the proposal", ending an ethical argument. This approach employs design and a 'back-casting' process where 'the ending picture is described first'. Through the architects' tools and working tools and working methods, which Hill (2003) pointed out specifically as writing and drawing, scrutinise the research inquiry from the acknowledged practice to gain new knowledge, resulting in expanding the understanding in their unique, original and creative way.

The research design section introduces how the primary research method of autoethnography bridges the research question and the representation of the results by giving a short review of similar research papers. Additionally, it discusses how architectural tools of writing and drawing are adopted as the research tools, and how they are used to further assist in material analysis and the formation of the ethnographic descriptions.

4.4.1 Ethnography

This research employs qualitative methods to explore cultural inquiry, aiming to uncover tacit knowledge within specific time-space conditions. Ethnography serves as the central concept in cultural studies, addressing questions related to social

conventions, organisational structures, characteristics, and contingencies prevalent in a particular setting. The study seeks to comprehend how space is utilised by a specific group of people embedded within Chinese culture in their everyday living experiences. Behaviours, the operation of space with dividers, the specific arrangement of space with tools such as furniture and objects, and routines tied to cultural festivals and rituals are crucial in understanding the relationship between culture and space. Furthermore, Ueno (2003), a Japanese sociologist on Feminism, argued that gender topics are inseparable from their culture. Feminism not only concerns females, but feminists also advocate for all vulnerable groups, speaking out their voices for their positionality. The research also speaks for single parents. Drawing from my experiences as a Chinese single mother, the description of a Chinese cultural and societal miniature expanded within my flat.

Ethnographic research belongs to qualitative methods, based on the collection of *Naturalistic Data,* which is the “earliest distinct tradition” (Patton, 2015). Associated with anthropological *fieldwork*, ethnography requires the researcher to assume a special positionality, immersing within the culture, and *living* with the community/space, instead of setting up the conditions for the research subject to enter the controlled environment (David & Sutton, 2004). Cultural study is the central concept of ethnography, as it attempts to answer a spacial context that is mutually intertwined with culture and identity. Conventionally, ethnographers spend a long period in the studied environment through participant observation, interviews, writing journals, and other methods to produce “thick description” to analyse the interactive modes, roles and identity, rituals and ceremonies, and the artefacts (Geertz, 2008).

Willis and Trondman (2000) advocate for an ethnography of meanings as it crucially constitutes a suite of approaches that entail prolonged, first-hand engagement with individuals and meticulous documentation of the experiences, capturing, portraying, and preserving, to some extent, the intrinsic complexity of human interactions. Ethnography is the systematic and intentional act of observing and documenting human occurrences. Researchers my employ ethnography to immerse in a subculture to understand a group/community/practice on multiple levels, at least partly in participants’ own terms, and allow the settings based on embodied practices, including non-verbal as well as verbal communication appropriately, and to produce the richness and understanding on multiple levels.

Ethnography often involves multiple methods, including observations, interviews, documentary data, and material culture. Participant observation involves immersing in interactions and conversations with participants within the culture, alongside formal interviews and collecting data such as documents, artefacts, and media coverage. This method enables the researcher to learn about things that people may be reluctant to discuss or unaware of or unable to articulate and because they believe it is not worth mentioning within an interview. It allows the identification of potential inconsistencies

between what people say and what people do, which helps the researcher to obtain potential data of the perception setting with the unawareness of the users' behaviours.

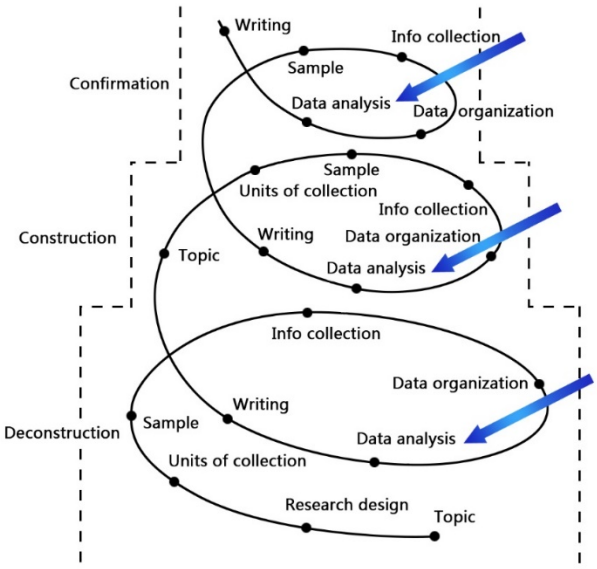


Figure 4.3 The (Spiral-shaped) Model of Ethnography Research (made by author)

The adoption of ethnography entails a spiral rise, a process of constant self-reflection and summarising (see **Error! Reference source not found.**), challenging one's cognition and approaching data with an open mind to understand the research objects widely and deeply.

The general research methods of ethnography are field research, with data collection tools including observation through watching, listening, reading, participating in observation, interviewing, and collecting materials from the field. Conducting research as an outsider with a *gatekeeper* has led to arguments regarding the "lack of control, reliability and transparency of the experimental forms of observation" (Latchem-Hastings, 2019). However, the purpose of this research is not to generalise cases. Rather, it aims to provide details and the insights and peripherical knowledge for both the audience and the minority groups. The richness of the description provides details and layers to the explanation, allowing the selected cases to reveal an in-depth understanding of the studied 'units' - the culturally rooted spaces - through inductive and qualitative studies.

Atkinson (2001) criticised the ethnographers relying on narrative and metaphors to re-structure the cultures for readers. The transmission of one culture to another culture obscures the truth due to the subjective process of selecting and interpreting information. The argument regarding positionality between the researcher, research field, and research subject/culture in this research leads to the next section, which discusses the selection of autoethnography as the main methodology.

In this research, Chinese culture is reflected in the researcher's behaviours influenced by the roles of being a mother and daughter in a Chinese family. This involves caring for the child while adhering to social norms and family traditions. These cultural aspects regulate the division of space based on new purposes formed by online conferencing and other activities. Tools such as the Chinese screen divider, table, mirror, and the researcher's body/appearance and presentation are used to organise the space effectively.

4.4.1.1 Architectural Ethnography

Architectural ethnography, rooted in ethnography, focuses on a ‘specific ethnic group’ and extending the scale from 'people' or a 'community' or an as yet undefined social 'group'. It combines the demands of the natural process of an architectural project with chronological thinking and the “built-in means of critical evaluation” overlaid by the “quality of autonomy” of architecture. Architects and researchers use architectural ethnography to reflect the study of the human shared environment towards society (Kaijima, Stalder, & YuIseki, 2018a). The new approach uses illustration as a means to understand and share our knowledge of the process that is transforming architecture, cities and the environment as a whole. Architectural ethnography has adapted ethnographic methods used in Japan since the 1870s. Initially, the focus was on documenting the subjects and the fleeting spatial scenes of people's daily lives (Fujimori, 1993). Interviews, observations, and walking were employed as tools to express their findings through writing and drawing. The graphic method helps people to emphasise the information they have deliberately provided while ignoring the irrelevancies that could trigger deeper personal feelings, such as olfactory and tactile impressions, in order to achieve collective empathy.

Drawing, as a fundamental language of architecture, serves multiple functions, enriching content from raw data collection to the formation of theoretical concepts. Graphic mapping has been introduced within the research field to bridge the direct visual information with comprehensive design thinking, facilitating the examination of usages, requirements, and aspirations from diverse human and non-human stakeholders perspectives (Momoyo, Stalder, & Iseki, 2018b, para. 2). Self-enlightenment can be achieved by crossing observation and understanding of graphic mapping, and diagrammatic descriptions of the complexity of people, space and time revealing the intricate connections between architecture, environment, and human life.[17]

Observation-based mapping allows the researcher to form preliminary thoughts on the real scenes, organising core information to be incorporated into designs, and

[17] This paragraph was inspired by a conversation between Florian Kossak and me in 2009.

ultimately visualising the data. The relationship between users and spaces is better shown through observation. Compared to the singular use of language description, ethnographic mapping could be better understood and passed by the context setting and core content.

4.4.2 Autoethnography

Autoethnography, as a methodological approach, focuses on using personal experience and reflexivity to explore the intricate nuances of social and cultural phenomena. It positions the self as the focal point for observation and interpretation within the broader social and cultural context. This section provides a brief introduction to autoethnography as a methodology, followed by an overview of its adaptation and application in the current study. The adaptation involves a deliberate emphasis on personal experience and introspection, allowing for a nuanced exploration of the theme within the realms of architecture, culture, and emotional space.

4.4.2.1 Autoethnography

Autoethnography, within the broader framework of ethnographic research, is a methodological approach that systematically describes and analyses personal experiences to gain insights into cultural phenomena. The prefix 'auto' has a dual function, drawing attention inwards to the researcher's identity and self-awareness and outwards to an ethnographic exploration of the contextual environment, social networks, and power structures (Ellis, Adams, & Bochner, 2011a). This paradigm places the researcher, along with their inherent relationships, cultural background and field of study, at the centre of the inquiry.

As articulated by sociologist Clough (2000), autoethnography redirects the lens of the sociological imagination back onto the ethnographer. This involves a nuanced examination of the process of knowledge production and the complex dynamics between the researcher and the researched. Adopting a position within the field, autoethnographers immerse themselves in the unadulterated natural environment, assuming the role of an insider rather than a detached observer. Conquargood's (2002) epistemological perspective emphasises the pursuit of personal knowledge based on active, intimate, hands-on participation, advocating a ground-level view and an approach that prioritises proximity over objectivity.

Incorporating direct and first-hand materials in autoethnography serves to enrich the ethnographic endeavour, similar to the narrative potential inherent in storytelling methodologies. In addition to extolling the virtues shared with traditional ethnography, proponents such as Adams and Jones (2015) suggest that autoethnography, similar to art practice or social activism, facilitates the sharing of narratives that depict

struggles or crises. Consequently, it sparks inspiration, fosters empathy, and establishes a reciprocal exchange of care among readers, thereby enriching the broader dialogue on social justice and enhancing the quality of life. Arthur and Carolyn (2006) argue for the dual benefits of intellectual and methodological rigour coupled with emotional and creative dimensions in autoethnography.

Furthermore, it is essential to recognise that autoethnographers use scientific methods to systematically collect and understand data. The subsequent representation of findings, referred to as (re)presentation, involves a nuanced selection of literary and artistic devices. This (re)presentation, rather than simply reporting events, strives for authenticity, ensuring a faithful representation of the research findings and the experiences of the participants. In essence, autoethnography embodies a methodological rigour that transcends traditional scholarly approaches and provides a nuanced and authentic understanding of cultural phenomena. In summary, autoethnography is a process of self-revelation, focusing not only on justifying the variety of methodological choices, but also on personal practice and the nuanced interplay between analysis and self-reflection, integrating findings and discussion sections.

4.4.2.2 Autoethnography Critiques and 'A Web of Self and Others'

The debate and critique of autoethnography concerns its reliability, validity, and generalisability (Duncan, 2004; Holt, 2003). Questions about academic rigour and the legitimacy of the methodology remain (Holt, 2003). Critics argue that self-directed or self-studied approaches can appear self-indulgent and narcissistic (Holt, 2003; Salzman, 2002; Sparkes, 2000). Reliability is reflected in the readers as the researcher must provide truthful but not only functional material in the study. Despite potential challenges, Chang (2016) still believes that this method is the best for academic personal narratives to uncover truths. As Ellis (2006) points out, the special contributions they produce are controversial and unconventional and do not follow traditional research methods, as authors bring their own cultural context and family stories into the research, providing rich or 'thick' descriptions (Merriam, Merriam, & Tisdell, 2016). Geertz (2008) paints a visual understanding (for the reader) (Poulos, 2021), inviting them to enter the world and reflect on an understanding that can be "translated into their own lives" (Ellis, Adams, & Bochner, 2011a).

The argument for the generalisability of autoethnography lies in different criteria of research standards. Located in the poststructuralist field, the 'slippery' allows autoethnography to "adapt, individualise, blur boundaries and subvert categories" (Richards, 2016). As the reader encounters the writing and drawing, they follow the researcher and participate in the co-construction of understanding through their own lives. Ultimately, autoethnography is "a socially just act rather than a preoccupation with accuracy'; the aim is to produce analytical, accessible texts and drawings that

'change us and the world we live in for the better" (Adams, Holman Jones, & Ellis, 2022b).

4.3.2.3 Adaptation of Autoethnography in My Research: Research Data, Material Collection and Analysis

Research Data Sources

Autoethnographic research material is categorised into two groups: internal and external, in line with Chang's (2016) framework. Primary data, collected by the researcher, serves as the main source of information (Chang, 2016; Ellis, Adams, & Bochner, 2011b; Wall, 2008a). Throughout the extensive year-long autoethnographic study, a detailed research journal was maintained, documenting day-to-day activities and virtual communication through online conferencing at home. This journal combines written and illustrated reflections with 300 screenshots, research notes, and photographs that document the spatial context, forming the primary source material for analysis. Qualitative research methodology and simple calculating methods were employed in the preliminary phases to enable the classification and interpretation of the visual data.

The external data included photographs, artefacts, documents, journals, field notes and interviews (Chang, 2016; Holt, 2003). These sources enabled the researcher to elicit memories and reflect on their personal experiences related to the research topic. In my case, external data was combined with secondary data utilised in the sessions to create a co-constructed emotional and cultural dimension during the process of rewriting and redrawing. The narrative was rewritten from the memories and other materials to form a complete and coherent conversation that was in line with the intersectional identity, cultural values, and preferences of the research topic (Chang, 2016; Bloor & Wood, 2006).

Research Material Collection

This section outlines specific strategies in four stages: preliminary research, formal data collection, final material collection, and re-presentation. Several autoethnographic books recommend writing chronologically according to the timeline (Chang, 2016) and the use of proverbs to mark the themes and personal moments (Ellis, Adams, & Bochner, 2011a), as well as mapping and free writing to keep the writing continuous and personal (Livholts & Stanley, 2020b). As my research plan was originally changed from a traditional ethnography with interviews and site notes, I have some assumptions about the space influenced by digital activity at home. The

research faces challenges due to the outbreak of COVID-19, prompting adjustments to the research plans.

In the preliminary research, I categorised architectural elements and indoor hard and soft furnishings, including curtains, cushions, plants, and toys in the users' rooms. These categories were re-created after the lockdown began, where I spent the first two months counting and mapping the items on my list to create an accurate category at home, which was mostly discussed and used in my research (see 4.6). The second stage of formal data collection focused on the new category.

The research journal served as the main source of data collection, containing my diary, reflective writing, and my drawings of activities in my home and of my daughter's activities. Writing the research diary faced challenges due to COVID-19 infections. The fatigue of the illness and the day and night care of my daughter prevented me from continuing to write. The pressure of the workload made the writing more emotional rather than reflective. To document activities, I turned to note-taking and drawing activity maps for later reflective writing. I compared my self-reflective data with the external materials to categorise them into architectural, cultural, and emotional dimensions. Vignettes (Pitard, 2016; Humphreys, 2005) of special visual moments served as anchors guiding the thematic narratives. In the later rewriting stage, sub-themes emerged, which were directed to more specific topics under the three dimensions.

In the final re-presentation, external materials were integrated into the discussion to provide a deeper and more comprehensive understanding. They formed the main content for sharing and co-structuring sympathy and care, containing the discussion and evidence through narrative and drawings, leading to the later discussion and conclusions.

Research Analysis

The analysis of autoethnographic data is depicted as a cyclical rather than linear process (Chang, Hernandez, & Ngunjiri, 2016b), involving introspection and reflection until the themes and meaning emerge in the writing (Ellis, Adams, & Bochner, 2011a). Like ethnography, the cyclical module goes deeper until it focuses on the specific themes that lie in the broader culture and patterns. In the preliminary research phase, I followed Chang's suggestion (Chang, 2016) to identify recurring themes, topics, and patterns.

During this stage, phenomenological data, aimed at articulating the spatial experience, surfaced through the detailed description of emotions and the configurations of spatial elements. These were intricately shaped by the dual influences of online video conferences and the domestic living requirements for both my daughter and me. The

gathered data underwent systematic reorganisation based on emergent themes, providing a structured elucidation of the digitally impacted space, spanning both dimensional physical aspects and the at-home-situated environment (see 3.2).

With a keen focus on cultural issues, the objective is to identify exceptional occurrences, homing in on a dedicated analysis of both inclusive elements and omissions within the cultural context, as emphasised by Chang (2016). In refining the categories from the initial research, the scope narrows to concentrate on Chinese women. From this focused lens, a discernible list of overlooked objects emerged, each carrying significant implications representative of women within the realms of both Chinese history and the digital age. Following Chang's (2008) guidance to establish connections between the past and present, a contextualisation of these objects within the historical context of Chinese women ensued. This contextual analysis, interwoven with narrative elements, co-constructed a nuanced understanding of the cultural space within my family and its broader implications (see 3.3).

Adhering to Chang's (2016) recommendation to scrutinize both the self and others within the relational network, I directed my focus towards the deconstruction of the emotional dimension within the spatial context. The focal points of this analysis encompassed the intricate relationships and networks within my family, elucidating the connections between my residence in the UK and my distinct home in China. Employing a comparative approach, I juxtaposed my experiences with those of other individuals, including immigrant daughters caring for their remote families and mothers working from home while managing childcare responsibilities during the COVID-19 pandemic. This comparative analysis aimed to identify both commonalities and my specific emotional responses intertwined with my home environment (see 3.4).

The final step, as advised by Chang (2016), involves the utilisation of theories to construct a framework for the analysis of autoethnographic data. Section 4.6, in effect, elucidates the research procedures intricately woven with relevant theoretical frameworks. Detailed examples are provided to illustrate how the data were systematically collected and analysed within the context of this research. This section aims to offer transparency and clarity regarding the integration of theoretical perspectives into the research procedures, showcasing the methodological rigour applied to the examination of autoethnographic data.

4.4.3 Embodied Spaces: Navigating Identity, Autoethnography, and Feminist Reflexivity in Architecture

This research endeavours to present embodied knowledge without seeking generalisation, where self-reflectivity serves as both a guiding research principle and an analytical method (Haraway, 2022). My spatial experience is situated as a personal encounter within my body, with my roles as a researcher, observer, participant, and

insider converging across self, other, human, and non-human (cyborg) realms. It is imperative to underscore that my identity and personal sentiments are intricately interwoven within the research space encapsulated by my home. As a Chinese female architect and a single mother cohabitating with her young child, I continually contextualise my identity, space, and cultural relationships in the pursuit of unravelling and interpreting the conceptual nuances of space.

Positionality, in the context of auto-study, places me at the centre of the research, functioning as both experiencer and practitioner—essentially, the 'instrument.' This section elucidates how positionality justifies knowledge production and, through reflexivity, transforms outcomes into research findings. This thesis, rooted in the natural affinity between autoethnography and feminism, is a reflection on my understanding, perceptions, feelings, and the reappropriation of the studied space within my home, culminating in situated knowledge. My personal experiences, characterised by the care for my daughter and the accompanying spectrum of emotions, contribute to the deeply personal nature of the research. In the subsequent step, reflexivity critically examines the outcomes stemming from the researcher's positionality and the inherent identities brought into the research. This process delves into the broader implications of utilising research methods for generating spatial knowledge, especially concerning women in digital space. The acknowledgement of my identity as a single mother emerges as a crucial aspect of this feminist study, where the awareness of individual perspectives forms the cornerstone. It brings attention to the often-silenced users of domestic space—families led by single mothers with children in China, marginalised by entrenched assumptions and traditional social norms.

Reflexivity is intrinsically interwoven with the research methodology and practice, rendering explicit and reflective the operational features of auto-theory's explicitly subjective and embodied modes. This integration brings philosophy and theory directly into practice, justifying the transformation of drawings and writings into knowledge and theoretical insights. The performances of various agencies within the research context, including my daughter, myself, rooms, furniture, appliances, objects, and the ever-changing dynamics of nature, underwent a reconfiguration during the lockdown. This evolution aligns with the fluidity and updating of my identity, resonating with Butler's perspective on identity as co-constructed through acts and activities.

The auto-practice acts as a tool to uncover latent social issues, elucidating the identity of self, the constitution of domestic space, and daily experiences as a woman. This includes experiences, storytelling, care, emotions, and bodies, along with the unpredictable chaos and uncertainties inherent in the research's content. The feminist study, rooted in individual ways of seeing and multiple perspectives, seeks to recognise my identity within the practice and advocate for vulnerable and silenced groups, such as families formed by single mothers with children. Drawing and writing, although considered new and unconventional in the architectural field in China, serve

as two longstanding and typical architectural practices in the Western tradition. Their incorporation into this research reflects an innovative approach, contributing to the evolving landscape of architectural methodologies in the Chinese context.

4.4.4 Drawing and Writing as Research Practices

Autoethnographic writing and drawing are the central practices in my research, as underlined by the following key points. First, the intersection of knowledge production and feminism is manifested through shared standpoints and reflexivity. Positioned as a methodology that “embraces subjectivity, engages critical self-reflexivity, speaks rather than being spoken for, interrogates power, and resists oppression” (Bochner & Ellis, 2022), autoethnographic writing becomes an empowering feminist action. Authorised on the author/ethnographer's position, situated in the structure, which allows them to challenge social inequalities (Vidal-Ortiz, 2004). In the context of my research, this methodology serves as a means of care and emotional sharing, connecting with fellow single parents, work-from-home caregivers, and immigrant/overseas daughters/sons.

Second, the practice of feminist autoethnographic architectural drawing is intricately woven with feminist autoethnographic research and architectural ethnographic practice. My practice of feminist autoethnography adopts the standpoint of the researcher and the research subject of female daily living space at home and the auto- of my own experiences as primary data and re-drawing and re-writing myself into ‘experimental subjects’ (Saraswati, 2019; Bacon, 2016). This architectural (auto)ethnographic drawing practice draws inspiration from the works of scholars like Momoyo Kaijima. In this section, I will provide a brief overview of how scholars navigate the intersection of drawing practice in architecture and research, illustrating its application in my own research through an example.

Drawing and writing, considered conventional architectural practices with a rich history in the West, are deemed relatively new and unconventional within the architectural realm in China. Architectural drawing, traditionally confined to engineering graphics, has gradually evolved, with self-learning becoming prevalent through internet resources. My drawing practice initially adhered to engineering graphic principles, influenced by Momoyo Kaijima's recognition of the inseparable connection between drawing and architecture.

Kaijima and Stalder’s (2018) method, rooted in architectural and engineering drawing principles, employs the interplay of black and white, variations in shades, and line thickness to convey the front-to-back relationship of objects on a two-dimensional plane. Notably, the daily scenes become the focal point of their expression, presented plainly and straightforwardly through white line drawings. Unlike photographs, these drawings eschew excessive embellishments, returning to a simpler narrative.

In my research, drawing played a dual role. Initially, hand drawings truthfully documented the daily scenes involving my daughter and myself, capturing the authentic on-site feelings of the autoethnographer. The initial purpose, reminiscent of traditional architectural drawing, aimed at representing pure industrial functions. However, in my research, these drawings evolved beyond mere documentation. They became a tool for articulating ideas and engaging with my reflective process. The initial drawings, serving as scene documentation, underwent further editing. In the final iterations, traditional symbols and objects were incorporated to represent my Asian cultural background.

The architectural model serves as a more intuitive tool of communication compared to architectural drawings in my research. It effectively conveys the relationship between space and furniture through scale, eliciting empathy from viewers for spatial changes that occur during the space construction process through furniture rearrangements. The cohesive use of materials and textures in model design directs discussions while encouraging viewer engagement. Specifically, in spatial discussions, the model becomes a tool for interactive dialogue, allowing my 6-year-old daughter to explore different room configurations by holding the model and discussing its functionality and spatial experience. Post-lockdown, as home layouts evolve, the model continues to serve as both a tangible medium for my spatial reflections and a means for interactive discussions with children.

4.5 Examples of the Methods Applied within the Research Process

The following case serves as an illustrative example of the use of autoethnography and combined approaches in exploring the architectural dimension within digitally influenced space. This is not a comprehensive section under the title of ‘Openings in Space’. Within my shortlisted category of the chosen theme, the opening of space research was identified from the raw materials, including test writings from my reading room (where I primarily use my laptop to access the online conferences), my autoethnographic journal, and my hand drawings (see **Error! Reference source not found.**) as an example of the hand drawing materials.

The narratives within the research journal were refined to focus solely on this topic and reflect our experiences within the space. Below is a small sample which perhaps affords us a glimpse of the openings experienced by my daughter.

> *She did not feel comfortable positioning herself within the camera’s gaze. Therefore, in the beginning, she scratched the door like a cat and mimicked a cat’s sound to raise my attention.*

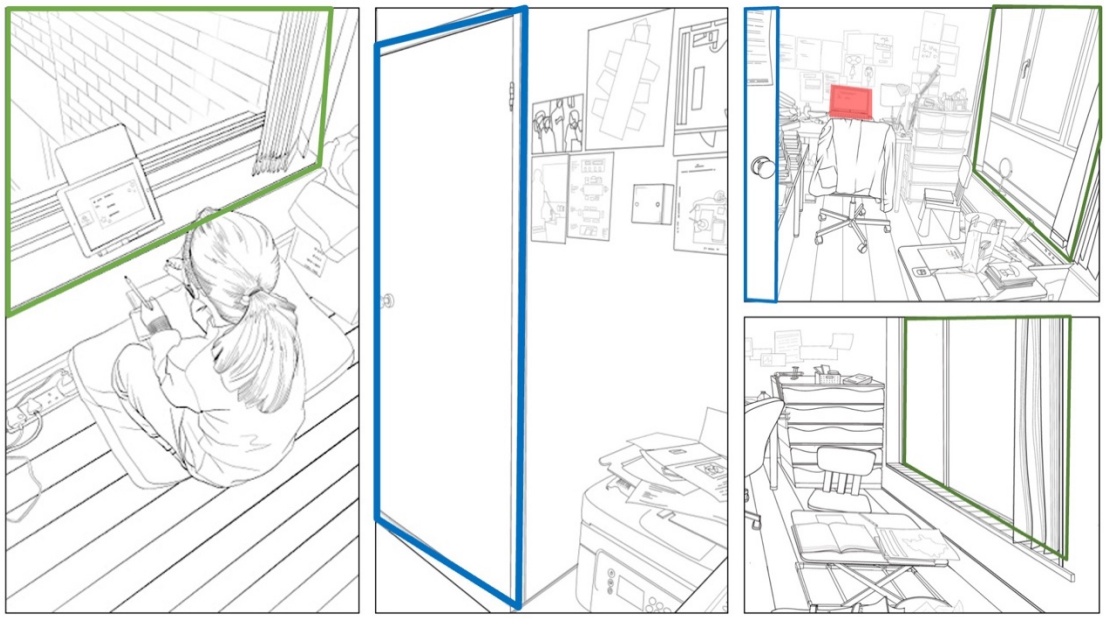


Figure 4.4 Hand Drawing of the Opening of the Space (made by author)

Above is a narrative from my research journal. I could perceive her unease and hesitancy; by stepping through the door, she had stepped out of 'home' and into a place where she felt out of place. This door served as a link to the less secure outside world for her.

> *She successfully found the camera's blind spots but close enough to get my attention, which is the other side of an opened door. The greeting was changed to "Mum, can you mute yourself and turn off the camera, please?".*

The door is her threshold, between the two spaces. The opening through the camera on the table is the same as the reading room's door, access point to a world full of strange adults and rules. I become the gatekeeper of this door.

> *Working at home with children is a job without off-work time. There are moments I would really wish to take a few seconds to shut myself down and enjoy quiet and peace. Looking out the window to focus on the view, the sound of the rain, the leaves of green, red, yellow, and brown, the birds singing in the daytime, the bugs singing at night, the colourful and unsettled clouds in the sky. Just for a few seconds, to realise myself as an individual instead of a symbiosis complex with my daughter and my flat.*

The window serves as my escape, offering fresh air and a connection to the peace of nature - the warm of the sun and coolness of the wind. I felt positioned on the top of a tall tower as a prison willingly stayed for my own life.

To understand the process better, it might be fruitful to consider Pallasmaa's (2017) practice in phenomenology, which includes describing the architectural effect through the users' 'primary feelings', as the importance in "form[ing] the genuine basic vocabulary of architecture…". His primary feelings experienced are characterised as "entrance into the building's sphere of influence, stepping into its territory, being near the building; being in the room, a sense of security, a sense of togetherness or isolation…" The writing and re-writing are the content of autoethnography and also the clues for later structuring of the space (Pallasmaa, 1996).

In the finding and discussion, I wrote:

> *In the realm of online meetings, the window became my portal to escape and the gateway for others to join. In those fleeting moments, I would divert my gaze from the illuminated screen to the window, transcending the digital confines into the embrace of nature and the quiet streets. There, I witnessed the delicate ballet of birds nesting on my roof, the tireless dedication of mother birds caring for their young, and the almost deserted streets sporadically traversed by individuals carrying groceries along weathered walls.*

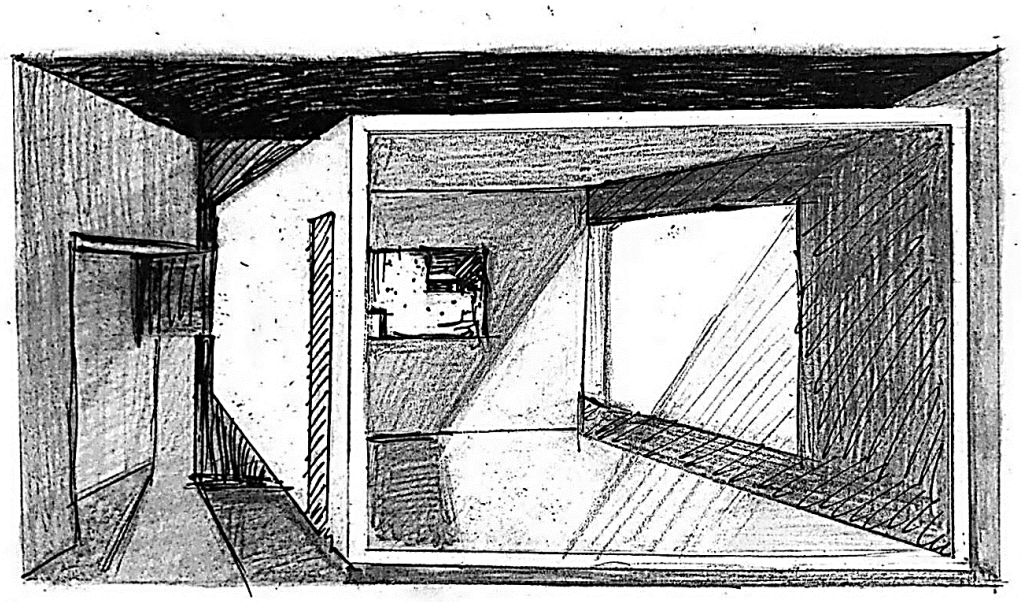


Figure 4.5 Hand Drawing of the Opening of the Space (made by author)

When I shared the daytime view through my window with friends, they, too, entered this realm with me, engaging in comparisons of weather and climate between the UK and China. Our conversations seamlessly transitioned to topics of air quality, vegetation, and, ultimately, climate change and environmental protection. Through the screen, they traversed the physical boundaries, stepping into the exterior of my flat via the window. Through this window, I departed the public spaces and found myself in the harmonious overlap of spaces within my room—the screen as both entrance and exit.

The digital landscape unfolded a myriad of geographically distant spaces, beckoning me to online shopping malls, virtual museums, conferences, and meetings in different corners of the world—the exit manifested in the transient moments, the opening and closing of software or webpages. In stark contrast to the window and the screen, within this layered space, the door held a different significance—it beckoned me not as an exit but as an entrance. Stepping through the door into the living room, I embarked on the journey of domestic life. Unlike the transitions of commuting between work and home, here, small talk and necessary distractions from the chaos of traffic and weather faded away.

For my daughter, the door assumed a protective role, concealing her from the scrutinising lens of the camera, all the while allowing me to remain attuned to her unspoken needs. The door, in its quiet presence, became a threshold to the sanctity of our shared space.

The following instance illustrates the application of autoethnography and combined methodologies in investigating the Cultural Dimension within the digitally influenced space. First, the material objects were identified for representing the connection between the digitally influenced space and me, as a Chinese woman. Along with a profound self-reflective writing of my lockdown life around/being the objects, an additional layer of context was introduced. The objects were systematically situated within the broader framework of Chinese families and history, allowing for a comparative analysis with existing research. The rationale behind establishing this historical connection lies in the intention to elucidate the 'present and the past' significance of these objects in conjunction with my own identity and the broader Chinese culture. This approach, aligned with the insights from Chang (2008), seeks to unveil the 'deeper truth' underlying the overlooked and omitted aspects pertaining to domestic women in China.

I selected the theme of ‘Mirrors’ as an illustrative example. Commencing with an ethnographic introduction focusing on the mirrors within my living space, I proceeded to reinterpret my narratives entwined with mirrors. In this process of rewriting, the discourse expanded to encompass the digitally impacted space and the experiences of Chinese women. Together, these elements coalesced in a broader discussion aimed at delving into the historical, present, and future dimensions of mirrors within

the context of a Chinese woman's home (see **Error! Reference source not found.**6), particularly considering online digital activities. In my research journal, I wrote:

> *I only glanced at my face in the mirror and quickly confirmed I had put on weight during the lockdown and my "enhanced photo-studio style" tailored for online working. These things would never happen if we met in person in a cafe or a park. Or we could check on ourselves in the mirrors everywhere in the modern city, in the big glass windows, bright steel facades, the shining cars and shimmering lakes. Or we would have listened to the feedback and seen reactions from our families or friends in our home. The whispers from others and echoes of ourselves on our appearances come from everywhere as part of the growing-up process.*

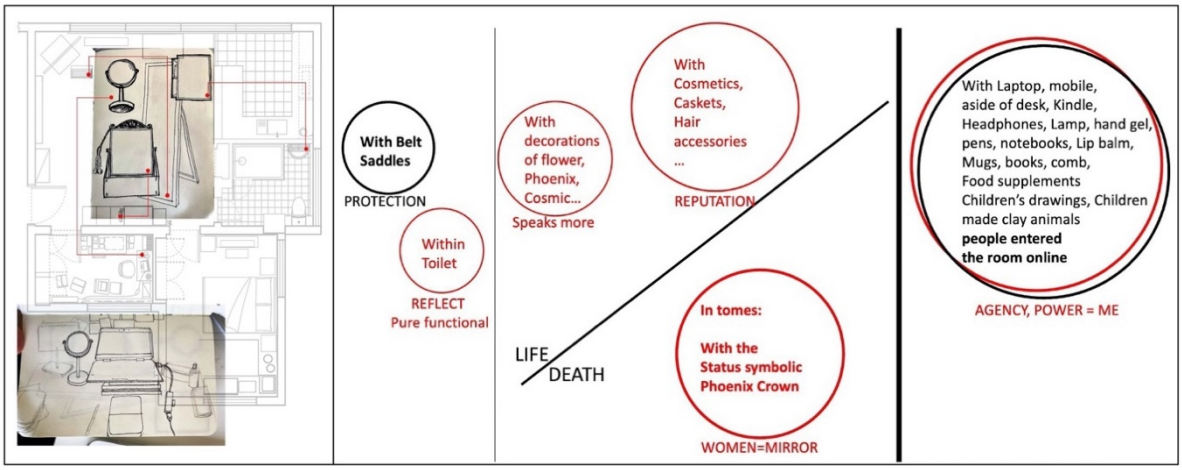


Figure 4.6 Mirrors in My Flat and the Mirror and Chinese Women (made by author)

Representing findings within the cultural dimension research involved synthesising autoethnographic analysis (including personal reflection, narrative construction, culture analysis and reflexivity), cultural geography, and archive studies. This multifaceted approach aimed to uncover the nuances of poetry and literacy intertwined with the experiences of Chinese women and the mirror (see 7.2).

An example of using autoethnography to analyse the emotional space under the influence of online video communication during the COVID-19 lockdown. The original text was rewritten into four topics: 'Distant familiarity and close strangeness', 'The firewood, the hub, 'A virtual visit to the sea and my home', and 'Wiping and hiding from a camera'. This discussion aims to make meaningful connections between the digital influences that shape these spaces and the emotions experienced within them. The rewriting focuses on a reflective understanding of the emotions and the space. The interplay of online videoconferencing, work, care, and familial love forms the crux of

the research, revealing the complex emotional tapestry woven into these digitally mediated spaces during a time of lockdown.

4.6 Research Process

The research process involves six distinct steps, beginning with the initial approach to the research topic and progressing through pre-research activities and research stages one to three (see **Error! Reference source not found.**7). A dedicated phase is allocated for organising thoughts and forming themes, culminating in the essential steps of rewriting and redrawing in line with the identified themes. The concluding stage entails synthesising the research findings into a written format. This section focuses on the approach to the research topic stage, wherein the research question has been refined with specific investigative perspectives. Subsequently, the following steps are introduced, accompanied by the three detailed cases illustrating how research materials were analysed and presented.

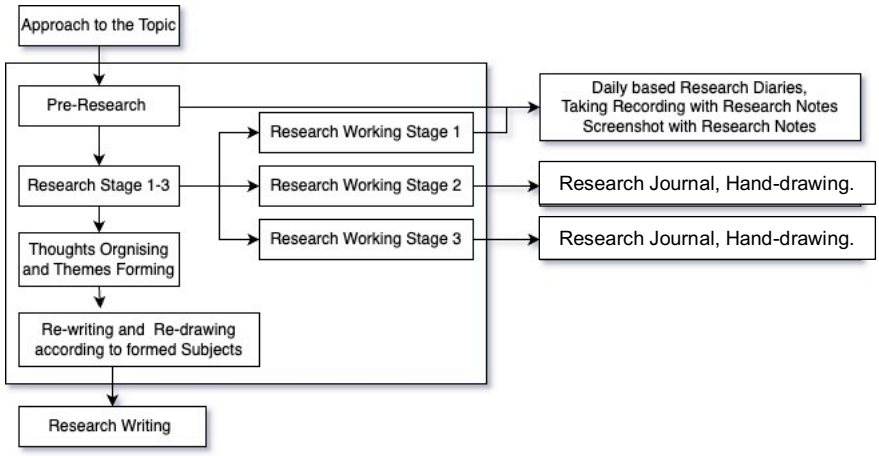


Figure 4.7 Research Process (made by author)

4.6.1 Pre-research (Reflexivity)

I initiated the pre-research phase by creating a preliminary research journal, conducting three case studies (see Appendix I). capturing screenshots from live-streaming videos, and jotting down research notes. Cenred around the research topic, I started interrogating myself, interviewing and questioning the links between me and the concept of cyberspace as a Chinese woman (see 5. The Digital Space at Home). I became both the observer and the witness, with the research methods later serving as the format and the guidance for the research journal. Throughout this process, three critical considerations emerged, shaping my autoethnographic work and highlighting the potential cultural impact and benefits for the broader research field.

First, when considering potential readers and the purpose of the research, it is crucial to identify the audience that will benefit from the findings and understand the specific goals or objectives of the study. This audience may include scholars, architecture practitioners, policymakers, or individuals with a keen interest in the subject matter.

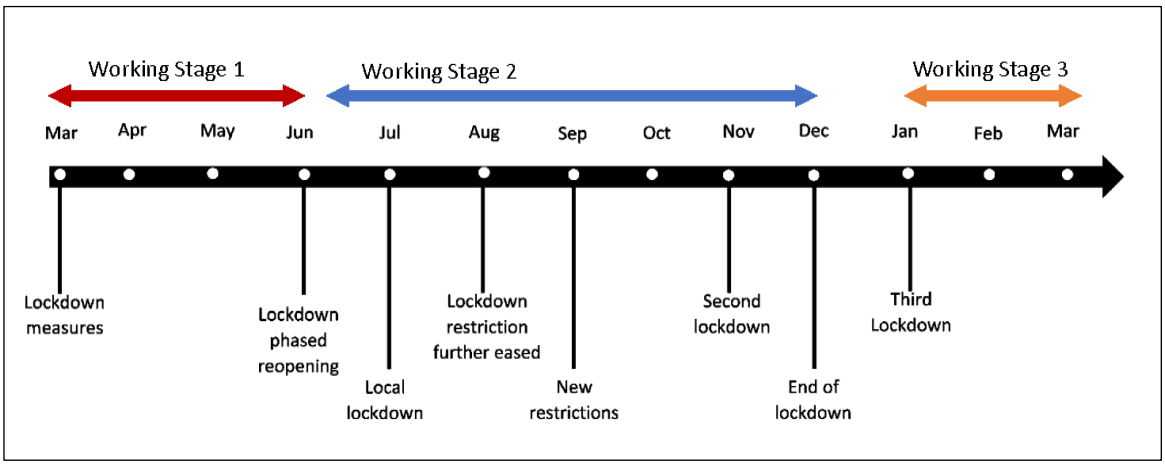


Figure 4.8 Research Working Stage during Lockdown in the UK (made by author)

When exploring live experiences and cultural phenomena, a research process that is immediate, transparent, intensive, voluntary, and highly participatory becomes necessary. This approach involves actively engaging with the subject matter and recognising the significance of my personal involvement.

Second, uncovering the hidden aspects of a cultural phenomenon or experience requires deep personal engagement. Reflexivity plays a crucial role in my research. It entails acknowledging my biases, perspectives, and subjective influences throughout the research process. By actively practising reflexivity, I aim to minimise their impact on the research and maintain a more balanced and nuanced perspective. This approach stands in contrast to a disconnected and detached stance, emphasising the importance of embracing memory, emotions, perceptions, and feelings throughout the research process.
Lastly, the research aims to expand the academic knowledge of architectural digital space and contribute to the field by informing practical applications to advocate for feminist research. By embracing reflexivity and considering the potential readers and purposes of the research, researchers can ensure a comprehensive and nuanced research process that recognises the complexities of the subject matter and the researcher's own involvement.

4.6.2 Research Stages One to Three

During the work phase (see **Error! Reference source not found.**8), I was still concerned about living abroad alone with my 5-year-old daughter during a pandemic. To address this, I attempted to repeat the pre-research procedures of writing a

research diary, attending online conferences, taking notes, and hand drawing aspects of my life. Learning from stage 1, I found that using digital methods to records entries in my diary presented me with obstacles that impeded the free flow of thoughts and emotions between the past and the present. It took me longer to make connections and recognise the hidden cues in the digital material, especially when trying to capture the emotional nuances expressed in the drawings. Therefore, in the research journal, I used hand drawing and writing. Over time, I accumulated 20 research diaries and 300 screenshots and research journals every few days.

The Lockdown was mandatory, and the research data collection fully immersed me in the research process. The research journal (see **Error! Reference source not found.**9) was entirely hand-drawn and hand-written by me, documenting my daily life with my daughter, including spatial scenes before, during, and after the video call, emotional ups and downs, memorable scenes, and the trajectory of our activities at home. The research diary documented my participation in the live video broadcasting as an observer of the space in which the live broadcasters were recorded. Additionally, the recordings of the live broadcasts I hosted as an anchor served as a source of material for future self-observation research. Three hundred video screenshots were taken from the live online sessions I participated in, corresponding to the research notes. These were organised chronologically, in the hope that a systematic exploration of the research journey would reveal patterns, trends, and changes over time. These visuals and written notes supported my findings and analyses. This active and positive engagement allowed me to observe and witness my own experiences, and record my thoughts, reflections, and insights.

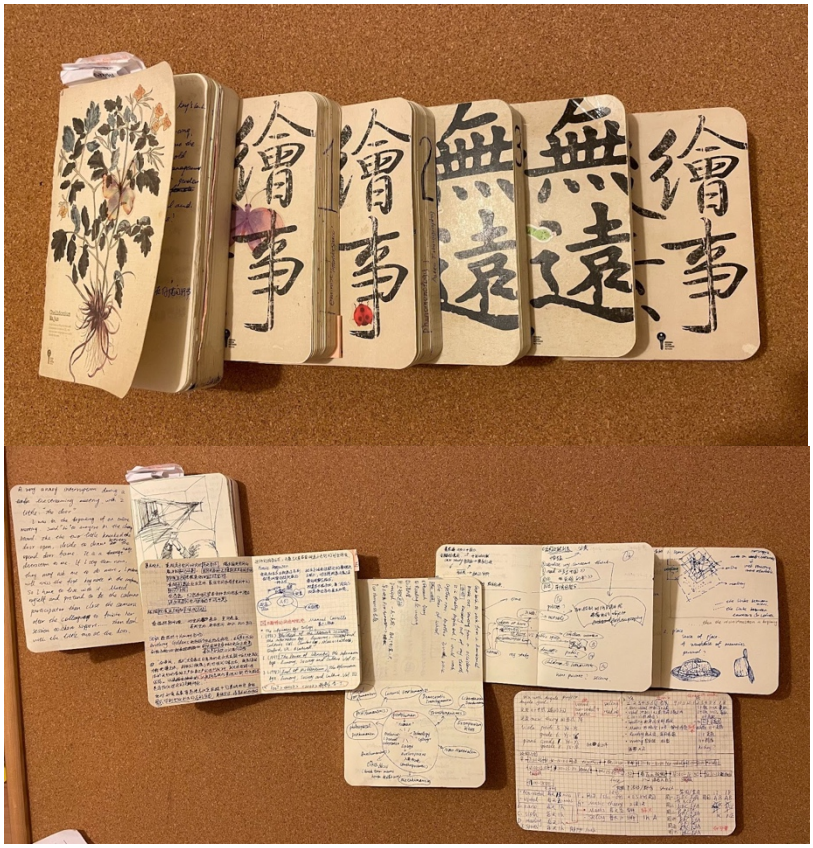


Figure 4.9 Picture of Research Journal (made by author)

In stages 2 and 3 (see **Error! Reference source not found.**9), I was able to identify the cultural themes related to the digital home and the interpretation of the video conferencing space in architectural measurement, linking them to my cultural background as a Chinese woman and the difficulties of working at home as a single parent. The research diary was meant to tell more detailed stories with emotions rather than keeping the description thorough.

4.6.3 Organising Thoughts and Forming Themes

Chang (2016) presents a systematic approach in the 'data management' stage, employing the 'labelling and classifying' procedure for data management to organise and refine data under identified themes systematically. Initially, I reorganised my research materials based on specific themes, attempting to articulate meaningful spatial descriptions. Furthermore, I digitally processed hand-drawn sketches and selectively recreated certain drawings to eliminate distractions caused by colour and texture for the reader. Summarising the descriptions of space and spatial experiences, I categorised the architectural dimensions into several phenomenological characteristics of space: Spatial Generation, Alienation and Dissolution, Visual and Real Boundaries, The Opening in Space, and The Layout of Space.

In studying objects as cultural interpretive subjects, I initially tallied the frequency of these objects appearing in online activities. I conducted an analysis and synthesis of accompanying images and texts. After several attempts, I selected visual information and textual descriptions from the collected materials. Following comparative research, I compiled a list for the object study (see **Error! Reference source not found.**10).



Figure 4.10 Research Process of Identifying the Cultural Objects (made by author)

Chang's (2016) research method stems from an extension of traditional ethnographic research methods. In this process, aspects emphasised by Bochner and Ellis (2022, p10) and Smith and Watson (2002 p. 136), such as the 'I-who-feels' and addressing the 'experiencing self' as a way to access the 'knowledge that is significant to human experience,' have been overlooked. Potential risks in this process include self-exposure, replacing profound cultural analysis, and interpretation, “leaving the writing descriptive autobiography or memoir” (Chang, 2016, p.58). An in-depth understanding of culture can only be achieved when placed within a larger contextual framework.

In my research, handwriting and drawing allow my thoughts to detach from the screen, facilitating observation and reflection with a calm and clear mind. On the other hand, digital writing and drawing feel closer to online activities and public spaces, requiring me to step back and operate in a familiar environment. This constraint hinders the full expression of my emotions and limits the possibilities of creativity. However, I acknowledge and accept the uncertainty and vulnerability that come with positioning

myself as an insider in the research process. I believe that my emotions and feelings contribute to a deeper understanding of the unknown and are an indispensable part of future improvement work. Through this approach, I strive to ensure that the research process aligns authentically with my everyday life, ensuring a genuinely meaningful exploration of the subject.

4.6.4 Re-writing and Re-drawing according to Formed Subjects

In the discussion section，I use diverse materials and employ creative methods to document, critique, and reflect upon my research. Auto-research allows for the generation of knowledge without transcendence. In this context, individuals who take on the roles of performers, painters, and experimental subjects step onto the front stage to face the audience. Through various materials, they articulate, communicate, convey, and disseminate their thoughts. Transcending knowledge from these rich materials primarily occurs through the researcher's introspection and contemplation before their representation. To elucidate the notion of the screen-formed space for Chinese women, I employ various materials, including classic literary works, poetry, myths and legends, and historical artefacts. These materials, alongside my collection from the lockdown period, such as my research journal and screenshots, are integrated to present the spatial experience of working from home in front of a screen. Through this integration, I aim to engage and communicate directly with the audience, fostering a deeper understanding of the subject matter.

The final step of the research is to re-write and re-draw from the above outcomes**,** incorporating them into the thesis (using writing to present the work). The outcomes reflect the principle of applying this methodology in the field. The thesis adopts a distinct approach to presenting the research work, guided by the value of knowledge as "a view from the ground level, in the thick of things".[18] This perspective moves beyond the production of generalised and objective knowledge, instead prioritising the preservation of care and the bonds formed throughout the research process. Doing so enables a close-up, intimate understanding of the subject matter from a ground-level perspective. The research outcomes encompass personal narratives, such as elements of storytelling, literature, aesthetics, emotions, and embodiment. Drawing on feminist approaches within the realm of contemporary art histories, Fournier's auto-theory explores transmedia art histories, crossing disciplinary boundaries in their manifestation. The aim is to creatively represent the research in a way that resonates with diverse audiences, focusing on "breaking silences and reclaiming lost and disregarded voices" (Hunt, 2021, p. 13). These endeavours hold particular significance for research and artistic practices across various media, including film, poetry, fiction, performance, music, dance, painting, and photography. Through applying creative

[18] Notes were taken from the University doctor training lecture, 'Ethnography', run by Dr Rachael Kelley in March 2019.

methodologies contextualised within the complexities of identities, relationships, and lived experiences, the research aims to represent the nuanced, multi-faceted nature of its subject matter.

Overall, the thesis seeks to present the research findings in a manner that transcends traditional approaches to knowledge production. By incorporating personal narratives, literary and aesthetic elements, emotions, embodiment, and art exhibition, it offers a unique and engaging representation of the research. Utilising creative methodologies allows for a deep exploration of the complex materials discovered while ensuring they are contextualised within the diverse identities, relationships, and lives that shape them. Such methodologies liberate the research from the distance of producing the generalised, objective knowledge, cutting through the care and bonds building up through the process to allow for a ground-level, close-up and intimate perspective on the research. The outcome and the research discussion and presentation comprise personal narratives, story, literary and aesthetic, emotions, body, and art exhibitions. Fournier draws auto-theory through feminist approaches from histories of contemporary art, which identified itself within transmedia art histories and ‘taking cross forms’ (Fournier, 2021). Thinking about how to represent the research creatively in front of different audiences in terms of “breaking silences and reclaiming lost and disregarded voices” (Fournier, 2021, p.64). They have specific meanings for research or practices in arts, movies, poetry, fiction, performance, music, dance, painting, and photography by representing the nuanced, complex, muti-formed materials through creative methodologies contextualised in the identities, relationships, and lives (Fournier, 2021).

4.7 Ethics, Limitation Risks: Applying Ethical Research When Doing Autoethnography

The study adhered to the University of Sheffield's Research Ethics Policy and complied with ethical norms, researcher codes, and practice regulations. Participants who accessed the publicly accessible online platform were anonymised. Comprehensive explanations on data collection and utilisation were provided to all participants, and data was securely stored and disposed of according to the University of Sheffield's policies (The University of Sheffield, 2018). Due to the use of autoethnography, the researcher acts as the participant within the space, and the research subject is the researcher's private flat. The data collection process does not involve direct contact with any other individual participants in publicly accessible online spaces. Collected data did not contain any identifying information in any documents.

To ensure a coherent research plan, it is essential to recognise the restrictions and potential hazards of auto-research. This type of research involves analysing one's personal experiences, which can present inherent biases, blind spots and a deficiency

of objectivity. Hence, researchers must make self-care a priority and institute steps to reduce these constraints.

The ethical considerations of this research project centre on the author's dual roles as both researcher and subject. All parties involved have been fully anonymised. As the research is about my daily routine, my foremost concerns are maintaining my own personal security whilst discussing sensitive topics, as well as expressing my emotions with care during and after the research process. It is essential to maintain a balance between caring for oneself and taking into account the readers' wellbeing. It is crucial to establish boundaries when conveying a thorough understanding of the work to the readers while preventing possible misuse of the information that could harm relevant parties, including the researcher. This consideration remained constant during my research. Throughout the research process, I remained vigilant about ethical issues, changing dynamics and situations, inclusion decisions regarding certain stories, and how these stories are presented as myself acting as the storyteller.

Reflecting on my handwritten and illustrated research journal left me feeling deeply disheartened as I relived the difficulties and struggles, I faced during the lockdown. However, it was important I gathered the courage and fortitude to revisit these experiences, in order to provide an objective account and make a valuable contribution to the sharing of information. The recollections encompass the disquieting experience of completing a PhD from home during a pandemic with a young child, the struggles of being in an unfamiliar country without steady earnings, the anxieties and concerns of being apart from elderly parents and relatives, the sense of powerlessness and hopelessness when my daughter and I both contracted COVID-19, and the distress of offering solace to a friend whose loved ones were fighting for their lives. Furthermore, the prospect of arousing adverse memories in others who endured their own difficulties throughout the lockdown is a valid concern. In order to mitigate this, I deliberately incorporated additional optimistic anecdotes into my diary entries to encourage personal recovery and present readers with a comforting and optimistic outlook on the challenging times we all underwent.

While conducting my own research, I have taken into account the importance of ensuring that both the written content and illustrations are easily recognisable and relatable to Chinese women. The aim of this is to accurately represent their experiences and effectively communicate with diverse audiences such as Western readers, my supervisors, my international colleagues, language tutors, and other potential readers. The text should embody the hallmarks of minor literature influenced by Chinese literature and written in English by a Chinese national residing in the UK, conveying both common experiences and decline. It is paramount to convey the stories in a way that communicates effectively to diverse audiences, through a language that bridges cultural gaps and promote understanding.

Summary

This chapter establishes the philosophical framework that guides the thesis inquiry, intertwining concepts starting from poststructuralism, feminism, Minor Architecture and phenomenology. This synthesis forms a practice enriched by both writing and illustration, which is pivotal to understanding how these theories frame and actively shape the research approach. Exploring the methodological foundations in ethnography and autoethnography illustrates how these approaches are not isolated but interconnected, each informing the research design and execution in a cohesive narrative or “golden thread”.

Poststructuralism offers a philosophical stance that views reality as contested and socially constructed. The epistemological pathway uses language/practices to represent and interpret the contextual and inherently undatable knowledge on the edge. This perspective is vital as it informs the research through its emphasis on language as a tool for constructing meaning, guiding the methodological choice of narrative analysis. By applying poststructuralist theories, the research delves into how the Chinese woman’s narrative/drawings shape the understanding of cyberspace at home, influencing both the collection and interpretation of materials and justifying the values of the research outcomes.

Feminism’s intersection with poststructuralism enriches this perspective, highlighting the importance of the researcher’s positionality and focusing on marginalised groups such as women from developing countries and single parents during the pandemic. This alignment shifts the analytical focus towards a decentralised knowledge system, fundamentally shaping the research methodology. The decentralised knowledge of this research shifted the focus on the developing countries’ women; standing with the minority groups and fluid gender concept reflected in this research through the positionality of the researcher to represent single parents from a working class, working from home during the pandemic lockdown. In addition, minor architecture theory strives from the poststructuralism, explains how the research topic as minor theory, the researcher’s practice and language from a minority background, and the perspective to decentralise architecture elements and subjects through Bloomer’s (1992) practice.

It began by exploring the methodological foundation in ethnography and autoethnography, detailing how these approaches are applied within the scope of this study. Autoethnography granted the researcher the ability to contextualise the minor research topic for a minor group and use minor practice based on the researcher’s positionality to the research. The research theories under the umbrella comprised phenomenology, cultural materialism, and human (emotional) geography.

Phenomenology (see **Error! Reference source not found.**) is the critical theory used to set up the concept the architectural space through the dwelling and things, and the paradigms of Juhani Pallasmaa (1996, 2011, 2017), Gaston Bachelard (1998), and Bachelard and Jolas (2014) in studying of architectural dimension of the cyberspace at home. The cultural materialism (see **Error! Reference source not found.**) analysis paradigm mainly followed Professor Inge Daniels's research on Japanese houses published in 2018 by analysing the objects and the users' utilisation within the cultural context. The autoethnographic practice added the layer by adding historical stories and artwork within the cultural dimension. The researcher's drawings and writings worked as the research material and the direct representation of the research subject. There are no direct paradigms to follow for the research of the emotional space. The study followed the thematic analysis to categorise the research materials and identify implicit concepts and themes to compare with the emotional spatial discussion within the studies of human geography and emotional geography (see **Error! Reference source not found.**).

These theories are integrated through the research design, which utilises a mix of autoethnography, narrative analysis, and phenomenological observations. Each theory contributes to a nuanced understanding of the digital and physical spaces that define the pandemic experience for marginalised groups. This methodological approach is informed by theoretical insights and is designed to reflect and amplify the interconnectedness of space, identity, and structure as perceived through a feminist and poststructuralist lens.

This chapter sets the stage for a comprehensive exploration of cyberspace as understood by Chinese women, utilising an enriched theoretical framework that actively shapes the methodology. The research narrative is strengthened by explicitly linking each theory to specific methodological choices, ensuring the subsequent chapters build upon a solid, theoretically informed foundation. The subsequent chapter explores the digital dimension of cyberspace as understood by Chinese women, setting the stage for an in-depth discussion of this contemporary phenomenon.

5 The Digital Space at Home

5.1 Introduction

This chapter begins with an exploration of the author's personal cyberspace within her home offering insights from the perspective of a Chinese woman from Generation Y, exploring how my Asian background and experiences have shaped my understanding of cyberspace. Through an examination of Asian science fiction literature and online feminism, the chapter offers insights into the author's identity as a Chinese woman, which leads to a distinct interpretation of cyberspace compared to Western perspectives. introducing the notion of 'publicly accessible space' it reconsiders the convergence of digital and physical realms, revealing a unique landscape of social and personal interactions in digital spaces during the pandemic, all within the context of Chinese state control and societal norms.

5.2 Where the Journey Starts

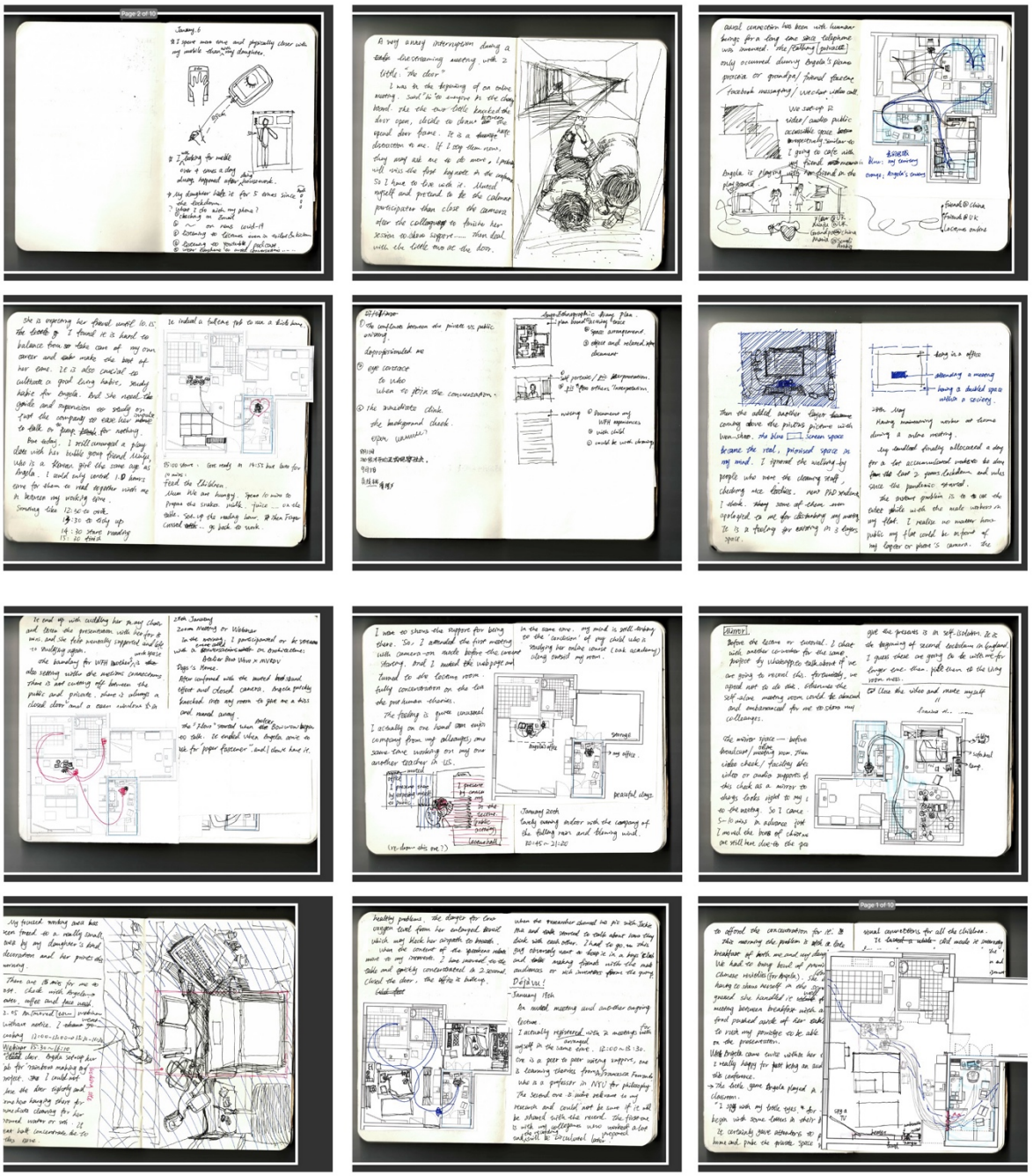
My journey started with the delineation of my research subject: the structuring of space through physical devices, can rapidly be generated with a click of the ‘start’ button, thereby connecting physical spaces to the Internet and transforming it through the incorporation of microphone and camera, imparting it with new conditions. Throughout the lockdown, I had been sitting in front of my desk, working at home while caring for my daughter. My reading room was transformed into a classroom, a lecture hall, travelling through a shopping store, a tearoom and a cafe, a family party, my friends and relatives’ lobbies, a tent in ‘nature’, and a dancing stage. The space within my private flat was transformed with accessibility to the public.[19]

The research space, naturally located in my flat, is connected to the Internet through the terminal equipment of my laptop and my mobile phone. The original physical space, empowered by joining the network physically and socially, extended the ability for a stronger communication with the outside world. This is made public by the camera that catches the space of my flat immediately visually and audibly, inviting the participants to engage in an activity through seeing and listening and bridge the participants’ spaces together though the temporary link. The space is later dissolved by clicking the ‘close end’ button, thus reclaiming its privacy. Within the process of connecting to the network, the space is cut out through obvious visual boundaries according to the facilities’ references, which are the cameras on my laptop and my mobile.

I extracted portions directly documenting the cyberspace at home from my daily life experiences during the lockdown period from June 2020 to March 2021. This formed

[19] A tearoom in Asia specifically means a quiet space for meditation and thinking.

part of the “Artifacts: Self-Narrative Journal” (see Figure 5.1). Before discussing each section, I took excerpts from the research diary and re-edited them to create a narrative titled 'A Day in the Life,' serving as an autoethnographic narrative for each dimension of digital, architectural, cultural, and emotional cyberspace at home.



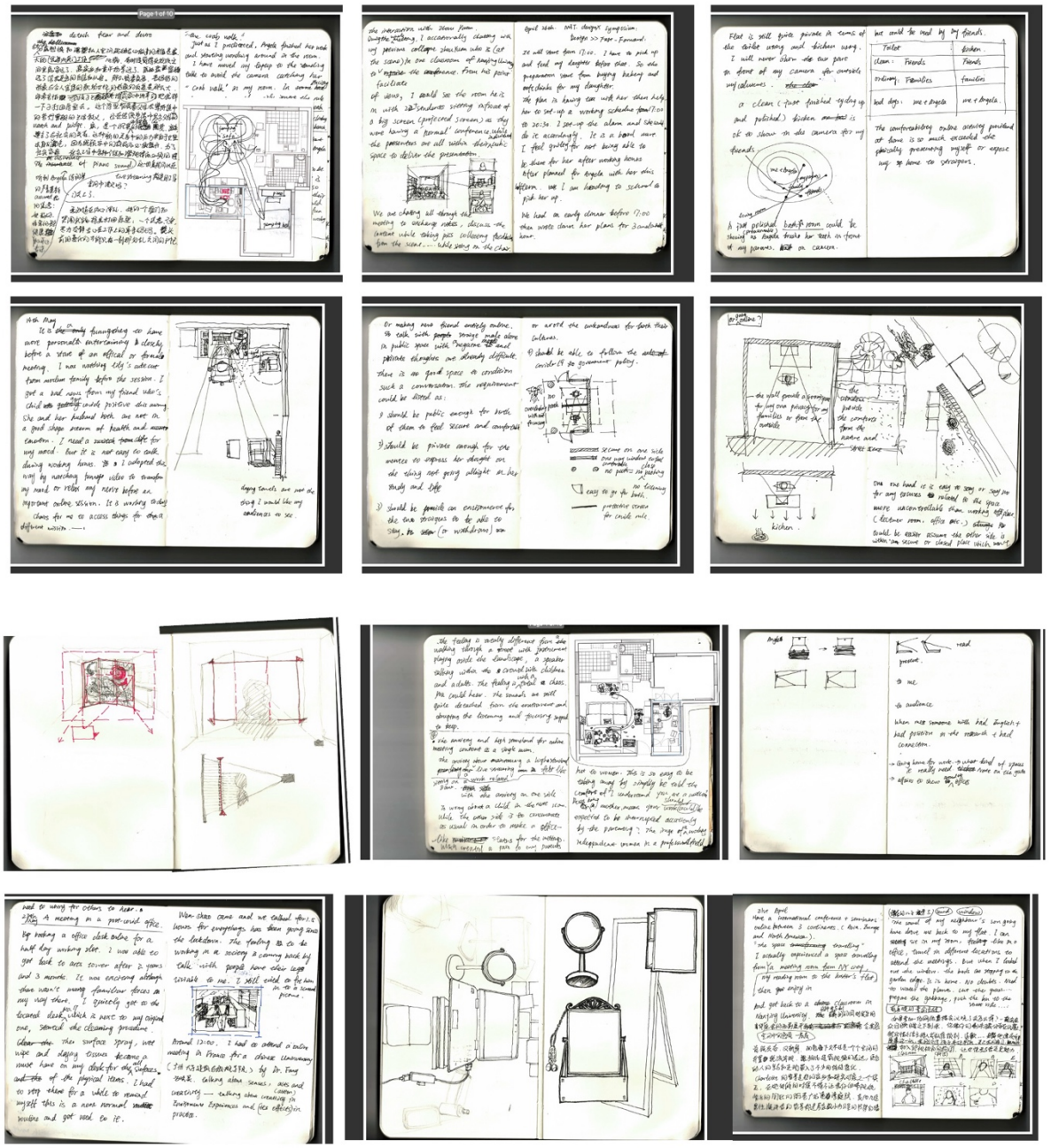


Figure 5.1 Artifacts: Self-Narrative Journal (made by author)

This chapter aims to produce the situated understanding of cyberspace as a Chinese single mother, making use of the temporary cyber prosthetics like ambient, entangled, digital technology created space during the lockdown, within a prevailing understanding of cyberspace against an un-embodied and de-gendered discussion. The temporary is established through the easily generated and dissolved process of connecting online and shifting functions among different activities. The online terminal, carriers of mobiles, tablets and laptops' conductive human ability of communication and engagement in the internet space, act as cyber prosthetics to human beings. The co-constructed space affects the participants and their surroundings by capturing the physical space on camera and presenting it on others' screens, entangled with their different backgrounds, current feelings, and personal status. The ambient, entangled information is all transformed into digital signals and translated on the screen into video and chat texts through technologies. The disembodiment abstracts cyberspace into an aloofly overall concept from individual and human bodies, considering the space applies evenly without genders in terms of daily utilisation within a domestic context, constraining the knowledge production from the perspective of a woman working from home.

Understanding cyberspace begins with explicating the space in this research, aiming to situate the concept within a specific context. This context reflects the perspectives of my generation, Generation Y (Naumovska, 2017), in comprehending this topic and identifying ourselves as Chinese women. The construct of cyberspace situates through my knowledge and experiences. The process of understanding, to me as an Asian single mother born in the 1980s, raised in China, experiencing this space during lockdown while taking care of my child, positions within the relationships of the differences between West and East, man and woman, technology and domestic life, working mother and housewife, mother and non-mother, architecture, public and private space. I embodied the research subject through living within the space physically, using my body as the measurement and sensor to observe and feel it, with the activities conducted by my daughter and myself, the dynamic and interaction among us and the third or more parties online. I embraced the specific bodily and mental states during lockdown limits of going outside, exploring the space with my upbringing knowledge in China and professional training in architecture and urban design to produce direct facts.

The comprehension of the research subject unfolds through the intricate layers of culturally contextualised definitions of cyberspace, intricately connected to my personal background as a Chinese woman born in the 1980s. This understanding is further shaped by my exposure to cyberculture through science fiction narratives and my practical engagement with online publicly accessible spaces as a female citizen in China. Additionally, my role as an architect is instrumental in employing an autoethnographic journal to elucidate the emergence and resolution, boundaries, openings, and layout of these digital spaces.

Initially, I explored the digital dimension of the research space as defined by digital culture. In the context of contemporary online culture, online video conferencing technology empowered the home with the space of scientific imagination. Science fiction literature, film, and television have played a crucial role in shaping my understanding of cyberspace, influenced by the cultural contexts that shaped my generation during its formative years. Reflecting on my personal identity as an Asian woman, developing world fictional literature, and cyberfeminism have found a foothold in my narrative. In the first part of the autoethnographic writing, I situated my research space in the imaginaries depicted by cyberculture, science fiction, developing world fictional literature, and cyberfeminism. Navigating through the complexity of the research space, I critically explored issues of gender, culture, and identity in cyberspace within the context of evolving perceptions of this space.

In the second part of the narrative, I bring my own experience into the discussion of one of the central issues in the study of Internet space: publicness. I discuss the detection and gaze of female users in the public accessibility space generated by live web conferencing within the framework of China's public space and cybersecurity management.

5.2.1 At-home Assistant Cyberspace

In exploring the intersections of my physical and digital realms, the emergence of 'Cyberspace' within the confines of online videoconferencing technology at home has profoundly reshaped my domestic environment. The transformative moments are distinctly outlined:

- *As the live stream begins, my room gains an additional window, as if connected to a distant place by a complex web of invisible lines.*
- *In the bedtime stories told by my father, my daughter drifts into a dreamland. Two spaces converge through the iPad screen, harmonising the contradictions of time and space at my daughter's bedside. It is a challenge to articulate what bridges the 8-hour time difference and the vast geographical barriers between China and the UK.*
- *Closing my eyes, my daughter and I follow the storyteller into a picturesque hut, where the crackling sounds of a bonfire surround us, and the warmth of the flames feels within reach.*
- *My phone becomes an extension of my arm, one hand holding it, the other heating water for my daughter's green tea.*

This fusion of video and audio in the virtual space significantly heightens my sensory capabilities, compensating for the absence of certain physical senses through the vivid canvas of my imagination. This imaginative realm is notably influenced by the rich tapestry of science fiction works. As the domestic space undergoes a metamorphosis in the videoconference link, altering the dimensions of time and space, the current projection of cyberspace in my mind seamlessly integrates elements of science fiction with existing technology.

The cyberspace of the home assistant was not alone in the cyberspace that existed within science fiction. It passed through my screen, was captured by my camera, was physically structured within my home, was generated on the basis of my understanding of home, and overlapped with the formative concept that grew with the development of science and technology and the culture-based fictional co-imagination. Coming from two directions, the research subject engaged with the imaginative and critical practice of reading and watching science fiction, as it offers a special collection of interrelated measures and viewpoints for critical thinking and architectural imagination (Butt, 2018a), and the experiences as a user of the publicly accessible space projected and collected from my flat. Spatial theorist Lefebvre (Lefebvre, 1991) argued that the essential part of our experience and production of space is imagined space, which is part of the 'space of representation'. In this way, the perception of cyberspace (reality) as I understand (structure) it, the way I react to and recreate it through my own narrative and drawing of the concept, is informed, and influenced by the ‘space of representation’, considering science fiction as the critical element.

5.2.2 Fiction on Cyberspace Perception

Butt (2018b) points out that science fiction can be used for self-reflection. The intricate interplay of textual dynamics prompts the author to incorporate sufficient real-life or familiar elements, engaging the reader in the narrative, all the while mindful of implicit social, geographical, and temporal constraints (Butt, 2018b). Eastern authors such as, Liu Cixin, Hao Jingfang, Han Song, Yoshiki Tanaka, Masamune Shirow (Manga artist) and Stanley Chan, laid the foundation for the social, geographical, and temporal dynamics of Asia in my research. This provided the background for my imagination and narrative of the concept of cyberspace, as well as the setting for female characters within the narratives. By explaining the changing setting for science fiction creation, the understanding of cyberspace within the scaled imagination and the Chinese patriarchal society is enhanced. Gibson (1986, pp.49, 237) states,

> *a consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts [...] A graphical representation of data abstracted from the banks of every computer in the human system. Unthinkable*

complexity. Lines of light ranged in the non-space of the mind, clusters, and constellations of data.

I envisioned cyberspace in a similar manner, with a strong mathematical sense, connecting the dots of data clusters by human behaviours into constellations with their stories, resembling a traffic map delineating the flow of information. My understanding of space originates from the cultural base of cyberspace, which dominates the conversation of internet-related spatial topics. This understanding is shaped by my background, my identity, and knowledge, influenced by the 'mathematical concepts' as described by Gibson (1982). The stories of cyberspace fantasies that I grew up with, alongside systemic thinking and understanding of the Internet as technology and network, contribute to the concepts of female images in Asia. These experiences predetermined my situation before I entered into the embodiments, with the space inheriting genes from cyberculture, Western novels, Asian fiction, and life experiences, capturing the preliminary figures of the studied space.

The concept of cyberspace, born in cyberculture (Bell, 2008, p. 2), was established in the West within the framework of mechanical cybernetics and technological determinism. The spreading out of cyberspace imagination emerges as a concept earlier than the technology arriving. Gibson notably introduced cyberspace as a science-fiction notion in his short story Burning Chrome (1982) for "widespread, interconnected digital technology" and later formally formed a concept within his novel Neuromancer, first published in 1984 (Gibson, 1986). He explained the reasons for creating a sense of cyberspace by using the words "realm" and "agency" to "cobble" the fictional reality, which allowed the changes to his "arena", which "he can set up science fictionction stories",[20] influenced the readers afterwards on their cyberspace imagination with the sense of blurring boundaries and detached through connections.

The blurred boundaries are similar to my study space in terms of giving clear definitions, invisibility and stability (see 6.3). Cyberspace has been studied and used in two forms of definition: one was fixed within the remoted space between facilities (Kellerman, 2007, p. 5), which has been used in computing science, and the other one was defined as a world dominated by cyber- (digital) technology situated more within cultural studies. I adapted both meanings bonded within cyberspace as the first layer of my knowledge of the term: the prefix 'cyber-' buries with historical meanings from cyberculture, and the metaphors between imaginary space in, on, or between computational devices (Turkle, 1997). Borrowing the imaginations from 1990s science fiction, the combination of the biological human body and the machine-like mechanic extension has been used profoundly with a dystopia atmosphere associated with the

[20] Finding from at the talk delivered by William Gibson, see https://www.brainpickings.org/2014/08/26/how-william-gibson-coined-cyberspace/, the original words of William Gilson were "I wanted that sense of other realm, a sense of agency within my daily life, looking for bits and pieces of reality that could be cobbled into the arena I needed."

deep awareness of the system theory-supported governance (David Bell, 2008, pp. 3–4). The top-down and by-design features of the cyberspace surrounded by cold machines and noisy operations brought the controlling and management to the space of my room through the network and the system.

5.2.3 Chinese Cyberspace and Science Fiction

The Chinese cyberspace I experience is different from Western discourse, being depoliticised and heavily influenced by Japanese and Chinese science fiction. By diving into a recent future scenario, the understanding of cyberspace is structured closely according to the dominated Asian gendered social structure. This requires a philosophical interrogation about how existence of human beings, their 'ghost(soul)' and 'shell(body)' exist in a cyber future, an image of the digital network through internet and wires overlapping above the physical infrastructure, allowing the minds to upload from our 'carnal' bodies(Oshii, 1995). Known as one of the imported products, Chinese science fiction has been defined as a novel that uses fantasy to present the material, spiritual and cultural life of human beings in a future world and a vision of science and technology (Xia, 2015). The term "science fiction" emerged in the 1920s (Luckhurst, 2005, p. 15). It intersects with the fields of science, technology, and society. The genre often involves a "shock of dysrecognition" (Hernan & Ramirez-Figueroa, 2021, p. 186), and extrapolates from current scientific and technological developments. However, this linear extrapolation may not always be accurate (Kaku & Thompson, 1995, p. 17).

Science fiction is a genre that describes and predicts the future. Writers extrapolate from current reality and intensify it, projecting them into the future. As Le Guin (2017) suggests, this genre blurs the boundary between fantasy and reality. The definition of science fiction has been narrowed down to hard science fiction. According to Heinlein (1959) and Suvin (1979), science fiction is realistic speculation about possible future events, based on adequate knowledge of the real world, past and present, and a thorough understanding of the nature and significance of the scientific method. This research adopts the literature of cognitive estrangement fiction to discuss the concept of cyberspace within digital technology, Asian culture, and collective memories of my generation. The authors' complementary aspects, both sociological and methodological, are debated. The text is written in short, straightforward sentences, using active voice and logical structure, avoiding jargon, idioms, and figures of speech, and uses simple vocabulary accessible to a broad audience. The content closely follows the source text without any additional aspects. A well-known Chinese science fiction quote states that "Chinese reality is more science fiction than science fiction", highlighting the genre's ability to draws attention to emerging currents of reality and reveal their depth and complexity. By exploring obscure realities through extreme sublimation, science fiction provides a method of revealing a purer truth. Song (2020) believed that science fiction writers offer an alternative world for people to reconsider their beliefs and alter their perspectives.

Science fiction serves as a powerful tool for exploring the experiences of the Developing World (the term *Third World* was used profoundly within the discussion, although it was already challenged as belonging to a colonial discourse), providing a platform for voices and perspectives that are often marginalised in mainstream narratives, and imagining new futures that challenge the inequalities and power dynamics of the present, specifically questioning of "the others (the *third world* and the minor)" and the "human-machine and cyborgs" (Ellis, Raja, & Nandi, 2011, p.9). Originating in the *Third World,* it explores how Western scientific discourse interacts with colonialism and the cultural production of colonised peoples from the perspective of indigenous technologies and regional cultures. The focus on indigenous and other colonial knowledge systems is sometimes more 'scientific' than Western scientific thought (Langer, 2012).

Chinese science fiction has faced challenges but has evolved, aiming to articulate people's thoughts on the history and reality of the past. As an amalgamation of science fiction and youth culture, Chinese cyberpunk culture is still in its early stages of development, taking root in the fertile ground of both Western and Asian cyberpunk traditions (Jiang, 2021). Originating in the late Qing Dynasty, Chinese science fiction primarily assumed a utopian narrative, projecting China's political aspirations for a highly idealized, technologically advanced nation through reform (Song, 2012). Scientific novelties, such as submarines, flying cars, spaceships, moon colonies, or the concept of 'reconstructing the sky,' embodied utopian visions intricately intertwined with scientific, moral, and political dimensions.

Despite experiencing a lull throughout much of the 20th century, Chinese science fiction saw a revival, particularly driven by utopian ideas flourishing since the late Qing Dynasty. During the socialist era, it was categorised as children's literature, emphasising optimism and ideological correctness. However, the genre underwent a transformation after the Cultural Revolution, with writers from Zheng Wenguang's generation introducing reflections on Chinese politics. Unfortunately, their bold endeavours were abruptly halted by the 'Clean Spiritual Pollution' movement in the mid-1980s. The late 1980s marked a significant turning point in Chinese literature and culture. The emergence of new science fiction, known as 'si-fiction,' signalled a new wave of imagination, providing an alternative means to fill the memory vacuum left by the preceding decades since the founding of the People's Republic of China.

Science fiction allows us to experiment with the practices of domination and subjugation of others. The domination, the hierarchy of power represented by women's stories contextualised in a cyberpunk space. In doing so, science fiction develops an imaginary feminist theme in cyberspace. Qiufan Chen's (2019) 'Waste Tide' was the closest science fiction to cyberpunk so far. He has created the typical Chinese 'high tech, low life'. In its first four chapters, he wrote about the experience of living in a typical village on the south coast of China, almost like today as the news described (Kurmelovs, 2021; Iva, 2013). The visualisation of 'cyberspace' instead of describing

what the ‘high tech’ formed space was, the conditioning was through the geographical, economic, and social typology existing in today's reality. Related to the bigger picture of the oppression of *Third World* women in a globalised capitalist economy. The same bottom chain of the power structure positioned the woman, the garbage girl who made her living by recycling solid waste, who was empowered by high tech, became a cyborg, and failed on a tributary to a heroine who ignited the anger of rebellion. The women of cyberspace reflect the reality of a scene of electronic doom for *Third World* women at the end of the economic chain. Cyberspace is the electronic remains and the relegated and cut-off high technology in the background.

In the realm of science fiction, the exploration of dominance and subjugation finds its experimental ground, particularly through narratives centred on women in a cyberpunk context. This exploration contributes to the development of an imaginary feminist theme within cyberspace. Qiufan Chen's (2019) ‘Waste Tide’ stands out as a notable work within the science fiction genre that comes close to the cyberpunk aesthetic. Chen portrays a vivid juxtaposition of ‘high tech and low life’ in China, depicting experiences similar to contemporary life in a typical southern coastal village. Rubbish transported from developed Western countries piles up here to be dismantled and sorted by the bare hands of the workers below, who dip their legs in polluted rivers, exchanging their health for the basic necessities of life with no protection whatsoever.

Rather than explicitly describing the formed space of 'cyberspace', Chen chooses to visualise it through the lens of contemporary geographical, economic and social realities. This narrative is intertwined with a broader narrative that addresses the oppression of *developing countries’* women within a globalised capitalist economy. Within the power structure, a woman at the bottom - a ‘garbage girl’ who earns her living by recycling waste - finds empowerment through high technology by transforming herself into a cyborg. Her journey, however, takes a detour that ultimately leads to a heroine who sparks a rebellion. The portrayal of women in cyberspace reflects the grim reality of electronic doom for those living on the economic margins. In this context, cyberspace appears as an electronic remnant against a backdrop of high technology characterised by remoteness and disconnection.

5.2.4 Cyberspace Hypotheses and Cultural Shifts

Chinese science fiction of the 1970s still inherited the "optimism" of "man will conquer the sky". However, the heroic narrative became eclipsed by communism, diminishing suspense towards the unknown of the universe. For the Chinese generation of the 1980s, the concept of cyberspace was influenced more by the the near-future cyberpunk scene constructed by Japanese science fiction films. Although largely untranslated into English, the Japanese science fiction tradition has profoundly influenced the science fiction culture of East Asia, including China, in terms of quantity and influence in new forms such as manga, film and video games, and has become

one of the most popular producers of non-English science fiction in English language. There are many strong digital fan communities in China that track unofficial translations of information from TV shows and video games in real-time. Visual details portrayed in films of 'Ghost in Shell' marked the second cornerstone of science fiction anime genre. This film and its sequel are less directly about religion and technology and more about the search for an answer to the definition of man in the cyber world. Cyberspace was the background and foundation of society, burying deep ethical questions about the boundaries between a cyborg and a human, and how cyborgs should be perceived and treated. The concept of cyberspace, situated within a dark, dystopian urban area, at the intersection of the existing, old and traditional urban structure and high technology, draws inspiration from photographs of Hong Kong, evolving into a Chinese Gothic style in subsequent films like, 'Innocent'.[21]

Instead of creating a fusion between the old and new, significant features were depicted through the objectives, the lights, and the atmospheres. The old town is full of traces left by the former inhabitants, who 'cling' to their lives amidst ubiquitous signs, placing the 'old life' under the threat and pressure of the reformation of high technology. Visual characterisations by Hiromasa Ogura captures the changing dynamics of information circulation and identity distinction. He showed the signboards reaching out like tentacles from old buildings from a distorted perspective, the black metal framed traffic signals, the intricately twisted wires above heads like snakes, the waterway, and the detailed wet market, all shrouded in humid, hazy air, drizzling under a clouded sky. The subtle neon lights gave colour to the old town, prompting the town to life. In contrast, the new town was a mirage of a modern, high-tech world, without any sign of inhabitants, appearing with a sterilised feeling, especially with the old subtle fluorescent light emerging from the window in the night scenes.

Cyberspace constituted a two-layer structure, comprising the augmented physical world and flowing light and wires representing the network world. Chinese Gothic cyberspace is subtly presented on the first layer, with non-diegetic sounds revealing the dramatic second layer, sinking the urban scenes within a misty haze of amber-coloured rusted dust, shining with glasses and signal lights. Elements include repeating Tai Chi Bagua octagonal-shaped ornamentations, rusted structures including an iron rusted aqueduct, reddish hue and Chinese temples with copper relics, and moist streets lined with peeling bills adorned with Chinese plaques, alongside float parades with Asian ghosts and gods.

The research space in my room is situated within the imagination delineated by cyberculture, fleshed out by the descriptions of science fiction, speaking with the 'third

[21] The art director Hiromasa Ogura suggested "the coexistence of the old and the new" From Oshii, M, (1993B) Patlabor 2: the Movie Archives(book), Tokyo: Bandai Visual Co., Ltd, Tohokushinsha Film Corporation I.G. cited by Stefan Riekeles (2020), Anime Architecture: Imagined Worlds and Endless Megacities, Thames & Hudson Limited, p. 93

world’ minor literature and cyberfeminism. The term ‘Minor’ implies its relationality, absent from the classification, and the absence in visibility context and image specific, rooted in the ‘third world’ soil, from which science fiction emerged. As Roberts (2006, p. 9) stated, science fiction has been “produced and consumed by young white males”, filled with narratives primarily focused on masculine male heroes saving the universe, often neglecting sensitivity or thoughtful engagement with differences. Third world science fiction and minor literature (See 4.3.2), as literature outcasts, offer straightforward and intrinsically moral and ethical narratives, challenging readers on political and sensitive issues like complexity, loyalty, duty, and obligation. Studying space with my body and my life participating within the space into the “meat-free existence” (Adam, 2002, p. 159); however, inseparable the physical body from the women’s domestic life and Asian culture, not heading to Donna Haraway’s postgendered world, hitting hard to a misogynistic Asia described in science fiction and in reality (Haraway, 1991). The enhanced human body harnesses the concept of the cyborg and positively achieves boundary-crossing between the UK and China, my physical body and the virtual world, akin to the boundary of human and animal (Haraway, 2020), similar to the companionship between humans and dogs (Haraway, 2008). The cyborg of me and the machine was set within the space in symbiosis.

5.3 The Monitored Public Accessibility

In the contemporary digital landscape, online broadcasting platforms serve as conduits for disseminating video and audio content to participants within virtual gatherings. This mechanism facilitates a unique dynamic wherein users, through their digital interfaces, are granted visual and auditory access to a broadcaster's environment. Such an arrangement metaphorically creates a 'window' to the broadcaster's realm, enabling real-time engagement and interaction. Within the broader context of the global Internet ecosystem, this accessible virtual environment constitutes a segment of what can be termed the "Internet public space."

However, it is crucial to recognise the contextual nuances that emerge within national digital boundaries. In the Chinese context, this internet public space operates within the confines of the nation's regulatory framework, colloquially referred to as the 'Great Firewall.' This regulatory architecture imparts specific characteristics and functionalities to the digital realm accessible to Chinese citizens, delineating it as a unique subset of the global internet landscape.

Drawing from my autoethnographic insights, this section endeavours to elucidate the intricate dimensions of this digital space. Specifically, it seeks to contextualise the online broadcasting environment within the dual frameworks of the broader Internet public space and the distinctively regulated digital sphere accessible to Chinese women. Through this lens, the discussion navigates the interplay between technology,

culture, and regulation, offering insights into the evolving dynamics of digital engagement within contemporary China.

5.3.1 The Internet as a Public Space

I learned about the definition of public space from architecture schools as it went through the transition from the emphasis on commonality to the trend to the admission and even promotion of the juxtaposition of the diverse. My parents, born in the 1950s, experienced public spaces as grand squares showcasing the success of communism, adorned with big flower beds and towering sculptures of President Mao's. I have visited the squares during important days like the national day to dance beside the flowers and the Ching Ming Festival to pay tribute to the soldiers who sacrificed their lives during the Second Great War. The era of reform and opening up heralded a new chapter for China's public spaces. The once-monolithic squares began to reflect individuality and diversity. Commercial hubs emerged, while civil squares transformed into multifunctional spaces—serving as both dance arenas for older people and meeting points for the youth. The advent of the digital age, particularly post-2010, introduced another dimension to this narrative. Online spaces began to mirror the functionalities of traditional public spaces, facilitating communal activities ranging from film viewings and collaborative studies to virtual meetings and e-commerce. As Arno van der Mark (MVDRV, 1999) notes, these digital realms have become communicational spaces analogous to bustling intersections, with the Internet serving as the very conduit of this vibrant exchange.

The internet's role as a public space remains a multifaceted and evolving concept, as discussed by numerous scholars (Frick et al., 2021; Harvey, 2013; North, 2010; Delarbre, 2009; McQuire, 2006; Camp & Chien, 2000). Drawing parallels with physical public spaces, online public spaces possess distinct digital characteristics. Definitions of these spaces vary, often reflecting the specific research context and disciplinary backgrounds of scholars. In the realm of European urban studies, public space is commonly defined in terms of openness and citizenship, contrasting with exclusive political domains. Such spaces symbolise societal justice and tolerance, offering communal access and adherence to shared norms. Frick, Gossen and Pentzien (2021) emphasise the need for policy interventions to optimise the Internet's potential for societal benefit, yet he also highlights concerns about its commercialisation exacerbating social inequalities and environmental harm. Conversely, North (2010) perceives minimal shifts over the past decade in the political dynamics of both digital and physical public spaces. Reflecting on personal experiences, I contemplate the political implications I encountered during the lockdown period.

5.3.2 The Public Accessible Space to Chinese Women

In the early months of 2020, amidst the onset of global uncertainty, I embarked on a unique digital journey: broadcasting my life from the UK as my pilot study before lockdown when online conferences became a phenomenon. Every night, I would connect with an ever-growing audience. By the end of my sessions, the virtual room would swell with the presence of over 300 people. Among them were ten who wanted to deepen our connection through QQ, a platform reminiscent of WhatsApp but with a distinctly Chinese essence, slightly less intimate than WeChat. Two of these digital contacts introduced themselves not just as admirers but as representatives of a broadcasting agency. They presented a tempting offer: a daily fee of £100 for just two hours of broadcasting. However, it was not just about sharing snippets of my life. The offer came with strings attached: commitments to promote certain products and the expectation that I would conform to their vision of my online persona. Rather than fostering authentic connections, these platforms often exploit and expose their privacy, commodifying their identities for the gaze of predominantly affluent male viewers (Zhang & Hjorth, 2017). Within this framework, these women are forced into roles that require emotional labour, often culminating in performances fraught with implicit sexualisation, further perpetuating patriarchal norms and expectations (Ye, 2021). Compounding these challenges are live-streaming guilds that not only capitalise on these dynamics but also actively shape and manipulate audience perceptions, reflecting the multiple ways in which digital spaces intersect with and perpetuate gendered power dynamics (Liu et al., 2021).

As I delved deeper into this digital realm, feedback poured in, highlighting both the rewards and the pitfalls of such an endeavour. For example, the screen often lit up with compliments: "The most beautiful, normal doctor in China," some proclaimed. Normally, I do not receive criticism from strangers in the physical public space, but the public space of the Internet, with its veil of anonymity, often reinforces societal norms and expectations of women. An'Chao's writings about her experience of entering academia as the first in her family to graduate from university, previously discussed in Chapter 2, echoed in my mind. Her writings vividly outlined the pervasive stereotypes that female academics like us have to contend with. Within the intimate confines of our families and wider Chinese society, the path of a female scholar is fraught with challenges. The digital public comments make me aware of the perilous line I walk between social acceptance and the abyss of judgment. In the eyes of some, if I dared to embrace my identity as a female doctor, I risked being branded as 'abnormal'. This was not a mere deviation from the norm but an insidious concept suggesting that I might be relegated to a nebulous third gender - a space between the binary of male and female. Such a label, steeped in derogation, underscores the deeply entrenched gender biases that persist in certain segments of Chinese society.

I have experienced the complexities of the Internet and mass media (Rasmussen, 2014). As I navigated this space, I encountered the complexity of online interactions. My clothing, considered by some to be 'overly conservative', became a point of discussion. Unsolicited advice about my future, particularly nudges towards a career

in show business, further highlighted the challenges of navigating online spaces as a woman. I feel that online publicity also provides a platform to dismantle and redefine societal prejudices. It gives me the means and the voice to challenge their ingrained perceptions subtly.

5.3.3 The Fear within the Publicly Accessible Space

In December 2019, a significant shift occurred when the platform restricted its live-streaming service to users outside China, citing new regulations. These regulations included the Measures for Cybersecurity Review, Implementing Measures on Security Inspection for Critical Network Equipment, TC260 guidelines on Security Certification for Critical Network Equipment and Specialised Network Products, among other directives from the Cyberspace Administration of China.[22] During my data collection phase, I engaged with various Chinese online broadcasting and meeting platforms, including Huya, Bilibili, and Douyu, accessing them within the confines of China's internet firewall. While some users reported unimpeded access, my experience differed. Specifically, I faced bans on Bilibili and Huya, platforms that rank first and second, respectively, in terms of active users. These platforms not only restricted my ability to host meetings and live-stream content but also purged all my previously uploaded research data. Their justification was my status as an overseas user. According to their suggestion, to circumvent these restrictions, I had to rely on someone in China, using their approved ID, to upload content on my behalf. Furthermore, these platforms retained the authority to remove any uploaded content without prior notification to me.

Initially, I felt anger for being punished and silenced for doing nothing wrong only because of their inexplicable precautions. I could no longer find the group of people who retained their anonymity, listening and interacting with me through the platform anymore. They cut off our connections forever. Later on, the fear overcame my anger. My ID was uploaded when I registered with the platform, according to the rules published by Cyberspace Administration of China, which means I could be easily identified within the digital public space within a second if they wanted. I could be in trouble with one wrong word. I believe the platform actually protested me from being targeted by the national police. I moved to another platform, Douyu, primarily known for gaming, where I could still broadcast. Most of the audience in Douyu is attracted by games live streaming and female broadcasters with pornographic rubrics as their content. On this new platform, my attempts at thoughtful live content were met with fewer viewers and an influx of critical comments about my appearance.

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[22] Cyberspace Administration of China (CAC) (国家互联网信息办公室)
https://uk.practicallaw.thomsonreuters.com/8-618-2325?transitionType=Default&contextData=(sc.Default)&firstPage=true

I felt a natural fear immediately coming like a cold blade put on my back neck. This fear has been ingrained in every Chinese citizen of my generation over the thousands of years of history for putting flesh individuals in front of a giant, indeterminate monster. This experience reminded me of the painful family memories of the Cultural Revolution, when my father lost his family and was forced to be sold to another family who could not give birth. I do not know how much damage censorship and punishment can do to an individual and a family. I am terrified of being put on the list of controls, such as type one, type two, border control, and so on. The incorrect sentences or misinterpreted meanings could endanger me, my daughter, my friends, and my family.

On June 4th, 2020, my WeChat account faced a sudden lockout. This severed my primary line of communication with loved ones back in China. Concerned calls began pouring in, initiated by my parents, reaching out to friends in Shanghai. They all shared a common worry: I might have unwittingly landed on some surveillance list. There is an unspoken understanding among many in China that certain online discussions can lead to restricted internet access or worse. Recalling my chat history, I remembered discussing certain sensitive topics, using veiled references or nicknames to allude to a particular figure. Just moments before the incident, I had used the Chinese character '刁' — typically denoting the act of picking something up with the mouth — as a symbolic representation of China's current president's family name's character '习'while expressing discontent over alleged corruption during his tenure. The repercussions were immediate and unsettling. Numerous relatives expressed concern, fearing the potential fallout my words might bring upon them. My parents, deeply worried, admonished me for what they perceived as a lack of awareness of expressing only patriotism and loyalty to our nation when using WeChat. Adding to this, my uncle, in a gentle yet stern manner, advised me to tread carefully, hinting that future circumstances might necessitate my return to China for the sake of my ageing parents.

Experiencing the fear of losing connection with loved ones and leading them to lose their pension and medical insurance through participation in internet-based public spaces is a markedly different encounter when compared to academic discussions on the subject. Within the discourse on China's digital public sphere, particular attention is given to its function as a political arena (Rasmussen, 2014; Delarbre, 2009) and the social and civic life the publicity holds within the nation.

5.3.4 The Public Accessible Space is not a Public Space

This thesis uses the term 'publicly accessible space' to describe a unique blend of space shaped by both the online webinar environment and the physical spaces represented through cameras. This definition challenges traditional concepts like public space, public sphere, and urban commons. These spaces may be interpreted differently when comparing them to the existing concepts of conventional public-related definitions, such as public space, public sphere, public realm, and urban commons. Discussions surrounding conventional public issues are prevalent across various disciplines. However, the Chinese perspective describes a public space in

terms of definition and everyday usage, presenting a distinct understanding compared to the Western world.

The discussions around a 'bourgeois' public sphere and public realm have led to the conclusion of the absence of China's public lives. Habermas (1992) created a concept of the public sphere which linked the civil rights and physical environment together and described a developing bourgeoisie. The concept excludes the poor and uneducated from the context of feudalism, which represents the monarchs, church, and emerging capitalists. The original arguments focused on protecting free speech within guaranteed space for 'public opinion'. Habermasians linked the public realm more to economics, which had less radical political meanings than theory (Arendt, 2017), because public realms for gathering people for purposes different than political exist outside a town centre. Arendt used the experiences of the human body to represent the public through two 'phenomena'. The first pertains to the prioritised perception of information within an abstract territory, with privacies being later "deprived and deindividualised" and "transformed" or "transfigured" by the publication of the content of the private experiences. She expressed her concerns about the "declined public realm", which is constituted by the agreements which overcome the "intensification" of "radical subjectivity". She poetically warned about the exclusivity of the public realm from private matters as the "harsher light" to the "darkness" and a place where you should "never seek to tell thy love, love (distorted by political purposes) that never told can be" (Canovan, 1985, p. 621). The second public realm, 'the common world', was founded on the agreed and shared thoughts between the individuals, conditioned by relations similar to people around a table. Her wish for a 'tangible' (strong) power to sustain connections among people reflected a deep concern regarding waning interests in the public realm and its dynamic to influence political decision-making. Arendt's depiction of the transformation process from the private to public through conventional publication also might be applied to how the transition to online platforms is altering perceptions of private and public spheres in terms of meanings attributed to 'private/intimate space', perceptions of its 'appearance and sounds' and the concept of 'commons' and disagreement in defining publicness and privacy according to her two models of public space.

Regrettably, her description of how the "petit bonheur" drove French social lifeexplains how privacies existed within ordinary daily life for the majority.[23] Zhangrun (2011)[24] argues for a narrow-defined bourgeoise, the civil society, which could be comparable

[23] "Since the decay of their once great and glorious public realm, the French have become masters in the art of being happy among "small things," within the space of their own four walls, between chest and bed, table and chair, dog and cat and flowerpot, extending to these things a care and tenderness…"

[24] Tsinghua University, Sociology Lecture Series, Civil Society, and the Spirit of Private Law, delivered by Professor Xu Zhangrun. He was silenced by criticising Xi Jinping and imprisoned for "moral turpitude" in July 2020 when the city reopened.

to a 2000s Chinese society in accordance with particular characteristics[25] and social identity defined by private existence in Chinese culture. He highlighted that social identity is driven to focus on gender and ethics within a family as a husband or wife, father, mother, or child. Chinese privateness has become an obstacle to enabling people to identify themselves as citizens, which leads to the formation of a civil society as defined by Adam Smith (Boyd, 2018), devoid of economic and political sphere In summarising Xu's perspectives.[26] the absence of related publicness is reflected in three aspects. Civil society exists between the country and individuals as a private community, which is founded on secular lives. Clubs, associations, families, and friend groups form connections existing horizontally while vertically controlled by the government with a top-down obedience relationship. These entities operate in an introverted manner, independently and self-supportingly, free from the interference of government.

Arendt has faced criticism for her anti-modernist stance due to her deep concerns over the 'Verfakksgeschichte' of the public realm (Canovan, 1985). Under political totalitarianism, the topographical figure would show no 'spatial topology', with individuals being compressed into a single mindset. The desert topology was given to describe the tyranny, being compatible with "unknown, vast open space" (Arendt, 2017, p. 466). The political rules condition public space with different typologies in tangible and intangible space. In China, political discussions in public spaces controlled by the government or online space dominated by big corporations[27] are forbidden.[28] Castell (2009) predicted a digital society characterised by increasingly segmented social groups based on opinions, potentially reducing communication and interaction for debates. Over time, society becomes fragmented, focusing on secular interests. A popular metaphor criticises civil society in China as a desert, with sand-like individuals divided by different opinions. The topology of public space lies in its accessibility and openness.

The concept of 'publicly accessible space' blurs the lines between the digital realm of webinars and physical spaces visualised through cameras, challenging traditional notions of public space, the public sphere, and urban commons. Within this context, the discourse on China's digital public space contrasts with Western interpretations, with a distinct emphasis on its role as a political arena. Internet public space represented by the publicly accessible space shares similarities with the public space

[25] He described the characteristics, including civic temperament defined from the emotional level, civic rationality based on the principles of individual persons, self-discipline and self-control, and the etiquette value (which is one of the foundations of the social network in China) based on the secular expressions of daily life.
[26] Ibid.
[27] The online space was controlled by different companies whose capitals threatened by the control government.
[28] The management of physical public space is the jurisdiction of individual institutes who act under the order of the local government.

in China, focusing on their ownership and the application and function of a centralised definition.

5.3.5 Public Space Defined Through Practice in China

The space access within my room is connected with the public domain, situated within the framework of public space in China. The data collected through the camera and microphone becomes part of internet public space. The physical space that hosts the data in my room is the transformed public space. This public space shares similar features when defined within the Chinese context. The definition of public space in China has three key features.

Firstly, the planning and use of public spaces are largely directed from the top by urban officials and experts (Ho, 2020; Deng, Cheshmehzangi, & Yang, 2015; Hagenbjörk, 2011). It is clearly defined and uniformly understood by the government and high-level academic institutions through laws, textbooks, and examinations organised by educational institutions and relevant industries. Specifically, it is defined from two aspects: land use and functional attribution. On one hand, public space is expressed by the concept of urban land use. It has natural attributes, social attributes, economic attributes, legal attributes, and economic values. According to the division regulations, undergoes administrative, usage, and real estate ownership divisions. Regarding ownership, land is a basic resource of the state, which has ownership rights and corresponding legal provisions and guarantee. [29] To maintain socialist public ownership of land, protect and rationally utilise land resources, and promote sustainable socio-economic development, the state implements a strict land use management system.[30]

Secondly, drawing from Ho (2020), public spaces are city/town squares, bike paths, community parks, riverfront trails, and municipal constructions permanently built by

[29] This follows the legislation enacted by the Ministry of Housing and Urban-Rural Development of China: Article 2 of the first chapter of the Land Administration Law of the People's Republic of China clearly states: "The People's Republic of China implements the socialist public ownership of land, that is, the ownership of the whole people and the collective ownership of the peasants." It also stipulates that except for the collective ownership of peasants, the ownership of land owned by the state under the ownership of the whole people shall be exercised by the State Council on behalf of the state. In the eighth article of the second article: “The state owns the land lost by the facility.” On the ninth day, there is a provision: “State-owned land and collectively owned land of peasants may be determined to be used by units or individuals according to law, ...” That is, according to the principle that land ownership and land use rights can be separated, although a unit or individual does not have land property rights, it can obtain land use rights through legal procedures, and it is also protected by law during the period of authorised use.

[30] This follows the legislation enacted by the Ministry of Housing and Urban-Rural Development of China: Article 5 of the first chapter of the Land Administration Law of the People's Republic of China clarifies that “the land administration department of the State Council shall be responsible for the overall management and supervision of land throughout the country”. Correspondingly, it set up land management institutions at or above the county level to exercise management functions.

the government. They must be designed by professionals such as architects, urban designers, landscape architects, with a single and defined design function to provide space for running, cycling, walking the dog, and taking photos to improve personal health and temperament and leisure activities. As Qian (2019) suggests, public space in China is not an arena for civic autonomy distinct from the state; rather, it is influenced by state ideologies. Echoing this sentiment, Flock and Breitung (2016) assert that such spaces often serve as showcases for the achievements of reforms, described through terms like 'spiritual civilisation' and 'spiritual development'. Miao (2011) contends that these spaces in China often neglect genuine civic activities, instead serving as instruments to align with governmental, investor, and designer objectives.

A flat in China it is technically owned by the state, and one acquires the right to live there for 75 years by leasing state land. The public space in my room makes me worry. I begin to self-censor my behaviours when participating in public activities. During the special dates, I should excuse myself or join in the state ideologies to show the spiritual civilisation and the harmonious society following the slogan of Xi Jinping of "telling the good Chinese stories".

However, during the pandemic, this space played a positive functional role as a public space. Stephen (1992) and Walzer (1986) describe the function of public space as promoting community cohesion, hosting traditional festivals, and acting as the stage for everyday life interactions, facilitating harmonious sharing space between acquaintances and strangers for politics, religion, business, and sports services. The digitally accessible space hosted gatherings with my family during important holiday celebrations (see 7.Cultural Dimension of the Digital Space at Home) and served as a stage for my daughter's daily life (see The Architectural Cyberspace Created at Home), and enabled educational, commercial (online shopping), and sports services (my daughter's physical education classes) through web conferencing, harmoniously between acquaintances and strangers. Carmona, Magalhães and Hammond (2008) emphasise the accessibility of publicity advocating for unrestricted public access to public or private spaces during the daytime, covering all the spatial interfaces of the internal, external, and private spaces freely accessible to the public. Compared to the physical public space, the accessible space through the Internet can be restricted to visitors through self-initiated choices. The web platform is the largest organisational and managerial entity, with individual web meeting organisers acting as managers, utilising software features to exert greater control over the participants' behaviour and how they participate.

The above discussion leads to the third feature of Chinese public space: its ambiguous ownership. The opposite concept of private in the Chinese context is a term called ‘gongjia’ or ‘gongjiade’ (as pronounced in the Chinese language) to describe the ownership of resources in China. People often refer to the facilities within or around the public space a gongjiade, which means it belongs to everyone but is owned and

controlled by the government. The term Gongjia originates from the Book of Rites, Royal Regulation in Ancient China,[31] initially donating the ruling group. Before the eve of Chinese Land Reform, Gongjiaren, a group of people from the Chinese government, were appointed as the ruling group. Subsequently, Gongjia has come to represent a similar relation between the different social classes (Wu, 2013). It has been explicitly equated with the government and state-owned enterprises and institutions since P.R. China was established (Ren, 2013). The owner of the lands would have natural conflicts in terms of the utilisation of the space. However, the production of the space does not include participation in terms of the decision of the land use or the land development plan, which controlled by governments at all levels as mandated by law.

Regarding utilisation, people lack to right to hold any gathering over certain numbers depending on the decision of the person's words. While they could apply or propose activities to use the space temporarily, strict limits exist for any political-related events, making it almost impossible to host them. Consequently, public space become intertwined with the digitally transformed, publicly accessible space characterised by the distanced ownership between individual and the ownership alongside social rules and norms governing its utilisation as a public space.

Summary

This chapter explored the impact of the digital dimensions of videoconferencing technology on domestic space through my situation as a Chinese woman. It examined the impact of the digital dimensions of videoconferencing technology on domestic space through my SITUATION as a Chinese woman. Firstly, videoconferencing technology became a transformative force as I explored the physical and digital convergence in my home. This convergence of technology and imagination is exemplified through bedtime stories across time zones and the sense of warmth felt in virtual spaces. As cyberspace transforms family life, its connection to personal experience and broader cultural narratives, particularly science fiction, becomes essential. By parsing Chinese science fiction literature and contemporary cyberculture, the chapter constructs a Chinese woman's understanding of digital space, cyberspace as influenced by unique narratives that differ from Western perspectives. It incorporates themes from both Chinese and Japanese science fiction are constructed within technology, society, and the individual. The historical trajectory of Chinese science fiction is marked by resilience, providing insights into societal reflections on technology. While the Internet promotes connectivity, it also brings challenges. For Chinese women, navigating the digital space often requires confronting deep-rooted

[31] Therefore, the state's ruler will not employ those who have been condemned and punished, nor will the great ministers receive them, nor will the soldiers pay any attention to them when they meet them on the road. They were exiled to the four corners of the earth, and wherever they went, the state did not tax them or give them the land they depended on for their livelihood, which was a sign that they should not be allowed to live in the world. Translated by the author from the Chinese Book Liji.

gender biases. Moreover, the intertwining of digital platforms with political agendas highlights potential threats to online freedom. The term 'publicly accessible space' offers a fresh perspective on the intersection of the digital and the physical, with nuances that differ from Western interpretations. The Chinese concept of ‘gongjia’ emphasises the ambiguity of ownership of space and the overall control of the state.

The next Chapter presents the architectural cyberspace created at home, examining the online conferencing environment within my flat by considering it as an architectural space.

Day in the Life Case Studies - The Digital Space at Home

The influence of the digital age is first evident each morning when I silence the alarm on my smartphone upon waking and immediately pick it up. My day begins with preparing breakfast for my daughter and myself, where the choice between coffee and green tea seems less significant than deciding who to respond to first or which news to read. While cooking, I skim through emails. My phone has essentially become an extension of my arm, used in one hand while I pour hot water into my daughter’s green tea with the other. Reflecting on this, it shard to tell whether I have morphed into a cyborg or if digital life has permeated my personal existence.

Morning
My daughter’s infant school offers only 15 minutes of online learning daily, from 8:45 to 9:00 AM. After she finished her class, my parents started looking after her remotely due to the 8-hour time difference. Morning in the UK corresponds to evening in China, which lets me dedicate about 2-3 hours to work thereafter. My daughter wanders freely around the room with her iPad; the absence of my parents’ voices over video calls seems negligible. Physical absence reduces the need for strict parenting, and she revels in this unbounded freedom.

Work
Once I close the door to my office, I dive into my work. As the live stream begins, it isas though another window opens in my room, linking me through an intricate, invisible web to distant locales. At the outset, I experimented with both public network platforms and more private archival software for broadcasting. In the virtual broadcast room, I find myself figuratively standing at a public lectern. Prior to going live, I registered my account using my national ID, agreeing to a contract with the broadcast company that stipulated a prohibition on discussing politically sensitive topics or violating various directives from the Cyberspace Administration of China. I am well-informed about the forbidden topics and actions. Unlike in physical public spaces, where boundaries are explicitly set, the rules about what constitutes politically sensitive discussions or actions in cyberspace are vague. Growing up, my parents,

schools, and social environment instructed me on appropriate behaviour in public settings. In cyberspace, I rely on these material experiences to interact with strangers. The anonymity of cyberspace fosters more direct interactions. I have developed complex feelings toward this anonymous public realm. The feedback on my personal image and the direct critiques become sharper here. Stereotypes about female scholars and an emphasis on physical appearance during video interactions often steer discussions. Remarks like “dressing too conservatively affects your follower count” or “you are the most visually appealing female scholar online” leave me uneasy. In contrast, I find webinars, which facilitate more goal-oriented interactions with strangers or acquaintances, far more comfortable.

After Lunch

Living under different pandemic policies, my parents in China and we in the UK receive contrasting information about COVID-19. News from China is often censored or restricted. All interactions between my parents, my daughter, and myself occur via WeChat’s video and voice call features. I carefully avoid any comments or information sharing that could disrupt our connection. Sometimes, this caution transforms into frustration and dissatisfaction, mingled with anxieties about the uncertain future the pandemic heralds. My parents seize every opportunity to communicate with us.

Evening

Occasionally, my parents stay up late to help with my daughter’s erratic sleep schedule during the pandemic. As my father narrates bedtime stories, she slowly drifts off to sleep. Two worlds merge through the iPad screen at her bedside, reconciling the contradictions of time and space. The 8-hour time difference and geographical distance pose a challenge in bridging these disparate realities. As my daughter queries, “What happened next? Did the little bear find its mother?” my grandparents carefully reassure me, “Do not worry, of course, the little bear and the little deer have found their families. They are all well.” “Good night, little darling.”

Nighttime Stories

After dinner, we participate in an online storytelling session for parents and children. Like many parents, I wrap my daughter in a small blanket, and we snuggle on the sofa facing the laptop, transported by an Irish storyteller into a lush forest. She leads us into a cabin in her backyard, focusing the camera on a blazing stove. We hear the storm outside, leaning against the door with a broom. Closing our eyes, we follow the storyteller into a picturesque cabin surrounded by the crackling sounds of the fire, the warmth of the flames palpably enveloping us.

6 The Architectural Cyberspace Created at Home

6.1 Introduction

This chapter examines the digital impact on the home space from an architectural perspective. Specifically, it explores the transient nature of space established through online video communication. This study uses phenomenological methods and theories to explore the architectural characteristics of cyberspace in homes, connecting subjective experiences of space to its architecture. It began with a detailed analysis of spatial narratives from autoethnographic data, aiming to identify the basic structures of space as it is experienced, navigated, and perceived.

The whole life cycle of architecture is used to analyse the impacted space from creation to dissolution. Initially, the creation phase marks the inception of the digital space, delineating the genesis of its usability within the home environment. Subsequently, the space progresses into a utilisation phase, wherein it undergoes a process of alienation. Here, the space transitions from its original domestic purposes to accommodate the demands and constraints of digital interactions. Finally, the dissolution phase signifies the culmination of this space's lifecycle, witnessing the dissolution of the digital realm back into the physical home, often leaving traces and memories of its existence. The digital device for the data exchange, i.e., the screen, opens another window to the space, introducing a new feature to the lockdown at home experience. The configuration of space within home becomes fluid according to the changing roles of the user and the interactions of the family members. Each topic within the architectural discussion unravels a unique dimension, culminating in a holistic understanding of spatial dynamics in contemporary contexts.

In this introduction, the foundation is laid for an exploration through the lens of phenomenology, particularly focusing on 'lived space'—the concept that our spatial experience is intrinsically subjective, reflecting our consciousness and being. Spaces within our homes, therefore, are not merely physical settings but are dynamically experienced through our daily activities and interactions, especially pronounced during the increased digital connectivity of the pandemic era. The theory of 'embodiment' further enriches this discourse, emphasising that our bodily presence and sensory experiences fundamentally inform and transform our perception of architectural spaces. Through these phenomenological views, the interplay between the physical and the digital is dissected, analysing how domestic spaces are conceived, navigated, and constantly reshaped in the context of digital engagement.

6.2 The Spatial Generation, Alienation and Dissolution

The generation, alienation, and dissolution of space pertains to the impact by online video communication activities. Through a simple click of the button, the visual and audio functions are connected to the Internet. Following this process, part of my home space is recorded by the camera and the microphone, which means the generation of internet space at home is completed (see **Error! Reference source not found.**). This step is fast and straightforward, easier than any of the generation of the space by nature creation or human construction. It involves a slight design consideration from my experiences, determining which part of the background in my room I will show the audience and how I would be seen and portrayed during the video conferencing (see Day in the Life Case Studies - The Architectural Space at Home

Morning:
The alarm rings at 6:30 AM, its digital chime blending with the soft hum of the city waking up outside my window. I reach for my smartphone, the screen's glow piercing through the dim light of dawn. This small device, a portal to my digital world, is my first connection every morning. It marks the beginning of a new day in the architectural cyberspace of my home.

Quietly, I rise and head to the kitchen, careful not to disturb my daughter, who is still asleep in the next room. Usually bustling with morning activity, the kitchen is serene at this hour. I start the coffee machine, the aroma filling the room, grounding me in the physical reality of my home. This coffee-making ritual is my anchor, a moment of calm before the digital storm.

Setting Up:
By 7:30 AM, I'm already settled at my desk in the living room, ready for the day ahead. This space is my work area, carefully arranged to be functional and aesthetically pleasing. The neutral background is perfect for video calls, the small plant adds a touch of nature, and my laptop is positioned just right for the best camera angle. It is not just a desk in my home; it isa stage for my digital interactions. This space allows me to transform my living room into a professional digital conference room when I log into my first meeting. Each digital window on my screen frames a different facet of our professional lives, replacing the sense of shared physical space with a mosaic of digital connections.

Morning Meetings:
I began my day with a whirlwind of meetings this morning. From 8:00 AM to noon, I moved through various digital spaces: team meetings, client presentations, and workshops. Each required a shift in tone, focus, and even physical posture. The digital space demands a heightened level of performativity, where every gesture, facial expression, and background element is part of the communication.

In a team meeting, I confidently presented a project update. The digital medium necessitates a different set of skills, where visual aids and screen sharing become crucial tools. Feedback came in real-time through chat messages, and I adapted my presentation on the fly, responding to questions and comments. Though mediated by a screen, this dynamic interaction felt immediate and engaging.

In another meeting, I listened attentively, taking notes while my daughter played quietly nearby. The boundaries between professional and personal spaces are fluid and constantly negotiated. A quick glance to check on my daughter, a swift muting of the microphone to manage a minor interruption—these actions are part of the choreography of my day. My daughter's presence is a constant reminder of the dual roles I inhabit, each requiring different aspects of my attention and care.

The transition between roles and spaces is both mental and physical. Switching from a team meeting to a client presentation involves adjusting my posture, tone of voice, and lighting. This constant shifting, while exhausting, keeps me engaged and present in each moment. The digital space becomes a cultural artifact, a blend of professional and personal realms, each influencing the other.

Afternoon:
I've encountered a few unexpected mishaps while working from home, especially involving the kids. One particularly memorable incident happened when Angela accidentally spilled a whole liter of water from a glass bottle onto the floor while I was in the middle of a meeting with my research group. The noise was enough to catch everyone's attention, and they immediately asked if I needed to check on Angela.
Working in an office with its organized and neat environment makes me appreciate the clear boundary between work and home life. It isa stark contrast to the chaos and distractions of domestic life. However, the COVID-19 lockdown has blurred these boundaries, and it is challenging to keep personal matters separate from professional life.

The pressure to maintain a professional facade while managing personal responsibilities, particularly as a working mother in China, is immense. There's a societal expectation that women in the workplace should not display their roles as mothers or wives. While men bringing their children to work might be praised, women are judged for it.

As a result, the transition to remote work has been jarring. I find myself juggling professional obligations with domestic disruptions, constantly shifting between the roles of a dedicated professional and a caring mother. When Angela caused a ruckus during my meeting, I struggled with conflicting emotions and responsibilities. Although I initially reprimanded her, the guilt weighed heavily on me, and I ended up comforting her while also trying to focus on the meeting.

The line between my public and private life has become increasingly blurred, and it is challenging to maintain a professional front amid the chaos of home life. However, at the same time, being able to provide comfort and care to my daughter while fulfilling my professional duties has been an unexpected, yet valuable, experience.

Evening:
My meeting will start at 5:00 PM sharp with people from the USA, Europe, and some in China. I need to pick up and feed my daughter before it starts. On the way there, I bought the bakery items she likes, juice, and ice cream, hoping to get her cooperation. The plan is to have an early tea with her and set up a schedule for her to play or work alone from 5:00 PM to 8:30 PM. I can set up an alarm to help her keep track of time, considering she can read the clock. I immediately felt guilty for not being able to be with her after working hours.

After three weeks of working together with Angela, she tried her best to cooperate with me on good days. The sweetest moment came an hour after the lecture started when Angela quietly carried her little plastic Ikea chair to my room to join me for a video introduction. The prefabricated structures were designed and made in the factory, then shifted to the construction site for assembling. The process was documented with details and presented beautifully. Angela watched the entire thing and then told me she likes what I do and architecture design. It was a truly miraculous moment for me to have a daughter interested in her mother’s field. I do not think I intentionally cultivated her interests in architecture, but she seems to have picked a thing or two for herself during our time together this past year.

Night:
When the evening session ended, the darkness had already enveloped the surroundings. As I entered the living room, which had become Angela's playground, it was shrouded in darkness. She had hidden amidst a jumble of toys and blankets, with unrecognizable objects scattered all around, all blending into the darkness. Her piercing scream filled the room as I flicked on the lights. After a long day's work, I decided to tolerate the mess for the night. Keeping things tidy every day had become a luxury during the lockdown. In challenging times, my motherly duties consisted of providing three reasonably healthy meals a day and supervising Angela's piano practice to ensure she made progress. The fatigue I was experiencing seemed indistinguishable, whether it was due to COVID-19 or simply the chaos of everyday life. I reached for the kettle with the intention of brewing a late-night tea, only to realize that I had an elevated temperature from indulging in a pretend game involving Angela's toys. I promptly grabbed my phone to order another COVID-19 home test kit.

Cultural Dimension of the Digital Space at Home). The room itself, alongside internet infrastructure and terminal devices, constitute the primary building procedure of the space. Other than that, the space itself does not require any specific alterations.

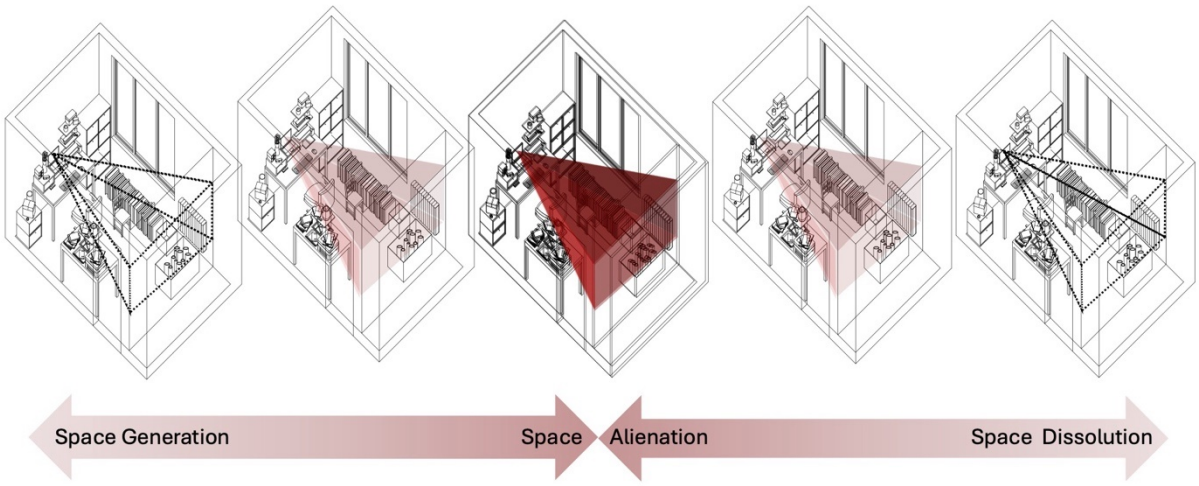


Figure 6.1 The lifespan of cyberspace at home (made by author)

Along with space generation, part of the room in the camera is cut out, leading to the alienation of the space itself as a public-accessible space away from my private flat shared with my daughter. This alienation process not only isolates the space from the whole by the camera, but it also gives it functions, the sense, the atmosphere, and the meanings to the cutting-off space. The same physical space, shuttles through my supervision meeting, my design studio or a classroom, my old working office, a tearoom in Asian culture or a cafe in the west, a dining room with my parents. My roles, moods, mind, thoughts, and tone of voice are adjusted according to the various scenarios of the space to fit the purpose of their specific requirements. Within cyberspace, I navigate through various virtual environments, engaging in critical discussions with my supervisors, embracing global citizen values, while remaining open-minded and receptive to challenges from my students. I was mindful of commercial sensitivity when addressing client inquiries and adopting a relaxed and thoughtful approach with friends. I was sensitive and respectful when interacting with my parents, all while keeping an eye on my daughter as she played in another room. The transition of the ‘spaces’ in my room challenged my previous experiences of commuting between places and showing new features of the spatial consequences.

After experiencing the layered-up spatial consequence in my room, the dissolution of the public connection takes one second of pressing the ‘leave’ button. However, the mental getting back-to-the-room process would take longer than coming home than what it was before. Without the intangibly physical connection, the terminal device restored me from the different roles and the cyborg woman to a mother, a woman at home. Following this short introduction, the subsequent sections detail the generating process, the scenarios of alienated space, and the spatial dissolution.

The process started with thoroughly examining spatial stories based on autoethnographic data to recognise the fundamental patterns of space as perceived, explored, and understood. This examination resulted in creating a model highlighting the critical aspects of spatial experience, such as how individuals perceive and construct space, its arrangement, and how boundaries and openings are defined. In the context of phenomenology, the repurposing of home spaces for digital communication can be seen as a shift in their 'intentionality'—a term from Husserl's phenomenological framework that refers to the way consciousness is always directed toward something (Husserl, 1982). The spaces of a home, once intended for personal and intimate use, become platforms for virtual interaction, altering their essence and the way individuals engage with them. These spaces now serve as digital hubs, where the physical merges with the virtual, leading to a dual presence that reshapes our understanding and experience of the home environment. This transformation influences not only the physical layout but also the emotional and social dynamics of these spaces as they acquire new meanings and functions in the digital age.

6.2.1 The Hesitant Generation and Compromised Alienation

In the transition from home spaces to public spheres through digital platforms, the concept of alienation becomes palpable. Merleau-Ponty's phenomenology of perception provides a lens to understand this transformation. The home, traditionally a private retreat, becomes a stage for public viewing, altering its essence (Merleau-Ponty & Landes, 2014a). Through the camera's lens, the space is no longer just lived in; it is observed, scrutinised, and, in this sense, alienated from its original intent. This mediation by technology shifts the spatial experience from a direct, tactile engagement to a visual, performative one. The room adapts to this new role, accommodating the gaze of a virtual audience, and in the process, the familiar sense of home acquires an unfamiliar, exhibition-like quality. The phenomenological impact of this shift is profound, as it redefines the boundaries between personal and shared experiences within the architectural confines of our dwellings.

Attending international conferences poses its own unique challenges, especially when it comes to navigating different time zones. I recall once applying for a conference in China that was scheduled for 3 a.m. My day began with a jarring alarm, prompting me to make sure my daughter was comfortably asleep. As I surreptitiously prepared coffee and showered, I approached my desk mentally sharp, only to finish my slides two minutes before my presentation - a twilight zone between my typical sleep-wake cycles.

Immediately, I questioned whether it was worth attending midnight meetings and sacrificing my sleep. What if my daughter suddenly woke up and needed comfort? The conflict between my roles of being a scholar to present at public conferences and being a mother taking care of my daughter at night clashed within the same space. The

alienation of the space must be reconciled with the engagement of cyberspace's utilisation. Within the same room, I wore my shirt and blazer with my pyjama pants and turned on the light to match the daytime atmosphere in the host site. Before my presentation, I closed my door to create the threshold from my domestic life. Since then, spatial alienation has been completed. The space had been transformed into an 'office' at home, with the closed-door, wall, window, light, and laptop making me feel more awake, as if it were daytime. However, traces of my maternal instincts remained. Since my daughter's terrifying midnight asthma attack a few months earlier, my sleep had been restless, marked by a mother's constant vigilance. So, except for my presentation time, even when I attended the conference, I left the door ajar - a visual tether to my daughter, ensuring she felt the warmth and security of my presence. This compromise, however unintentional, illustrated the duality of my roles and revealed the incomplete nature of my spatial alienation.

'The Cyborgian Vision,' integrates Haraway's cyborg theory with Merleau-Ponty's phenomenology to examine the fusion of human and digital realms. Discuss how the advent of cyberspace has expanded our bodily boundaries, allowing the digital self to engage in a realm where physical presence is no longer the sole means of interaction. This theory illustrates a new form of embodiment, suggesting that our senses and perceptions are extended through technology, thus challenging traditional conceptions of space and identity. It raises questions about the continuity of self and the digital avatar, exploring how we navigate and perceive digital spaces as extensions of our physical environment. Reflect on how this blurring of lines between the virtual and the real reshapes domestic life, altering the way we interact with family, perform daily tasks, and understand our place in the world.

6.2.2 The Connected Alienated Spaces by Atmospheres

At home in the UK, my daughter and I cherished rainy evenings by the window. Amidst this tranquillity, a friend's Facebook invitation led us to an enticing storytelling event, adding a touch of magic to our already sentimental nights. Nestled together on the sofa bed, my daughter and I fashioned a cosy cocoon beneath a shared blanket. The storyteller, beaming from her woodhouse in Ireland via the screen, extended a virtual invitation into her home. Through her microphone, the ambient sounds of rain pattering and the wind whistling around her wooden hub reached our ears, while the crackling fire within offered us a tactile sense of warmth and comfort. Hiding under the blanket, our little space was captured by the camera. Though physically separated by miles and screens, the camera lens captured the intimacy of our shared space—a sanctuary framed by the rustic allure of wood textures and punctuated by the empathetic greetings of fellow parents. Many had set similar sanctuaries at home with temporary homemade tents. In this virtual campground, we found solace and understanding, our diverse spaces interconnected by shared experiences and empathetic nods.

As the tempestuous winds and rain serenaded us from our own window, a palpable connection bridged our disparate spaces on that wintry evening, transcending the digital ether to forge genuine feeling connections among people. As Angela and I sat engrossed, the storyteller's wooden hub felt palpably close, its imagined warmth contrasting with the chill of the rainy evening outside. Steam rose from our drinks and mingled with the enchanting aura of the storyteller and her old broom. Angela, torn between curiosity and apprehension, snuggled closer under the blanket. At that moment, our sofa was transformed, transporting us to an intimate wooden hut at the heart of an Irish winter fairy tale.

6.2.2.1 The Reimagined Café

As I eagerly awaited the virtual reunion with my former flatmates, the familiarity of our undergraduate days mingled with the novelty of our current dispersed locations. The online meeting, an anticipated rendezvous, transformed our respective spaces into interconnected nodes within a shared virtual realm. Upon entering the digital space, our actions mirrored the rituals of a physical gathering. The hum of boiling water and the rustle of snacks evoked the ambience of a café, transcending the spatial constraints imposed by our disparate locations. Yet, the alienated space, delineated by the camera's lens, rendered our rooms as distinct backdrops, each revealing glimpses of our individual lives and experiences.

In my research journal, one of my friends' alienated spaces was cut off from her office's common kitchen. We saw her colleagues walking in and out from the reflection of the glass door behind her. Her exuberance, emanating from her voice, let us ignore her colleagues and formed the space, bridging the virtual with her infectious energy. Our disparate locations—my home office, my friend's communal kitchen in her workplace in China, and the other friend's living room—coalesced into a unified space that co-structured the online cafe for the three of us.

6.2.2.2 The Alienated Spaces – Two Remoted, Isolated, Floating Islands

A poignant scene unfolded before me in the ethereal realm of online connectivity, blurring the boundaries between physical space and virtual presence. There was one case documented in my experiences when talking to my cousin within cyberspace: my cousin's tear-streaked face appeared on the screen, a luminous beacon amidst the dimly lit room, her surroundings shrouded in shadows, reduced to mere fragments of pixels. This virtual portal, a window into her world, rendered her space an isolated enclave, a floating island adrift in the digital ether. As her husband grappled with the weight of his mortality, recording his final wishes in their living room, the space around him transformed into a remote, isolated sanctuary. The tangible contours of their home dissolved, replaced by a spectral landscape, detached, alienated from its physical counterpart.

Across the miles, I found myself nestled in my reading room, a realm of solace and reflection, yet paradoxically isolated, distanced from the familiar confines of my flat. The virtual interface, a conduit between our worlds, encapsulated our shared experience yet accentuated the dissonance, the disconnect between our physical realities. The lockdown imposed an eerie silence, a surreal isolation that transcended borders, transforming homes into isolated islands, each individual marooned in their sanctuary. The haunting sirens of ambulances, echoing through the streets of China and the UK, served as a sombre reminder of the shared human experience amidst the global pandemic. In this digital landscape, our spaces, once defined by tangible boundaries and familiar contours, became alienated, remote, floating islands adrift in the vast expanse of the online realm. The spatial disconnect, the isolation of the alienated space from home, generated through the lens of the screen temporarily built in my flat.

6.2.2.3 The Alienated Space and the Unsuccessful Cutting-off

The online conference, set within the intimate confines of my home, presented a paradoxical duality. The camera lens, a window into this virtual realm, sought to delineate a distinct space sequestered from the myriad distractions and intrusions of domestic life. However, the fragility of this alienation was palpable, its boundaries constantly tested by the unpredictable rhythms of familial interactions. The alienated space, meticulously crafted through the lens of the camera, sought to carve out a realm of publicity, a stage set against the backdrop of my home. Yet, the intrusion of a family member—whether a fleeting glimpse within the camera's frame or an inadvertent disclosure of information—served as a poignant reminder of the porous nature of these boundaries (see 6.3).

This delicate balance between alienation and intrusion, between the public and the private, underscored the fluidity of our perceptions and interactions within the digital realm. The online conference, while offering a platform for professional discourse, also laid bare the intricate dynamics of domestic life, the shifting boundaries and evolving narratives that shape our shared human experience within the confines of our homes.

The concept of the alienated space, a realm secluded from visual and auditory access, served as a sanctuary within the confines of my flat. This space, carefully delineated by closed doors and virtual boundaries, informed the nuances of our behaviours and perceptions, shaping our interactions within the dichotomy of public and private spheres. Yet, the fragility of this alienation was palpable, its boundaries susceptible to the unpredictable rhythms of domestic life.

My encounter with a dear friend's poignant narrative served as an emotional reminder of the permeable nature of the alienated space. The private space was isolated from

my home over a closed door in my flat for my friend's personal story. She told me calmly she had just been through surgery, and her family was in an ongoing crisis about an old notorious family affair that happened to her by a cheating husband who wanted to marry his mistress and give up his children and wife. Angela hid behind the door and listened to everything without saying anything. She was going to tell me her meeting with her friend was over. I had to say goodbye to my friend and talk to Angela instead. Because I knew she would hide there to continue to listen to our conversation. The space dissolved once it was broken.

Similarly, my engagement with esteemed design studios, Atelier Bow-Wow and MVRDV, offered a glimpse into the evolving dynamics of the private invaded publicity of the space. They provided two ways to join the meeting: by zoom and webpage. The webpage was under control, like a broadcasting interface with a chat box next to the screen. Zoom could allow you to join the meeting like a peer by showing your face next to the presenters with better communication alongside the meeting preceding. The first architect shows a top-down pattern, with the host on the top, the presenters below them, and other audiences at the bottom. The zoom allowed a flat structure controlled by the host while reserving the possibility for the participants to join with the same function granted. Soon, I regretted the decision to use Zoom. Angle broke the public space by bumping into the room and showing them her cat house design. People get used to family members accidentally walking into public events as illustrated by the various news broadcasting events that were interrupted by children and pets. The space becoming less public and more private with the showing of more personal information.

In this complex interplay between alienation and intrusion, between the virtual and the real, my home emerged as a nexus of contrasting realities, each space reflecting the multifaceted nature of our shared human experience. The blurred boundaries, the permeable divides, served as a poignant reminder of the fluidity of our perceptions and the evolving dynamics of space and identity within the digital age.

Having reviewed the intricate dynamics of spatial configurations within the context of online communication, in the following section the discussion delves into the space itself to explore the visible and invisible boundaries.

6.3 The Visible and Invisible Boundaries

Architectural boundaries, whether visible or invisible, are complex and multifaceted, serving as both physical and symbolic markers. Graves (1982) explored the concept of boundaries, delving into the essence of what separates one area from another. He emphasised the formation of architectural spaces and the pivotal role boundaries play within them. Architecture and design revolve around the concept of delineations: the distinctions between interior and exterior, between vertical and horizontal planes,

between the communal and the personal, and between man-made structures and natural elements (Roca, 2021). Based on this definition, architectural elements like roofs, floors, and walls are the common boundaries in space definition.

Boundaries can physically delineate spaces, regulating human interaction and establishing a sense of division, whether tangible or psychological. For instance, standing by the edge of a cliff may lack a clear physical barrier, yet the distinct differences in elements like air, light, and shadow still evoke a palpable sense of distinction between the two spaces. The boundaries are invisible but detected by other senses (see **Error! Reference source not found.**).

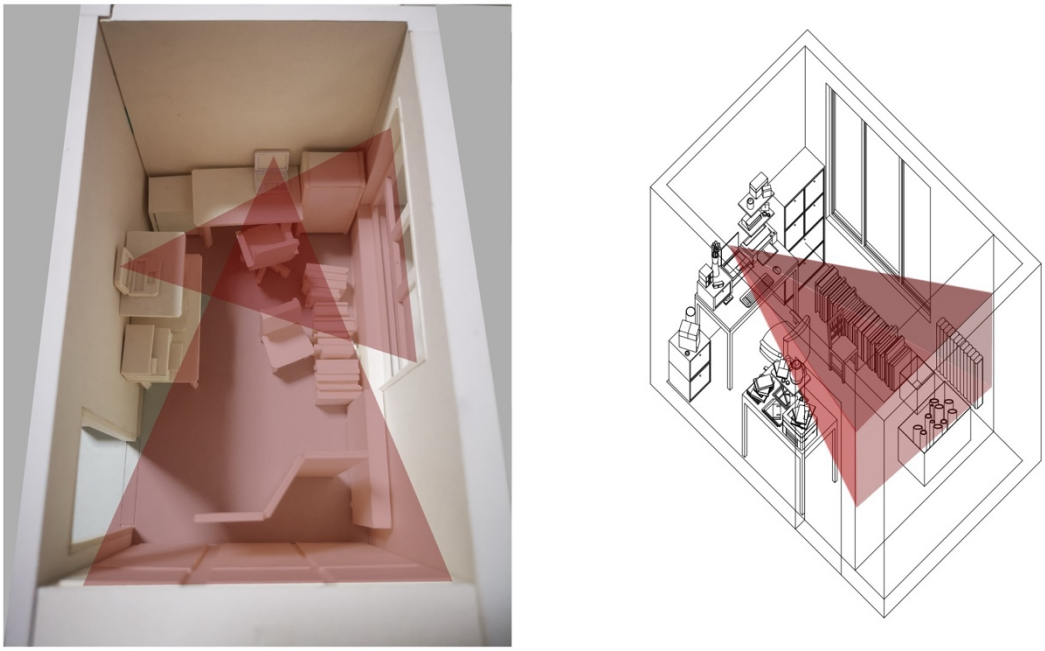


Figure 6.2 The invisible boundaries of the cyberspace (made by author)

In my research, I observed that during online communication, the camera captures a segment of the room, establishing a delineated boundary between what is seen and what lies beyond its frame. Though intangible, this boundary is unequivocal and pronounced. It functions much like tangible elements such as walls, ceilings, floors, and furniture, imparting a three-dimensional essence to the virtual space. When the camera remains stationary, this boundary retains its stability and clarity.

Beyond the confines set by the camera in online interactions, I grapple with additional boundaries delineated by my dual roles as a single mother and a professional woman working from home. Unlike the tangible divisions within physical architectural structures, these boundaries persist, often eluding clear definition or easy resolution. In the realm of digital communication, the once invisible boundaries within our homes are now sharply defined by the camera's frame. This introduces a phenomenological shift in how space is experienced. Drawing from Heidegger's (1971) 'building, dwelling,

thinking', we might consider the camera frame as a builder of new boundaries. These boundaries not only demarcate the physical limits of visibility but also shape the very essence of our lived experience. The area within the camera's view becomes a stage for public engagement, a space where professional identities are performed, and social interactions are conducted. Conversely, the space outside this frame remains private, a refuge for the unscripted and intimate aspects of dwelling. The camera, therefore, dictates a dual existence of space - one curated for the digital audience, the other authentic and unseen. This dichotomy influences our behaviour, our sense of presence, and the emotional resonance of our home as both a personal dwelling and a professional setting.

The next sections explore invisible boundaries' characteristics through the autoethnographic experiences of everyday use of cyberspace at home.

6.3.1 The Invisible Boundary Integrates with the Boundaries of the Building in Shaping the Changing At-Home Space

The research space is cocooned by two layers formed by the digital invisible boundary and the tangible boundaries defined by construction. The roof, floor, wall, and window structure the room, serving as a foundational layer. This physical framework provides a buffer against external elements and enhances the containment of domestic activities. The digital invisible space, working in tandem with the table holding my laptop, tablets or smartphones, carves out distinct zones within the room—creating pathways with walls, defining spaces with floors, and establishing a tangible ceiling above (see **Error! Reference source not found.**).

The boundaries of this cyberspace are ephemeral, dissipating as soon as the call ends. When the meeting is over, with the click of a button and the dimming of the camera lights, these boundaries disappear with the virtual space. While these boundaries are tangible, they are also fragile. With no restrictions on exit, it is not comparable to the intangible boundaries between exhibition and audience in a traditional museum, which strictly adheres to common sense and museum regulations. The only administrator is me, and I am constantly training my daughter to familiarise herself with the invisible lines. The potency of these boundaries is emphasised by the nature of the virtual spaces they define. They blend elements of classrooms, meeting rooms, cafeterias, and family rooms into a unified environment. During more formal online activities, I can confidently reinforce these boundaries:

- Getting up and closing the door to increase privacy.
- Adjusting the camera angle to exclude my daughter.
- Even drawing the curtains to eliminate outside sounds and further restrict our virtual space.

6.3.1.1 Boundaries and Bonds: Discovering the Interplay of Structure and Connection in the Home Workspace with Angela

Starting from the second week of the first lockdown in March 2020, I embarked on a mission to weave together the intricate threads of professional commitment and my parenting duty. With Angela by my side, we began our experiment in cohabiting within the visible and the invisible boundaries of our home, a space now multiplying as a workplace, school, home and more. Through the following experiences, I will emphasise the discussion of their key features.

Proximity and Adjustment

In the early days of the lockdown, our worlds were intrinsically entwined. Angela, seeking a semblance of her school routine, gravitated towards me, setting up her makeshift classroom beside my workspace. We shared physical space but also navigated the complexities of dual demands. Those initial days were marked by constant adjustments—shifting from room to room, ensuring that Angela felt supported while I juggled my professional and family responsibilities. Over time, the boundaries between us took shape, measured by the distance, the periods of quiet, and the opening and closing of doors that symbolised our evolving dynamic.

My daughter sought a school-like working atmosphere with a close friend, me. We had to sit together at the dining table to do everything within half a metre distance in the first few days. At this stage, there were no boundaries in my flat. Gradually, I found myself confined to the kitchen, using the short wall as a semi-boundary to keep her company by answering her needs. We measure our success through tangible metrics: maintaining physical distance, observing quiet intervals, and ceremonially opening and closing doors. However, beneath these quantifiable metrics, lay a deeper quest to understand the contours of our relationship and the boundaries defining it before exploring the digital boundary.

Navigating Blurred Boundaries

All the problems were related to childcare and work for the first few days. Staying in one room all the time during the day and putting her to bed was difficult, and my work was stressful as I needed to make presentations to students within my teaching assistant job. I tried everything I could to patiently read to her, sing to her, bathe her, feed her, and eventually I had to compromise and finish my work in bed.

The next day, my room was as messy as it had been five days earlier. Angela's belongings had invaded my reading room, and my office was filled with our belated

Christmas presents. The nightmare was seeing the lines blur between Angela's playground, my messy home and my workplace. When closing the door proved ineffective, I developed a new skill: angling the camera to the wall. Everything on the floor and pictures of my home on the wall are excluded from the camera, which puts me in a neat, clean and productive space. Focusing visually on the screen was the final task. Everything was calm and refreshing as I was immersed in emails, course presentations, and design proposals. Looking out the window, which connects to the screen, gave me a space to refill my cluttered room. I felt alive again.

Challenges marked our initial days as we grappled with the intrusion of personal spaces. Angela's toys seemed to migrate, blurring the lines between work and play, mother and scholar. These physical encroachments mirrored the complex emotional boundaries we were navigating, prompting introspection and adaptation.

Adaptation and Equilibrium

Our initial days were marked by challenges as we grappled with the intrusion of personal spaces. Angela's toys seemed to migrate, blurring the lines between work and play, mother, and scholar. Before I noticed it, we were in tune with each other's rhythms after two weeks. Angela could be alone in her room for a quiet hour or two while I worked in the adjacent space. One morning, as I prepared breakfast for Angela, I juggled conversations with my parents about their New Year's resolutions, bought holiday food for them online, talked to the delivery guy, and printed out Angela's study materials. We just two minutes remaining before my work commitments, I set up the software for Angela to chat with her friends and hurry back to my room to start the meeting. It was then that I heard Angela's strained voice indicating her throat was not clear. She was struggling to speak. At this point, I ran back to the kitchen, poured her hot water with honey, put it in her water bottle and watched her swallow it. Her voice was much clearer; she giggled, and appeared satisfied, then I returned to my desk.

Three weeks later, Angela was able to fit her game plan around my work schedule. She was happy to watch Chinese cartoons on YouTube during my lecture time. She ate a late breakfast and moved contentedly to the couch to enjoy her film. I went to my room and closed the door. When I heard her complaining about the content of the film, I invited her to my room. Peter W. Ferritto's lecture was very interesting, as he explained the concept of conditional structures with ordinary examples and managed to keep a 7-year-old girl listening to him for half an hour. I almost felt like I was in a dream, connected to Angela through something beyond mother-daughter blood ties. Angela sat on my lap and listened intently with wide eyes. When the presentation got more in-depth, she kissed me and then went back to her room to call her friend.

The Boundaries as the Liminal to Space

It was through this process that the boundaries between Angela and me at work were established. She clearly understood that strangers have access to her mother's reading room at home. Sometimes, she waited quietly outside the door. The walls and the camera structured a new experience for her; the boundaries at home have their interplaying structures. They are fluid and flexible, not static lines but dynamic spaces, constantly renegotiated and redefined through our interactions. The boundaries are both physical and emotional, which forged the spaces that also define us.

6.3.1.2 The Overlapping Formed a Playground Space for My Daughter

The space unseen by the camera became my daughter's secret playground. With surprising agility, she became adept at evading its lens. I can still recall a particularly memorable instance when she stealthily crept into my room, skilfully avoiding the camera's view. She manoeuvred her way to the wall, slipping beneath the table, and then gently rested her fluffy head on my knee, revealing her endearingly playful expression. Such antics seemed second nature to her, reminiscent of a child cautiously peeking from behind a parent's leg when encountering unfamiliar faces. For her, these playful escapades, constantly pushing the boundaries of the camera's gaze, transformed into a cherished game: a silent challenge to remain unseen while capturing my undivided attention.

Angela had a mischievous streak, especially during my informal meetings with those she was familiar with. She devised a playful game, subtly shifting around the room to remain just out of the camera's view, leaving those on-screen puzzled and amused. At times, she would opt for complete stillness, waiting silently, only to surprise us with a sudden appearance from an unexpected corner. Eventually, I would adjust by relocating my laptop to a standing table, hoping to minimise these delightful disruptions. In these moments, Angela would cheekily climb onto a chair, peering into the camera to greet everyone with a mischievous grin.

Once assured of the muted sound and deactivated camera, I would immerse myself in the meeting, my focus undisturbed by the need to be visible. It was during these times that Angela would seize her opportunity. With a burst of energy, she would dart into the room, plant a quick kiss on my cheek, and dash off before the meeting participants could fully process the playful interruption.

6.3.1.3 Using the Boundaries to Craft Intimacy and Emotional Depth within the Space

By relocating the window beyond the camera's field of view and adjusting its angle to focus closely on the speaker, a more intimate atmosphere is crafted. The camera captures only the speaker's visage and a fragment of the room's ceiling. This adjustment not only narrows the visual expanse but also amplifies the feeling of

seclusion, fostering a more profound connection in the communication. Such adjustments became second nature to me, especially when aiming to shield my interactions from Angela's inadvertent interruptions or when engaging in personal conversations with friends.

In my virtual rendezvous with friends from China, I deliberately opened the window, virtually inviting them into our nearby communal areas. As the window opened, a symphony of ambient sounds unfolded: the soft whisper of the wind, the faint hum of passing cars and the happy laughter of children from the flat below. These sounds, mixed with the ambient backdrop of rain and the soft glow of the evening moon, added a palpable sense of atmosphere and emotion to our digital interaction.

In adjusting my camera to showcase the window and reveal more of my surroundings, the boundaries of perception were stretched. Through this window's view, the audience was granted fleeting glimpses of the streetscape and the adjacent locales, weaving a tapestry of connection. While these places might be miles away geographically, they felt intimately familiar emotionally. The ambient sounds further enriched this tapestry: the whispering wind, distant car murmurs, the cheerful laughter of children, and the evocative tones of rain or moonlit glow. Together, these sensory elements painted a vivid and immersive experience for all involved.

The blurring of boundaries between the virtual and physical worlds, combined with the sensory interplay, added layers of emotional depth to the meetings, transforming a typical online interaction into a more immersive and emotionally resonant experience.

6.3.2 The Invisible Boundary Clashes with the Symbolical Boundaries Defined by Users

The boundaries around the publicly accessible space symbolically divide the workspace and the domestic space, speaking about the conflicts between my domestic life as a single mother with a 4-year-old daughter and non-children working at home.

Within my home, four sets of boundaries emerged:

1. Boundaries formed by architectural elements.
2. Boundaries created by online activities.
3. Overlapping boundaries around the publicly accessible space in my home
4. Boundaries around a working-at-home mother from the home with children

Navigating these boundaries, particularly within the realm of online interactions, presents unique challenges. To delineate my professional space from my personal one, I strategically placed my food and water within the camera's frame and wore a professional top while opting for casual bottoms beneath the desk. My workspace, complete with books, stationery, and my children's artwork, was meticulously arranged to remain out of the camera's view during formal meetings.

However, despite these efforts, the same boundary must accommodate both my professional persona and my roles as a mother—whether my daughter is present or not. My daughter, brimming with the boundless energy of a five-year-old, frequently occupies the space beneath my desk or the floor beyond the camera's scope. This dynamic often strains my focus during meetings. External sounds, such as nature or street noise, easily permeate the room through the window. Similarly, the walls offer little resistance to the sounds of doorbells, my daughter's chatter, music, laughter, and occasional tears. These auditory intrusions, coupled with my inherent concerns for my daughter, test the limits of the boundaries I have established, especially amid the backdrop of the stringent COVID-19 lockdowns. Subsequent sections explore the conversation about personal experiences, shedding light on specific characteristics observed during day-to-day tasks.

6.3.2.1 The Penetrating Sound - Spilling Water Incident

Working from home with a lively five-year-old brings its own set challenges. One day, during a crucial meeting with my research group, Angela's enthusiasm led to a dramatic spill—a whole litre of water from a glass bottle right onto the kitchen floor. The clatter was unmistakable, and I could almost hear the collective concern from my colleagues. In that split second, I felt the weight of two worlds colliding. There I was, aiming for professionalism, with my neat workspace and structured agenda, suddenly jolted back to the unpredictable realm of motherhood. It is like living two lives in parallel, often intersecting at the most inconvenient times.

The boundaries between my private and public life have always been somewhat blurred, especially with the challenges of working from home. I mean, who has not hastily shoved aside a half-eaten pizza or a pile of laundry before joining a video call? There is an innate desire to conceal the mundane aspects of daily life—untidy rooms, unfinished tasks, and personal idiosyncrasies—from the scrutinising gaze of colleagues and acquaintances. But in China, where societal expectations for women can be particularly rigid, these blurred lines become even more complicated. Societal pressures, particularly in cultures, amplify this dichotomy. Women, in particular, grapple with societal perceptions where motherhood and professional aspirations are often viewed as conflicting identities rather than complementary roles.

This balancing act hit home during Angela's water-spilling episode. A rush of emotions was an overwhelming concern for Angela, frustration over the interruption, and that nagging guilt that every working mom knows all too well. I mean, here I was, trying to maintain my composure in a professional setting while all I could think about was comforting my daughter. During this chaos, something remarkable happened. As I held Angela close, listening to the faint voices from my meeting in the background, I realised that these two worlds, however disparate, are intrinsically connected. A thread of love, sacrifice, and unwavering commitment weaves them together.

So, yes, my life is a juggling act, a constant ebb and flow between deadlines and bedtime stories, conference calls and cuddles. It is messy and unpredictable, filled with its fair share of spilt water and dashed expectations. But it is also profoundly beautiful, a testament to the resilience of the human spirit and the boundless capacity for love. This confluence of professional and personal domains reached a zenith during the incident with Angela. The surge of emotions—frustration, concern, and guilt—highlighted the intricate web of responsibilities and expectations I navigate daily. The subsequent moments, where I sought solace in the embrace of my daughter while fulfilling professional obligations, encapsulated the essence of my dual roles. It was a poignant reminder of the fluid boundaries that exist between the personal and the professional, the private and the public.

6.3.2.2 The Vulnerability of the Boundaries

At the start of the new school year, I felt reinvigorated and armed with meticulous planning and determination, envisioning a harmonious blend of academic rigour and motherly responsibilities. However, the complex dance of balancing these two worlds soon revealed the fragility of digital boundaries. I accompanied Angela as she sought to build her digital boundaries in the living room, her domain filled with all her toys. Through a closed door, I fantasised that we would be co-immersed in our invisible boundaries.

As I endeavoured to attend an online seminar, I heard the sound break through the boundaries and penetrated the wall of my room. The problem arose when my father was teaching Angela a piano duet while playing the traditional Chinese instrument, the erhu. As a demonstration, he played a record on his side, and Angela started running around and screaming. At that moment, all the boundaries at home seemed to dissolve. On the screen, one of my colleagues was holding her crying baby, while others ambled around in the background of her room. The sounds all passed through the Internet to my room. My brain was not ready to handle the workshop mindset of four spaces overlapping. I could picture myself sitting in the building with Angela running around her bedroom, my father playing his erhu in his reading room with his background sounds right next door, my colleague holding her newborn baby in the back of her

reading room, and only a fragile wall between me and the people walking by or stopping to chat in the big office.

This vulnerability extends further, touching upon the complexities of my identity as a single mother. Since transitioning to remote work, the persistent anxiety of navigating professional responsibilities while upholding the expectations placed upon a single Asian female parent has been a constant companion. It often felt as though I was precariously balanced on a seesaw: one side consumed by the demands of my professional obligations and the other fraught with concerns for my daughter's wellbeing just a room away. Memories of my professional experiences in China loom large, where the mere utterance of ‘she's a single mum’ could cast a shadow over my efforts, amplifying a sense of inadequacy and vulnerability. The fear of falling short compared to my male colleagues, the looming spectre of missed meetings, and the anticipation of potential setbacks weigh heavily on my mind.

The boundaries between digital and physical space in my home, where personal and professional life intertwine, face significant challenges. These boundaries are not as strong as I would like them to be and are susceptible to the unpredictable distractions of family life toward the user's identity.

6.3.2.3 The Vulnerability of the Boundaries Services as Comforts for a Working Mother

The transition to online work and education during the 2019 lockdown presented unforeseen challenges, blurring the boundaries between professional commitments and parental responsibilities. This became glaringly evident on our first day back to virtual classrooms and workspaces. Angela and I found ourselves rushing to catch up after a relaxed morning routine, hastily consuming our breakfast before diving into our respective online sessions. As Angela subtly manoeuvred her empty bowl out of the camera's view, I grappled with the delicate task of preserving a semblance of professional decorum amidst the domestic backdrop. At that moment, the invisible boundary and the working-personal boundaries work harmoniously.

Secluded behind the closed door of my workspace, I endeavoured to immerse myself in a scholarly presentation, intermittently reassured by the muffled sounds of Angela's distant laughter and engagement in her own virtual lesson. This sound penetrating gently broke the digital and physical boundaries and served as a comforting reminder of her wellbeing, allowing me to concentrate on my work with a modicum of peace. However, the tranquillity was abruptly shattered when Angela's distress calls pierced through the walls, disrupting my focus and eliciting sympathetic glances from my online peers. Her innocent queries and subsequent technical glitches further eroded my concentration, amplifying the inherent tensions of juggling work and motherhood within the confines of a single space.

6.3.3 Transformed Boundaries at Home: Navigating Domestic Life as a Cyborg

Within the confines of the room, boundaries are intricately woven through a complex network of digital interfaces that remain concealed behind screens. This digital framework, akin to the sophisticated architecture of a grand edifice, serves as the conduit for connectivity. Analogous to a building's structural integrity supporting its diverse elements, the intricate digital pathways—encompassing wires, signals, and covert codes—underpin our vast virtual interconnectedness. Donna Haraway's conceptualisation of cyborgs as entities melding the mechanical and the organic realm of information underscores this interconnectedness. In this paradigm, boundaries transcend physicality, delving into the nuanced realms of signal-to-noise ratios and relational dynamics. She argues cyborgs, much like dogs, beckon profound inquiries into histories, politics, and ethics, necessitating considerations of care, empowerment, and temporal dimensions (Haraway, 2020, p. 21).

As I engage with my laptop, I find myself embodying the essence of Haraway's cyborgian vision. This metamorphosis delineates a newfound boundary—a frontier demarcating the realms of the cyborg from those of conventional existence. This prompts introspection: How does one, as a cyborg, harmonise the multifaceted facets of life—spanning domesticity, professional commitments, familial ties, and cultural roots? Whether perceived through the lens of womanhood or cyborgian identity, the tangible and intangible digital signals permeating the vast expanse of the Internet and computational ecosystems become indispensable lifelines, sustaining both organic and inorganic entities within my abode. Does my evolved cyborgian form elucidate the myriad queries pertaining to histories, politics, and ethics, echoing the profundity associated with dogs in shaping our understanding of the universe?

Reflecting upon the innate human experiences—of seeing, hearing, smelling, and touching—and the intrinsic bond between a mother and child, I discern the accessibility and affordability of this digital realm. It seamlessly integrates into our domestic sanctuaries, necessitating minimal exertion or additional human interventions. Yet, this seemingly robust digital fabric remains surprisingly fragile, susceptible to disruptions as trivial as a child's cough, a melodious bird's song, a gentle knock, or the innocent laughter of neighbouring children. Such is the paradox of our times—a digital edifice constructed upon state-of-the-art technology yet vulnerable to the gentlest of human interferences.

The next section explores the openings within the space which break the boundaries both on the physical architectural elements and the invisible boundaries of the cyberspace.

6.4 The Opening in the Space

Pallasmaa (2011, p. 130) states, “Windows are the fragile eyes of the house, which observe the world and inspect visitors.” The act of looking bridged the gap between the inner and outer worlds, transforming the image into a genuine architectural encounter. During the COVID lockdowns, beyond the visual appeal of looking through windows, the act of passing through doors, the distant sounds echoing from other rooms, and the aroma of cooking wafting from the kitchen collectively epitomised the authentic architectural experiences of home.

With the boundary-defined space, the actual physical space defined by traditional architectural elements both privately and publicly contained my space, positioning me in the space overlapping with the openings of the window to the near outside of the street and garden, the door connecting me to my living room, my daughter’s activity ground, and the pathway of the screen to other participants’ rooms. My reading room acts as a portal and a station during meetings, conducting the information from different openings to infuse the space with various meanings (see **Error! Reference source not found.**). To reveal the relationship between the openings and the space within my reading room, the architectural elements of walls, roofs, and floors were abstracted into plates. The openings were shown as hollows on the plates. The lights interact around and through the hollows and solids, showing shadows with different shades observed by the eyes.

6.4.1 The Two Windows Are the Connection Between Me and The World

As of April 28th, approximately 4.2 billion individuals, accounting for 54% of the world’s population, were under full or partial lockdowns, and nearly every person worldwide was experiencing some level of containment actions(IEA, 2020). Our top-floor flat lack yards or balconies, confining us within our homes due to the pandemic affecting both the rich and the poor. Like middle-class girls who could not leave the house until they were married off in the old world, we lived in a boudoir, with only the window providing a means of connection with the outside world. In contrast to the door, which is a

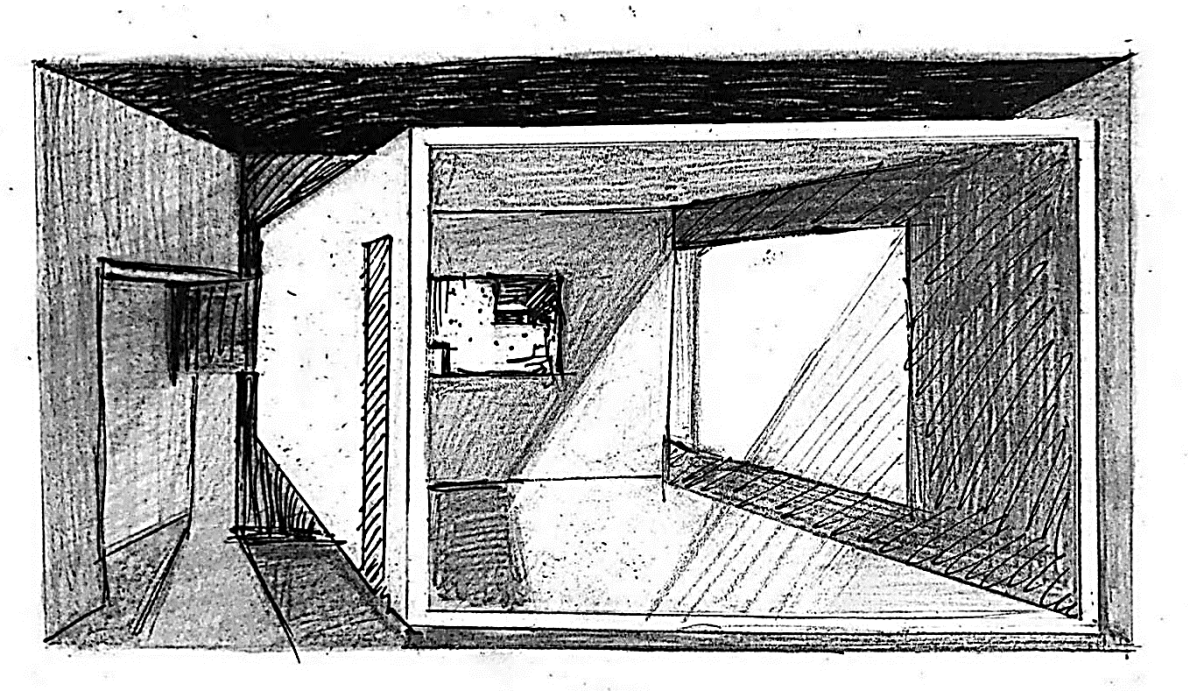


Figure 6.3 Hand Drawing of the Opening of the Space (made by author)

passage but actually closed, the window is the only way to communicate between inside and outside the room, and it is also the place where the mind and eyes are free.

The window symbolises a space of communication. This sentiment is echoed in Chinese poetry, such as in the lines: “By the window, I lingered, in solitude, how could I pass the hours until darkness fell?” (Li, 1924) or “wearing the moon and wearing the stars to be afraid of fear, long standing under the screen window” (Su, 1924) is to view the outside from the inside; “Last night, unexpectedly, I dreamt of returning home, and there you stood, applying makeup after brushing your hair” (Shang, 1964). It is to view the inside from the outside, from the outside looking in. In Chinese women’s space, windows represent trust and imagination.

In my reading room, where I worked mostly during the COVID-19 lockdowns, there are two windows. One is the one on the south facing wall of the room. The windowsill in my study is only 300 mm high, while the window frame is made of solid and durable plastic material, double-glazed and 1800 mm high. Our neighbour’s sitting room is within the wall that extends perpendicular to one side of this window. We open the window to smell our neighbours’ authentic Turkish kebabs. The window faces Clarkegrove Road, which became the critters’ home during the pandemic. Moving a small stool to sit in front of the window, my daughter saw the birds that made their home on our roof, passing squirrels, cats and even foxes. For my daughter, window frames, blinds, and sills are merely intermediary devices between the room and the

outside, and she imagines that she can stretch infinitely beyond what she sees (see

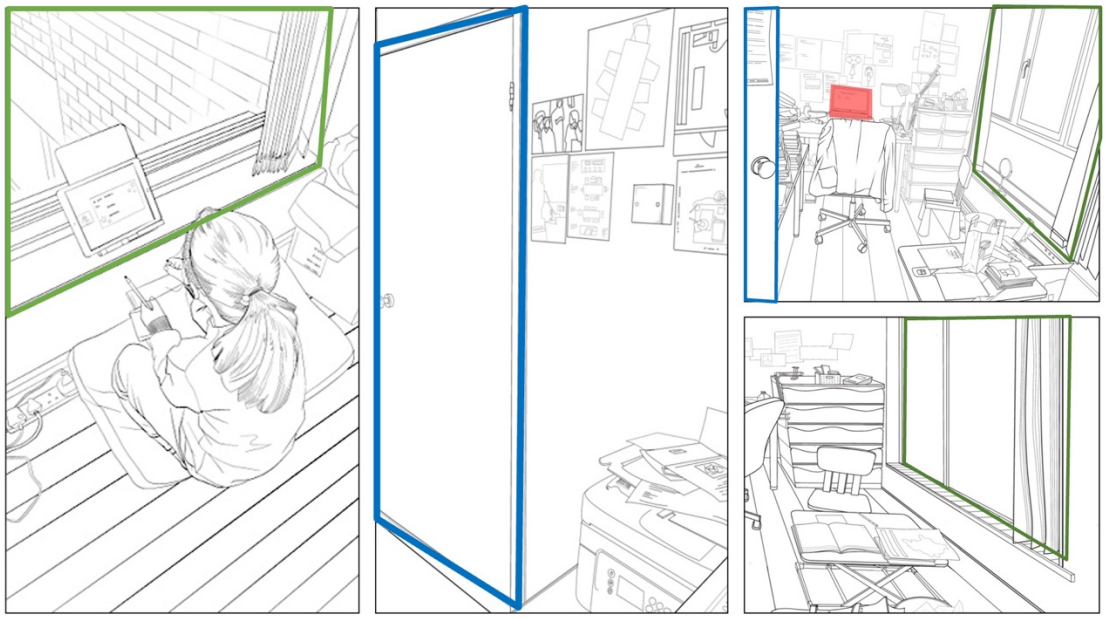


Figure 6.4 The opening in my reading room (made by author)). This drawing organises the presentation of this drawing by applying the logic of line drawing through the use of traditional architectural drawing. The use of simple black lines suggests the basic elements of the space, actively removing the interference of rich colours, light and shadows, and complex material textures compared to photographs; the position of the openings is outlined with bright wide lines and transparent red blocks, adding hierarchy without destroying the original image.

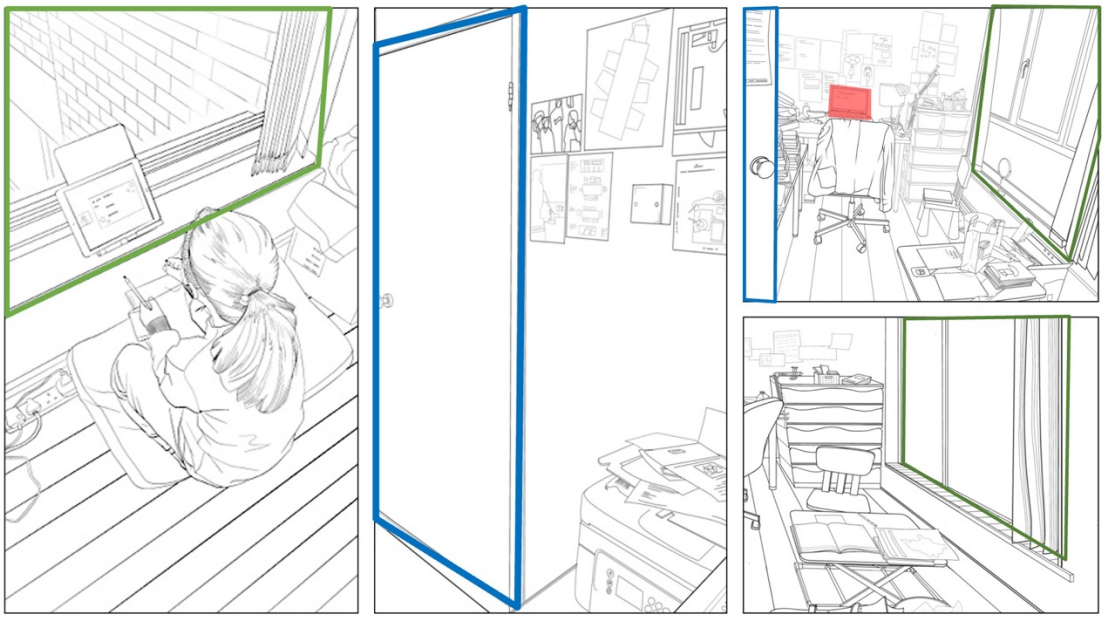


Figure 6.4 The opening in my reading room (made by author)

During the online meetings, the window acted as an exit for me and the entrance to the participants. I moved my eyes from the lighted screen for one or two seconds to the window. I escaped from thousands of possible public places with others, to nature

and the street, observing and listening to the birds nesting on my roof, mother birds working, and taking care of their young—the almost deserted street with occasionally passersby carrying groceries.

The digital terminal device opens another window to connect us to my reading room. When I introduced my friends to the daytime view through my window, they looked through the ‘window (the screen)’ and entered the space, comparing the weather and climate in the UK and China. I opened the window, allowing the breeze and fresh air to flow into my room. This act sparked discussions about air quality and vegetation, even though they were not physically experiencing it, eventually leading to conversations about climate change and the air pollution around them.

Through the screen, they entered the outside of my flat over the window. Through the window, I left the public spaces and existed in the overlapped spaces in my room—the screen as the entrance and the exit. The shopping mall, online museum, online conferences, and online meetings in different places invited me to a number of geographically remote spaces in the world. The exit lies between the transition, the opening and the closing of the software or the web pages.

6.4.2 The Door as the Threshold During Online Conferencing

Doors can lead to intriguing and novel experiences within, serving not only as entry and exit points but also as gateways to new possibilities (Przewłocka-Sionek, 2021). Different from the window and the screen, within the overlapping space, the door meant more as an entrance for me instead of an exit. Stepping through the door into the living room, I entered domestic life. Without transition like commuting between work and home, or the small talk and the necessary distraction from the traffic and the weather. For my daughter, the door hides her safe from the eye of the camera while letting me notice her needs.

After two more weeks, Angela grasped that during her mother's online presentations, she would be visible to the audience if she walked through the door and into the camera's view. The room serves as the public space connected to the living room. We had made rules about how to ask for help when I was working. Because I was unsure of her judgement in an emergency, I had made it as simple as if she was too bored to get her mother to play or if she needed her mother’s help for other reasons. There is also a fragile balance between serious work and childcare. Good manners would be for her to knock on my door first to ask if she could come in and to stand by the door to ask me questions. If she had to go near the screen, she had to greet everyone and then apologise for interrupting the meeting, making her feel as though she was entering an adult’s workplace.

She was not comfortable being on camera, she would scratch the door like a cat and imitate the sound of a cat to get my attention. If I concentrated too hard to notice her, she would pretend to be another animal and scratch the door harder with louder, more plaintive moans. I could not be angry with her for doing those lovely things to her mother, and I began to think about the rules I had made at the beginning. They were too complicated for her to follow, and we had to take a step back and simplify them by standing at the door and asking me to mute myself, turn off the camera and then talk to her. She was too shy to say hello to people she was uncomfortable with, primarily my supervisors and my lecturers. Nevertheless, she adeptly found the camera's blind spots, positioning herself close enough to get my attention, which was the other side of an open door. The greeting was changed to "Mum, can you please be quiet and turn off the camera?"

In essence, the above narrative underscores the profound implications of architectural elements in shaping personal experiences, particularly in an era dominated by digital interactions and physical restrictions.

6.5 The Layout of The Space

During lockdown, my home was slowly changed to fit the newly added functions along with the needs of my daughter, myself, and our interactions. The spatial configuration of my setup can be analysed from three perspectives:

1. Physical Arrangement: The furniture and architectural elements segment the space into distinct areas, each with its unique characteristics. The table and camera synergise to define and shape the space predominantly (see **Error! Reference source not found.**5). This drawing draws on the logic of traditional architectural sectional drawing, using three parallel horizontals represented by the colours red, blue and yellow to cut the space horizontally, dividing the space of the reading room into three layers that influence and define the behaviour of the users (my daughter and me). Looking vertically down from the blue plane, my daughter can draw and read in this lower space without being captured by the camera above the red plane.

2. Daily Routine Timeline: The layout through the timeline of my daily routine, the spaces juxtaposed to the specific requirement of the functional spaces (see **Error! Reference source not found.**6)

3. Levels of Publicity and Privacy: the household's daily necessities form clear boundaries to mark a layered space sequence.

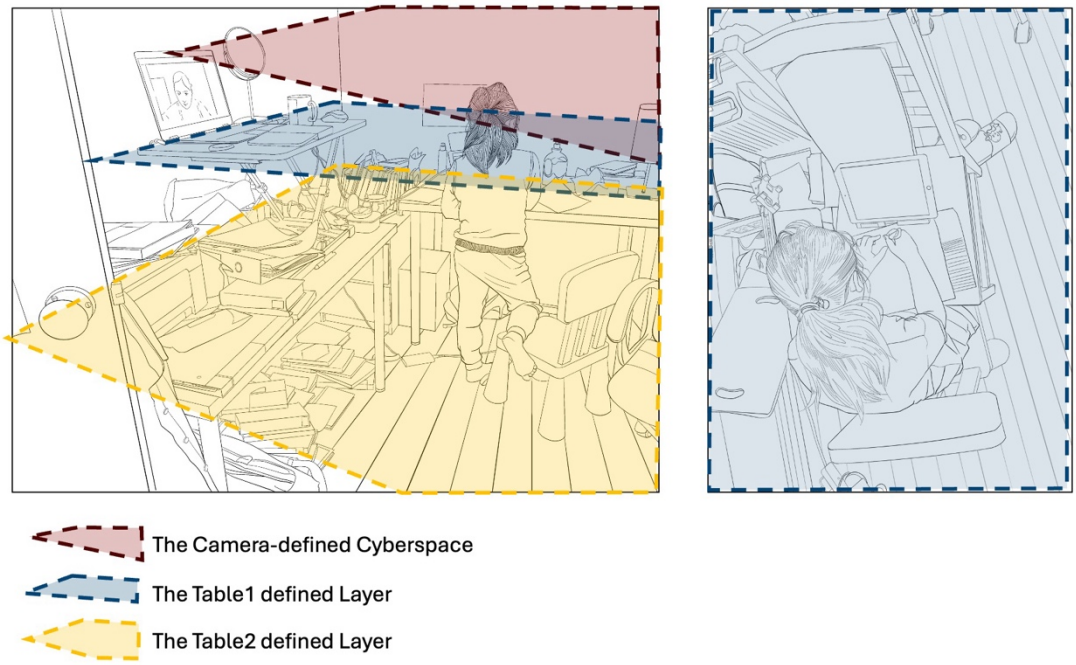


Figure 6.5 Physical Arrangement (made by author)

The space undergoes rapid transformations on hectic days, mirroring shifts in my roles—from a design tutor to a conference attendee, a doctoral candidate, a patient, and a storyteller. These alterations encompass changes in object placement, camera positioning, and backdrop adjustments. These modifications resonate with theatrical stage design, aligning with my narrative of a dedicated single mother crafting an efficient home workspace.

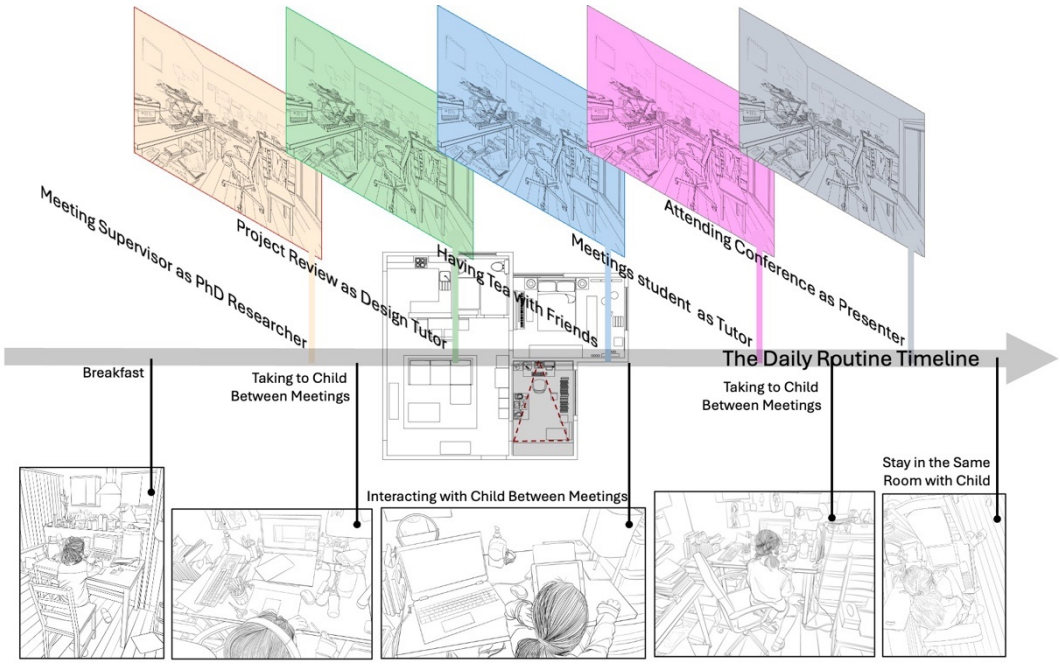


Figure 6.6 Daily Routine Timeline (made by author)

The layout was defined by a horizontal line parallel to my desk and the books (or supports) that held my camera equipment. The table acted as a separator from my

room, providing an invisible space for my body under the torso, a hiding place for my messy books next to the tangled wires on the floor, and a fun and challenging space for my daughter and her friends. The windowsill sometimes defined the horizontal line: when the curtain was open, the camera was running, and the space between the planes created by the floor and the windowsill diffused warmth and safety to my feet and the children (Angela and her bubble-group friends) around them during my working hours. The short wall below the windowsill hugs my daughter and her little friends, all safe and comfortable (see **Error! Reference source not found.**7).

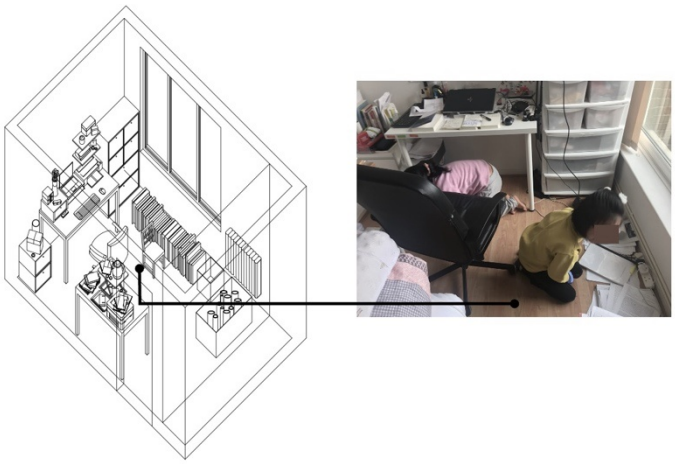


Figure 6.7 Bubble group friends in my reading room (made by author)

The camera delineates a space accessible to the public or unfamiliar viewers. The area beneath the camera, adjacent to the laptop, becomes a blind spot for personal items such as breakfast, mobile phones, water, snacks, notebooks, and pens. What was once a private space behind the camera transitions into the most exposed area, focusing on my face, while everything adjacent and behind me within the room is vividly depicted on the screen. Utilising a movable screen or positioning myself against a wall creates a sense of safety and neutrality within the space. Alternatively, I can showcase the depth and ambience of my reading room, providing participants with a glimpse into my life. The unique characteristics and nuances of the space are further elucidated in the subsequent autoethnographic narratives. The requirement according to the user's role and the daily activities the spatial function engaged with both unfolds the layout of the cyberspace at home with their own specific properties.

6.5.1 The Spatial Configuration Setup for A Working-From-Home Single Parent

There were a few rearrangements and changing purposes during the lockdown in my flat. Some adjustments were made to fit the new needs, and some were passively changed due to unexpected situations. When COVID-19 started spreading, I set up a

porch within my limited flat space. The porch's function was similar to my flat in China: to dust the dirt, replace indoor shoes, and hang the mirror and stones to leave the unlucky and evil spirits outside the home (). But the ritual was replaced here by spraying the antibacterial liquid to clear the outfits and deliveries. I packed the shoes used to positioned outside our home.

My daughter's little bedroom was changed into my reading room; my bedroom slowly accumulated piles of panic-buying groceries, which slowly changed to Angela's music room plus storage. Angle started to sleep with me in the living room, leading the living room with the dining zone becoming her territory. The flexible space is the passive-formed living room. Around the dining table is her infant school replacement, which contains the functions of a temporary home-school and the playground under the table. A bicycle moved in to take a space in the walking corridor. A few special events outlined the underspin of the spatial configuration and the link between a working-from-home single parent and a child.

6.5.1.1 Navigating Spatial Fluidity of Cyberspace-Assisted Home Amidst Illness

As I lay in bed, the living room, connected to the online conference, typically a nexus of family activity, metamorphosed into an amalgamation of my personal sanctuary and an unexpected professional hub. I turned off the camera, only audibly joining the discussion when Angela fell asleep. With my laptop perched on the bed's edge and Angela's soft play nearby, the boundaries between my restorative haven and a virtual conference room seemed to blur, challenging conventional spatial definitions.

6.5.1.2 Navigating the Low Spaces with the Crab Walk

Amidst the lockdown, our home space unfolded in unique layers, particularly catering for my daughter. The lower zones, often just outside the camera's view, became her dominion (see Figure 6.8). I grew accustomed to gauging the duration Angela would dedicate to her solitary activities. On brighter days, the customary rules of restraint seemed to dissipate. With the uninhibited energy reminiscent of a crab skittering along the shoreline, she would traverse our rooms. Whether squatting barefoot on the floor, scaling the sofa's armrests, bouncing between beds, or orchestrating impromptu piano performances with her feet, she revelled in her explorations. Eventually, she would make her way to my door, navigate the terrain of stacked books, meander over the chair's backrest, find a cosy spot under the table, and then, as swiftly as she arrived, she would depart. Left in her wake, I would simply shut the door, reclaiming a momentary tranquillity.

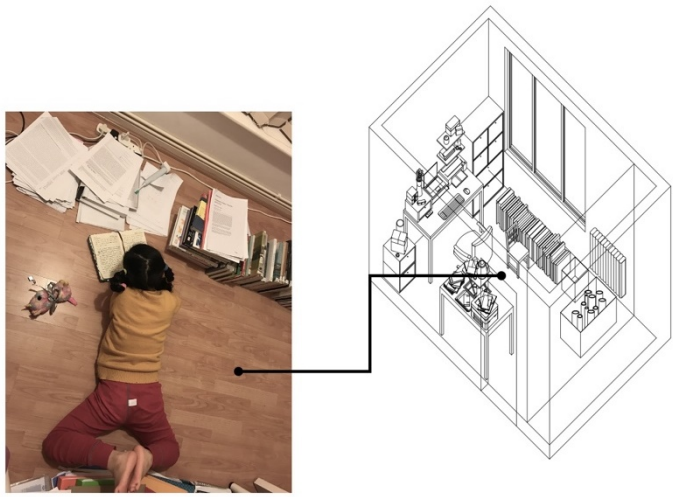


Figure 6.8 Child in my reading room (made by author)

6.5.1.3 The Fluidity of Bubble Spaces

Crafting a workspace within the confines of a home proved more intricate than merely delineating a boundary or shutting a door. Rather, it felt akin to navigating a collection of bath bubbles—The space was not merely within the bigger space. It was like bath bubbles, crushed together, pushed into one another, hardly distinguishable. They popped up and formed into a bigger sphere—constantly shifting, merging, and occasionally coalescing into larger entities. The space was not within the bigger space. They formed into a bigger sphere. This spatial realm was fluid, its contours ever-changing.

When Angela's bubble group friend visited, they sought entry into my reading room, assuring a harmonious playtime under their own watchful eyes. As I commenced my online meeting and greeted participants through the chat, my attention was momentarily diverted by the sight of two young artists engrossed in their drawings by the entrance to my sanctuary. In that instance, it felt as though two bubbles had seamlessly merged (see Figure 6.9).

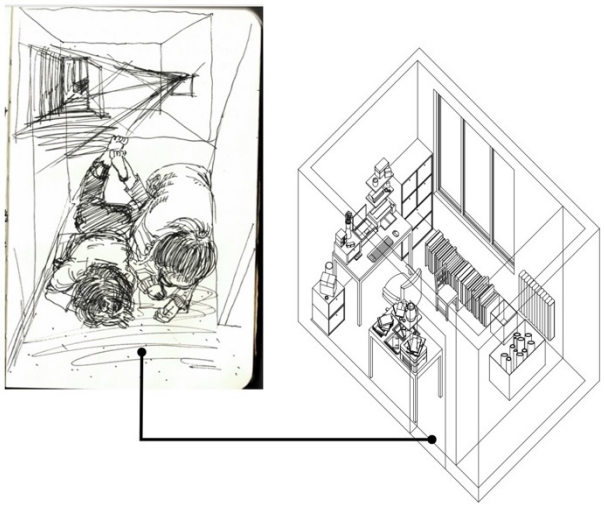


Figure 6.9 Bubble group friends at the door (made by author)

Attempting to stifle their innate exuberance—be it their laughter, leaps, or lively escapades—within the confines of our flat would be both unrealistic and unkind. Instead, a more harmonious rhythm was established: outdoor frolics to expend their boundless energy, followed by tranquil indoor reading sessions as evening approached. I watched them later, sprawled contentedly on the couch, engrossed in their books, while my laptop and I occupied a serene bubble within the expansive playground that was our home.

6.5.1.4 The Layered-Visual Penetrating Spaces

Holl (2007, p. 16) posits that the position from which a view is experienced can fundamentally shape the perception of space, emphasising that "the change in the arrangements of surfaces defining space...is the essence of the parallax." My personal experience of space during an online meeting was multifaceted, comprising four distinct layers: the personal, the publicly accessible, the domestic, and the threshold.

The personal layer is a reflection of my individual life, encapsulating my engagement with academic communities worldwide as I sit with my morning coffee and a bowl of hand-crafted Chinese ravioli, these items anchoring me in the comforting rituals of the weekend. The publicly accessible layer presents the content of the academic presentations, facilitating my interaction with the wider scholarly dialogue through messaging.

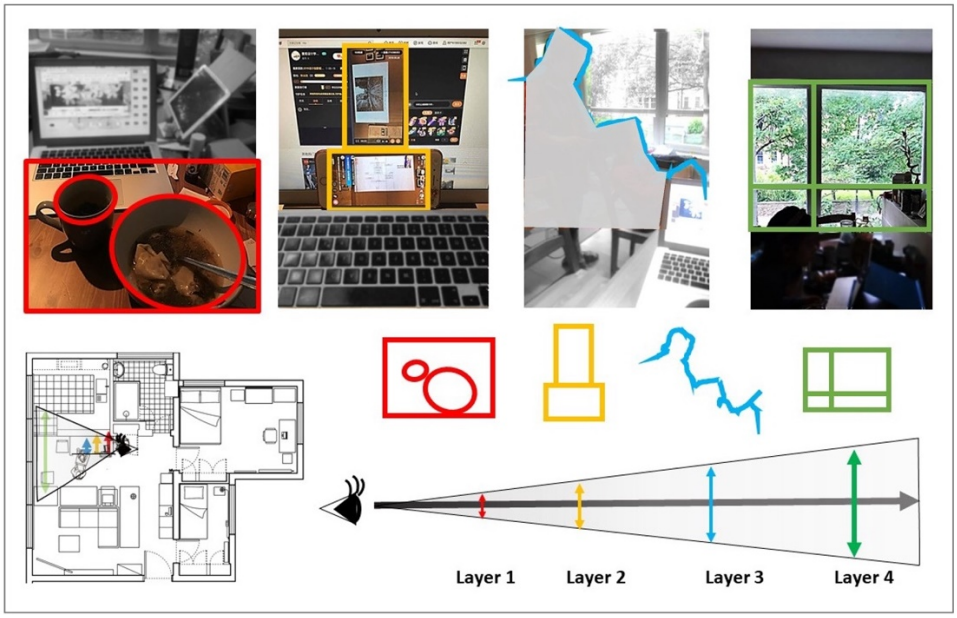


Figure 6.10 the Layered-Visual Penetrating Spaces (made by author)

At the same time, my family partakes in a typical Saturday morning routine within the domestic layer. The window serves as a threshold, not only demarcating the separation of spaces but also inviting nature into my field of view, merging the outside with the inside (see Figure 6.10). Following the thinking of architectural typology, complex shapes are simplified to retain basic figure information according to their essential features. The abstracted rectangles of my mobile phone and computer video screens, the circles suggested by the mug and bowl in the near distance, the silhouettes of people in the farther distance and the lines of the window frames are streamlined, marking their positions in the floor plan through different colours; analysing their positions in relation to the user-observer, minding the discussion of the four levels that they represent for the space user of the cyberspace, the private and the public relations of the space.

The juxtaposition of elements within my view underscores the intimate transformation of cyberspace. The physical screen, which both isolates and unites diverse activities occurring on either side, heightens my awareness of occurrences that lie beyond the confines of this publicly accessible domain. The screen functions not merely as a barrier but, in the vein of traditional Chinese and Japanese furnishings (Takashina, Reynaud, & Gallus, 2018), as a symbol of courtesy and self-regulation. This interplay of spaces creates dual thresholds: one defining the public within the private domain and another enveloping the public sphere amidst private, everyday turmoil. Logging online bridges my casual Saturday morning to a globally accessible public conference, merging both time and space through public interactions.

6.5.2 Daily Routine Timeline: Spaces Defined by Time and Function

My mornings typically begin with breakfast at the dining table alongside my daughter. As the sun climbs higher, I find myself swiftly clearing away remnants of our meal to make room for her online classes. Soon after, the living room metamorphoses into her realm, a place of virtual learning and chats with friends. Occasionally, she would create a cosy nook beside the heater, constructing a makeshift tent where giggles and whispers echoed—a sanctuary within our home (see Figure 6.11).



Figure 6.11 The tents in my living room (made by author)

Lunch and dinner were more fluid affairs. On days when fatigue weighed heavily, the dining table's tidiness was sacrificed, and we made way for impromptu picnics on the living room rug. On brighter days, Angela's adaptability shone through. She would quietly place her little plastic IKEA chair next to mine, choosing to immerse herself in the world of online lectures or get lost in the pages of her favourite books (see Figure 6.11).

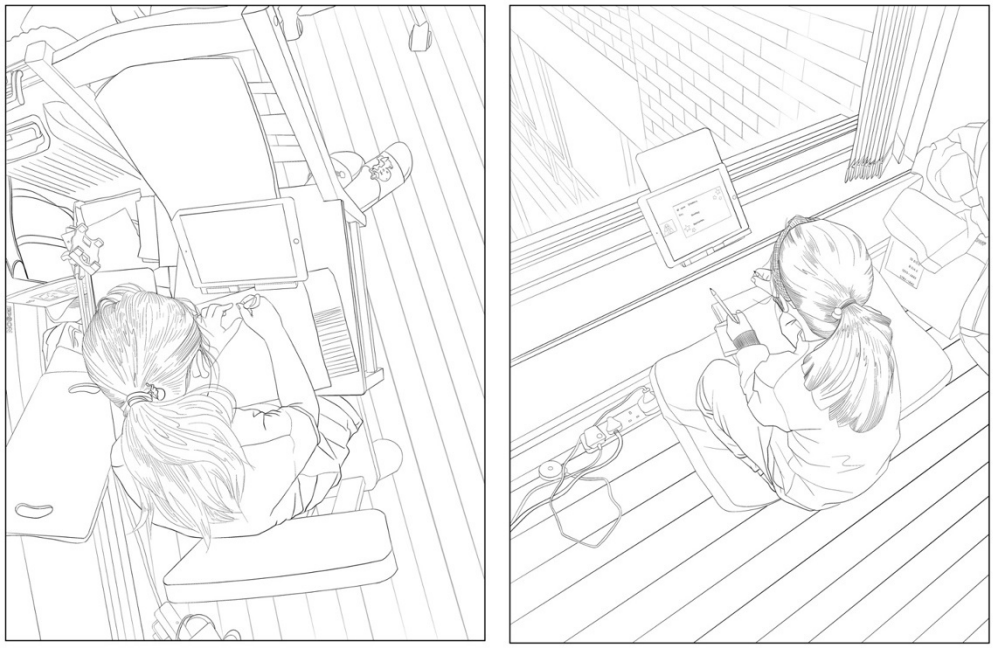


Figure 6.12 My daughter in my reading room (made by author)

However, only some days unfolded with such harmony. On more challenging days, our boundaries blurred. Angela's spot became the floor next to me, her solemn face seeking solace on my lap, making it challenging for me to concentrate on work. Her chair and my presence delineate her sanctuary within the home. Interestingly, the kitchen remained untouched, the one space where Angela seldom ventured. Our living quarters transformed again as evening approached, revealing a kaleidoscope of scenes and ‘bubble spaces’ that emerged spontaneously.

In the quiet aftermath of digital interaction, the essence of our homes can feel fundamentally altered. The spaces that were once purely personal, now suffused with the residue of public exchange, challenge our sensory memory. Bachelard (2014), in 'The Poetics of Space', captures this transformation, suggesting that the corners and contours of a room retain the echo of conversations, the emotional tenor of meetings conducted via screens. As we disconnect, the intangible feelings and memories linger, inviting us to perceive familiar settings in new, perhaps more contemplative lights. Our rooms, once private, continue to resonate with the public roles they have played, their atmospheres thick with the unseen presence of faraway voices and gazes, altering our intimate relationship with these spaces long after the screen goes dark.

Summary

This chapter delved into the digital technology impacted architectural spaces within the confines of a pandemic-lockdown home. From an architectural perspective, the home space, mainly influenced by online video communication, is not static but evolves through distinct phases.

The journey commences with the construction phase, where the digital space is birthed, establishing its initial utility within the domestic realm. Accelerated by the click of an online video communication button, this phase effortlessly integrates digital functionalities into the home environment. Subsequently, the space evolves into a ’utilisation phase,’ undergoing a metamorphosis as it adapts to the demands of digital interactions. This transformation often leads to alienation as the space pivots from its original domestic context, reshaping its functions and meanings. Central to this transformation is the role of digital devices, particularly screens, which introduce novel features to the home experience. These devices redefine spatial configurations, rendering them fluid and adaptable, contingent upon inhabitants' shifting roles and interactions. The dissolution phase concludes this lifecycle, signifying the reintegration of the digital realm back into the tangible home space, albeit with lingering imprints of its existence.

Throughout this exploration, the chapter underscored the pivotal role of architectural boundaries. Whether tangible, like walls and floors, or intangible, such as those delineated by online video frames, these boundaries demarcate spaces, influencing their perceptions and interactions. The chapter further highlighted the complexities introduced by dual roles, such as being a professional and a parent, revealing how these multifaceted identities intersect and sometimes conflict within the home space.

Beyond its physical function, the window acts as a conduit between internal spaces and the external environment. Traditional architectural elements like windows and doors redefine personal boundaries, blending the roles of observer and observed. These features evolve from mere passage points to symbolic markers, separating work from home spaces. Opening the window on the screen transformed my reading room into a gateway, linking me and my environment with participants across the globe. The spatial layout, continually evolving to accommodate diverse functionalities and interactions, emerges as a dynamic reflection of personal narratives and roles. The four aspects offer a nuanced exploration of how digital interventions redefine architectural spaces, reshaping experiences, identities, and interactions within the familiar home backdrop during the COVID-19 lockdowns. The fluidity and vulnerability of spatial constructs in the digital age offer insights into the transformative potential and inherent challenges of virtual interactions within the confines of the home.

The upcoming chapter explores cyberspace within domestic settings for Chinese women, delving into how Chinese cultural perspectives shape this experience.

Day in the Life Case Studies - The Architectural Space at Home

Morning:
The alarm rings at 6:30 AM, its digital chime blending with the soft hum of the city waking up outside my window. I reach for my smartphone, the screen’s glow piercing

through the dim light of dawn. This small device, a portal to my digital world, is my first connection every morning. It marks the beginning of a new day in the architectural cyberspace of my home.

Quietly, I rise and head to the kitchen, careful not to disturb my daughter, who is still asleep in the next room. Usually bustling with morning activity, the kitchen is serene at this hour. I start the coffee machine, the aroma filling the room, grounding me in the physical reality of my home. This coffee-making ritual is my anchor, a moment of calm before the digital storm.

Setting Up:
By 7:30 AM, I'm already settled at my desk in the living room, ready for the day ahead. This space is my work area, carefully arranged to be functional and aesthetically pleasing. The neutral background is perfect for video calls, the small plant adds a touch of nature, and my laptop is positioned just right for the best camera angle. It is not just a desk in my home; it isa stage for my digital interactions. This space allows me to transform my living room into a professional digital conference room when I log into my first meeting. Each digital window on my screen frames a different facet of our professional lives, replacing the sense of shared physical space with a mosaic of digital connections.

Morning Meetings:
I began my day with a whirlwind of meetings this morning. From 8:00 AM to noon, I moved through various digital spaces: team meetings, client presentations, and workshops. Each required a shift in tone, focus, and even physical posture. The digital space demands a heightened level of performativity, where every gesture, facial expression, and background element is part of the communication.

In a team meeting, I confidently presented a project update. The digital medium necessitates a different set of skills, where visual aids and screen sharing become crucial tools. Feedback came in real-time through chat messages, and I adapted my presentation on the fly, responding to questions and comments. Though mediated by a screen, this dynamic interaction felt immediate and engaging.

In another meeting, I listened attentively, taking notes while my daughter played quietly nearby. The boundaries between professional and personal spaces are fluid and constantly negotiated. A quick glance to check on my daughter, a swift muting of the microphone to manage a minor interruption—these actions are part of the choreography of my day. My daughter's presence is a constant reminder of the dual roles I inhabit, each requiring different aspects of my attention and care.

The transition between roles and spaces is both mental and physical. Switching from a team meeting to a client presentation involves adjusting my posture, tone of voice, and lighting. This constant shifting, while exhausting, keeps me engaged and present

in each moment. The digital space becomes a cultural artifact, a blend of professional and personal realms, each influencing the other.

Afternoon:
I've encountered a few unexpected mishaps while working from home, especially involving the kids. One particularly memorable incident happened when Angela accidentally spilled a whole liter of water from a glass bottle onto the floor while I was in the middle of a meeting with my research group. The noise was enough to catch everyone's attention, and they immediately asked if I needed to check on Angela.
Working in an office with its organized and neat environment makes me appreciate the clear boundary between work and home life. It isa stark contrast to the chaos and distractions of domestic life. However, the COVID-19 lockdown has blurred these boundaries, and it is challenging to keep personal matters separate from professional life.

The pressure to maintain a professional facade while managing personal responsibilities, particularly as a working mother in China, is immense. There's a societal expectation that women in the workplace should not display their roles as mothers or wives. While men bringing their children to work might be praised, women are judged for it.

As a result, the transition to remote work has been jarring. I find myself juggling professional obligations with domestic disruptions, constantly shifting between the roles of a dedicated professional and a caring mother. When Angela caused a ruckus during my meeting, I struggled with conflicting emotions and responsibilities. Although I initially reprimanded her, the guilt weighed heavily on me, and I ended up comforting her while also trying to focus on the meeting.

The line between my public and private life has become increasingly blurred, and it is challenging to maintain a professional front amid the chaos of home life. However, at the same time, being able to provide comfort and care to my daughter while fulfilling my professional duties has been an unexpected, yet valuable, experience.

Evening:
My meeting will start at 5:00 PM sharp with people from the USA, Europe, and some in China. I need to pick up and feed my daughter before it starts. On the way there, I bought the bakery items she likes, juice, and ice cream, hoping to get her cooperation. The plan is to have an early tea with her and set up a schedule for her to play or work alone from 5:00 PM to 8:30 PM. I can set up an alarm to help her keep track of time, considering she can read the clock. I immediately felt guilty for not being able to be with her after working hours.

After three weeks of working together with Angela, she tried her best to cooperate with me on good days. The sweetest moment came an hour after the lecture started when

Angela quietly carried her little plastic Ikea chair to my room to join me for a video introduction. The prefabricated structures were designed and made in the factory, then shifted to the construction site for assembling. The process was documented with details and presented beautifully. Angela watched the entire thing and then told me she likes what I do and architecture design. It was a truly miraculous moment for me to have a daughter interested in her mother's field. I do not think I intentionally cultivated her interests in architecture, but she seems to have picked a thing or two for herself during our time together this past year.

Night:
When the evening session ended, the darkness had already enveloped the surroundings. As I entered the living room, which had become Angela's playground, it was shrouded in darkness. She had hidden amidst a jumble of toys and blankets, with unrecognizable objects scattered all around, all blending into the darkness. Her piercing scream filled the room as I flicked on the lights. After a long day's work, I decided to tolerate the mess for the night. Keeping things tidy every day had become a luxury during the lockdown. In challenging times, my motherly duties consisted of providing three reasonably healthy meals a day and supervising Angela's piano practice to ensure she made progress. The fatigue I was experiencing seemed indistinguishable, whether it was due to COVID-19 or simply the chaos of everyday life. I reached for the kettle with the intention of brewing a late-night tea, only to realize that I had an elevated temperature from indulging in a pretend game involving Angela's toys. I promptly grabbed my phone to order another COVID-19 home test kit.

7 Cultural Dimension of the Digital Space at Home

7.1 Introduction

The exploration of the digital realm shed light on Chinese women's understanding of cyberspace. The architectural discussion then deconstructed the space surrounding this perception of space. In the unprecedented era of the COVID-19 lockdowns, Chinese women found themselves navigating the intricate intersections of tradition and technology within the confines of their homes. This chapter explores the transformative dynamics of online video conferencing by utilising mirrors, tables, and space dividers as cultural artefacts that reflect the evolution of spatial experiences for Chinese women. The investigation unfolds through the lens of Chinese culture, offering a nuanced perspective on the impact of virtual interactions on home spaces.

The historical journey commences with an exploration of mirrors in Chinese culture, unravelling their symbolic, spiritual, and practical significance. From their association with protection, spirituality, and femininity in ancient China to their role in funerary practices, mirrors emerge as multifaceted symbols interwoven with poetry and storytelling. As mirrors metamorphose in the digital age, particularly during lockdowns, they transcend mere reflective surfaces to become essential tools for managing appearances, adapting to virtual communication nuances, and shaping perceptions in online interactions.

The narrative then moves on to the role of tables during lockdown, unveiling their multifunctionality within the author's home. Three tables in the flat became focal points, serving as dining spaces, workbenches, and family gathering points. In addition to their practical functions, tables are examined as architectural elements shaping spatial organisation. Rooted in Chinese family culture, the dining table takes centre stage, embodying cultural symbolism and playing a pivotal role in rituals and gatherings. The impact of technology on traditional roles assigned to women is scrutinised through the evolving dynamics of tables, presenting them as central elements in navigating the complexities of the COVID-19 lockdowns.

The interplay of virtual backgrounds, traditional Chinese space dividers, and the female body within online communication is explored. The integration of virtual backgrounds is juxtaposed with the historical significance of Chinese movable partitions, drawing parallels with Chinese paintings. Commonalities between physical space dividers and virtual backdrops emerged, underscoring their transformative impact on spatial perception. The discussion in this chapter further positions the female body as a subject shaped by digital technology and embodying the reshaping of female identity in space through technological influences.

This chapter serves as a nuanced exploration of Chinese women's experiences during the COVID-19 lockdowns, revealing the characteristics of the spaces under the influences between the Chinese cultural and digital space.

7.2 Mirrors

This section outlines the historical relationship between Chinese women and the mirror, including its symbolism and significance within Asian culture as a symbol of protection, spiritual beliefs and femininity, and its physical function of reflection, extending the metaphorical meanings of self-reflection embedded in social norms. These have continued into the digital age, with the mirror's juxtaposition with screens in the home acting as a medium and representation of the social gaze for hundreds of years.

7.2.1 Mirrors in Asian Culture: Symbolism and Significance

The stories started with the mirror in the old time tangled with the female characters and me. Materialism rested on Marxism, which “lies in its stance to materiality, humanity is viewed as the product of its capacity to transform the material world in production, in the mirror of which we create ourselves” (Miller, 2005, p. 2). Mirrors have maintained the functions and meanings of the digital world from the connection between mirror and Chinese women throughout history. By hanging, arranging, and displaying them together with different objects, mirrors serve different purposes. Furthermore, this juxtaposition is linked to the socially defined female gender and has gradually become a symbol of femininity, replacing the absence of femininity (see **Error! Reference source not found.**). The next sections explore the mirror’s position within the network of Chinese women throughout history.

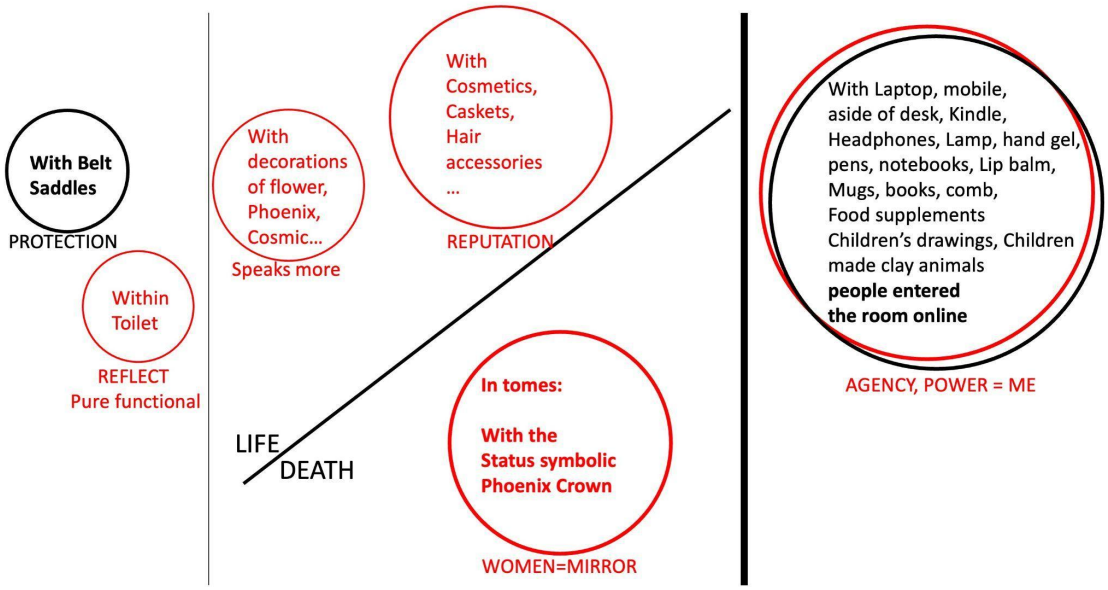


Figure 7.1 Mirror's Relationship with Chinese Women Along History (made by Author)

7.2.1.1 Mirrors as Symbols of Protection, spiritual Beliefs, and femininity

Mirrors were once male accessories hanging on belts or saddles with the symbolic meaning of protection against evil and disease, marking a higher social class in ancient China (Kong, Liu, & Peng, 2020). According to Loewe (2022), the earliest evidence of women using mirrors functionally was to position them in the toilet, found in Gu Kaizhi's manuscript dated in the fourth and fifth centuries in China. In some cases, the mirror represented the plain philosophy. The links between the diviner's board and the famous TLV mirror could be dated to an earlier time than Wang Mang (Loewe, 2022).[32] These mirrors were found within tomes. The patterns were designed for the bearers of the mirrors; whether alive or dead, they could position themselves harmoniously with the cosmos, with the benediction and the significance of meaning delivered through the mirrors forever (Loewe, 2022). Slowly, the mirror had been building a special bond with females in China.

[32] A TLV mirror refers to a variety of bronze mirrors that gained popularity in China during the Han dynasty. Named for the T, L, and V-like symbols incorporated into their design, these mirrors were crafted from approximately the 2nd century BCE to the 2nd century CE.

The link between women and mirrors can be evidenced through the culture of ancient Chinese burials. As a medium, the mirror consciously implies the absence of the subject by inviting the audience through watching, touching and imagining. Figure 7.2 shows the gender differences between husbands and wives with the display of items (of the hat and the mirror) that distinguish and complement each other within the mural paintings of the 10th-century tomb in Hebei in Northern China (Hung, 2021). Instead of portraying the female owner, the reflection was painted with a decorative peony, strongly implying praise for the morality and appearance of the female owner. The imagination provides the eternity and certainty between the subject of the female

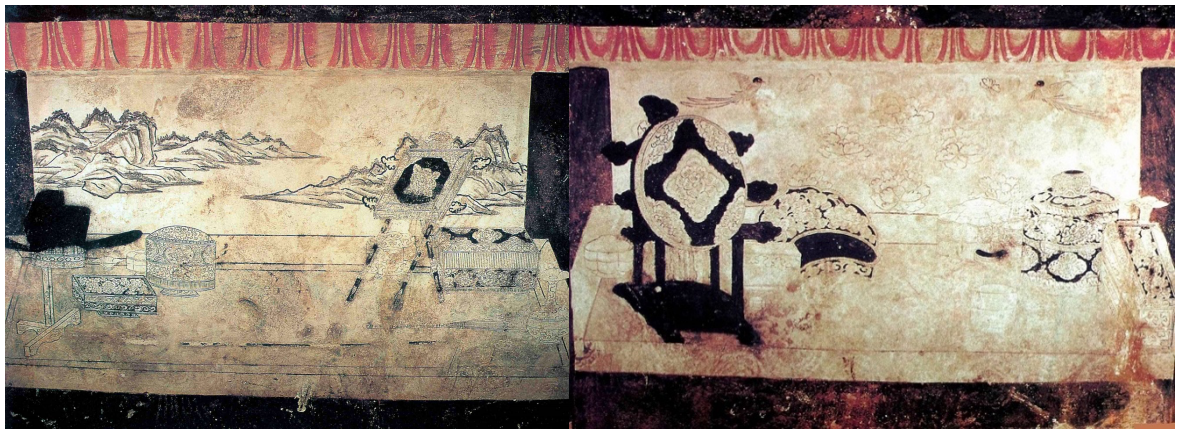


Figure 7.2 Mural Painting in the East and West Ear Rooms of Wang Chuzhi's Tomb, 907-923BC (Hebei Museum, Exhibited in Public Area)

and the object of the mirror. A 'luan mirror', meaning dressing mirror and referring to women, was used as a gift to lovers and described within thousands of poems in the Tang and Song Dynasties (Jin, 2011).[33]

"小山重叠金明灭，鬓云欲度香腮雪。懒起画蛾眉，弄妆梳洗迟。

照花前后镜，花面交相映。新帖绣罗襦，双双金鹧鸪。"

菩萨蛮·小山重叠金明灭 温庭筠

Layered hills send off glimmering light.

Sideburns eclipse fair-skinned cheeks.

She's lethargically touching upon eyebrows,

Slightly late to wash and make up her face.

Put flowers in front of the mirror with engraved flowers on the back.

[33] A luan Mirror was named after the luan bird, which first appeared in the book *Taiping* Yulan *(Imperial Readings of the Taiping era)*, in the Southern Dynasty, around A.D.420-489. The luan bird only chirps when it sees its own kind, and when the bird's owner put a mirror in front of her, the bird screamed when it saw its own sadness, and its voice resounded through the sky, and then it died of exhaustion.

Inside and out, the flowers and the beautiful faces set off each other.

[…]

- (Wen Tingyun, 940)

A small poem by poet Wen Tingjun describes a woman getting up, washing her face, dressing her hair, looking in the mirror and putting on her dress. In this series of movements, crescent (moth-liked) eyebrows, flowers (hair accessories), and mirrors were juxtaposed to become a symbol of women. The imagination is delivered through holding, touching, and feeling the material, looking into the yellow-lit copper surface, and thinking about the beautiful poems hundreds of years ago.

Traditional research into the Chinese Mirror mostly focused on physical features with the materials, engravings, decoration, patterns, and images being on the reverse side of the mirror. These mirrors can be made of pure copper or carefully inlaid with precious materials such as gold, silver, jade, ruby, or mother-of-pearl. The theme of the engraving on the back could be Taoist immortal mountains, Confucian models, a lovebird couple playing in the water or a flying phoenix. These designs and materials can be interpreted as the specific identity of the women who possessed the mirror, as well as their self-reflection or imagination. The related allusions revealed a private personal desire and sustenance. As a consumer product, the mirror embodied its own metaphor and interpretable content.

7.2.1.2 Mirror as a Self-Assessment and Self-Reflection in Asian Women's Histories

The mirror, originally a utilitarian tool for physical self-assessment owing to its reflective nature, has transcended its functional aspect to acquire profound symbolic significance in the realms of self-assessment and introspection. The integration of Chinese Taoist culture further enriches this evolution, exemplified by artefacts such as the Demon Collector's Mirror, often suspended on the beams of entrance doors in Chinese homes. Mirrors within this cultural tapestry metamorphose into media with folkloric resonance. To elucidate the intricate connection between Chinese women and mirrors in this context, the narratives of five women have been explored in detail (see Figure 7.3).

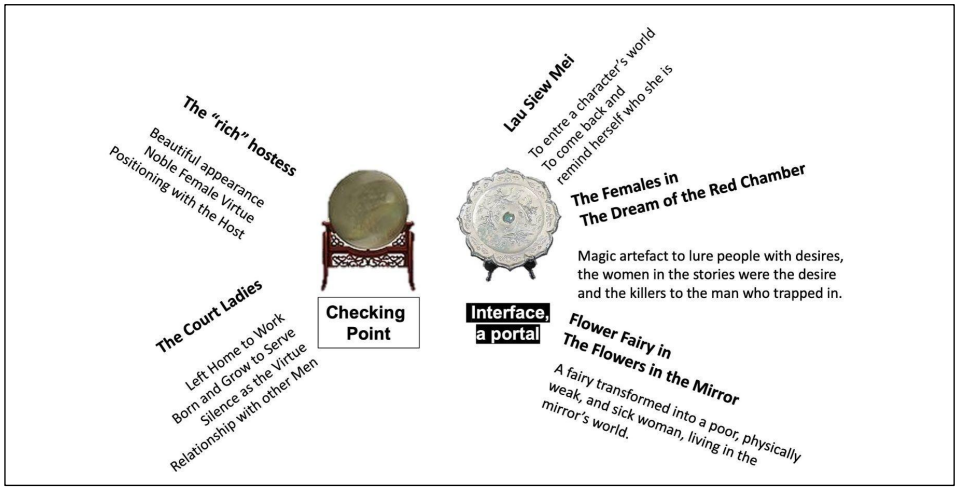


Figure 7.3 Five Chinese Women's Stories with Mirrors (made by Author)

A mirror is positioned outside the publicly accessible digital space, acting as a self-reflective check point for females to transform the roles between mother and worker, and to respond to outsiders. The "rich" hostess from the household objects in the mural paintings in **Error! Reference source not found.** in the ear chamber of the five straight tombs of the Five Dynasties in the Mawangdui Han tomb in Hebei highlights the position of the mirror, which is matched by the same rounded lines (with straight lines and squares representing masculine rigidity and curved lines and circles representing feminine softness) of the official's hat, the screen of flowers and birds, and the trousseau together shaped a feminine space counterpoint by the clear separation of the male gender spaces from the male owner. The design implied her beautiful appearance and noble female virtues for her age, matching her husband's reputation and social status.

The Sixth Page (observe from left to right) Gu Kaizhi's scroll painting "The Admonitions of the Instructress to the Court Ladies", (see Figure 7.4) showed a scene with two groups of court ladies in front of the mirrors. The concubine wore a long-sleeved wrap-over robe in front of a bronze mirror positioned on a lacquered wood stand, with the maid wearing an elaborate hair ornament gently combing her hair. Three lacquered boxes put before them with one opened revealed the makeup inside. With her back to the audience, the other lady was drawing her eyebrow. Her delicate face was shown in her hand mirror. The first expression of the painting was the beauty of women in the Tang Dynasty. However, the mirror was used as a metaphor to criticise the women who did not adorn their characters as to adorn their appearances.



Figure 7.4 Page Six of The Admonitions of the Instructress to the Court Ladies (artwork in the public domain; photograph provided by British Museum)

Reflecting on her immigration status, Chinese Australian Lau Siew Mei (Ommundsen, 2005, p. 356) said:

> *In the mirror, I face the mirror woman: exile, immigrant. Standing at a point of truth, knowing that there is no truth, only illusions and more illusions, that all thought is implanted, that every society carries within itself a form of oppression, that living itself is tenuous, that in the end is only silence and something other.*

Sitting in front of the mirror, wearing the characters' clothes and makeup, she is transformed into another time and space. The image of the new identity endowed the actress with all the character's stories. Within a few seconds, the transformation was complete.[34]

The word 'mirror' is derived from the Latin word 'mirari,' which means to wonder at or being surprised by something. In Japanese mythology, the sun goddess Amaterasu

[34] Inscription content with translation: 人咸知修其容，莫知飾其性。性之不飾，或愆禮正。斧之藻之，克念作聖。Men and women know how to adorn their faces, but none know how to adorn their character. Yet if the character is not adorned, there is a danger that the rules of conduct may be transgressed. Correct your character as with an axe, embellish it as with a chisel; Strive to create holiness in your own nature.

played a significant role in Chinese culture (Holst-Warhaft, 2018; Zurndorfer & Mote, 2000; Yu & Dawson, 1980). According to legend, when she was assaulted by her brother Susanoo, she hid in a cave until a mirror was used to lure her out with the radiance of jewels and dances by other goddesses. Later, Amaterasu commanded her son Ninigi to rule the earth and gave him the Mirror (Yata no Kagami), along with jewellery and a sword. She instructed him to revere the mirror as if it were herself. According to Georges Dumézil (cited in Dubuisson, 1990), the mirror expressed the function of the priest and symbolised the combined rule of religion and politics, presented through the pure and sacred nature of the goddess. The mirror was reserved in Ise Grand Shrine and was an essential instruction for Japanese folk females to worship Amaterasu. Her representations were a mirror and a sun symbol. The Himiko magic mirror was gifted by China to the Shaman Queen Himiko (c. 250 AD).In this story, the image of the goddess in the mirror is more vital than her self-awareness. The brightness came from the worship and surprise, even scared her. The mirror raised the new self-recognition of the goddess and empowered her through the believers' expectation and admiration. The image's container represents her power and authority, which later became her agency of herself.

Double-sided mirrors act as a metaphor for their physical attributes. On one side of the mirror is the intangible, unstable reflection with the other a stable, figurative decoration. It is a medium representing secular life and internal dreams. The translation of Jian (鉴) (Jian) uses the meaning of a mirror measure and compares it to provide "models and warnings" or to "displacing flourish virtue". There are discussions within the book *The Dream of the Red Chamber* (Cao & Gao, 1958, pp. 171–172). Regarding double-sided mirrors, one side would show the harsh truth of the future of doing evil or acting lasciviously, and the other would allow entry into a fantasy to meet the user's worshipped women. The owner of the double-sided mirror, Jia Lian, went inside the mirror to meet his lover Xifeng Wang, who he could not match in reality, and thus he died from excessive sex. Before he died, he forgot he was still in the mirror and asked to take the mirror to the afterlife. Similar to other mirrors with a decorated back reprsenting desire and fantasy opposite to reality, the mirror could only be shown to the holder through the reflection of the front.

Flowers in the Mirror (Li Ju-chen, 1985) is positioned significantly in the literary history of modern Chinese (David Der-Wei Wang). The author Ruzhen Li wrote the Myths and Legends novel in the Qing Dynasty (1795-1818), telling the stories that happened in the Tang Dynasty when Wu Zetian, the only woman in Chinese history, sat as the empress, to borrow the past to satirise the present talked about the subjects of gender, politics, imperial examination, and the mixed feeling to her country and home. The mirror in this book has five layers of meanings: to reflect the presence of history to know the rise and fall of the country, to enjoy the flower in the mirror to pursue illusory dreams, as a medium to travel between reality and imagination (through the protagonist's adventure), the mirrored real society to the series of fantastic island nations, and as the fictional nature of the stories.

A more literal translation was ‘the Marriage of the Flower in the Mirror’. The flower in the mirror is an old Chinese idiom followed by the moon in the water, meaning fragile and ephemeral beautiful yearnings. The estranged is necessary to achieve a critical perspective on one’s home culture through travelling in foreign lands. The marriages were between the one hundred flower fairies who descended to become ordinary mortals. The mythological setting gave the author a very direct tool to criticise the injustice and oppression of women. In addition to the outdated opinions and understanding of feminists, including the criticism of ‘The Nation of Girls’, the arranged marriages for the one hundred flower fairies, and ‘Lotus Feet’, the author expressed mixed emotions about the relationship between women and the home, and people and the nation.

The story tells of a flower fairy reborn with a bloated belly seeking treatment worldwide. Eventually, she found it was her hometown that led to her sickness, and a forced marriage away from home would be the best option for her at that point. The metaphor for this event was similar to women being sent away from home as the traditional custom for marriage arrangements in ancient China to secure the correct social order. This also related to Tang’s exile from his country as a male. While the ideal life cycle for the male was to leave their home as a child and return as an experienced man of success, for women their main life purpose was to serve her husband and raise children unconditionally.

To summarise, mirrors in Asian culture represent more than just functional objects. They carry deep symbolism and cultural significance, as well as having influence on gender dynamics. Mirrors can reflect tangible realities and intangible dreams, representing powerful symbols that shape societal norms, identities, and perceptions across different historical and cultural contexts.

7.2.2 The Mirror and the Screen: Self-Perception in the Digital Age

In the context of working online, the mirror acts as a self-examination point, a mediating, gesturing, and controlling agent, replacing the absence of my daughter and me with other objects that participate in the space. Mirrors have evolved and taken on symbolic meanings in modern times, serving as a tool for self-reflection, as a medium for communication, and as a representation of others' attention. In the following sections, I will discuss the various roles and functions of mirrors in the digital age. I will describe the journey of mirrors from ancient Chinese history to my current home through personal experiences.

7.2.2.1 The Mirror at Home and the Mirror with the Screen

In my apartment, four mirrors exist, each serving distinct purposes and carrying unique significance (see Figure 7.5). The first, located in the bathroom, functions solely in line with its utilitarian role, catering to the basic needs of self-reflection.

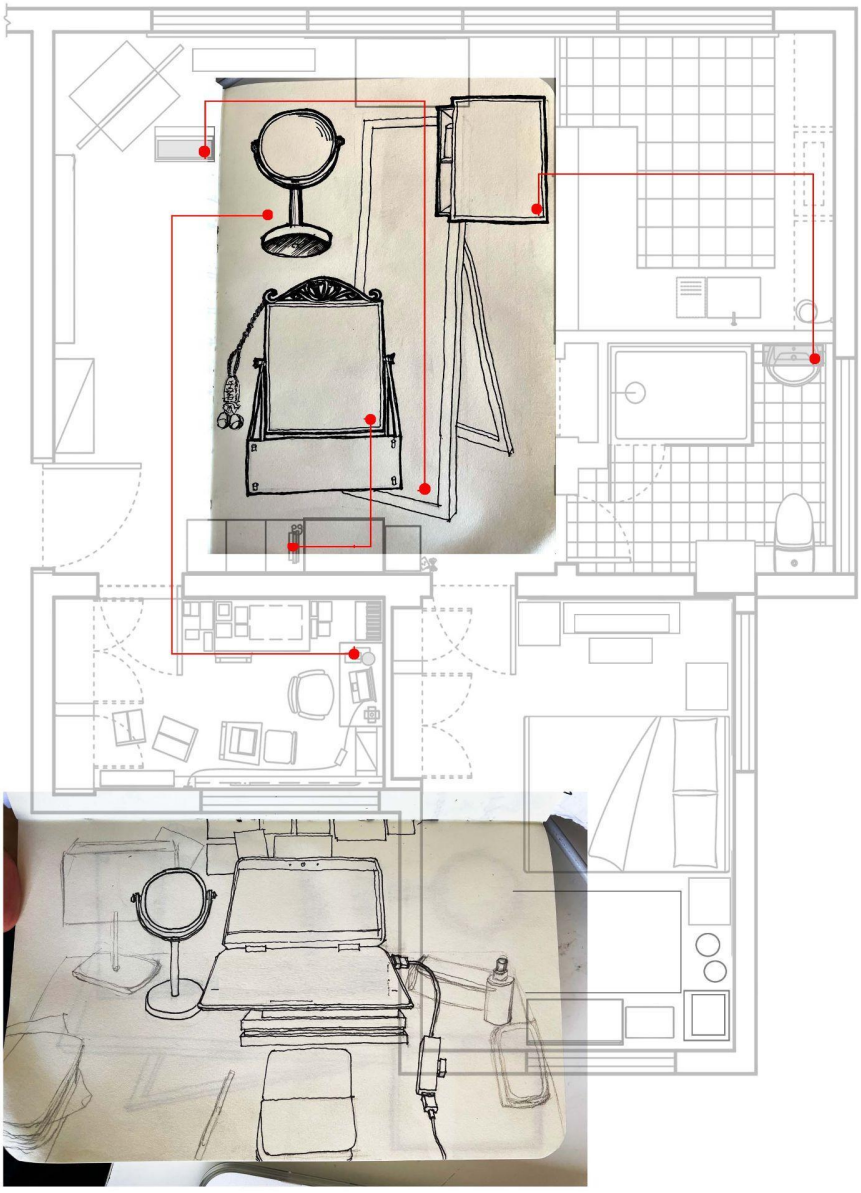


Figure 7.5 The mirrors in my flat (made by author)

Opposite the entrance, a mirror procured from IKEA graces the wall, suspended by one side from a stone originally sourced from Tai Mountain. This peculiar combination stems from a belief in its ability to amass protective energies, shielding the flat from external malevolence and misfortune. The reason for positioning the mirror and the wardrobe in the middle of the bathroom and the flat door is to maintain the privacy of the bathroom, avoiding encounters for both visitors and its daily users.

There is a full-sized mirror in the living room for my daughter's viola practice. It became a toy for interacting with friends online. It is strange how these mirrors do not simply reflect faces; they soak up stories each one adding its own tales echoing our lockdown life at home. There was a simple IKEA table mirror placed on my work desk (see Figure 7.5). Alongside the laptop, mobile, Kindle, headphones, lamp, pens, notebooks, and books, it tells the stories of my work. Aside from my hand gel, lip balm, mugs, food supplements and comb, it provides the self-care, reflecting my daughter's drawings, hand-made clay animals, and her little face; it engages my daily life. When I was using the standing table, the mirror moved with the mug located near my laptop (see Figure 7.6). Simple lines are used to sketch the relationship between the mirror and the position of the laptop on the tables.

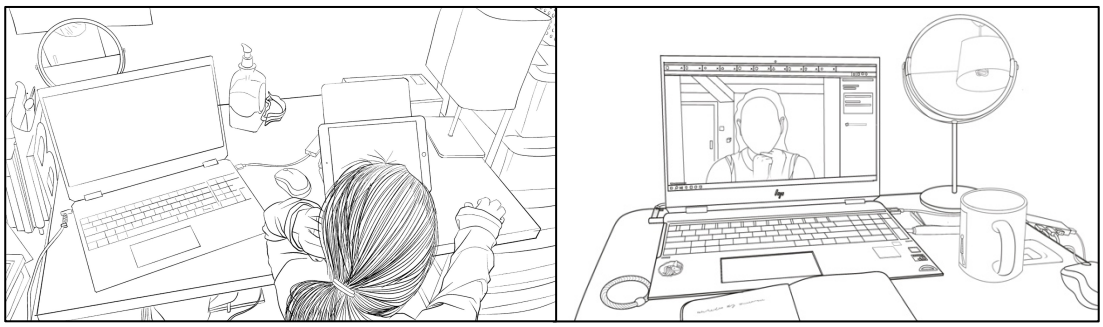


Figure 7.6 The mirror with screen in my home (made by author)

7.2.2.2 The Mirror is a Self-Examination Point

In the realm of online video communication, the mirror positioned beside my screen serves a dual purpose, transcending its traditional role. Even with the camera showing my reflection, the mirror becomes a constant companion for self-assessment. This trend extends beyond my habits, as many of my Chinese friends have adopted a similar practice in the post-lockdown office era.

Firstly, the mirror becomes a crucial checkpoint for managing appearances during virtual meetings, especially when the camera seems to flatten my distinct Asian features. It is more than just about hair and makeup; it is a conscious effort to counteract the visual nuances lost in the digital translation. The face on the screen is a condensed version of the person, and the communication is easily lost in digital transformation. Compared to meeting old friends, I was more nervous about meeting people online for the first time. More gestures to erase the awkwardness during the ice-break procedure are replaced by language-only communication. Online video meetings lead to less sequential connectivity and greater self-focus (Lipinski-Harten & Tafarodi, 2012). The self-focus was mixed with the anxiety of being a working mother with a child and the pressure of having an Asian appearance. The mirror acts as a

guide, ensuring that my expressions, often subdued by the virtual medium, align with my expected image.
Interestingly, most software platforms offer a pre-meeting ritual akin to a digital mirror. The virtual room check becomes my canvas for self-assessment and presentation. Much like preparing a stage, I meticulously arrange my surroundings, eliminating distracting elements and curating a professional backdrop. My desk transforms into a curated space, strategically placing work-related items in the camera's range and concealing the rest. The effort extends beyond visual aesthetics. I embrace the five-minute prelude to carefully stage my virtual environment. It is a ritual of neutrality, ensuring that only office-appropriate items grace the screen. Bright-coloured objects are discreetly filed away, books are neatly aligned, and even mundane items such as mugs and tissues are positioned with care. A touch of warm light becomes my secret weapon, modulating tone and brightness to compensate for inadequate natural light.

Adapting to the constant scrutiny of the screen, I initially focused on self-reflection. However, as guidance on effective information delivery emerged, I invested in LED lights and a laptop stand. Elevating the screen ensures that my eyes align with the camera, addressing the nuances of facial expressions and eye contact. My once-private home undergoes myriad transformations — a classroom, a lecture hall, a cafe, a family dinner table, and a playground, with me in the middle, perfectly looking checked by the mirror:

The process of looking into the mirror constituted adjusting my clothing and makeup to achieve the confidence and satisfaction of sitting in front of the camera. Besides rebooting my confidence and restructuring my image from staying at home to being a worker within a digital public space, the mirror rehearses my social skills and my roles to get to the two-dimensional space with strangers. This publicly accessible space created by going online eliminates communications through actions and meticulous expressions. For friends I had never met in the real world, the two-dimensional screen omits the conditions for establishing trust other than language and face. During the lockdown, video technology recorded by cameras has served as a crucial extension of our physical presence, enabling us to meet everyday work obligations by facilitating remote interaction with the public. The camera’s function is similar to an extension of the mirror which allow me to self-examine myself to fulfil the daily working requirements to get ready to enter the public realm during lockdown. The check point of the mirror is based on the need to adjust the women around the working environment.

7.2.2.3 Mirror is a Medium

The mirror was a medium for me during lockdown at home. Sometimes, as I gazed into the mirror, I saw two contrasting images of myself. In one, I was standing in front of a class as a teacher, reminiscent of my past experiences teaching in person before

lockdowns in the UK and China. In the other, I was a tired and overwhelmed mother with messy makeup and casual clothes, juggling the challenges of working from home, housework and home schooling. Despite the stark differences between these two roles, the mirror allowed me to acknowledge and accept both aspects of myself with just a single glance.

7.2.2.4 Mirrors Represent the Gaze from Others

Reconnecting with my Chinese female friends online after a two-year hiatus from in-person meetings opened a conversation that unexpectedly turned to the topic of body shape. The digital exchange began with a seemingly innocuous compliment from me, "*You look good. Have you been going to the gym regularly?*" As the virtual dialogue unfolded, my friend stood up and turned away from the camera, examining herself with a mirror just outside my screen. She responded, "*Yes, I'm glad you noticed. It seems like you are having a good time. You seem to be putting on some healthier weight than before. And I like your new style,*" she remarked.

Taking a moment to glance at my own reflection in the mirror, I confirmed the subtle changes brought about by the lockdowns – a shift in body weight and an unintentional adaptation of an 'enhanced photo-studio style' tailored look for the online working environment. It struck me that these exchanges would likely never have occurred if we had met in person, perhaps in a café or a park where mirrors are not readily available for these impromptu self-assessments. It became evident that mirrors play a distinctive role in our lives, acting as disciplinary avatars that bridge the gap between our internal self-perception and external judgments. In the physical world, mirrors are ubiquitous in the modern city, reflecting our images in big glass windows, bright steel facades, shining cars, and shimmering lakes. Additionally, our families and friends offer their gaze, providing feedback and reactions to our appearances, shaping our self-perception during the process of growing up.

Yet, during the lockdown, the necessity of working alone created a unique condition. The mirror, once confined to physical spaces, became a bridge connecting the gaze of others and the absent care from home. In this solitude, the mirror served to maintain a connection between our internal and external selves. Conversely, when the camera is turned on during virtual interactions, the juxtaposition of the mirror and screen constructs a virtual panopticon. This dynamic encapsulated the complex nuances associated with post-feminism in China, encompassing movements such as the no-makeup movement, body shame, and the influence of consumerism on middle-class women. It became a symbolic manifestation of the multifaceted pressures and expectations placed upon women navigating a digitally mediated world, where appearances carry layered meanings and are inextricably linked to broader societal discourses.

7.2.3 Future Artefact and Cultural Interpretations: Mirrors as Agents of Change

Drawing inspiration from Frichot's (2018) exploration of a 'thing' and its potential power, where a thing is not just a physical entity but also an incorporeal artefact that can provoke thought, I look at the transformative agency of objects. Frichot (2018) posits that when things are reimagined and repurposed creatively, they can become agents of change, challenging conventional thinking and paving the way for sustainable design and living. The power of 'thing' extends beyond mere physical properties to encompass cultural and social significance, influencing our behaviours, relationships, and understanding of our place in the world. In contemplating the impermanence of the human body, which returns to the earth over time, I find echoes of our existence in the imprints we leave on the artefacts around us. The laptop screen, mirror, and flat surfaces bear our fingerprints and genetic material, forming a unique narrative that extends into the future, where we become part of a genetic heritage. The building remains, the objects within it, and the carbon footprints from across the globe collectively weave a story of current carbon-based lifeforms.

My home office has become a microcosm of this narrative—a space filled with objects carrying traces of the past and present. From the above-table arrangement of my laptop, medicine, mug, and children's drawings to the artefacts on the desk, each item speaks to the life of a mother working from home. The juxtaposition of old and new technologies, the resilience of data against solar storms, and the documentation of personal stories in notebooks highlight the intersection of traditional and modern elements in our lives. Frichot's (2018) notion of 'congregational agency' finds resonance in Benette's (2010) concept of 'Shi' within the Chinese context. Shi, as a force or power inherent in the arrangement of things, becomes evident in the amalgamation of objects in my space. Piled books, room dividers, water bottles, and personal items collectively form an assemblage that shapes the energy, style, and trajectory of my surroundings. This collection of objects categorises itself, giving meaning and burying stories even in the absence of an active participant.

The mirror on my desk, a replacement for the mirror my grandmother left me, transcends its function as a mere reflective surface. It assumes the role of a watching 'eye' in the room, offering care and comfort amidst changing daylight and evening lamp settings. It becomes a witness to the passage of time, with its surface collecting the traces of spring pollen, soft winds, summer rain, heating, and the onset of early evening darkness. In this way, the mirror becomes a silent participant in the evolving narrative of life within the space it occupies (see Figure 7.7).

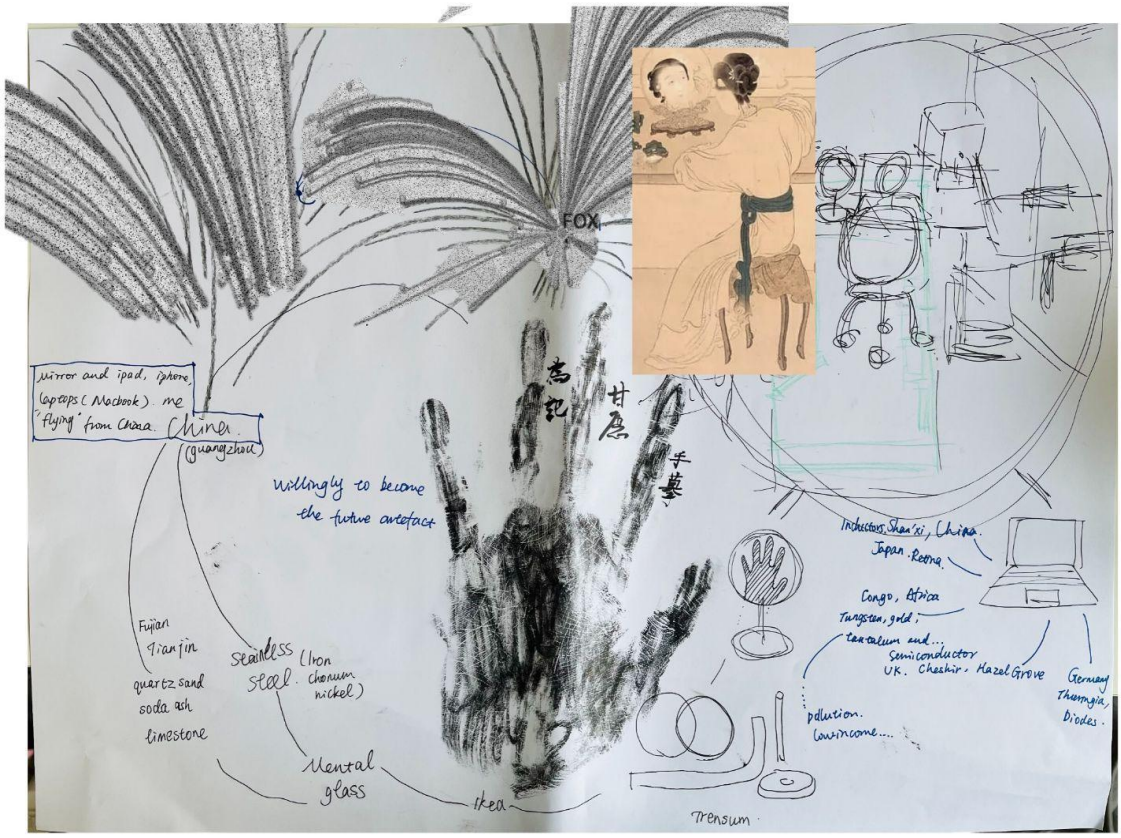


Figure 7.7 The future artefact of mirror at home concept hand drawing (made by author)

7.3 The Table

The table is one of the most important objects in the space to configure the physical and digital spaces and act multiple meanings during the lockdowns. The placement and the arrangement of the table integrated elements of the functional layout to serve new purposes such as dining, workstations and gathering the surroundings' circulation, ergonomics, social norms and the relationship between family members along with their spatial boundaries' drawing within a home.

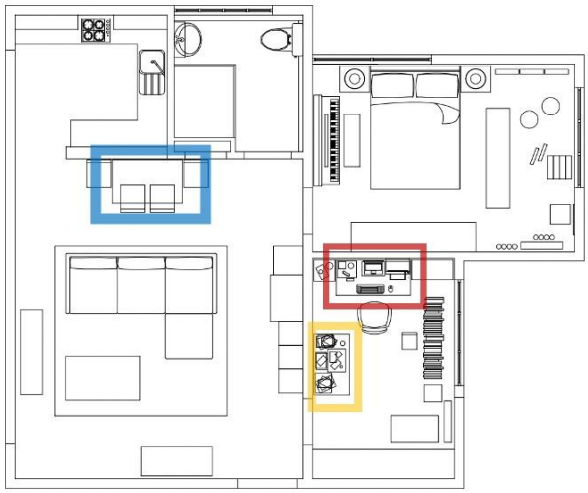


Figure 7.8 The positions of the three tables in my flat (made by author)

My daughter and I practised differently by using the tables in our individual territories. We have three tables in my flat (see Figure 7.8); one in the living room serves as a dining table for three meals a day. During dining hours, it becomes the working table for family projects. One of the working tables was moved from my bedroom to the newly set-up reading room, which was Angela's bedroom, to create a quiet and separate space for my online meetings. The other two tables were positioned in my reading room as my sitting desk and holding all kinds of books and office supplies. Their jobs were pure and relatively fixed. During the lockdowns, the dining table was mostly occupied by my daughter outside of dining hours.

This section introduces the tables in my flat and their interconnected links to architecture as an element. This is followed by a description of how the tables operated spatially through their placement and the structure. The individual practice of my daughter and I and our interactions intertwined with my identities, Chinese culture, my family, and my lockdown stories, are also explained.

7.3.1 Table as an architecture element

Tables, similar to architectural elements, serve a functional purpose. They provide a surface for various activities such as dining, working, or displaying objects. Similarly, architectural elements serve specific functions within a building, such as supporting loads, dividing spaces, or providing shelter. The table is the theatre, and the floor for the created space. The shifted sceneries are performed on stage to audiences and participants according to the show at the time. The backstage supports all kinds of needs with equal areas. The stage is designed within each scene, while the backstage appears in chaos but is methodically organised. The status separation of the spaces between the stage and the backstage is equivalent to the divided spaces on the table by the camera. The publicly accessible space is on the stage for me to show the best

side of myself at work. The space is staged and designed meticulously, removing irrelevances and anything that may degrade the atmosphere of the set up. On the table, outside the camera space, away from the highlighted stage, is the backstage space, where the props and actors for the next scene are prepared. The space is pure private to me, all kinds of wires lying beside my laptop, the additional keyboard and mouse, earphones, my notebook, pens, hand cream, table mirror, lamp, and the little rewards for being a good mum from Angela, a pile of books are waiting outside the camera, waiting to be grabbed to help the scenery immediately. The table is an exhibition of my working-from-home life. It displayed my fragmented, trivial work and life along with the changing roles through the camera both on and off, represented by the objects' assemblage on the top layer and my daughter's performance under the table.

Like architectural elements, tables have a specific form and structure. They consist of a horizontal surface supported by legs or a base. The shape and proportions of a table can vary, in the same way that architectural elements can have diverse forms such as columns, arches, or beams. The table is the floor between two storage areas where the online space was created to carry the stage and hold the roof. The space below the table's horizontal plan was the storage room and the hiding space for my domestic life. The boxes of my extra stationery, drawing board, books, and Angela's study materials and books were placed along the wall. The rug I put beside the window to allow my daughter to read with me, with the stuffed toys of forest animals, was changing every day. The table is the roof, a cosy and relaxed room for my slightly swollen legs from sitting for too long, wearing lounge trousers and slippers, shaking, or swinging blithely. It is the space for my daughter to keep close to me when playing alone or distract me from my workload, putting her little face on my knee where she pokes my feet with her toys. Away from the parenting guidance from her grandparents on the screen, on the table, and taking notes with severe expressions on my face from online meetings, the 'floor' stably segregated the visual space. The connections between the two storage spaces are the sound and my body. The cutting into two parts of my body according to the needs of my daughter and my work as a split cyborg, existing in two separate dimensions, performing their purpose, disintegrating my identity as a Chinese mother, an Asian woman.

Both tables and architectural elements are integral components in building spaces, utilising materials such as wood, metal, glass, or stone. The selection of materials for these elements' hinges on considerations such as strength, durability, aesthetics, and intended use. Much like the mirror, the IKEA LINNMON / ADILS table accompanied me on my journey from China. It embodies simplicity, clarity, and a touch of delicacy, mirroring the characteristics of its country of origin—China. The acrylic-painted fibreboard, crafted from recycled wood, undergoes a complex process of cutting, washing, drying, and pressing with adhesives to form a stable and solid tabletop. Its unassuming nature resonated not only with me but also with the women in my lineage—my grandmother, my mother, and countless other women, regardless of their

occupation. However, the women gathered around the dining table orchestrate a dance amidst social norms, family values, Asian culture, and gender traditions, whether seated together or enjoying a solitary meal in the kitchen. Like architectural elements, tables wield the power to influence spatial organisation and flow within a room. They can delineate functional zones or serve as focal points, shaping the dynamics of a space. Simultaneously, architectural elements such as walls, columns, or partitions contribute to the overall organisation and division of space.

When the table undergoes a metamorphosis, transitioning from the dining room to reading rooms, offices, theatres, and public squares, it adopts the identities of the women who venture beyond the confines of the home. It becomes more than just a piece of furniture; it symbolises the evolution of women's roles, transcending traditional labels of wife, mother, and 'woman.' The table transforms into a dynamic storyteller in these varied settings, echoing the narratives of empowered and multifaceted women who defy societal expectations.

7.3.2 The Dining Table under the Influence of the Digital Age

This section explores the cultural significance of the table within Chinese households, discussing its everyday functions and what it reveals about its place in family dynamics. By weaving in personal narratives, the discussion touches upon social customs, taboos, the familial hierarchy, and the gender dynamics that define interactions around the table. Additionally, it examines the intersection between public and private spheres in the context of Chinese traditions, shedding light on the evolving role and importance of the table in domestic settings in an increasingly digital era.

7.3.2.1 From Traditional Roles to Digital Dialogues: Navigating Chinese Dining Tables and Women at Home

The dining table is the centre of Chinese domestic life. All the festivals and important moments of marriages and funerals start or end with feasts around the table. The relationship between tables, women, and Chinese culture can be understood through cultural symbolism, societal norms, and historical perspectives, which intersect in various ways within the context of Chinese culture. A dining table can hold symbolic meaning in social and familial contexts. They are often associated with essential gatherings and rituals, such as family meals and ceremonies, where women often play significant roles in hosting and maintaining social harmony, including managing the preparation, organising the process, arranging seating orders and food, and dealing with the conflicts resulting from moderate alcohol drinking. Around the dining table, a space unopened is where women's roles in nurturing and preserving cultural traditions are honoured and celebrated.

Since the Song Dynasty (960 BC-1279 BC), the dining table has evolved into commonplace furniture within Chinese homes, embodying a culturally influenced spatial operation. Around this table, a unique cultural dynamic emerges, especially evident in the Chinese negotiation setting. In the context of Chinese culture, people's concepts of space are intricately intertwined with acquired factors. Hall (1990) emphasises the significance of 'space speaks' in communication, noting that spatial changes contribute to tones and accents and sometimes even override spoken words. The flow and shift of distance between individuals during interactions play a crucial role in the communication process. Non-verbal meanings conveyed through spatial orientation are closely tied to different nationalities' cultural traditions and local customs (Wang, 2023). One such manifestation is the seating arrangement, reflecting distinct spatial conceptions in various countries. Throughout Chinese history, regardless of the dynasty, emperors consistently sat facing south during enthronements and state affairs, with the south symbolising honour. Consequently, the most esteemed person in large gatherings often selects a seat facing south. Table seating rules profoundly influenced the dining table seating rules within an ordinary family, as the eldest male family member sits in the most important position.

The dining table forms the spatial order created by a symbolic order marked by your social status, sympathetically with other social rules parallel with the rules of sex and gender (Cooper, 1986). In large families, the seating arrangement was designed to explicitly address the individuals' positions within the host /male master's mind, to answer questions as who the favourite child/wife was and who should sit on the corner where the servant will pass the dishes to the table. Every child in a decent family underwent serious training in good dining manners. I remember my grandmother stood next to me to teach me table manners, how to pour the tea and wine to the elder generation, and what to say during dinner time. Although all the dishes on the table are for sharing, there are other rules of etiquette to follow. Eat without speaking, sleep without talking. Straighten your back and cover your mouth when you drink. Tea is poured halfway; wine is poured full. Eat every dish, and swallow what is not good. Get up and come back all to face the table. Do not make small movements. There should be no chopsticks sticking into the rice and no knocking on the bowl. Grandparents should move their chopsticks first and taste the fish first before everyone else at the start of the meal.

I remember my great-grandmother was not comfortable having dinner around the table due to the old social constraints forbidding women from having dinner along with males in ordinary families. The space designated for household chores, aside from the cooking tools and water well in the yard, was a woman's position at home before the 1980s. My grandmother, a staunch Marxist-Leninist, vehemently opposed all forms of oppression, insisting on bringing her mother into town and inviting her to the dinner table. With one arm around me and the serving food to her mother's plate, she sat next to my grandfather. However, she had a secret passion for Peking Opera and ancient poetry, an interest frowned in those days, as a symbol of corrupting capitalism.

I was the chosen successor to inherit her and Grandpa's favourite pastimes. The table became a space that applied pressure on her daughter-in-law. My mother and aunts positioned at the end of the power chain. Since moving to the UK, my family unit has shrunk to just my daughter and me physically living together. Yet, significant dining moments are still somehow influenced by my parents. They instruct me to prepare specific cuisines according to festive themes, preserving the culture for my daughter's generation. The table space is split between two locations, one in China and one in the UK, hosting the dumplings during the Chinese Spring Festival (see Figure 7.9). Family moments have transcended physical boundaries through the Internet, penetrating the screen, and bridging the gap through shared food and common topics. My daughter became the 'selected generation' for the joys and family topics.

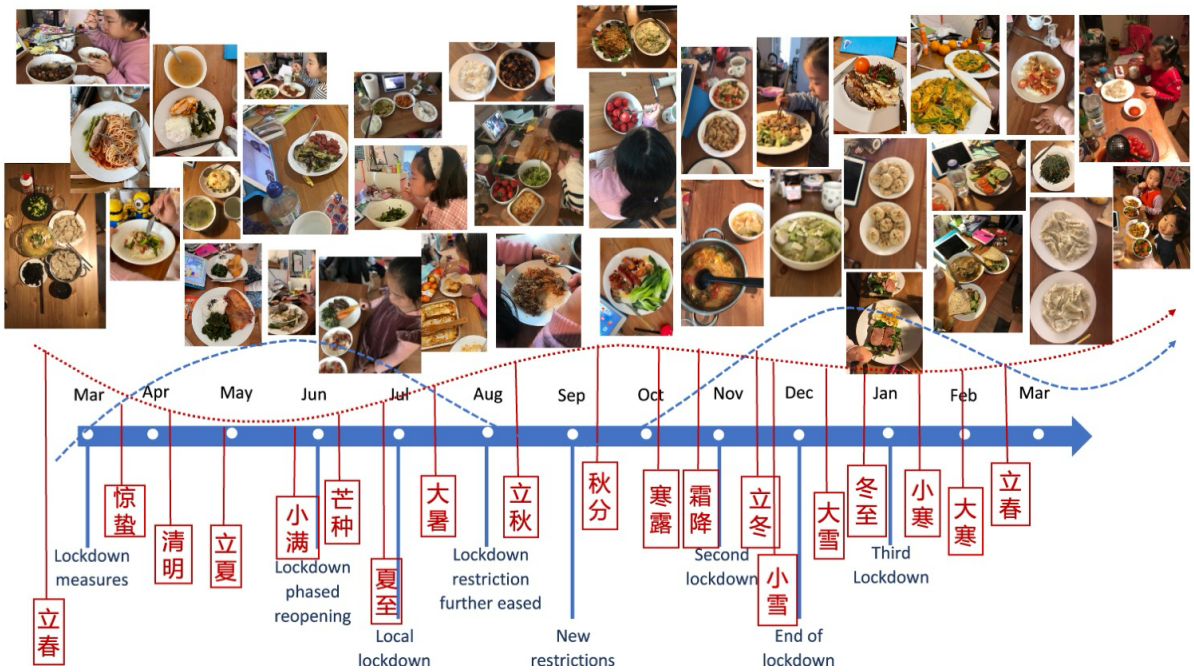


Figure 7.9 Food on the dining table along the Chinese festivals during lockdown (made by author)

From the dining table to the working table or desk, traditional Chinese culture has assigned specific gender roles and expectations to women, often emphasising their roles as wives, mothers, and caregivers within the family unit. In this context, tables may serve as a physical space where women traditionally fulfil their domestic responsibilities, such as preparing meals and caring for their families. However, these roles and expectations have evolved over time. The round-table space around women has gradually expanded in various spheres according to working needs. The three tables in my flats act as different scenes to facilitate my changing roles. Around the connected dining table, I am the mother of my daughter and the daughter of my parents, free from outdated seating rules and etiquette for women. Around my reading table, I am the researcher, teacher, student, friend, mother bringing the child to work, the customer to the shops, the audience to a concert, and more.

7.3.2.2 Dynamic Domains: Unravelling the Multifaceted Role of the Table in a Child's Digital Landscape

The living room was my daughter's territory during my 'working hours', if it meant only for durations being spaced out into short work sessions of fifteen to twenty minutes work (see Figure 7.10). In the centre of the table was her iPad which she used for online classes and to 'message' call her friends in the UK, Korea, and China. WeChat was used to call her grandparents and father. Besides her school workbooks, Scrabble books, picture books, snacks, water, and toys, are laid on the table. During the online lesson's hours, she pushed other pieces of paraphernalia away to make space for her elbows on the table to use to hold her head up in front of the camera. Printout materials were wrinkled under her arms. That was the only chance the table's surface would appear before her. When she used the table for other purposes, there was no clear boundary between the surface of the table and the floor. If viewed from above, the iPad would been seen to move around from the table to the floor, the sofa, on the dying rack, the chair, on the windowsills and other places in the room, along with her favourite toys, her colour pens, a blanket to play hide-and-seek or holding as a temporary tent. The table symbolised the school hours' formality and the chaos of her at-home hours.



Figure 7.10 The dining table used by the child (made by author)

She occupied the entire room, dragging the iPad all the way with her with an extension cord connected to the socket. This setup allowed the audience on the side of the screen every angle of the room, including the floor and the roof (see Figure 7.11). The

black line on the plan represents my daughter's activity paths and the red area is the areas where my daughter stays. Her perception of space likened the tabletop to a natural environment. For her, the floor and the sofa were no different from the grass she did cartwheels on. Unlike the other furniture under the roof, the table provided her with another hut-related space, a roof with four pillars and a flat roof. To her, the sofa was the mountain; the rug a floor, and the table was the house. Whether I was in the same room or not, the table served as a hospitable space to provide her with a cosy, private under-roof space when she needed to talk to her grandfather and best friend during the day. This aspect may reflect aspects of our brick and timber construction culture; Masayuki explains this as exemplifying humility and harmony with nature (Masayuki, 2006). Four of the table legs held the room like trees holding their heads with lush foliage, while the opening (of the space) to invited views and seasonal changes from outside (see Figure 7.15). The table was the roof that separated the formality of the domestic life shared by both of us from her private realm, characterised by her multi-layered ritualistic use. Compared to the space under the tent, which served as a fantastical refuge shielding her from imagined terrible weather, the table represented a ‘properly shaped’ room and an unexpected place to find her in the flat.

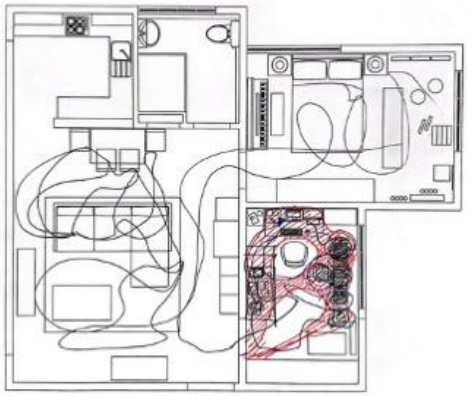


Figure 7.11 My daughter’s typical activity trajectory (made by author)

7.3.2.3 The Juxtapose of the Daily Chaos on the Table: Navigating the Interplay Between Private and Public Realms in a Single Mother's Weekend Morning

In the intricate tapestry of my daily life, the unfolding of a typical weekend morning reveals a delicate choreography. It begins with a leisurely awakening, followed by the creation of breakfast for my daughter, who then gracefully transitions to the dining table, clad in pyjamas and cradling her beloved teddy bear. However, this routine took an unexpected turn on a day when I found myself obligated to join a meeting hosted in Beijing. The time zone disparities summoned individuals from diverse weekend scenarios, prompting me to spring into action at the early hour of 6:00 am.

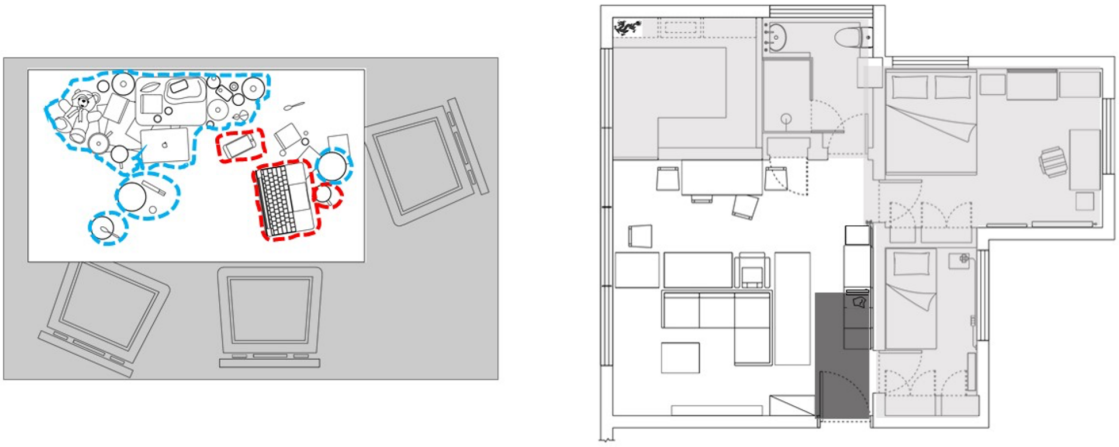


Figure 7.12 The juxtapose of the daily chaos on the table and in my flat (made by author)

With a steaming cup of morning coffee in hand, I embarked on a quick transformation – donning a blazer-styled top paired with lounge trousers and slippers – preparing to immerse myself in the digital realm awaiting me at the table. As my daughter slept, I engaged in a virtual rendezvous, contributing to the discussion with the dawn light streaming in through the window. However, as breakfast commenced, the tableau on the table transformed into a chaotic collage. The remnants of last night's play were hastily pushed aside to make room for my laptop. In mere minutes, my daughter, fuelled by her vivacious energy, entered the scene, her toys and blanket in tow, breaching the sanctum of the camera. Mismatched breakfast bowls, plush toys, books, an iPad for my daughter's online course, seasoning bottles, and kitchen tissues surged into my designated work zone, coexisting with my laptop, mobile phone, and notebook (see Figure 7.12 left). The juxtaposition of these objects forged a new order, delineating zones for work within and beyond the camera's periphery, coexisting with my daughter's breakfast and playful distractions. This tableau encapsulates the multifaceted tapestry of a single working mother's weekend morning, seamlessly connected to a Beijing-based conference through the digital threads of my laptop and mobile.

The interplay between private and public realms comes to the forefront within this tableau. The nuanced meanings of functional areas unfold, shaped by varying degrees of privacy and disclosure. This narrative unravels across a series of spaces, moulded by the trajectories of our behaviour and layered with penetrating visual elements. The accompanying illustration (Figure 7.15 right) delineates the functional areas within our flat, with more private spaces shaded in grey. The entrance space, reflective of the social values and cultural echoes of my senior family members, deliberately avoids informal live streaming. It becomes a curated blend of tradition and modernity within the fluid boundaries of our shared living space, embodying the constant negotiation between the private and public dimensions of our lives.

7.3.3 Two Tables in Reading Rooms under the Influence of the Digital Age

The two tables in my reading rooms are strategically positioned against adjoined walls, each serving a distinct purpose (see Figure 7.13). One functions as a sturdy holder for my standing table and the printer, positioned above boxes of carefully arranged books. The second table is neatly placed against the shorter, lengthened wall at the room's end. As I engage in various online activities, I often find myself seated in front of this table, where the desktop layout is in a constant state of adjustment to cater to my evolving needs. This dynamic interplay between objects and their arrangement reflects the delicate balance between my private life, discreetly concealed in front of the screen, and my public life, prominently displayed when facing the camera.



Figure 7.13 The two tables in my reading room (made by author)

7.3.3.1 Table 1- The Working Desk

The table against the room’s short wall is my main working desk. The objects on my desk were initially similar to those in my office. The computer, keyboard, and mouse around them are my colleagues’ little gifts from their cultural accessories. Amongst these items are a clayed cat from the Forbidden City and Taweret keyrings from Egypt, along with an array of international-relaxing snacks that foster conversation and new ideas when working in the office. The tabletop itself is an IKEA product made from multipurpose acrylic painted plastic and fibreboard materials, assembled with care to accommodate these cherished objects. Above the tabletop is what I refer to as the ‘Rikyu grey area’ (Kurokawa, 1997), a conceptual space influenced by Asian working codes for women, positioned between the bright, orderly space under the camera, and the withdrawn and unconventional space beyond the camera’s reach. Kurokawa (2000) used the mediating space within symbiosis, swallowed, rejected, and affirmed it with ambiguity, coming from vernacular architecture that profoundly exists in Asia.

This space lies between the lightness of order and clarity and the darkness of chaos and uncertainty, where meaning is indeterminate, divisions are blurred, and the unknown, the chaotic maze, resides. This space challenges the criteria of modern architecture, resisting the dominance of order and efficiency. The catalogues of the objects could be named private and public, cultured and international, female and neutral, sustainable and pollutive, long-lasting and short-acting, seasonal and all-year-round, meaningful and mundane to a mother and others. Their arrangement forms a constellation that represents a certain moment for my role under certain circumstances, encapsulating a transient yet significant period. The desk becomes a dynamic stage, capturing the essence of diverse elements converging in a harmonious yet ambiguous interplay.

Bennett (2010) used the Chinese character ‘Shi; to explain the concept of agency of assemblage. An assemblage possesses agentic capacity through its constituent elements, which exert tendency, trajectory, attitude, prophet, caution and education on others under the observation of humans. For example, one can discern the Shi of a mountain’s by observing the direction of the mountain’s movement through the years of development. The canopy of trees, the flow of a river, the wind, the migration of animals, and the colours of the sky, all contribute to such interpretations. The developmental tendency of mountain’s, the trajectory of the trail and river changes, the attitude of nature towards the villages, the prophet for the entire nation (for the mountain range)’s future, the cautionary and instructive messages for both rulers and grassroots people can all be read from the Shi. The Shi is part of the philosophical system of Tai Chi, linking the void and indescribable to reality, with each object vibrating with internal purpose, not moving like puppets on strings but demonstrating overall readability as its outcomes can be understood or interpreted by observers. A desk, laden with cultural, personal, and professional artefacts, becomes a microcosm where the past, present, and future converge in a dance of meaning and significance.

The Co-practice between My Daughter and Myself Around the Tables: Navigating the Shifting Dynamics of Space during COVID Lockdown

In the confined yet transformative space defined by the tables during the COVID lockdowns, a silent co-practice unfolded between my daughter and me. The battlefield of this spatial occupation was marked by the horizontal plane of the table, creating distinct realms above and below. Above the table, I transformed into the professional, presenting a polished exterior in the virtual workspace, concealing the challenges of juggling schedules, parenting, and personal wellbeing. Below the table, a different world emerged – a sanctuary for comfort and authenticity, with piled books, medical devices, and the comforting presence of my daughter, who became a stealthy participant in this co-practice. She intuitively understood the screen's boundary, strategically positioning herself under the table where the camera's gaze could not reach. Here, she could draw my attention without consequence, merging the roles of

a playful child and a working mother. The table became a physical manifestation of the multifaceted spatial dynamics – a line dividing the serious and the casual, the public and the private, the external and the internal.

As the space constantly morphed during the lockdowns, this co-practice revealed the adaptability required in managing the dual roles of a professional and a parent. It captured the nuanced interplay of spaces, where the table served as both a stage for professional presentations and a haven for personal authenticity. The tables, laden with the artefacts of our lives, reflected not only the challenges but also the resilience found in navigating this shared space during unprecedented times.

Tables Formed a Lower Corridor in My Reading Room during Online Meetings: A Playful Journey into Mother-Daughter Bonding

The tabletop, with the camera strategically angled for online meetings, transformed my reading room into two distinct realms. Above the table, the professional workspace with a flat view for virtual engagements; below, a corridor-like space where the piles of books, cardboard boxes, and my daughter's playful antics created an impromptu playground. To my daughter, the door marked the entry to the realm of Mom. Knocking it open, she stealthily navigated under the table, giggling with the joy of exploration along the makeshift corridor. Climbing amidst piles of book and table legs, her laughter echoing, breaking the silence of the ‘corridor.’ Her antics, from bumping into table legs to pretending to be stuck, became a heart-warming interruption during my work.

Driven by a child's instinct to capture her mother's attention, she ingeniously devised a route to infiltrate my workspace. Her play, featuring the book hills, table trees, and the door entrance, mirrored a whimsically designed play area. The room turned into her newfound favourite place, a space where she could dominate the camera angle and surprise me with mime games. This playful journey extended beyond the reading room, encompassing every corner of my flat, excluding the bathroom (see Figure 7.11). Her hiding spots became carefully orchestrated moments of surprise, reminding me to tread cautiously. The lockdowns demanded extra patience and tolerance, turning each interruption into a shared smile, fostering a unique mother-daughter bond in the midst of virtual engagements and play.

7.3.3.2 Table 2- The Standing Working Desk

The other table in my room has two layers and was placed against the wall opposite the window, functioning like a building with two storeys, it served both my work and home life. The upper layer was a modern and stylish steel-made standing table, which I used as another work setting to stretch my legs and attend online meetings in the morning. It was the tidiest and clearest part of my room, where I could devote my sharpest thinking to my work during the first working hour of the day. The lower layer

was the tabletop, where I put the printer on the far end of the table and piled up books and stationaries on the closest part within reach when I was sitting in front of my working desk. The second table set was the assistant to my working desk. I used it for more casual events where I could stand or sit with friends to stretch my legs. The background showed my curtains or windows outside in the afternoon, with the sun moving to the other side of my building. The table held the standing table with my laptop on the top layer, concealing the space beneath 1.5 metres from my daughter's view and granting me more liberty, relaxation, and concealed agency on my side across the screen (see Figure 7.14).



Figure 7.14 The standing desk (made by author)

I gathered all of my belongings and let my daughter pick her favourites to keep. I preserved my items in a box. I printed photos that I had taken during my visit to Kengo Kuma's office a few years ago, where I had witnessed one of the busiest PhD studios. I placed the photos on my wall to boost my motivation and productivity, remembering how hard I worked during those days and nights and how my heart raced with excitement and how exhausted I was afterwards. I prayed for the same level of productivity to come back to me. The photos helped me for a short while, but soon enough, they were overshadowed by my daughter's new projects. My late-night working hours started to dwindle due to my extreme fatigue from taking care of my child, doing everything before 21.00 and working long hours afterwards. As a result, my desk became disorganised, mixed up with daily necessities, and heading towards chaos (see Figure 7.14).

Negotiating Spaces: A Tale of Tables and Territoriality

This section examines the spatial nuances of my room during online meetings, focusing on the significance of tables beyond their functional use as work surfaces. Figure 7.15 brings an architectural cartographic approach to the analysis. The upper left room section plan first reveals the relationship of the tables, which divide the space.

The section line divides the user's body to the right, and the colour gradient from top to bottom suggests the transition from a more public professional workspace to an intimate private space. The floor plan below the profile directly expresses how cyberspace configurates the space. For the size of my 5-year-old daughter, my workspace is defined by the legs of the two desks, the desktop and the stacks of books that form three piles. In conversation with my daughter, I learnt that her spatial experience is directly related to the artificial miniature landscapes of the Chinese/Japanese garden: the table legs and tabletops are low branches and canopies, and the stacks of books are rockeries.

The tabletop emerges as a delineator, dividing the room into distinct layers for both my daughter and me. The upper echelon of this spatial hierarchy was dedicated to my professional and social engagements, serving as my workspace, hosting interactions with colleagues, students, and peers in the field of architecture and urban design. This space demanded a level of formality, prompting meticulous preparations in terms of attire, demeanour, and communication. It is a realm where I could navigate the complexities of a competitive professional environment, momentarily unburdened by the constraints of motherhood.

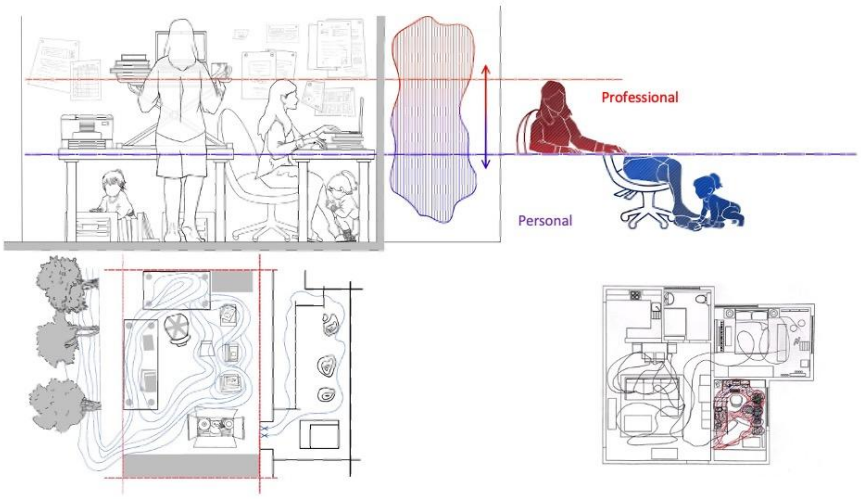


Figure 7.15 The tables defined space (made by author)

Beneath this veneer lay a lower, shared space, accommodating a more relaxed version of myself and my daughter. Here, the transition from formal to casual was marked by a change in attire, from high heels to slippers, embodying a shift towards comfort. This space, characterised by disorder and mess, offers a sanctuary of security and calmness. For my daughter, it signified a reprieve from constant supervision, allowing her to express herself freely while in my company. The camera-visible walls, adorned with my research content, represented my territorial boundaries. Positioned strategically above my waistline and beyond my daughter's reach, they served as a canvas for my professional identity. However, the expansion of my

daughter's creative expressions beyond these walls onto the floor and backsides of tables blurred these boundaries. As we grappled with shared space within the confines of a six-square-meter room during the lockdown, the configurations of distance and interaction became instinctive, guided by my online activities. This intricate negotiation of space created a tableau which reflected not only the physical but also the emotional and psychological dimensions of our cohabitation. It is through this autoethnographic lens that I seek a deeper understanding of the evolving dynamics within this confined yet multifaceted space.

7.4 The Background and the Female Body

In this section, I explore the interplay between the background feature in web conferences, traditional Chinese furniture, space dividers, and the representation of the female body in these virtual spaces. Each element plays a distinctive role in shaping the spatial dynamics of online communication. Their individual contributions, the intricate relationships they forge, and the unique performances they enact within the confined spaces of homes during the lockdowns are discussed. Through this exploration, I aim to unravel the nuanced dimensions of how these elements collectively shaped this gendered cultural space through virtual experiences and online interactions.

7.4.1 The Virtual Background

In December 2021, Google Meet, the designated online meeting platform, introduced virtual backgrounds as part of its workplace features. This feature resembles a traditional Chinese divider, concealing private spaces from the view of others or establishing a professional-looking environment for meeting participants. In the next sections, I will compare the virtual background with the Chinese space divider and reveal its meanings and functions within the cyberspace at home.

7.4.1.1 Chinese Movable Divider in Chinese Architecture

Chinese space dividers symbolise traditional Chinese art and craftsmanship, often featuring intricate designs and motifs that rival paintings reflecting the country's rich cultural heritage. Since the Song Dynasty, wooden space dividers have become an essential piece of furniture in ordinary homes due to their ability to be folded and moved freely according to the room's function (Wang, 2011). The flexibility of the space dividers, for example, allowed them to be adjusted at different times and occasions to create spaces that met specific needs. Combined with the fact that Chinese brick buildings do not facilitate the installation of brick walls in the interior,

space dividers act as a spatial barrier that can be changed according to different needs at different times and occasions, thus creating a space that meets different needs.

The movable tables, chairs, space dividers, and brocade barriers that characterise the daily life unfolding in the halls of wealthy homes are constantly rearranged to form different scenes, each of which in turn constitutes a hierarchical space — sometimes a place of business, sometimes a place of feasting, other times a place for performances, a dining room, or even a hearth - defining the significance of the host and the interrelationships of those in it at any particular moment. Each scene, in turn, constitutes a hierarchical space - a place of business, a place of feasting, a performance venue, a dining room, or a funeral parlour — that defines the meaning of the hall, the identity of its owner, and the interrelationships of the people in it at a given moment. In this way, the social and complex nature of the home that the hall represents is expressed.

7.4.1.2 Home Spatial Division: Unveiling the Roles of Virtual Backgrounds and Chinese Space Dividers in Balancing Privacy and Public Space

The space partitioned by Chinese space dividers could be represented in a two-dimensional image, akin to the special arrangement depicted in Chinese paintings. Two specific drawings show the spatial sequences with different levels of publicity and privacy, incorporating female spaces in the discussion: *The Double Screen (Space Dividers): Emperor Li Jing Watching His Brothers Play Weiqi* by Zhou Wenju (see Figure 7.16) and *The Night Revels of Han Xizai by Gu Hongzhong (*see Figure 7.17*),* both produced during the Five Dynasties period.



Figure 7.16 The Double Screen: Emperor Li Jing Watching his Brothers Play Weiqi Traditionally attributed to Zhou Wenju (artwork in the public domain; photograph provided by National Museum of Asian Art)

In the *Double Screen* drawing, the audience is offered a glimpse into a daily scene depicted through a one-point perspective. The focal point is the male master,

portraying the nobleman's domestic space — the externally dominated male domain and an inner room reserved for females. This portrayal conveys his public image of masculinity and his second role as the patriarch overseeing a household with numerous wives and concubines. Deliberately showcasing the sequence of spaces within the residence, the image distinctively separates inner and outer spaces, hinting that the private living quarters of the master lie concealed behind the symbolic space divider.



Figure 7.17 The Night Revels of Han Xizai Traditionally attributed to Gu Hongzhong (artwork in the public domain; photograph provided by Palace Museum Beijing)

The *Night Revels* of *Han Xizai* drawing intricately unfolds a narrative within a nobleman's residence, depicting distinct spatial divisions that confine female characters to subordinate roles in the morally circumscribed spaces of the time. The arrangement of three space dividers, from right to left, delineates five spatial relationships (see Figure 7.18). The initial space on the right captures a night banquet scene featuring a female musician with a pipa positioned in front of the space dividers. As the narrative progresses, the first space divider unveils a more intimate space of the Han household, showcasing a man in light yellow civilian attire observing the women's dance and merrymaking. The presence of a monk signals a heightened

intimacy in this space. To the right of the second space divider, the most intimate inner room unfolds, portraying Han Xizai and his concubines seated on a couch. The left side of this space divider projects a casual atmosphere, with Han Xizai adopting a relaxed posture, revealing his chest and belly, while musicians transform into informal figures. Behind the third space divider, the interaction between men and women intensifies. Han Xizai is positioned inconspicuously in the middle, metaphorically emphasising the transition from public to private spaces and highlighting the space divider's role as a metaphor for physical isolation and spatial transformation.

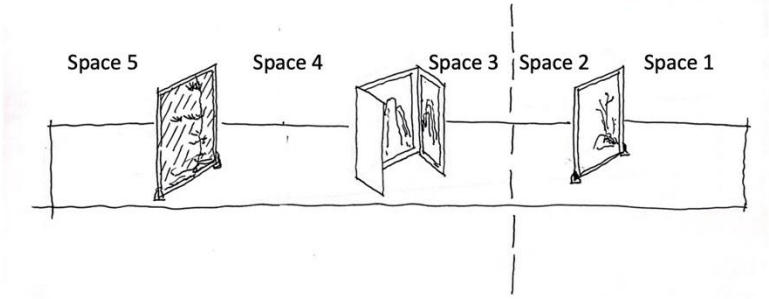


Figure 7.18 Five spaces in The Night Revels of Han Xizai (made by author)

The historical significance of the Chinese space divider lies in its ability to conceal the private and, in particular, the feminine space. In the context of traditional norms, the activities of a respectable woman were confined to the inner sanctum of the home. Through the intricate design of the Chinese space divider, these women could discreetly observe the public life unfolding beyond, peering through its panels and windows, while maintaining the privacy of their own secluded realm. This duality, in which the space divider acts as both a physical barrier and a voyeuristic window into the outside world, captures the complex interplay between private and public spheres in historical contexts. Similar to architectural elements or furniture, virtual backdrops can significantly impact the spatial dynamics of an online video conference and operate on a principle similar to a traditional Chinese space divider, except that they are realised through digital images. The background functions as a layer of fabric on a plane parallel to my body, covering my cluttered room, the walls of my studio with my daughter's paintings and my working sketches, the citrus peels perfumed on the radiator, the books stacked on the table, all the visually revealing features of my persona are hidden behind this carefully selected layer of curtain.

7.4.1.3 The optical illusion effect created by the background and the Chinese Space Divider

Chinese space dividers, now affordable and portable in the West, have taken on the role of room dividers. During the pandemic, I obtained a second-hand Japanese paper space divider with the intention of using it in my living room to create a separate office space at home. The goal was to establish a clean and simple backdrop for video calls,

with the space divider providing visual isolation while allowing me to monitor my daughter's activities in the room. Unfortunately, the space divider lasted less than three days, falling victim to my daughter's unintentional mischief. The initial purpose of serving as a physical backdrop was swiftly replaced by the virtual background features offered by software companies. In the virtual realm, I found myself seated in a bright and tidy office, even as the playful sounds of my child echoed in the background.

The disparity between a tangible space divider and a virtual background resides in the user's encounter. In contrast to a physical Chinese divider that physically conceals the environment from users, a virtual background does not possess this tangible obstruction. Instead, it introduces a layered effect that engages with users, blending the actuality of their physical presence with the virtual imagery. This engenders a perception of approximation and blurring, delivering a distinctive visual encounter for the audience. As Batchen (1995, p. 61) elucidates, this is akin to "a reality which is apparently true but not truly true, a reality which is apparently real but not really real." Seated at my desk, gazing into the mirror and the screen, I perceived myself existing within two distinct realms. In one realm, I appeared as a reflection amidst the digital transition, situated within a two-dimensional image, merging the realms of technology and humanity. In another realm, I recollected the feel of the wooden floor, the warmth of sunlight streaming through the window, connecting me to a familiar reality. I cherished the online lectures presented by Juhani Pallasmaa from his reading room, the Irish lady narrating folktales by a bonfire, and the festive room decorations arranged by my parents during the spring festival. The amalgamation of these backgrounds blurred the audience's, including my own, sense of geographical relevance during the lockdown, eroding the boundary between the tangible world and unfurling the imagination of the space concealed behind the veil.

There are examples in Chinese space divider design which also create this visual illusion. A typical and famous representation is *The Double Screen: Emperor Li Jing Watching His Brothers Play Weiqi* by Zhou Wenju in the 14th century (see Figure 7.19). The painting invites the viewer to look at two compositions, with four male figures in the foreground playing or watching a game of ‘Go’, and a child guarding the space divider's lower right-hand corner. Looking through the main figure, the owner, who wears a tall black hat, the more intimate space of the living scene is inscribed on the space divider in the distance. The master of the picture is reclining on a couch in the middle of the inner house, served by four women. Behind them is a three-fold landscape space divider. The three consecutive three-dimensional spaces are parallel to the picture plane, simultaneously displaying the outdoor space, the private space, and the gathering space in front of the viewer. Through the optical illusion, the intersecting spatial narratives intertwine the private women's spaces in the centre, displaying the private space in the public space.



Figure 7.19 The Screen (space divider) in The Double Screen (space dividers): Emperor Li Jing Watching his Brothers Play Weiqi Traditionally attributed to Zhou Wenju (artwork in the public domain; photograph provided by National Museum of Asian Art)

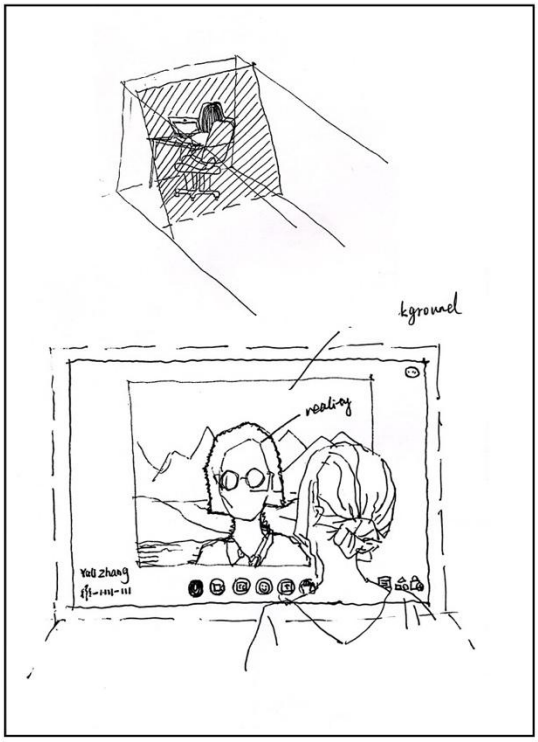


Figure 7.20 The Background in My Room (Upper Image) and The Body with the Background in the Screen (Lower Image) (made by author)

By selecting a mountain image as my background, my friend was under the impression that I had ventured into the Peak District, providing a virtual escape from home. Switching to a café background allowed me to virtually share drinks with old classmates as if we were meeting in Paris. This use of backgrounds created a two-dimensional space that, rather than physically expanding the room, enhanced its depth in my reading room (see Figure 7.20). It represents a process contrary to physically shaping space but opens up possibilities for imaginative experiences.

7.4.1.4 Empowering the At-Home Space: The Transformative Impact of Virtual Backgrounds

Except the similar functions as architectural elements, virtual backgrounds play a crucial role in shaping diverse spatial settings within online video conferencing. From emulating boardrooms to creating casual lounge atmospheres, these settings significantly influence the dynamics of virtual-reality spaces.

Providing Care for Participants

The choice of a virtual backdrop can profoundly influence participants' mental wellbeing and comfort. When engaging in conversations with friends, setting a serene natural background created a calm atmosphere, offering much-needed emotional escape from the challenges of the COVID lockdowns at home. Similarly, in work meetings, a thoughtfully selected background assists in softening the discussion environment, enabling participants to feel more relaxed and focused. During the cold winter months, the illusion of a street café scene fosters a cosy gathering atmosphere, providing warmth and connection.

Enhanced Collaboration and Communication

Virtual backgrounds offer avenues for improved collaboration and communication. Take, for instance, a virtual whiteboard background, which can replicate a shared workspace. This fosters interactive discussions and facilitates brainstorming sessions within the group, enhancing the overall dynamics of the conversation. I distinctly recall advising students to use images representing their projects as backgrounds. This mimics the experience of standing in front of their posters within the physical building during reviews, adding a novel dimension to the virtual environment.

7.4.2 The Female Body within the Screen

The female body within the screen can be compared to the female body within visual art as a discursive subject and medium. However, in this research, the female body is not the operation’s subject. It is the space described through the interaction between the background and the female body within the cyberspace being centralised. The female body is the material cyborg within the cyberspace. The following section will explore how the female body is objectified within Asian culture, contrasting this with the concept of the cyborg.

7.4.2.1 The Female Body is a Cyborg in the Space

The body in the screen facilitated by digital technology can be considered a cyborg. However, it is different from Haraway's (1991) classic cyborg. First and foremost, the universality of cyborg theory has been questioned, as it stems from Haraway's specific circumstances and concerns, shaped by her identity as a white, middle-class academic. This Euro-American or 'Western' perspective raises questions about the applicability of the theory in an East Asian context. Second, despite the potential for cyborgs to symbolise a post-gender society, many scholars argue that depictions of cyborgs in various media tend to reinforce the gender binary and associated stereotypes. The discussion of the female cyborg, for example, remains within the confines of binary gender scenarios, contradicting Haraway's idea of transgressing boundaries. Balsamo (1995, 1999) suggests that when stable boundaries are displaced by technological innovation, other boundaries are often more rigidly protected. In the discussion of cyberspace in the previous chapter (see 5.The Digital Space at Home), it was noted how Chinese women's cyberspace images from the social context emerged in science fiction in Asian culture, mainly from Japan. Portrayals of cyborgs in mainstream culture and visual artistic expressions have thrived since the aftermath of the Second World War. Within these mediums, cyborgs serve as a conduit for exploring present-day concerns related to technology, postmodern individuality, and the nuanced interpretations of the human body. The metaphor of the female body is associated with cultural and social structure. Contemporary Japanese cyborg narratives remain significantly concerned with the distinctions between sex and gender (Orbaugh, 2005). The female cyborg in these narratives may have a feminine appearance but exhibits masculine traits, as her aggression, dominance, and toughness arise not from her biological femininity but from the technological transformation of her hybrid body.

In my home space, the technology is the *online video communication,* and I am the female cyborg. Situating within the changing backgrounds, my body seamlessly integrates into the visual narrative, becoming an integral element that defines the spatial context. Whether participating in a seminar with a bookshelf as my backdrop, organi*s*ing an office-based course, or simply enjoying a meal at an outdoor café, I remain anchored in the same physical space throughout the day. Simultaneously, the woman on the screen becomes a focal point of observation, transforming the female body into a subject of discourse and a conduit for visual expression. The meticulous application of office makeup and the choice of a formal blouse, coupled with me in front of the camera, serving as poignant reflections of the gendered bodily norms entrenched in Asian culture, particularly within the confines of public space.

7.4.2.2 The Cyborg in the Background Formed New Identity in the Space

With the power of technology, cyborgs can reinvent themselves as individuals by restructuring the environment based on established understanding within a specific cultural context, which gives the female body a strong reference. This process is the reconstruction of context and individual performance within the framework of women's identities within the poststructuralist critique (Singh, 2007).

Specifically, contextual settings can also affect the sense of professionalism in virtual work environments. When attending a conference, displaying the badge and the name of the organisation I work for in the background connects me personally to the big organisation, increases my self-confidence, and conveys a sense of order and competence. When presenting the design proposal, I used a photograph I took of the completed project as a background to enhance my ability as an architect, giving the client a more professional impression. At the same time, it hides my identity as a single mother and my personal information as an individual working from home. Both examples abstract the body from its original space-time and match it with other information that defines the space in which the body is located, thus enabling spatial transformation.

Virtual backgrounds can reinforce or filter the cultural differences of the participants. For instance, the daughter of an International Day participant from the infant school, dressed in a cheongsam, adapted her background to a Chinese New Year painting; her best friend, dressed in Korean Hanbok, had the landscape of the Hallasan Mountain as her background; in the guise of symbols, they became part of the image, completely changing the properties of the space in which they were located. In contrast, I, who met with the other designers online, wanted to weaken my identity as a Chinese student and emphasise the internationality and professionalism of the design solution. My own cultural symbols, home space, and female identity at home all became information to be filtered out. It makes me long to become Haraway's (1991) cyborg, who weakens the binary boundaries and stands as the symbol of the designer in the abstract space.

Summary

Using mirrors, tables and screens as mediating objects, this chapter combines Chinese culture with women's digital spaces at home to explore how online video conferencing influenced home spaces for Chinese women during the COVID lockdowns from the perspective of Chinese Culture. The historical significance of mirrors in Chinese culture was first explored, emphasising their symbolic, spiritual and practical roles. beginning with the association of mirrors with protection, spirituality, and femininity in ancient China, the discussion extended to the use of mirrors in

funerary practices, emphasising their connection to gender dynamics. The narrative, interwoven through poetry and storytelling, demonstrates the mirror's multifaceted symbolism from self-assessment to cultural reflection. As mirrors transform in the digital age, particularly during blockades, the various functions of mirrors in the home were examined, from fundamental self-reflection to the creation of elaborate backdrops for online meetings. Mirrors become essential tools for managing appearance, adapting to the nuances of virtual communication, and maintaining internal and external self-connections. Mirrors also have a perceptual shaping role in online interactions, highlighting their influence on self-perception and superficial judgements. The virtual illusions created by mirrors and screens illustrate the complexities women face in a digitally mediated world where representations have multiple meanings. Looking to the future, the mirror is considered a cultural artefact that carries the imprint of human existence. Discussions guided by Frichot's (2018) notion of 'congregational institutions' and Benette's (2010) notion of 'Shi' emphasise the role of mirrors in shaping the energy and narrative of the surrounding space. Ultimately, the mirror becomes a silent participant in the evolving life story in the home office.

The second theme explored the role of tables in the author's life during the COVID-19 lockdowns, focussing on their significance in different spaces at home. By describing three tables in the flat, the multifunctionality of the table in ordinary family life during the epidemic is emphasised as a dining space, a workbench, and a gathering point for family activities. The research explored the symbolic and functional dimensions of tables, comparing them to architectural elements and discussing their role in shaping spatial organisation. The table was examined through the lens of Chinese family culture, analysing its cultural symbolism and central role in ritual and gathering along with the family-based social norms. Transitioning to the digital age, the impact of technology on the traditional roles assigned to women was discussed through the table focus. In front of the changing spatial dynamics, particularly challenges during the COVID-19 lockdowns, the table has been a central element in navigating these complexities.

The multifaceted interplay of virtual backdrops, traditional Chinese screens and the female body in online communication and spatial dynamics was explored. Firstly, the integration of virtual backgrounds in platforms such as Google Meet was presented and compared to traditional Chinese screens (Space dividers), which are used in physical environments to hide private spaces or create professional environments. The historical significance of Chinese movable partitions was explored by analysing two Chinese paintings, Double Screens (Space dividers): The historical significance of Chinese movable partitions was investigated by analysing two Chinese paintings, Double Screens (Space dividers) - Li Jing Watching His Brothers Playing Chess by Zhou Wenzhu and Han Xizai's Night Banquet by Gu Hongzhong, highlighting their roles in shaping spatial configurations and fulfilling specific needs in different environments. Commonalities generated by physical screens (Space dividers) and

virtual backdrops in China were then pointed out, and their transformative impact on spatial perception emphasised through the effects of optical illusions. Individuals state how and why they transitioned from physical screen (Space divider) experiments to virtual backdrops during the epidemic lockdowns. The role of screens and backdrops in distinguishing the private from the public was emphasised, as well as the role of flexible settings of backdrops in accommodating participants and enhancing collaborative communication.

The cyborg perspective in the cyber realm was then explored, discussing the female body as a subject affected by digital technology and comparing it to Haraway's (1991) classic cyborg theory, pointing out that the significance of cyborgs in Asia. The final part of this section delved into the role of the cyborg concept within Asian narratives, highlighting how it serves as a representation of technology's influence on age-old cultural practices. This analysis also examined how the integration of technology challenges and redefines established binary views of gender roles, particularly femininity, in traditional societies. By exploring the cyborg metaphor, the narrative sought to understand the complex interplay between advancing technology and enduring cultural norms in Asia. The cyborg becomes the embodiment of the reshaping of female identity through technology. The final section also examined the transformative role of virtual contexts in shaping online spatial environments, exploring the potential for conferring and enhancing participants' professional identities through contextual choices and the dynamic nature of constructing online identities through the filtering or enhancement of cultural differences via virtual contexts. The study points to the ability of technology to abstract the body from its original space and time, enabling spatial transformations and redefining the individual in specific cultural contexts, which coincides with post-structuralist critiques.

The next chapter examines the role of cyberspace in the home lives of Chinese women, focusing on how unique emotional perspectives are informed and shaped through online experiences.

Day in the Life Case Studies - The Cultural Space at Home

Moving to a Home in the UK

Setting up a new home in the UK as a Chinese single mother with a 5-year-old daughter from a city in North China. I had to choose a flat close to my daughter's school, within the good neighbourhood and with good security. The two-bedroom flat building provides two gates to separate my indoor space from the street, the same as my flat in China. I have adopted several objects from home to accommodate the space according to the living habits of the older generation (my parents and my aunt). The objects include a mirror I bought from Ikea, a stone from Tai Mountain and a bronze Chinese dragon from China. The mirror is positioned opposite the flat gate (the front door), with the stone sitting in front of the mirror. The dragon is settled on a table in

the northeast corner, aside from the window. The proposition of the decorations originated from the belief to guard the openings of the inside from the outside evils. The cupboard is put in the living room to hide the bathroom door from the view of the flat gate. The forbiddance of penetrating the view between the front door to the bathroom door is still an undocumented rule to individual flat plan designs in China to block the private bathroom door to the outside.

Morning

After breakfast, I moved the dishes from the dining table to the kitchen in the morning and placed my coffee on my desk next to my notebook. I drink it quickly to avoid my daughter knocking it over and damaging my notes again. My daughter was playing online with her friend in South Korea. They were playing a game using virtual backgrounds to mimic travelling around the world, from Paris to the Himalayas.

I put a mirror aside from my screen to check my looks all the time, even though I could see myself in the camera. There are a lot of my friends doing the same thing who wouldn't check the mirror or even carry a mirror in the office before lockdown. I used the mirror to check on my hair and my makeup. The camera seemed to flatted my Asian face to a whiteboard. My expressions are harder to read than a face-to-face meeting without highlighting my five senses. The mirror is a checking point for delivering the right images according to personal preferences.

For most software, there is another designed checking point before you enter the sharing meeting. You could use the room to check for more information. It acts like a mirror to check on myself. Furthermore, it helps me to check everything on my screen. Everything is within the scope of the camera to show the audience. I always came five minutes early to "stage" my room with only neutral objects related to the office environment to show in front of people for work. I carefully removed the bright-coloured objects, tidied up the things on my floor that would show in the background, and closed many books and prints I read. Also, I prepared the handy things on my desk which wouldn't be seen on the camera like the mugs, pen, notebooks, lip balms and tissues. I used a red light to change my tone and brightness if the sky was not light enough.

The effort I made in the beginning was to get used to looking at myself all the time on the screen. However, with a few suggestions about information delivery related to facial expressions and eye contact requirements, I purchased the LED light with a computer holder to lift my laptop to ensure my eyes stayed in the same line as the camera. My private home was once again transformed, acting as part of the classroom for tutorials, part of a lecture hall for presentations, a part of a cafe to meet friends, a family table to hold dinner with my relatives, and a playground for Angela to play with her classmates. Instead of a door, the camera acts like a threshold allowing the transformation within a second.

Lunchtime: Dinning During the Chinese Festival

Due to the 7-hour difference, we are having lunch while my parents prepare a feast as a supper in China during the Chinese New Year's Eve. My parents were really worried about what my daughter and I ate. Chinese food is so important to our culture and linked to health and spirituality. The dinner table is the heart of Chinese festivals, big and small. Even on the less important holidays, my grandma and grandpa make sure we're eating well and that I've taken the time to prepare nutritious food. As soon as the camera was set up, it focused on my daughter eating, the table, the food, and my daughter at the table. After arranging the camera, I joined my daughter and parents at the table, listening to music from a Chinese gala on TV in the background. The festival's theme always revolves around the type of dumplings we made, stories from my parents' and ancestors' generations, and the current lives of relatives and friends. Looking towards the near future, it didn't take long for my dad to start to seem tipsy. Despite having a cough, he couldn't resist his holiday drinking habit! This year, there were no traditional dishes on the table and no particular seating arrangement at the two tables connected through a video link. The Chinese festive table was also adorned with British steak and ice cream!

Afternoon Work

Under the table level, hiding from the camera is my private life. Above the desk level is my working place. When I was working, my daughter crept forward from the door until she reached the end of the room under my desk. She would put her big, fluffy-haired head on my knee to pretend to be stuck between my thigh and the table board, which made me feel both funny and cute in a poor way. A child's instinct is always to find a method to catch their mother's heart. She found I was not mad at her at all. Then she developed a route to crawl into my room and play around the table legs, used my table as a shelter for her toys, and did a lot of games by herself while I was working on my own.

The new playground was suddenly her favourite place with my flat. She could almost dominate the entire room under the camera angle if she stayed quiet. For most of my online study or lecture learning process, she would hug my leg and make sure I could be distracted every 10 minutes by her funny mime. The play pattern was applied to every room in my flat except the bathroom. She hid under the table, sofa, and everywhere she could to spook me by stopping me on my way to somewhere. I had to be careful not to step on her head. There is extra patience and tolerance for her behaviour during the lockdown for me to keep a smile on both of our faces.

I could always predict how long Angela would spend alone with her work. Then if she had a good day, the awarding, asking and speaking rules did not exist in her world. She could act like a hyperactive crab walking on a beach; she would squat on the floor, with bare feet, around the rooms, over the sofa, back on the floor, bounce on the beds, play her piano by feet, and anywhere she could climb again and again. Then she knocked on my door and did her walk around my room, on my piled books, over my

chair behind my back and snuggled under the table for a while then left. All I needed to do was close my door and return to peace.

In the evening

In the luck days, my daughter falls asleep quite early. My mother friend and me can hold a little meeting-up online in a virtual café. We turned on the background to mimic an atmosphere inside a street café with steamed warmth inside and wet and cold rains outside. We both hold a mug with a hot drink inside, like tea or coffee, to enjoy the rare moment of peace. I knew my friend was going to tell me something. But instead, she put on some music to complete the escape from the mad world.

Midnight conference

Attending international conferences or meetings can be a bit challenging due to dealing with different time zones. On one occasion, I signed up for a conference in China that was scheduled for 3 a.m. To prepare, I set an alarm, checked in on Angela to ensure she was sleeping soundly, quietly made myself a cup of coffee, and took a shower. I then sat down at my desk with a clear mind, reviewed my presentation slides, and got ready just 2 minutes before it was time for me to present.

I asked myself, "Is it worth sacrificing sleep to attend a midnight meeting? What if Angela suddenly woke up and cried for a cuddle?" In the process, the only thing that was certain was that I closed the door to my room and crossed the threshold from family life. The backdrop of my presentation was a photograph of a distant mountainous landscape in the Himalayas: illustrating my background while sending a message of my desire for work-life balance. I opened the door a crack in order to give my daughter a sense of warmth and comfort, and as a result, the door remained half-open for the rest of the conference.

8 The Emotional Dimension of the Digital Space at Home

8.1 Introduction

Building upon the exploration of the cultural dimension of cyberspace in the home, this chapter investigates the nuanced realm of emotional spaces shaped by the influence of cyberspace. The construction of emotional space finds its roots in the space's physical structure and its users' cultural context. As the intricate interplay between digital realms and lived experiences is navigated, a deeper understanding of how emotional spaces are conditioned within the cyberspace-impacted home unfolds. The space itself consists of a home space under the influence of a digital space; the user in this research is a single mother from Chinese culture living in the UK, and the temporal dimension is the lockdowns brought about by the global outbreak of COVID-19. This chapter first introduces the process of constructing the digital home space of emotion, how the home environment itself has a positive impact on emotion, mainly mood, and how it can be used to create an emotional space for the user. It then gives personal meaning to my home and culture in the UK within the human geography concept of 'lifeworld', translating it into place and describing how a stranger in a culturally unique family creates an emotional home. The space for women's emotions is constructed through the identity of being a woman and a daughter adrift, explaining the emotional space of a Chinese family aided by digital technology in lockdowns during a pandemic. Finally, the focus moves to deconstructing the impact of new forms of domestic space constructed by digital space on emotions/moods.

8.2 Far Away Familiarity and Nearby Foreignness – Living in an Overseas Home away from China

Families and clans are an integral part of Chinese culture, embodying organisational structure and social functioning (Fei, Hamilton, & Wang, 1992). For Chinese people living abroad, emotions related to their homeland play a pivotal role in constructing the emotional space of the family. These emotions greatly influence their ability to form new relationships and build a sense of home in a transnational context (Wang, 2013). For Chinese parents, the task of establishing a Chinese culture at home abroad is particularly important, with a focus on emotional socialisation when considering parenting and child development (Shi, 2017). My first task as a mother was to establish a home for my young daughter in the UK. Initially, this home was a temporary residence for the two of us, providing sanctuary in the UK whilst maintaining a connection with our roots through biannual trips to China. These visits allowed us to spend time with our grandparents and stay in a flat in my home country, thus fostering my daughter's Chinese cultural bond. Initially, my emotional need for a home in the

UK was largely functional, providing me a place to shelter from the elements. However, with the COVID-19 outbreak, the meaning of being in Britain shifted. The closure, coupled with the company of my daughter, produced new spatial experiences with the help of digital communication technologies. These experiences, coupled with changes in the interior layout, the bodies and emotions within the confines of our living space, and the accumulation of memories of various joys and challenges, have together contributed to the gradual transformation of this exotic home into a true physical and spiritual haven for me. The following section explores the process of creating an emotional sanctuary before and during the COVID-19 lockdown.

8.2.1 The Process of Building Emotional Home in the UK with Cyberspace at Home

During the onset of the lockdowns, the dynamics within my flat underwent a profound transformation, driven by both functional needs and an emotional rearrangement of our physical space. My daughter and I initially occupied separate bedrooms. However, a series of nightly disturbances, with her seeking comfort, prompted a significant rearrangement of our living space. Fuelled by a mix of her separation anxiety and my own pandemic-induced apprehensions, the unease of being separated by mere walls led us to transform our largest room, the living room, into a shared bedroom (see **Error! Reference source not found.**). This architectural model reflects the placement of furniture within the flat and the spatial relationships of the home. A sofa bed and a single bed were seamlessly integrated, offering us both solace and a heightened sense of security. Our previous bedroom, located at the far end of the building, which also served as my daughter's piano room, gradually saw a decline in daily activities. The distance from my workspace during the day relegated it to a space with minimal use. Difficulty in securing online deliveries prompted me to stockpile essentials, long-term food, and emergency supplies during the epidemic, effectively transforming our once bedroom into a makeshift pantry.



Figure 8.1 Physical models of the beds placed together in the living room (made by author)

An intriguing observation emerged during my daughter's interactions with her grandparents through digital channels. Holding the iPad close, she would express, "I am holding grandpa" and "I do not want to put grandpa down." At bedtime, the iPad found its place next to her pillow, a deliberate choice to feel closer to grandpa and grandma. During piano practice sessions, she would carry the iPad, creating a tangible link with her grandparents and forming a miniature cyberspace of emotional connection within our home. Observing my daughter's interactions with our home during this period was enlightening. For my 5-year-old daughter, her engagement with our space took on a more physical dimension. In the wake of the epidemic, she explored the room by crawling across the floor, often finding hiding spots under tables or amidst the piles of books and clutter. These elements became tools for her creative manipulation, resulting in unique arrangements. While I worked, she would silently bring her IKEA children's chair into the room, positioning herself beside me where the camera could not capture her, engrossed in reading or quietly gazing out the window. Within my office space, there also existed a corner dedicated to my daughter's presence.

8.2.2 The Firewood, The Hub, A Virtual Visit to The Sea and My Homeland

Emotions entwined with the notion of home are profoundly personal, intricately woven into one's identity, and influenced by cultural, religious, and social dimensions. The process of establishing a home in a foreign country is a nuanced journey, requiring the adoption of a physical space and the infusion of personal and cultural significance.

Within this transformative journey, the space we designate as 'home' undergoes a dynamic evolution as emotions and individual meanings gradually take root. Making a home in a foreign land transcends the mere acquisition of physical shelter; it involves the cultivation of a profound sense of belonging, rootedness, and cultural resonance. During the challenging period of the lockdown, the transformed space of ‘home’ became even more important. It became a cultural island or enclave in a foreign land, providing a refuge during uncertainty and chaos. During the lockdowns, I lived in a confined space with limited opportunities to interact with the natural environment and the community, which made my experiences and reflections on home more abstractly linked to an understanding of emotional space and nostalgia.

My ‘home’ is the courtyard of my grandmother's house where I lived as a child in the 1980s, the army compound of my grandfather's house, the ‘Danwei’ I moved into later in the 1990s, and the flat block of commercial property after the 2000s. Between the experiences of moving around, my home moved farther and farther away from the ground, all the way up to 14 floors high. But my fondest memories are of the public parks in Jinan that I visited with my grandma and grandpa, the lantern party at the Lantern Festival, the chrysanthemum exhibitions in autumn, sitting by the spring in the courtyard in summer, putting my feet in the cool spring water in the heat of the summer, eating ice-cold watermelon, and sitting under a mosquito net at night with the cicadas chirping as I fell asleep. The thick leaves of the French sycamores on both sides of the road in front of my house met in the middle, and in March every year, the whole city starts to float in the willow flakes, men and women cover their faces with a veil like the female warriors in martial arts films. Food at my grandparents’ house was the best; with a large family of twenty-two people, there was no way to sit at one dining table. We used the same plate as the university cafeteria to serve the food. The living room of the house was not equipped with a TV, instead, three walls were connected to a long strip of custom sofas, where small children crowded around, carefully avoiding the family's pet cats. The atmosphere was filled with noise, bustle, the rhythm of the seasons, the endless celebrations of various festivals, essential life moments of the family members. Whether it is birthday anniversaries, or distant relatives seeking medical advice or seeking companionship, there were no quiet moments. The ‘home’ lies between human interactions and connects to the dwellings of various families. It is a place where I can eat when I am hungry and talk about my grievances.

Duan Yifu's theory energises this narrative and enriches the concept of ‘home’. For Duan, home transcends mere materiality and is intertwined with complex threads of culture, religion, and shared human emotions (Tuan, 2011). As my home continues to ascend, Tuan's assertion that "home is elsewhere" resonates deeply with me - he recognises that leaving home is tantamount to giving up an essential part of oneself, leading to homesickness (Tuan, 2011, p. 10). The emotional resonance of my memories coincides with Tuan's exploration of aesthetics and emotion, where the senses of sight, sound, smell, touch, and taste become conduits for understanding

human constructs such as art, architecture, literature, philosophy, music, and landscape (Tuan, 2013; Holl, Pallasmaa, & Pérez, 2006).

In the face of adversities, such as those encountered during the lockdowns, the significance of the transformed 'home' space becomes even more pronounced. It transforms into an isolated cultural haven or enclave within the foreign landscape, providing solace amidst uncertainties. Beyond its role as a mere dwelling, this enclave becomes a repository of shared memories, cultural practices, and emotional bonds.
Amidst the UK lockdowns, my daughter and I began to perceive our flat not just as a living space but as our shared home. It ceased as a mere physical space and gradually evolved into an emotional sanctuary, a shared haven. Despite its functional aspects and the public accessibility inherent in its design, our flat became an intimate witness to the myriad emotions that defined our lives throughout the epidemic—a silent narrator chronicling our collective joys and sorrows.

Cyberspace formed by online video communication became an essential part of the home. Through video communication, I virtually traversed my hometown's familiar streets, accompanied by friends, and even felt the ethereal touch of my pet cat, Flower. Cyberspace transcended geographical boundaries, enabling remote celebrations of birthdays as my parents meticulously prepared New Year's Eve dinners for my daughter and me, bridging the physical gap that separated us. In the realm of cyberspace, the emotional contours of 'home' retained their authenticity, grounded in the fusion of personal and cultural attachments. With the passage of time and the maturation of my daughter within this digital realm, the act of nurturing her independently emerged as a profound reaffirmation of my identity as a single mother. In the embrace of our UK abode, I found myself assuming the role of a mother with a newfound clarity. This burgeoning social circle, distinct from the confines of established social norms, gradually diluted my identity as a Chinese woman. It liberated me from the constraints of outdated social relationships, allowing me to redefine myself within the diverse and open-mindedness prevalent in this newfound community. The evolving narrative of my identity, intertwined with the unfolding story of our home, offered my daughter and me a vision of a future unbounded by preconceived notions.

Drawing inspiration from Massey's (2013) perspective, spaces are envisioned as a “pincushion of myriad stories,” cutting through countless narratives, where everyone has the right to exist within myriad stories. Within a dynamic and ever-changing framework, this interconnectedness of space and time is central to Massey's spatial theory (Massey, 2005). Social structures, political characteristics, and 'local' culture collaboratively shape a place and its identity through ongoing interactions. Phenomenological approaches further explore the perceptions and meanings individuals attach to places. In the context of Massey's (1994) spatial dynamic, the idealised, supposed inhabitants are challenged by current 'fragmentation and disruption.' The notion of being 'space-bound,' rooted in the sense of control and

familiarity, becomes more apparent when individuals or groups depart from a particular place.
In essence, emotions about home, whether personal or culturally grounded, are in constant flux. The evolving space is a canvas where emotions and individual meanings are intricately woven, transcending the tangible dimension. The essence of 'home' lies in the dynamic interplay between personal emotions, cultural identity, and the physical space that encapsulates a wealth of memories and cultural bonds. As Massey (2013) would argue, the spatial narrative is not just a static entity; it is a dynamic and evolving image continually shaped by the interplay of diverse stories, emotions, and cultural influences.

8.3 Wiping and Hiding from A Camera: Navigating the emotional space within a Chinese family

As discussed in the introduction regarding my home (see My Flat), the idea of home originates from Chinese culture, deeply intertwined with the family, which is the foundation of society (Zhang, 2009). My home in England embodied not only the traditional Chinese family system, characterised by the patriarchal clan structure (Sheng, 2005b), but also serves as an anchor for my cultural identity, providing a sense of cultural belonging (Yun, 2021). My identity is shaped by the dual roles within my family: that of mother and daughter. In the UK, I am the mother, and in the space connected by emotional and digital technology, I am simultaneously the daughter adrift. My home in the UK maintains a special link with my Chinese home through my identities as a mother to my daughter and a daughter to my Chinese parents (see My Family). In the Chinese concept, the smaller home of the next generation remains closely tied to the larger family by shared family name and blood bond. In this session, I focus on establishing and explaining the unique cultural and identity-influenced emotions experienced by transnational daughters during video communication at home.

8.3.1 Through Video Communication to Connect Two Geographic Homes

Emotional space in the digital arena of the home is also defined by identity, intersectionality, gender, ethnicity, intergenerational relations, and other identity factors that play an important role in shaping emotions associated with the home. The space of the home made possible by cyberspace weaves in and out of the various functional spaces of public accessibility, shaping different individual roles but leaving very little time and room for emotional transitions. The working-from-home and current identities, overseas children facing ageing Chinese parents, and the special needs of women living at home during the time of an epidemic locked down city, explain and describe the emotional space created by digital technology from varying dimensions.

8.3.1.1 Fostering Intergenerational Bonds: The Role of Digital Spaces in Connecting Grandparents and Grandchildren at Home

Since my daughter's earliest days, she has shared a close and nurturing relationship with her grandparents. Their invaluable support in caring for her has been a constant throughout her upbringing. This practice, driven by the demands of rigorous work hours and the accompanying stress, has become a widespread norm in Chinese society. The societal phenomenon known as 996, denoting the expectation of working from 9:00 am to 9:00 pm six days a week, has sparked discussions on the social repercussions of grandparents assuming caregiving duties for their grandchildren. Among the children benefiting from this arrangement is my daughter. Unfortunately, since the COVID-19 outbreak in 2019, neither she nor I have had the opportunity to reunite with our extended family, posing significant challenges for both the grandparents and my daughter. The lack of physical reunions, exacerbated by the challenging circumstances, has found solace in real-time video communication. This digital bridge has connected grandparents and grandchildren in their respective homes and has also played a pivotal role in establishing and nurturing an intimate bond between my daughter and her grandparents. My daughter's interaction with her grandparents was co-constructed out of emotional space, through grandma and grandpa watching the children from a distance, grandma putting them to bed and grandpa accompanying them to practice the piano, complete with viola.

Initially, the space was co-constructed mainly through audio links: my daughter could not sit at the table or on the sofa for long periods of time to interact with her grandparents on the video screen, instead, and she ran around clutching her iPad (see **Error! Reference source not found.**). This made the video screen wobble and making my parents dizzy. But, when I suggested placing the camera in the corner of the room so they could see the whole room, they resisted, declaring, -"*We see more than enough of the individual rooms, we don't need to see the whole picture. It is better to be closer to the children."* For my daughter and the grandparents, the process of moving the network terminal closer together allows them to hear each other more clearly and to feel closer to each other, as if the physical distance between them was reduced. My daughter’s various noises, made by the floor and the furniture, became for them "the sound of a child in the house makes us feel happy".

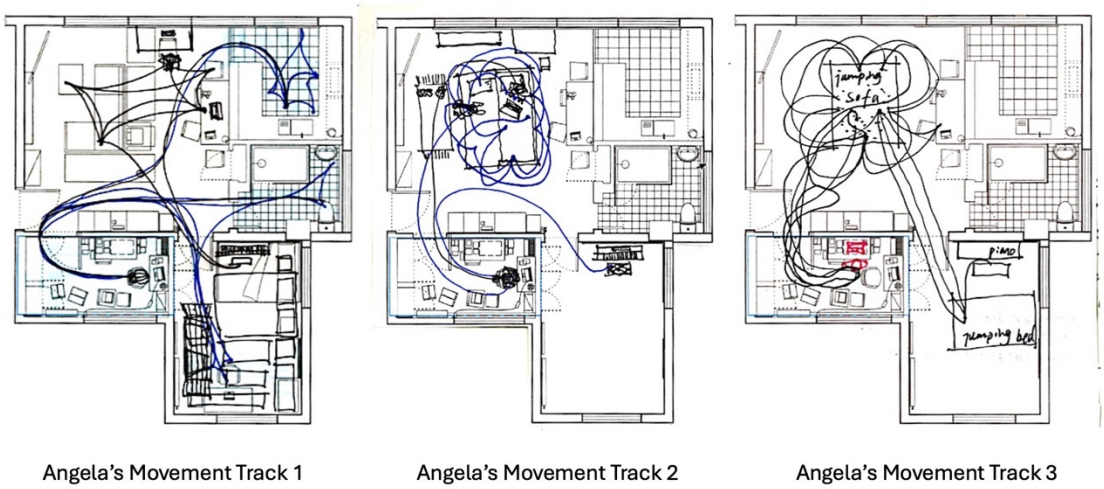


Figure 8.2 The child's movement track maps 1-3: the cyberspace moves with the child's movements (made by author)

China's morning corresponds to nighttime in the UK, requiring my grandmother to get up at 5:00 am to help me put my daughter to bed. As I lay in bed, half asleep, I could hear Grandma singing softly, with my daughter lying next to me. The sound came through as if all three of them were lying in my living room. The room was emotionally connected by the familiar sounds of three generations. The emotionally connected home through music is another example of an audio connection that creates spatial connectedness. Grandpa's status as a musical performer with Angela at home created a new connection. Angela places an iPad on a stack of cardboard to share her musical endeavours with her grandfather. Then, they both focused on their instruments, engaging in friendly competition over who was louder to whose tunes were more fun to play, fostering Angela's musical development over two years, even continuing through online lessons during the pandemic. The digital space was closely connected to my daughter's personal, developmental music learning and family life.

In the initial weeks of the lockdowns, Angela's daily rhythms took shape, and her late-night sleep schedule, around 1-2 am UK time, presented a challenge for my research and online work commitments. My parents, the usual caregivers in our family, stepped in to assist with looking after my daughter, mirroring a common practice in China where grandparents often take on childcare responsibilities due to the demands of 996 work schedules. Angela had been cared for by my parents since she was an infant, growing up under their nurturing presence until the age of five. As physical reunions became impossible during the pandemic, emotions became central to the virtual space connecting grandparents and grandchildren through video calls. Angela's interactions were characterised by her energetic movements around our flat, making the video screen unsteady and causing discomfort for my parents. However, adjustments were created to enhance the connection such as placing the camera in the corner of the room to allow a more comprehensive view, fostering a sense of proximity. The audible cues of Angela's activities at home, such as her footsteps and the sounds of the floor and furniture, became a source of joy, creating a shared sense of happiness.

Drawing on Handberg's (2016) and Farina, Kotsopoulos and Casalegno's (2018) emphasis on integrating spatial and social features in online collaboration, particularly through video and audio streams, this autoethnographic exploration underscores the significance of audio streams in constructing spatial connectedness. In remote spaces, collective memories and emotional-social bonds are woven, contributing to a profound sense of presence and connection.

8.3.1.2 Nurturing Emotional Connections: The Shaping of Digital Home Spaces for Shared Emotions

Cultural norms from one's home country are often maintained and reinforced, with consistent gender roles in both physical and emotional caregiving, a phenomenon often observed in transnational families. China, along with nations like India, Africa, and Spain, share parallels in the values of respect and caregiving(Joseph, Belford, & Lahiri-Roy, 2022; Cadet et al., 2021; Sun, 2012). This caregiving dynamic is intricately linked to cultural heritage and family configurations (Grillo, 2008). The emotional space within my home in the UK during the COVID-19 pandemic became intricately entwined with the themes of emotional care centred on feelings of fear, sadness, and stress. The spatial connection was forged through the deeply rooted concepts of family and filial piety within Chinese culture, facilitated by the web-enabled video conferencing technology.

Heart-wrenching moments unfolded during a video call when the unmistakable sound of coughing emerged from 'next door,' resonating from my parents' home in China. Angela, engaged in conversation with Grandpa, continued chatting as Grandma attended to household chores in the background. The cough grew more pronounced, its vibrations echoing a distressing resonance. Fear gripped me; my mother, having battled lung fibrosis the previous year, faced heightened vulnerability in the harsh winter of northern China. The possibility of a new infection cast a foreboding shadow, triggering tears that streamed down my face. The recent tragedy of my friend's husband in New York, succumbing to COVID-19 pneumonia alone on the family's living room sofa, compounded the emotional strain shared through our distant video connection. Gazing out the window, the trees lacked the vitality of those back home, and the promise of spring felt elusive in this seemingly prolonged winter. Expressing my concern to my mother, I sought solace, hoping spring might alleviate her cough. Yet, the distance between us, spanning different climatic zones, isolated the virus but deprived me of the opportunity to provide personal care and comfort to my ailing mother. Once a daily occurrence, video calls escalated to twice a day, sometimes lasting for hours. During the pandemic, traditional forms of communication and visits were supplanted by video communication, yet contrary to expectations, the frequency of interactions increased. Everyday care that could not be administered in person found alternative expressions during the COVID era (Clough, Halley, & Hardt, 2008).

Each awakening brought a palpable need to check on my parents, intensifying the yearning for their wellbeing.

The COVID-19 outbreak and the ensuing lockdown in China unfolded asynchronously with the UK, complicating the dynamic anti-pandemic policies and revealing a lot of harrowing human tragedies. Amid my mother's illness, medical resources dwindled, and life-saving treatment became increasingly elusive. Disturbing reports from Shanghai (Ava, 2022), China's most developed city, underscored the dire consequences of inadequate medical care, with prominent figures facing delays and tragedies in accessing critical treatment. The asynchronous flow of information further heightened my anxiety, compounded by news of fatalities due to delayed emergency response.

The information blockade on the Chinese internet restricted the free exchange of such distressing news with my parents. Mentioning these issues risked severe consequences, from suspending social accounts to withholding salaries and basic benefits (Luo, 2022) Fear became the unwelcome host in the shared space, and the sheer volume of distressing information underscoring the limitations of our shared mediated space. While video calls established a spatial and partial social connection steeped in Chinese cultural concepts and emotions, the lack of information synchronisation revealed the inherent challenges in navigating a shared space amidst the complexities of the pandemic.

The shared mediated space established by Kort, Nefs, Gullström, Greef and Parnes (2013) is intended to create a shared space where the three aspects of space, social and information, are synchronised. However, the reality is that this synchronisation of information must be cognitively based, implying the transparent dissemination of public information. Our shared mediated space achieves spatial connection through video, establishing a partial social connection with Chinese cultural concepts and emotions based on kinship, but lacks synchronisation on the information level.

This present autoethnographic exploration explores the emotional dimension of the COVID-19-influenced home space, examining the author's identity, culture, and home through daily spatial practices. Operating as a transnational daughter in a remote home, the study contributes valuable insights into gender, ethnicity, and cultural heritage within the architectural context. The shifting roles from a mother working from home to a family member caring for a daughter and parents remotely unfold in the operational site of home. The emotional dimension unravelled in this exploration connects the COVID-19-influenced home space with the author's identity as a Chinese mother and a transnational daughter, navigating a cross-cultural home in the UK shaped by online video communication. The emotional reflexivity explored through autoethnography offers a nuanced understanding of the intricate interplay between cultural identity, family roles, and the digital realm within the home space during the pandemic.

8.4 Travel for an Emotional Journey with Online Video Conferencing Formed Space

The intersectionality of identities, particularly identity factors such as personality, race and age, play an essential role in shaping emotional space. This section focuses on cyberspace, informed by online video conferencing at home. It begins by explaining how it transforms domestic space into a series of publicly accessible functional spaces that shape the intricate spatial-emotional sequences of everyday life by altering the roles of users. Cyberspace in the work-at-home environment is investigated through the role of the work-at-home parent, demonstrating the complex emotional landscapes that result from the fusion of the professional and domestic spheres. Finally, the emotional space of women at home under the influence of Cyberspace is explored.

8.4.1 Cyberspace at Home Moves the User through Different Spaces and Forms a Spatial-Emotional Sequence

On a bustling weekday, my day starts with the morning routine of preparing breakfast for my daughter. Following this, I set up her iPad, guiding her into a brief yet essential 15-minute online class. Armed with coffee, I retreat to my room, closing the door to immerse myself in an academic seminar in China. However, this sanctuary is intermittently interrupted by my daughter crawling in, prompting me to administer her asthma medication and gently guide her out. This balancing act between academia and motherhood persists. During challenging moments, the virtual gaze of my grandparents oversees my children remotely. Criticisms ensue, pointing out perceived shortcomings in my efforts to cook, care for my daughter, and maintain regular communication—allegations of excessive work focus persist, even during the pandemic. The day unfolds with lunch preparations, dishwashing, and afternoon play sessions with the kids. Simultaneously, I navigate supervision meetings as a PhD researcher, transitioning seamlessly into tutorial duties as a Teaching Assistant. These professional engagements are punctuated by irregular interruptions from my daughter, demanding attention and conversation.

As evening descends, the domestic stage takes precedence. Engaging in many chores, piano practice sessions, administering medication, and reading sessions punctuate the twilight hours. Anticipation builds as bedtime approaches, signalling a brief respite before engaging in online shopping to secure life's necessities. Cyberspace serves as my conduit across various realms—from the academic workspace as a student, researcher, and teaching assistant, to the shopping and home spaces as both a daughter and a mother. Against the backdrop of the outbreak, a rich tapestry of emotions unfolds, seamlessly woven into the fabric of my daily

existence. The interconnectedness of these emotional realms reflects the interaction between the personal and professional, the academic and domestic. Cyberspace, as the thread weaving through these spaces, not only facilitates the practical aspects of daily life but also acts as a conduit for the ebb and flow of emotions, creating a spatial-emotion sequence within the confines of my home.

8.4.2 Exploring the Emotional Dynamics: Cyberspace Influence in the Work-from-Home Environment with Childcare

Navigating the intricate interplay between professional responsibilities and familial duties, especially in the challenging landscape of working from home while caring for children, adds complexity to the emotional space. This exploration delves into the emotional dynamics shaped by the influence of cyberspace within the work-from-home context, where the digital realm intertwines with the deeply personal realm of childcare. As the boundaries between professional obligations and family roles blur, the emotional landscape becomes a complex image woven with societal norms, cultural expectations, and the unique challenges of digital communication technologies. This section unfolds the nuances of emotional experiences within the work-family conflict during the pandemic, offering insights into the delicate dance between digital interconnectedness and the intricate roles of a parent.

8.4.2.1 Navigating Emotional Pressures in the Caregiving Journey for Children During Challenging Times

Being ‘confined’ at home provide with me an additional 24/7 caregiver on top of my mother's love. As a mother responsible for a relatively healthy five-year-old girl with asthma, I was emotionally attached to my daughter at home for two years. This emotion stemmed from the fear that my daughter's asthma could exacerbate the dangers of a new viral infection, compounded by the fatigue, stress, and the pressures of financial life. Although the demands of caring for a healthy child may seem less onerous than caring for a sick child, the daily labour of caring for my asthmatic five-year-old daughter is a cycle of constant repetition, tedium, and exhaustion. Daily tasks included closely monitoring her health, managing medications, and creating a supportive environment to reduce triggers. The repetitive nature of these tasks, coupled with the emotional weight of witnessing her struggle, underscores the need for intermittent breaks. Not only are these breaks moments of self-care, but they also allow me to feel the joy and love inherent in the parent-child relationship again. In the challenges posed by ongoing health conditions and the added stress of a pandemic, laughter becomes medicine, and expressions of caring become medicine for both of us.

8.4.2.2 Digital Network and Working-From-Home Structured Emotional Space

The work-family conflict took centre stage during the COVID-19 pandemic, where the expectations and demands of both professional and familial spheres collided (Greenhaus & Beutell, 1985). The management of the relationship between work and family responsibilities became paramount in navigating this challenging period. The rise of teleworking introduced a distinctive set of challenges, compelling individuals to guide the nuanced boundary between their work and family life as these traditionally distinct realms became intricately interconnected. My experience of the transition happened during the gesture of turning around for a moment or seeing my daughter beside me. The role reversal out of the confines of space and emotional readiness had not been completed. Boundary Control Theory, as elucidated by Clark (2000) and Ashforth, Kreiner, and Fugate (2000), provides a valuable lens through which we can examine the work-family conflict in the context of teleworking. This theory posits that individuals create, maintain, and modify the boundaries between their work and personal lives, mainly using technology. These boundaries are not merely physical demarcations but also psychological and temporal constructs that help individuals compartmentalise their roles and responsibilities. According to boundary theory, individuals should establish and uphold boundaries to demarcate the diverse domains of work, family, and public life, facilitating the simplification and organisation of their environment (Yantzi, Rosenberg, & McKeever, 2007). Behaviours that traverse these boundaries add complexity to the emotional space. As my personal experience illustrates, the physical act of turning away from work to attend to my daughter symbolises the immediate and often disruptive transitions that are characteristic of the work-from-home scenario.

The digital network, while facilitating professional connectivity, also serves as a medium through which these boundaries are constantly negotiated. For example, the virtual space of an online meeting can rapidly convert to a shared family environment, necessitating a swift cognitive and emotional shift. This theory underscores the complexities inherent in the emotional space of working mothers, who must navigate the blurred lines between being a public-facing professional and a private, familial caregiver. Moreover, in a Chinese cultural context where collectivist values and filial piety are paramount, the boundaries become even more nuanced. Digital communication technologies offer a paradoxical space — they enable the performance of professional duties while simultaneously exposing the fragile emotional boundaries that mothers strive to manage. This intersection of digital interconnectedness and cultural imperatives creates a dynamic emotional space where the management of boundaries is not just a task-oriented process but a profound emotional journey. Thus, the use of Boundary Control Theory in this discussion illuminates the delicate balance and constant negotiation of the work-family interface in the digital age, magnified by cultural expectations and the emotional granularity of motherhood during a global crisis.

Specifically, the emotional space within the work-family dynamic becomes a focal point as individuals grapple with the intricate balance between professional obligations and family responsibilities. The emotional toll of this conflict is heightened when one's work and personal life converge within the confines of a shared physical space. The transitions could happen many times during a day for the working-at-home parents, as I mentioned the spatial sequences among the different working places and the domestic space. The emotional space is not only influenced by the demands of the tasks at hand but also by the cognitive and emotional dissonance resulting from the swift transition between diverse roles. Particularly, the emotional space is shaped by the rapid oscillation between the roles of a public-facing professional and a parent providing care for children within the private sphere. The emotional strain arising from this transition is underscored by the need for cognitive disengagement and the challenges of categorising the emotional demands of each role. For instance, when I move from the role of a design tutor conducting online seminars for mature students, where a composed and professional demeanour is essential, to engaging with young children at home requires a swift and profound shift in emotional presence. The blurred lines between these roles became a source of tension, reflecting the broader challenges of work-family conflict. Furthermore, the emotional space within this conflict was not only shaped by the demands of the roles, but was significantly influenced by societal norms, mainly rooted in my Chinese cultural background.

When the co-structured cyberspace connected me with my parents, the relationship with the older generation in a Chinese home complicated the emotional space at home. In the context of collectivist values prevalent in Chinese culture, the importance of family ties and interdependence heightened the emotional impact of conflicting roles. The emphasis on hierarchy and respect within familial relationships added another layer to the emotional dynamics, especially when transitioning between professional and familial roles. Cultural expectations of emotional restraint and suppression, particularly in professional settings, further complicated the emotional landscape. The internal conflict between the expression of emotions required in a professional role and the reserved emotional expression expected in a family context became a recurring theme.

The profoundly ingrained value of filial piety, stemming from Confucian principles, introduced a unique dimension to the emotional space. The balancing act between professional demands and the cultural expectation of providing emotional and physical support to ageing parents created a nuanced and intricate emotional landscape. The societal norms and expectations are connected to the emotional space through the networks built within the society functioning through digital technologies. In navigating these cultural nuances and societal expectations, the emotional space within the work-family conflict became a complex tapestry of emotions. The interplay between collectivist values, hierarchical structures, and filial obligations influenced not only how emotions were expressed but also the internal negotiation of conflicting emotional demands. This intersection of cultural context and personal experience highlighted the

intricate dance between work and family roles in a cultural backdrop deeply rooted in Chinese heritage. Ultimately, the emotional space within the work-family conflict during the pandemic reflected a delicate interplay between professional obligations and personal responsibilities. Digital communication technologies have superimposed family and social networks in the home space, complicating the original emotional space and posing greater challenges for women in the family.

8.4.3 Meeting the Need for Solitude: Constructing an Empty Cyberspace Temporally Defines the Emotional Space for Mothers at Home

According to Forssén and Carlstedt (2006), having a space to be alone is crucial to meeting women's emotional needs in their daily lives. While the lockdown forced families to stay together, it also increased pressure and emotional labour for women, who had to constantly manage both the chaos of daily tasks and emotional demands. In work responsibilities and online interactions with family and friends, there were times when I felt the need to withdraw from my daughter. During this period of enforced proximity due to the lockdown, cyberspace became more than a means of communication; it transformed into a sanctuary for solitude and self-reflection. While physical spaces like the reading room in my flat (see Figure 8.3) provided a semblance of privacy, the digital realm offered a more reliable refuge from the relentless emotional labour that characterised my days. My engagement with the Internet was not limited to hiding from the overwhelming emotions that occasionally needed to be faced alone. It also became a lifeline for maintaining my psychological wellbeing.

Online, I sought out forums and virtual support groups where I could share my fears and anxieties with others who were navigating similar challenges. These spaces were filled with individuals who understood the silent struggle of balancing the needs of self-care against the ceaseless demands of motherhood. Engaging in candid conversations with friends and relatives over video calls allowed for a semblance of normalcy, as we shared strategies to manage our collective predicament, providing mutual support, and sometimes, simply offering a sympathetic ear. Moreover, cyberspace was where I indulged in moments of personal enrichment. I watched documentaries that transported me to places and cultures far beyond the confines of my immediate environment, providing a temporary escape from present pressing concerns. Reading articles and engaging with interactive online courses helped me to maintain a connection with my professional identity, reminding me that there was a world beyond the walls of my home where my skills and contributions were valued.

The act of constructing an empty virtual meeting room also served a therapeutic purpose. In those moments of chosen isolation, I found solace in the silence that the digital void provided — a stark contrast to the constant hum of domestic life. It was a place where I could be still and allow my thoughts to wander without the interruption of immediate responsibilities or the inquisitive gaze of my daughter. Living in an

apartment or house with a family always brings with it issues of privacy. One of the most difficult things for me was hiding my tears from my daughter. I managed to successfully hide the tears from her by staying in my car for half an hour before coming home. But what could I do to hide from her my fear and anxiety at the thought of losing my family again? I could close the door, but whenever I was alone and about to cry, she would sense it and come into the reading room (see **Error! Reference source not found.**) to comfort me. The door would never again be a complete space for me, it had become a sign of my vulnerability to my daughter. I told her there was nothing to worry about. I would always be there for her, and grandparents will be there, safe and sound.

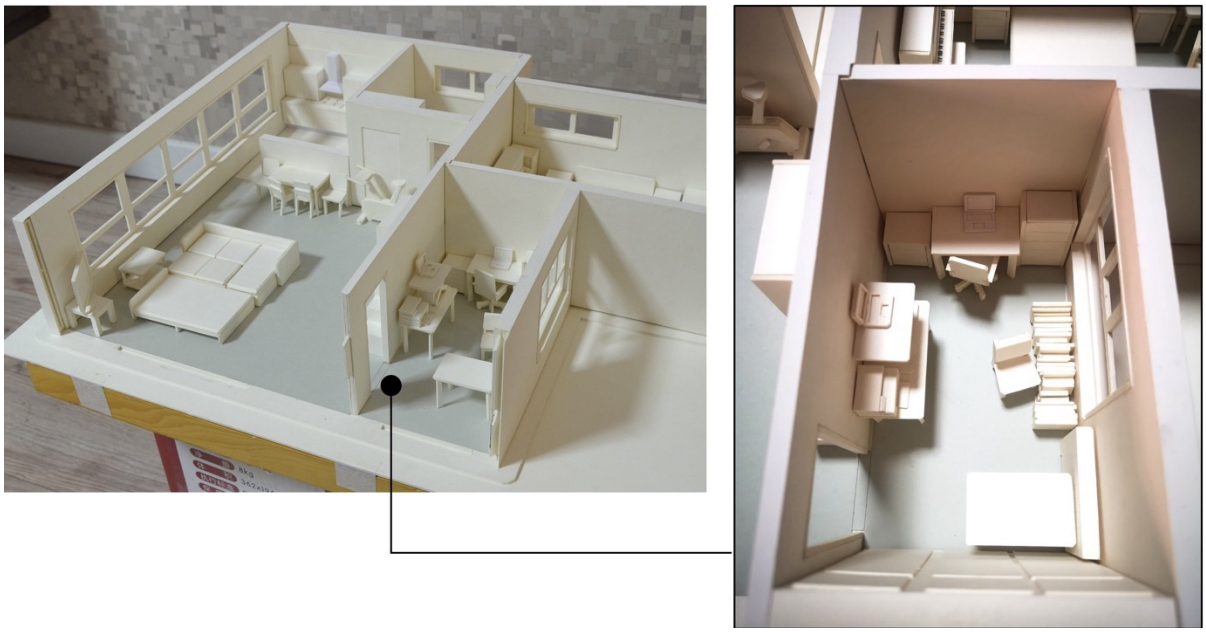


Figure 8.3 The reading room in my flat (made by author)

In this context, cyberspace emerged not only as a bridge to my social network but also as a sanctuary of privacy. By orchestrating moments for Angela to be with my parents, I could steal precious time alone in my room. Alternatively, I could initiate an empty virtual meeting room and immerse myself in a digital realm detached from my immediate surroundings. This virtual escape provided an abstract space within my home that offered a respite from the intensity and confinement of pandemic-induced home life. It is important to acknowledge that the guilt associated with seeking solitude from one's child is not unique to my experience and mirrors the challenge of not being able to care for or physically be with my parents (Forssén & Carlstedt, 2006). The space I sought acted as a refuge, allowing me to decompress, recharge and find peace within the confines of a busy and closed home during the pandemic.

Summary

This chapter centred around a single mother of Chinese descent residing in the UK during the COVID-19 lockdowns, delving into the construction of emotional space within the digital technology-formed cyberspace-invaded home environment. Firstly, it explored the emotional space within a Chinese family living in the UK during the COVID-19 pandemic. The exploration was deeply rooted in Chinese culture, emphasising the significance of family as the foundation of society. The author, embodying the roles of both a mother and a daughter, navigating the emotional dynamics within the transnational context, connecting her English home with her Chinese roots. The chapter then reflected on the concept of 'home' for the mother and her daughter, initially serving a functional purpose but gradually evolving into a truly emotional and spiritual sanctuary during the pandemic. The exploration of the home's transformation during the lockdown details the reshaping of physical spaces and the incorporation of cyberspace into the home. The mother's observations of her daughter's interactions with digital technology and the physical space highlighted how emotions are intertwined with the evolving concept of 'home.'

The chapter began by establishing the emotional significance of the author's home, utilising Tuan's (2011) theories to explore the profound connection between emotions and the concept of home. Employing autoethnography, the narrative illustrates how personal emotions and Chinese family culture intricately shape the author's perception of home. The discussion then moved to the emotion of stability, exploring how it manifests within the context of the author's experiences and cultural background. Moving forward, the chapter explored the dynamic dimension of change, drawing on the concept introduced by Massey (2013). The evolution of the meaning and emotional resonance associated with home becomes a focal point, especially in the backdrop of global events and a pandemic that have imposed city lockdowns. The exploration took a nuanced approach, emphasising the role of cyberspace in fostering emotional connections with the author's hometown. This section unravelled the transformative nature of home, offering insights into the adaptive emotional responses to changing circumstances.

Through the narratives of the online video conference conditioned emotional interactions between a Chinese family living in the UK and their parents' home far away in China during the COVID-19 pandemic, the chapter later revealed that cyberspace helps connect the two geographically remoted homes. This exploration is deeply rooted in Chinese culture. It also emphasised the importance of the family as the foundation of society through the navigation of the emotional dynamics in a transnational context as both a mother and a daughter, linking her home in the UK to her roots in China.

This was followed by a further discussion on the intersectionality of identities, which play a crucial role in shaping affective spaces. This was done firstly by describing how cyberspace in the home enables users to traverse different spaces and form spatial-emotional sequences through different spatial roles, followed by a discussion of how

cyberspace affects working-at-home single parents and caring for children, delving into the complex affective landscapes shaped by the convergence of the professional and domestic spheres. Through the subtle challenges of working at home while caring for children, the emotional space of the home was unveiled as influenced by a combination of social norms, cultural expectations, and the unique dynamics of digital communication technologies. In addition, cyberspace was seen to play an essential role in building social network bridges and privacy shelters for women at home.

In acknowledging the complexity of these experiences, it is essential to recognise the dual nature of cyberspace during the pandemic. While it was a tool for connection and community building, it was equally a medium for solitude and self-preservation. The Internet acted as a buffer, absorbing the shock of emotional upheavals, and provided a structured emotional space that was both flexible and responsive to the changing contours of my needs as a mother. It was here, in the quiet corners of cyberspace, that I could reconcile my inner turmoil with the stoic facade I maintained for the sake of my family, particularly my daughter, Angela.

Day in the Life Case Studies - The Emotional Space at Home

Morning:
The online lesson started quite late after the lockdown began in 2019. Angela and I had a few days to adjust to waking up after 8.30 in the morning. Therefore, we ran late the first day we returned to online work and online classrooms. I quickly made breakfast for us, which was oat porridge for me and instant Chinese vermicelli for Angela. After eating, we placed our bowls before us for the entire online session. Angela naturally pushed her bowl just outside the camera's view. Reluctantly, I had to put my bowl outside my working area, leaving space on the desk for my notebook and pen.

I could focus on the presentation of the experts in my field for about ten minutes, with my closed door acting as a sound barrier between our working spaces. It was a relief to close the door and have some visual privacy from my 5-year-old daughter, especially during the holidays when she would take it hard. I could hear a low volume of the sound of Angela's lessons and the children's noises through the door, which assured me that she was safe and engaged. This was both a distraction and provided me with the reassurance that I needed for work.

Suddenly, Angela started crying loudly, calling for my help. They couldn't see me correctly and questioned why they couldn't change rooms or turn into cats or pirates. The barrage of questions hit me hard, and I struggled to maintain my composure and focus on my work. Angela came to me twice afterwards with some technical issues related to Google Classroom, making it even more difficult for me to concentrate.

One day during COVID-19 Lockdown

The pandemic happened after the Chinese New Year time. When it first started, I did not worry too much about my parents in China. They were living in North China, which was quite far from Wuhan. Very soon, we both realised how scary it could be. The flights between China and the UK are getting too expensive to afford for me to get back with Angela. The physical isolation increased the feeling of powerlessness to me. I understand it could be a forever goodbye. I saw my mother crying because we could not have a hard time together. My father was pacing up and down in the background. I thought about giving up the PhD and went home to care for them. But I noticed my daughter was talking with her friend online. Her giggles went through the door and infected me. I started to talk about the grocery shopping for them.

Sitting in front of my laptop, listening to my parents' coughs come through, I could only whisper reminders to drink plenty of water and rest, The powerless crying through the invisible lines. In this cyberspace, wrapped in fear and helplessness, silent emotions passed each other. Every day and every night, I searched for the latest research, medical publications and medication guidelines. Sad and depressing news flooded the internet. The video link became an emotional bridge between family members. Both my daughter and grandpa were sick, and they were still there for each other. My daughter was lying on the sofa, my grandfather was lying on the bed, and the two of them were chatting and telling stories. For them, the link between each other is the family affection and care.

What I never imagined was that apart from worrying about the deterioration of their condition, I would have more fears than that. Under China's dynamic zero policy, everyone is subject to mandatory testing, and if they are positive, they are taken away for centralised quarantine. There is very little I can do for my parents. I see news from my friends every day and see people being pulled away and taken to an isolation ward under a huge converted stadium. Though I knew they would probably be taken care of there. But there are also so many horrific stories spreading across the internet of 2-year-olds being taken away from their mums and relatives to be quarantined and elderly people not being cared for. This fear and worry fills cyberspace at the moment. One day in many the afternoon.

If online shopping with home delivery can help parents with some of their material needs, can cyberspace deliver emotion and care? How to cheer up a pessimistic mum? One day, Mum had a high fever and was so depressed that she started bringing up the subject of making a will. I closed the door, hoping my daughter wouldn't see her tearful grandmother. I turned my head camera off-camera to suppress the tears and stood in the off-camera space to compose myself. As the middle generation in a Chinese family, I have always been the emotional pillar of the family in the face of my own ageing parents and young children. My mother's love and stress come through a

constant stream of emotional space, and in my study, the space where my work, parenting, and emotional connections overlap. At the moment, I would like to leave this physical space.

One evening during covid lockdown

Staying in a flat or a house with a family always comes with privacy issues from other family members. For me, one of the most difficult was to hide my tears from my daughter. I hid the tears and pressures of my divorce successfully from her by disguising it to the half an hour staying in my car before getting home. But what could I do to hide my anxiety and worry about the thought of losing my family again from her? I was on edge, crying in front of Angela every moment I saw her. I could close the door, but whenever I was alone and get ready to cry, Angela could feel that and knocked into the reading room to give me a hug. The door was not again to constitute a complete space for my own; it was a sign of my vulnerability to my daughter. I told her there was nothing to be worried about. I will always be there for her. Grandparents will be there safe and healthy.

When it was getting late and dark, Angela would have to hold me to fall asleep. I knew it was the atmosphere I created by falling into silence during the daytime or having to check the news on the screen and listening to the scientific explanations about the pandemics; these were not easy to hide or avoid. For a long time, the best I could do was smile at her, read stories, or watch cartoons. It was the little gap between them that was impossible to conceal. The space opened like an empty plan spatially. It only provided another layer of time when Angela fell asleep. I could cry quietly beside her or close the door to bury my whimper into my diary. The room was quiet, dark, and peaceful, and it belonged to me.

The midnight:

One night, I got a call from my cousin, who told me her husband was leaving his will and recording it in the living room. He thought he was going to pass away. His chest felt like a heavy stone. The fears and despair made him cry. My cousin's sister called the ambulances, but they had to wait a long time to get help from the hospital. She was crying. Her son, husband and she were all tested positive for COVID-19 in the afternoon. Angela was sleeping beside me. I moved to my reading room and started to write down the things she wanted me to know.

The little boy standing at the door, shivering in his blanket. My cousin dried her tears and hugged him. I could not stop my tears on the other side of the video call. We were very far away, with the distance even further from the UK to China. The video call passed the pain and pressure as a whole while I could not show any comforts like a hug or a kiss. The window of the screen was like a portal for her to send all her expectations on me, her own life experiences, her son's future plans, and everything after her life. There was nothing for me to grab, nobody to call. I was only sitting there with my pen to write down what she wanted me to do. The connection felt intangible

to me. I hoped there was a line that connected us in between, like a telephone line. Or she was next door to me while I could not get through. I would go through the door and take the boy to my space whenever she needed me.

After one hour, I saw the paramedics come. They had all been moved to some places. We were out of contact for a few days. They all survived.

9 Conclusion

9.1 Introduction

This chapter provides a comprehensive overview of the key findings and dialogues across the four research dimensions of digital, architectural, cultural, and emotional. These dimensions will conclude the characteristics of the research subject: situational and dimensional features of cyberspace at home for Chinese women. By closely examining the research, I will reaffirm the research objectives and explore the various methods used to address the research questions, evaluate the effectiveness of the research and the methodological choices made, and make recommendations for future research.

9.2 Summaries of the Findings and Discussions

This section provides a summary of the discoveries and discussions presented in the previous four chapters across the four research dimensions: digital, architectural, cultural, and emotional.

9.2.1 The Digital Dimension

The cyberspace examined in this research is an at-home assistant space, intertwining with the user's activities, their social interactions, and cultural connections through the Internet and their personal backgrounds. Understanding the concept of cyberspace in the context of a Generation Y, particularly from the perspective of a Chinese woman, like the author, is constructed by the author's personal identity, informed by Asian science fiction literature, and cyberfeminism, as different from Western perspectives. Although the imagination of cyberspace stems from a similar cyberpunk cultural background, for Asian women, it is still based on family values and the pervasive gender inequalities evident in contemporary social realities. Narratives of cyberspace for women emerge within the realm of developing world science fiction and the minor literature, specifically positioning women within their own contextual struggles.

Comparing cyberspace at home during the COVID-19 lockdowns to public spaces in China reveals both similarities and differences. The term 'publicly accessible space' is used to describe a unique blend of space shaped by online environments and physical spaces visualised through cameras. This concept challenges traditional ideas of public space, public sphere, and urban commons, and can have different interpretations compared to conventional public-related definitions. The concept emphasises the ambiguity of space ownership and the overall control of the state in the Chinese context, which differs from Western interpretations. The Chinese term 'gongjia'

highlights this ambiguity. Unlike physical public space, cyberspace is totally controlled by the Chinese government through the management of platforms owned by companies.

The digital realm accessible to Chinese citizens operates within the nation's regulatory framework, often referred to as the 'Great Firewall.' This context provides specific characteristics and functionalities to the digital space, especially in how it is accessible to Chinese women. This research's focus on the detection and gaze of female users in public accessibility spaces generated by live web conferencing, also touched upon the management of public space and cybersecurity in China. During the pandemic, digital publicly accessible spaces played a positive role in hosting family gatherings and community cohesiveness. This highlights the transformation of private spaces into public spaces through digital means, acting for functions like education, commerce, and sports services, thus transforming the domestic space into a multi-functional public space. Compared to physical public spaces, the accessible space through the Internet is more controlled and restricted.

The research space in the author's flat became public when connected to the Internet through devices like laptops and mobile phones, becoming a part of the public domain visually and audibly, but this publicness is temporary and can be dissolved at will, regaining privacy.

9.2.2 The Architectural Dimension

The architecture of the digitally impacted home was explored through four aspects. Initially, the intricate dynamics of spatial configurations within the context of online communication was investigated, exploring the processes of space generation, alienation, and dissolution at home during this process. Beginning with a rapid and simplified generation of internet space within domestic environments, the thesis examined the design thinking involved in curating one's virtual backdrop. A central focus lies in the delineation and subsequent alienation of spaces, as captured by the camera's lens, highlighting the tension between public and private realms. Illustrating scenarios from my autoethnographic journal, including virtual reunions with former flatmates and intimate online interactions with family and friends, illustrated the multifaceted nature of spatial transformations of generated spaces, culminating in an analysis of the dissolution of these alienated spaces; the research aim was to explore the fragile boundaries between virtual and physical realities.

The concept of boundaries, both visible and invisible, plays a pivotal role in shaping our experiences, especially within the architectural and digital realms of our homes. Architectural boundaries, like walls and floors, define spaces, while invisible boundaries, such as those formed by online communication tools, delineate what is seen and what remains unseen. In the realm of online interactions, the camera serves

as a defining boundary, restricting the space visible to others. This boundary is akin to the walls and floors in a physical room, shaping perceptions and interactions within the virtual space. However, these digital boundaries are temporary, disappearing as soon as the online interaction concludes.

The invisible (virtual) boundary integrates with the boundaries of the building in shaping the evolving at-home space and clashes with the symbolic boundaries defined by users. The intersection of personal and professional spaces within the home further complicates these boundaries. Balancing the roles of a working mother requires navigating both tangible and intangible boundaries, often with unforeseen challenges. Such challenges were vividly illustrated by incidents like Angela's water spill, which blurred the lines between professional commitments and parental responsibilities. Despite these complexities, the boundaries also serve as comfort zones, offering moments of intimacy and emotional depth. Adjusting the camera angle to focus on specific aspects of the environment or deliberately opening a window to share ambient sounds can foster deeper connections in online interactions. However, the vulnerabilities of these boundaries become apparent when external factors, such as familial interactions or societal expectations, intrude upon them.

The window, as elucidated, serves not merely as a physical barrier but as a bridge, enabling a dialogue between inner sanctums and the world outside. This dynamic became especially poignant during lockdowns, where simple acts like peering out, smelling neighbouring cuisines, or hearing distant echoes became heightened experiences. The opening of the window on the screen transformed my reading room into a portal to connect me and my surroundings to the participants internationally. The boundaries defined by traditional architectural elements, such as windows and doors, reshape the personal space, intertwining the observer with the observed. For the narrator's daughter, windows symbolise boundless imagination, transcending the immediate surroundings. However, while windows offer a glimpse into the world, they open up vulnerabilities. The distinction between the public and private becomes blurred. Online interactions, facilitated through screens, transform these boundaries further.

In contrast, traditionally seen as barriers, doors acquire newfound significance in the digital age. Instead of mere entry and exit points, they become symbolic thresholds, delineating spaces of work and domesticity. For Angela, the narrator's daughter, the door encapsulates a delicate balance between her mother's professional commitments and maternal duties. As Angela attempts to communicate with her mother during work hours, the intricate dance of rules underscored the challenges of maintaining boundaries in a blended space. This narrative also underscores the profound implications of architectural elements in shaping personal experiences, particularly in an era dominated by digital interactions and physical restrictions.

Amid the constraints imposed by the lockdowns, the spatial configurations within my domicile underwent discernible transformations necessitated by the intersecting needs and roles of my child and myself. These spatial adjustments were intricately tied to the home's architectural layout and furnishings, emphasising the role of specific elements, notably the table and camera, in delineating and defining functional zones. The diverse roles I assumed—ranging from a pedagogical facilitator in design tutorials to a participant in academic conferences, a doctoral candidate, a patient, and a mother—elicited corresponding alterations in the spatial arrangement. Such adaptations were not merely reactive but informed by a nuanced understanding of the household's daily rhythms, encapsulated within the framework of the children's virtual learning routines and my professional engagements.

Distinct boundaries, demarcating varying degrees of privacy and accessibility, became salient features of our domestic environment. Notably, the camera's perspective engendered a transformation wherein ostensibly private spaces were rendered public, transmuting the domestic realm into a hybridised workspace during virtual engagements. Concurrently, the difficulties of the lockdown precipitated pragmatic spatial reconfigurations, exemplified by the transformation of a porch into a sanitisation zone and the repurposing of rooms to cater to my child's evolving activities. Furthermore, the spatial dynamics within our domicile were significantly influenced by the child's exploratory inclinations, manifesting in utilising lower zones as their domain. Conceptually, the home's spatiality can be analogised to a constellation of bath bubbles—mutable, interconnected, and occasionally convergent. This fluid spatial paradigm facilitated incorporating social interactions, as evidenced by the child's occasional playdates, which engendered spatial convergence and delineation moments.

The domestic space evolved as a dynamic entity, characterised by its adaptability to the shifting needs and routines necessitated by the lockdowns. Through a confluence of functional imperatives, architectural elements, and familial dynamics, the cyberspace-assisted home emerged as a complex spatial construct reflective of the intricate interplay between individual agency and external difficulties.

9.2.3 The Cultural Dimension

From a cultural perspective, the study explored the connection between Chinese women, Chinese culture, and the domestic cyberspace environment, focusing on physical-cultural materials like mirrors, tables, screens, and women's bodies. It examined how these elements relate to Chinese culture to uncover how these objects acquire fresh significance and impact in the digital age through the experiences of Chinese women at home during the lockdowns. Each element is considered below.

Mirrors have significant meanings in history, which can be influential to the current and future digital space at home for Chinese women. In Asian culture, particularly among Chinese women, there is historical and cultural significance which goes beyond their reflective function, symbolising materialism, spirituality, and femininity. Mirrors are not just practical tools for reflection but also carry deeper symbolic meanings. They symbolise materialistic values by being objects of desire and beauty. Moreover, mirrors can represent spiritual beliefs by reflecting one's inner self. Additionally, mirrors are often associated with ideas of femininity due to their historical role in women's grooming and self-presentation. Mirrors have evolved from symbols of protection and status to tools for self-reflection and gender identity expression and have been used in poetry and historical narratives to critique social norms and reflect women's roles and self-perceptions.

In the digital age, mirrors serve as metaphors for self-examination and bridge private and public personas. They are seen as metaphors for self-examination, particularly during times like lockdowns when individuals are reflecting on their lives. Mirrors also symbolise the bridge between one's private self and public persona in the age of social media and online presence. During lockdowns, mirrors emphasise their dual role in contemporary settings: the confinement of lockdowns prompted individuals to spend more time examining themselves and their identities, highlighting the dual role of mirrors. Furthermore, mirrors are seen as having the potential to bring about personal transformation, indicating their enduring importance and relevance in modern times, and continue to hold cultural relevance and possess transformative potential.

Tables play multiple roles within the home space, particularly during the lockdowns, as they are not just functional pieces of furniture but play a pivotal role in configuring both physical and digital spaces, influencing daily life through the aspects of their roles as architectural elements, as a fixture within Chinese culture of family, as the spatial negotiator, re-defining the lockdown space at home with cyberspace. They act as 'architectural elements' within our living spaces, similar to architectural components in buildings, tables serve functional purposes. They provide surfaces for activities such as dining, working, or displaying objects, and can become a stage, hosting our professional endeavours, while the space beneath resembles a backstage, where personal activities unfold. Its duality mirrors architectural elements with their specific forms and structures.

Furthermore, tables played a crucial role in configuring physical and digital spaces during the lockdowns. Their placement and arrangement influence the functionality of spaces within the home, affecting spatial boundaries, circulation, social norms, and family dynamics. Tables serve functional purposes as architectural elements and provide surfaces for various activities. They have distinct forms and structures, much like architectural elements in buildings and act as a stage for professional presentations, whilst the space under them represents a backstage for personal activities.

The dining table, under the influence of the digital age, holds significant cultural symbolism in Chinese domestic life, being associated with essential gatherings, rituals, and family roles, particularly the role of women in maintaining tradition. The seating arrangements at the dining table reflect social status and hierarchy within families. The evolution of roles and expectations through society is reflected in the table. Traditional Chinese culture assigned specific gender roles to women within the family with tables serving as spaces for women to fulfil domestic responsibilities. However, the roles have evolved, and tables have adapted to accommodate changing dynamics.

During the lockdowns, the dining table became a multifunctional space for both work and play for me and my daughter. A child's understanding of space extends beyond the table's surface, blurring boundaries. The table symbolised formal and informal spaces, reflecting the adaptability required by working parents. The table defined the space at home in cyberspace during the COVID-19 lockdowns, and also serving as dual spaces for professional and personal use; within the room, they create distinct spatial layers for work and personal life. The upper echelon represents a formal workspace, while the lower level offers comfort and relaxation. The interaction between the camera-visible workspace and the shared, informal space reflects the negotiation of personal and professional boundaries. The boundaries between these spaces were blurred during the lockdowns, reflecting shared cohabitation dynamics. The exploration presented a nuanced interplay of spaces within a confined room during the COVID-19 pandemic, highlighting the adaptability required for dual roles as a working mother. In essence, tables transcend their roles as mere furniture, becoming integral to our daily lives, influencing spatial organisation, societal norms, and family dynamics. Working within cyberspace, their adaptability and symbolic significance highlight the evolving roles and expectations within the ever-changing landscape of our homes.

The theme of the **background and the female body** was explored through the intricate relationship between the background feature in web conferences, traditional Chinese furniture screens, and the representation of the female body in these virtual spaces. The virtual background function can be likened to a conventional Chinese room divider, serving to hide personal areas from onlookers or create a polished setting for participants during meetings. Chinese dividers symbolise traditional Chinese art and craftsmanship, often featuring intricate designs and motifs that rival paintings reflecting the country's rich cultural heritage. The flexibility of the screen allowed it to adapt to different times and occasions, creating spaces that met specific needs. Given that Chinese brick buildings do not easily allow for the installation of brick walls in the interior, screens serve as spatial barriers that can be adjusted to suit various needs, resulting in spaces with different functions. The movable tables, chairs, screens, and brocade barriers that characterise daily life in the halls of wealthy homes are constantly rearranged to create different scenes. Each scene constitutes a hierarchical space, sometimes for business, feasting, performances, dining, or other

purposes, which defines the significance of the host and the interrelationships of those present. This demonstrates the complex and social nature of the home that the hall represents.

Unveiling the Roles of Virtual Backgrounds and Chinese Screens in Balancing Privacy and Public Space. The space divided by the Chinese screen can be represented in a two-dimensional image, similar to the screen in Chinese paintings. The historical significance of the Chinese screen lies in its ability to conceal the private, especially the feminine space. Within traditional norms, the activities of a respectable woman were confined to the inner sanctum of the home. The Chinese screen allowed these women to discreetly observe the public life beyond, peering through its panels and windows, while preserving their privacy. This duality, where the screen acts as both a physical barrier and a voyeuristic window into the outside world, captures the complex interplay between private and public spheres in historical contexts. Similar to architectural elements or furniture, virtual backdrops can significantly impact the spatial dynamics of an online video conference, operating on a principle similar to a traditional Chinese screen, albeit realised through digital images. The background functions as a layer of fabric on a plane parallel to my body, concealing the visual elements of my environment.

Virtual backgrounds, replacing physical screens, offer layered experiences in online meetings, blending reality and virtuality, erasing spatial boundaries, and fostering imaginative experiences. Virtual backgrounds in online meetings affect participants' wellbeing and collaboration and play a crucial role in shaping diverse spatial settings within online video conferencing, emulating boardrooms to create casual lounge atmospheres, significantly influencing the dynamics of virtual-reality space. The choice of a virtual backdrop can profoundly influence participants' mental wellbeing and comfort. When engaging in conversations with friends, setting a serene natural background creates a calm atmosphere, offering a much-needed emotional escape, especially from the challenges of the COVID-19 lockdowns at home. Similarly, in work meetings, a thoughtfully selected background assists in softening the discussion environment, enabling participants to feel more relaxed and focused. During the cold winter months, the illusion of a street café scene fosters a relaxed gathering atmosphere, providing warmth and connection.

Virtual backgrounds offer avenues for improved collaboration and communication. For instance, a virtual whiteboard background, which can replicate a shared workspace. This fosters interactive discussions and facilitates brainstorming sessions within the group, enhancing the overall dynamics of the conversation. The use of images representing projects as backgrounds can mimic the experience of standing in front of posters within a physical building during reviews, adding a novel dimension to the virtual environment.

The female body in virtual spaces and its relationship with web conference backgrounds and traditional Chinese screens, shape online communication's spatial dynamics and their combined influence on gendered cultural spaces. The female body in virtual spaces is not the primary subject but serves as part of the spatial context created by backgrounds. In the digital realm, the female body can be considered a cyborg, challenging conventional gender norms. Its role varies culturally, emphasising individual performance and context reconstruction with technology allowing cyborgs to reinvent themselves by altering their environment. Additionally, contextual settings affect professionalism and cultural identities, reinforcing or filtering differences among participants.

9.2.4 The Emotional Dimension

The emotional dimension at home first focuses on the roles of cyberspace in shaping the emotional space, highlighting the significance of familial and cultural ties in constructing the emotional space of a family living abroad. During the COVID-19 lockdown, the emotional experiences, changes in the interior layout, and the accumulation of memories contributed to the home evolving into a true sanctuary in both physical and spiritual senses. These physical changes in the home were accompanied by the use of digital communication technologies, allowing connections to the family in China. This virtual connection created a miniature cyberspace of emotional bonds within their home, where interactions between users formed experiences that shaped the interconnectedness of space, time, and emotions in shaping one's sense of 'home.'

Digital communication technologies, coupled with the accumulation of memories within our living space, transformed our foreign home into a sanctuary. The cyberspace facilitated by digital communication played a crucial role in transforming our living space, allowing virtual visits to our homeland, bridging the gap created by lockdowns, and strengthening our emotional connection to home. The identity, combined with the evolving story of our home, offered a vision of a future liberated from preconceived notions within the digital realm. The concept of 'home' is a dynamic interplay of personal emotions, cultural identity, and physical space, continuously shaped by diverse stories and cultural influences. The concept of home is deeply rooted in Chinese culture, which strongly emphasises the family as the foundation of society. Our home in transcends mere physical space; it embodies cultural identity. Through cyberspace, it shaped our dual roles as a mother and daughter, bridging the gap between two geographic homes. Through video communication, the two homes are linked. The emotional space was shaped through the role of the overseas daughter with older parents during the pandemic and fostering bonds through intergenerational relationships. This dynamic both challenges caregiving norms for the older generation and maintains and nurtures intergenerational bonds.

The intersectionality of identities, including personality, race, and age, shapes emotional space, particularly within the context of online video conferencing at home. Cyberspace transforms domestic space into publicly accessible functional spaces, influencing users' roles and emotions, enabling users to move through various realms, including academic, professional, and domestic spaces, forming a spatial-emotional sequence. The interconnectedness of emotional realms reflects interactions between personal, professional, educational, and domestic aspects of everyday life. Cyberspace serves as a conduit for the ebb and flow of emotions, creating a spatial-emotion sequence within the confines of the home.

The work-from-home environment, especially when combined with caring for children, introduces complexity to emotional space. The interplay between professional responsibilities, familial duties, societal norms, and cultural expectations shapes emotional dynamics within this context. The emotional space is influenced by rapid transitions between public-facing professional roles and roles involving childcare. Societal norms, collectivist values, and filial obligations impact the emotional landscape, adding complexity to the work-family conflict. Cyberspace is a bridge to the social network and a sanctuary of privacy, allowing mothers to find moments of solitude within their homes. Seeking privacy from children mirrors the challenge of being unable to care for or physically be with parents during the pandemic. The virtual escape provides a respite from the intensity and confinement of pandemic-induced home life, offering a space for decompression and recharging.

9.3 Further Thoughts on Cyberspace at Home

The concept of situated space is characterised by its social and cultural context, while dimensional space is defined by the interplay between the physical and digital realms. Cyberspace at home represents a situated space that is context-dependent and imbued with cultural and social significance. Simultaneously, it is a dimensional space that is mutable, created and altered through the use of digital technology.

9.3.1 Cyberspace at Home as A Situated Space

'Situated space' is a term found in discussions across various fields, including cognitive science, human-computer interaction, architecture, and urban planning. The concept generally refers to the idea that space is not just a physical dimension but also a context that affects and is affected by its activities and interactions. In other words, space is 'situated' because social, cultural, and personal factors shape its meaning and function. In human-computer interaction and technology design, 'situated space' has been used to discuss how technology and digital interfaces are designed with an understanding of the physical and social context of their use.

In cognitive science, mainly situated cognition, the term can refer to how human knowledge and action are profoundly affected by the context in which they occur. From this perspective, cognitive processes occur not just in the brain but in physical and social environments. In architecture, Eisenbach (2008) and Doucet and Frichot (2018) both emphasise the reciprocal relationship between movement and space, with the latter calling for a focus on situated, relational, and embodied perspectives. Lieberman (2019) further explores the idea of a site as a complex entanglement of relations, challenging the traditional understanding of space. This is echoed by Psarra (2010), also highlight the importance of considering non-discursive and discursive knowledge in architecture. In this present research, the concept of cyberspace at home is illustrated as a situated space that extends beyond the physical to encompass the personal, cultural, and digital realms. In this situated space, every element is infused with meaning and is dynamically shaped by the individuals who inhabit it.

The digital dimension reveals that situated space in the digital realm is composed of multiple layers, each interwoven with the others to form a deeply personal and culturally specific complex fabric of existence. For Generation Y, particularly Chinese women, cyberspace becomes a mirror reflecting their identity, embodying the interplay of traditional values, gender roles, and modern influences. This space becomes a battleground where the fight for equality and recognition is juxtaposed against the backdrop of societal expectations and state control, as exemplified by the distinctively Chinese concept of ‘gongjia’ and the Chinese government’s stringent oversight of digital platforms. The transformation of private spaces into publicly accessible spaces through digital means during the lockdowns underscores the adaptability and fluidity of situated space. It reveals how the home—a traditionally private sanctuary—can morph into a multifunctional public space that hosts a range of activities from education to commerce. This transmutation of space challenges traditional notions of public and private ownership and control, particularly within the Chinese context, where the lines are further blurred by state surveillance and censorship.

In the architectural dimension, the study delved into the dynamics of space within the home, highlighting how online communication tools shape and dissolve spaces, and how these digital boundaries interact with the physical boundaries of the home. The camera’s lens serves as a new demarcated space, distinguishing between what is for public display and what remains unseen. However, these boundaries are not permanent; they are provisional and can be altered or dissolved, allowing for a seamless transition between public and private realms. This adaptability of space is further illustrated using virtual backgrounds in online communication, serving functions analogous to traditional Chinese screens, allowing for privacy, and creating a presentable self to the outside world. The choice of these backgrounds can significantly influence the perception of space and the wellbeing of its inhabitants, showcasing the potential of digital spaces to impact emotional and cultural dimensions.

The cultural dimension of this study examined the relationship between physical-cultural materials and the digital age, emphasising how objects like mirrors and tables transcend their traditional roles to take on new meanings and functions in cyberspace. Historically symbols of self-reflection and femininity, Mirrors now become tools for self-examination and bridging private and public personas in the digital age. While providing a physical surface for various activities, tables also become stages upon which the drama of daily life unfolds in both the physical and digital realms.

The emotional dimension discussion in this research brings to light the profound role cyberspace plays in shaping the emotional landscape of the home. During the pandemic, the home evolved into an emotional sanctuary, a place where familial and cultural ties are maintained and nurtured through digital communication technologies. Cyberspace allowed for the continuation of life's rituals and strengthening of bonds despite physical separation, highlighting the interconnectedness of space, time, and emotion in creating a sense of 'home.'

The cyberspace at home is a situated space that is deeply contextual, multifaceted, and dynamic. It is a space continuously constructed and reconstructed by its users—shaped by their identities, cultural backgrounds, and the interactions between the physical and digital worlds.

9.3.2 Cyberspace at Home as A Dimensional Space

In the realm of digital interfacing, as the research illustrates, dimensional space is redefined through the interplay of physical reality and virtual potentiality. This dynamic field is not just a mere extension of our physical environments but a complex layering of spatial dimensions that interact with and transform our perception of what space can be. From the summarised characteristics of the space's generation, alienation, and dissolution processes, cyberspace within the home is not static. However, it is continually generated, alienated, and dissolved through the mediating influence of digital technology. The camera's lens, a pivotal component of web conferencing, acts as a selective frame, much like a movable wall, which isolates a segment of the user's environment to be shared publicly. This creates a boundary within the home that is both visible and invisible, delineating a new kind of private-public space. Therefore, the virtual realm generated by the camera's perspective is a dimensional space that can be curated and controlled by the user, challenging the traditional permanence of architectural boundaries.

Digital technologies have enabled physical spaces within the home to take on multifunctional roles. Spaces traditionally dedicated to specific activities, such as dining or leisure, are transformed into offices, classrooms, and social spaces. The dining table, for instance, becomes a desk for professional activities or a school bench for children's online learning. This transformation underscores the fluid nature of

dimensional space, characterised not only by its physical dimensions but also by its capacity to adapt to the users' changing needs and the functions they require.

The use of virtual backgrounds in web conferencing is another aspect of the research highlighting the dimensional characteristics of space. These backgrounds are more than just visual filters; they serve as digital extensions of the user's environment, offering a means to manage privacy and curate personal presentations. They function similarly to traditional Chinese screens, historically used to delineate and decorate space. In the virtual space of a web conference, these backgrounds connect users to their backgrounds and intentions, providing a versatile tool for self-expression and environmental control.

9.4 Revisiting the Research Inquiry and the Methodological Approaches Used in this Research

This study is an in-depth examination of how online video conferencing's emergent cyberspace has reshaped the personal and conceptual realms of Chinese women during the enforced isolation of the COVID-19 pandemic. The inquiry adopted a fourfold perspective: it reconceptualised cyberspace from the viewpoint of Chinese women of Generation Y; it redefined architectural spaces through their digital transformation; it reconsidered the cultural space's connections against a historical Chinese backdrop within the digital age; and reimagined the emotional terrain within the domestic sphere during these unprecedented times. Specific goals, rearticulated as follows, steered the research:

1. The Digital Concept: Cyberspace and Asian Female Identity: This goal reevaluated the concept of cyberspace within the sociocultural context of an Asian woman's identity born after the 1980s. A critical examination of the literature traced the origins and development of cyberspace, clarifying central definitions and conversations. This exploration accounted for the temporal and locational factors influencing the researcher's viewpoint.

2. Architectural Home Spaces Transformed by Cyberspace: This aim re-examined how family environments have been restructured with the advent of cyberspace, focusing on the changed dynamics of space utilisation during the pandemic lockdowns. An elaborate depiction and examination of these spaces was conducted, incorporating personal perceptions and behavioural patterns.

3. Chinese Cultural Paradigms and Cyberspace Engagement at Home: These objectives revisited the relationship between traditional Chinese cultural frameworks and the adoption of cyberspace in domestic settings. The

investigation revealed how cultural doctrines and family values shape and are expressed in Chinese women in the digital age.

4. Emotional Landscape of Cyberspace Assistant Domestic Sphere Amid a Pandemic: The final aim reexplored the emotional fabric of home life under the constraints of the pandemic, pinpointing the ways in which video conferencing has altered emotional exchanges and support networks within the domestic setting.

The upcoming section provides a brief explanation of each objective and the corresponding approach used to achieve it.

9.4.1 In Responding to the Research Objective 1

To respond to the objective of understanding cyberspace from the vantage point of a Chinese woman in the Generation Y, my research commenced with an archival study that delved into the essence of this digital phenomenon. Initially, I embarked on a comparative study of multiple analogous concepts, aiming to pinpoint the Chinese counterpart to what is broadly recognised as cyberspace. This comparative analysis was instrumental in framing cyberspace within the Chinese cultural and conceptual context. Progressing deeper into the research, I conducted an extensive review of the literature on cyberspace, tracing its roots back to its Western science fiction origins. This exploration provided a thorough comprehension of both the definition and the evolution of cyberspace, revealing its intricate connections to science fiction literature. In doing so, I uncovered how this concept is interwoven with social structures, cyberculture, and, importantly, feminist discourse, as epitomised by Donna Haraway's notion of the cyborg(Bell, 2008; Haraway, 1991). Such feminist reflections are crucial to understanding the gendered dimensions of digital space. Fuelled by this inspiration, I extended the literature review to encompass Chinese and Japanese science fiction (due to the latter's significant impact on the Chinese in the 1990s). This comparative analysis illuminated different narratives and interpretations of technology and its sociocultural implications.

In synthesising these insights with autoethnographic data analysis, I identified the unique attributes of cyberspace as it is publicly accessible to others. By drawing on my prior discussions around the concept of internet space about publicness and democratic politics, I crafted a narrative that juxtaposes the digital realms of cyberspace against the physicality of built space—specifically, the Chinese conception of public space. Combining archival research, literature review and the autoethnographic data analysis, I situated the themes to articulate a multifaceted understanding of cyberspace as it resonates with and diverges from Chinese women's lived experiences. The research thus sheds light on the digital perspective of

cyberspace and offers a culturally nuanced narrative that aligns with the objectives of my study.

9.4.2 In Responding to the Research Objective 2

To delineate the architectural characteristics of cyberspace within domestic settings, this study leverages phenomenological methods and theories, aiming to bridge the subjective experiences of space with its architectural underpinnings. The first step unfolded in a meticulous analysis of spatial narratives drawn from autoethnographic data, focusing on distilling these rich descriptions into their basic spatial structure. This process involved a rigorous examination of how space is experienced, navigated, perceived through interactions, and created, with the aim of extracting elements that define the spatiality of cyberspace. Through this analytical lens, a thematic model was constructed, articulating the universal facets of spatial experience, including the perception of space, its genesis and dissolution, the layout, and the delineation of spatial boundaries and openings.

The interactions with and within these spaces are not merely functional but imbued with meaning, transforming architectural features into vessels of lived experience. Following the thematic distillation, the autoethnographic evidence was recompiled, weaving the foundational elements and thematic insights into a cohesive narrative. The findings were further validated through reflective analysis facilitated by the model. After filtering out the themes, the autoethnographic materials were reassembled to synthesise the underlying structures and basic thematic patterns into a coherent narrative to achieve the research objective.

9.4.3 In Responding to the Research Objective 3

To elucidate the cultural dimensions of cyberspace within the domestic sphere for Chinese women, this research navigated the intersection of digital and cultural realms through a nuanced lens. Employing autoethnography alongside materialist theory, this study meticulously categorised cultural elements in domestic cyberspace, identifying artefacts emblematic of the intricate relationship between Chinese women and their culture. These artefacts, recurrently featured within cyberspace engagements, serve as pivotal analysis points.

Integrating the principles of materialism, this research adopted a dual analytical approach. It harnessed cultural materialism to dissect historical narratives, customs, and the fabric of social relations while simultaneously applying new materialist thought to explore the dynamic interplay among objects, individuals, and their environments. This analytical framework was adeptly applied to a carefully selected array of cultural materials emblematic of Chinese tradition—mirrors, tables, backgrounds, and

representations of the female body. By situating these materials within cyberspace, the research delved into their significance within Chinese culture and their resonance with Chinese women's experiences. Ultimately, the themes were listed to be integrated with the autoethnographic data. Following this specific research methodology, the rewriting combined the discussion and the findings to present to the readers.

9.4.4 In Responding to the Research Objective 4

To explore the emotional dimensions of cyberspace within the home during the COVID-19 lockdowns, this study integrated autoethnographic methods with a nuanced analysis of emotional landscapes. The research journey began with an immersion into a rich collection of self-reported experiences and hand-drawn materials, meticulously cataloguing the emotional resonances evoked by the pandemic's enforced solitude and digital connectivity. Upon familiarising myself with the array of materials, I embarked on a systematic coding process, anchoring the analysis in the emotional lexicon that emerged spontaneously in my descriptions. The literature review complemented this personal exploration by providing a scholarly framework for understanding these emotional spaces. The emotional space was categorised according to the definitions and the analytical perspective characteristics. Key themes such as 'isolation,' 'connection,' 'identity,' and 'transformation' were meticulously defined and named. A reflective phase revealed that beyond the spatial attributes of cyberspace, the lockdowns significantly influenced my emotional experiences, with many unfinished narratives left due to profound emotional shifts.

This introspection led to a deeper investigation of women's emotional experiences during the pandemic, adding layers to the analysis with themes like 'the emotional contours of isolation,' 'anxiety and uncertainty,' and 'the distant caregiving by sons and daughters overseas.' This thematic enrichment was further supported by a refined literature review, which underscored the unique role of cyberspace as a situated space that profoundly shapes emotional experiences during such unprecedented times added above the identity and culture factors.

The study culminated in a narrative that intricately weaved analysis with personal reflection, presenting a comprehensive portrayal of the emotional dimension of cyberspace at home during the COVID-19 lockdown, unveiling the multifaceted emotional experiences elicited by the pandemic, offering a deeper understanding of the emotional impacts of the lockdowns.

9.5 Contributions to Knowledge

9.5.1 Implications for Theory

My research advances theoretical understanding in several key areas:

User-Experience Framework: By focusing on the home cyberspace experiences of post-1980s Chinese women, this study introduces a novel user-experience framework. It enables the dissection of home space experiences during unique periods, integrating architectural, cultural, and emotional dimensions to offer a multi-faceted analytical lens.

Voices of Marginalised Groups: Centrally, the study amplifies the voices of marginalised single parents during the pandemic, challenging societal taboos and critical stances in China. Through detailed case studies, this research contributes comparative data to international discourses on single parenthood and social equity.

Cultural Impact on Cyberspace Perception: This research initiates a vital discourse on the intersection of women, technology, and culture, revealing the influence of Chinese science fiction narratives on Generation Y women's perceptions of cyberspace. By elucidating the unique characteristics of China's regulated cyberspace, the study provides a foundation for further international and comparative analyses.

Minor Theory in Architectural Space Research: By employing minor theory, the study expands architectural research to include researchers' lived experiences and participants in socially minor positions. This approach underscores the significance of marginalised knowledge, encouraging a broader inclusion of diverse perspectives in architectural inquiry and post-structuralist thought.

In essence, these theoretical contributions provide a richer understanding of the cultural nuances that shape human interaction with cyberspace while broadening the scope of architectural research to be more inclusive of varied user experiences.

9.5.2 Methodological Contributions

My research enhances methodological practices in several significant ways.

Integrative Autoethnography: Utilising autoethnography, this study pioneers an integrative approach by combining narrative writing, hand drawing, and architectural modelling. The architectural model is a more intuitive way of communicating with the user than an architectural drawing, reflecting the relationship between the space and the furniture with its scale and evoking the reader's empathy for the changes in the

space that occur in the process of constructing the space through the changes in the combination of the furniture. The unity of materials and textures in the model design focuses the discussion while evoking the user's participation. When discussing a specific dimension of the spatial discussion, the model is used to talk to the six-year-old daughter, allowing her to roam around the flat with the model in her hand and to discuss how it works and how it feels to be in a different spatial location. At the same time, after the lockdown is over and the home layout has changed, it is able to serve as a material medium for the author's spatial reflection as well as an interactive discussion with her daughter (and her bubble group friend). This trifold technique facilitates a deeper self-reflection and offers a rich, multi-dimensional analysis that bridges the gap between subjective experience and academic inquiry. The integration of these diverse methods enhances the communicative power of the research, engaging readers with a vivid representation of the conceptual findings.

Cultural Narratives and Technology: By incorporating elements of mythology, literature, painting, and film into the autoethnographic discourse, the research broadens the interpretative lens. This method leverages the rich tapestry of cultural narratives to reflect the evolving interplay between technology and the lives of Chinese women, offering a novel perspective on data collection and analysis within cultural studies.

Phenomenological Approach in Architectural Analysis: Adopting phenomenology within the autoethnographic framework, the study offers a fresh perspective on the user’s spatial experience in cyberspace. This approach melds the traditional architectural research methodologies with personal narrative, providing an empathetic understanding of space that is grounded in lived experience.

These methodological innovations contribute to a more nuanced understanding of architectural spaces and cultural contexts, offering a model for future research that seeks to understand complex human-technology interactions.

9.5.3 Empirical Contribution

The empirical contributions of this study are threefold, with significant implications for social science, policymaking, and design practices:

Narratives of Resilience: By documenting the lived experiences of ordinary female readers and single parents through autoethnographic narratives, this research provides empirical evidence of resilience and adaptability during the pandemic. It not only humanises the statistical data often presented in epidemics but also underscores the therapeutic power of storytelling. I hope these narratives will contribute to a greater understanding and representation of women in China, especially in light of the

burgeoning feminist movement, encouraging broader self-expression and contributing valuable case studies to the field of women's studies.

Policy Insights on Domestic Challenges: This study offers a comprehensive description of the multifaceted challenges faced by work-from-home single parents, including childcare, eldercare, and emotional wellbeing during the pandemic. The detailed accounts serve as a basis for policy recommendations to support these individuals. These insights can potentially inform the development of more empathetic and responsive government policies that address the specific needs of single-parent households.

Cyberspace and Spatial Design: Through exploring home-based cyberspace, the study sheds light on unique spatial characteristics and user interactions within domestic settings. By providing detailed case studies, it contributes empirical data on space configuration in response to technological integration. This knowledge is invaluable for architects and interior designers, offering a direct example of how technological advancements impact the design and functionality of living spaces.

These contributions enrich our understanding of the complex interplay between personal narratives, societal roles, and spatial environments, providing empirical data that supports cross-disciplinary research and practical applications.

9.6 Limitations

This study encountered two principal limitations that warrant discussion:

Psychological Impact on Objectivity: The emotional toll of the pandemic, coupled with the isolation of confined workspaces, posed a substantial challenge in maintaining the objectivity necessary for data analysis. The introspective nature of autoethnography and the resultant stress also impacted my health during the post-writing phase. Future research could benefit from increased collaboration and dialogue among researchers in similar fields and a heightened focus on the mental wellbeing of the researchers themselves.

Comparative Study Limitations: Given the relative novelty of digital technology's integration into home spaces, there was a lack of comparable studies against which to benchmark the findings related to cyberspace during the pandemic. As the field matures and more studies emerge, future research can draw richer comparisons and validate the findings presented here.

These limitations underscore the need for flexibility in research design and the importance of researcher wellbeing. They also highlight the potential for future studies to build upon the groundwork laid by this research in a post-pandemic landscape.

9.7 Recommendations for Future Research

This study's methodologies and findings not only contribute to the current research landscape but also provide a fertile ground for future scholarly endeavours. The following areas are recommended for further investigation:

Comparative Cultural Historiography: My research unveils a distinctly Chinese perspective on science fiction and cyberspace, divergent from Western narratives. This perspective is deeply rooted in the societal transformations since the Qing Dynasty, influencing contemporary understandings of technology and cyberculture. Future research should delve into these unique cultural imprints, comparing them across international contexts to enrich global perspectives on digital technology's societal impact.

Feminist Architectural Studies in China: There exists a significant research gap in the study of feminist architecture within the Chinese context. Building on the cultural insights provided by this study, future research can undertake a historical and contemporary analysis of Chinese women's architectural and urban spaces. This could involve a synthesis of art history, such as the work by Professor Wu Hong on 'Women's Spaces in Chinese Painting,' to explore the evolution of these spaces and their socio-cultural significance.

User-Centric Design in Technology and Architecture: The interconnection between technology and architectural space, as evidenced by the user experience, offers a rich domain for future exploration. Researchers should consider how digital technology and traditional physical spaces can be harmoniously integrated, focusing on user-centric design to enhance multifunctionality and efficiency. Potential topics include the optimisation of home and office spaces, the development of telemedicine facilities, and the creation of immersive mixed-reality learning environments.

Enhancing Autoethnography in Architectural Discourse: Autoethnography has demonstrated its utility in providing detailed, personal insights into space usage. It holds particular promise for capturing the lived experiences of women in architecture. Further research could adopt collective autoethnography to gather intricate social narratives, particularly in developing countries' production spaces. Such an approach could minimise individual biases and empower marginalised voices, fostering a more inclusive and transformative design process.

The trajectory of this research suggests a continued evolution in the ways we understand and design our living and working environments, mainly through the lens of gender and cultural diversity.

Summary

This chapter began with an overview of the research findings and discussions, concluding that the researched space is situated and dimensional. By revisiting the research inquiry and methodology, the research objectives are linked to the methods used in the process, justifying the choice of research methodology. Reflecting on the research process and findings, the implications for knowledge production, methods used, empirical influences and limitations are discussed. Finally, recommendations for future studies are given.

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Appendices

Research Phrase I

Photo Exhibitions







Research Diary in Text

1. The 23.00-00 live space has entered a new world. Transgender female anchors proudly and confidently talk about their cosmetics, clothing, and fashion reviews. When telling people about products, they are just like any other anchor woman. However, they can easily carry on conversations about personal issues and confidently discuss their experiences during the transition process. Their backdrops are more elaborately decorated. Vases and baroque furniture are the most popular backgrounds. They interacted better with their audience, although some were rude, with nasty language and unfriendly questions. Their broadcast space was brightly and

clearly lit, with no hidden light setups. They also spent a lot of time showing people the details of their products.

2. Getting ready in the lobby
There was a programme to get me ready by using the DSLR camera function to show myself on the screen, with just me watching. I took the opportunity to check the appearance of myself and my space (my room). I quickly tidied up the room inside the camera and hid my personal items out of frame.
Angela was drying her underwear on the heater. I had to move them from other rooms. Fortunately, I was able to move them before the lecture started. Each time, I felt like I was rearranging my space. It was a familiar and unfamiliar place that isolated me from my lost, relaxed state of mind and body to a space where I was being observed. I even wore make-up: keywords: A superficial appearance, an Unconfident appearance, to fix my Asian face.
Make-up is essential, even if it only takes 5 to 10 minutes.
While attending a lecture, someone knocked on my door because of an architectural issue. They needed access to my roof in order to fix someone else's roof. It was really loud. I had to be muted and could not participate in any conversation. I'm sure disruptions like this also ..... happen to other people .....

3. shared study rooms don't work for me in the mornings. It wasn't easy to set up a satisfactory camera angle at first. But it's easy to move the camera away from people, which means it doesn't work as a shared endeavour without a white sound background and occasional interruptions. This doesn't help at all with working from home. The chat panel had a wired message praising her girl's appearance. I guess that's why most people, especially women, bring their work laptops or notebooks without showing their faces.

4. Online shopping
When I started cooking, I was still chatting to the seller, who was enthusiastic and persistent in helping me find the fabric and size of the panties I needed and the type and size I was buying for my mum. I think I will buy 20 pairs of panties for the promotional giveaway (two hand creams and two free pairs of panties).
I think I will buy 20 pairs of underwear for a promotional giveaway (two hand creams and two free pairs of underwear).

4.1 At the desk:
Most of the time, I tire from focusing on my work for an hour. I'll grab my phone, open the Taobao app and look at some online shopping. You can change shops by swiping the screen from top to bottom with one finger. I always find some shops where the hostess is showing interesting things. Sometimes, I even chat with the hostess and ask her to introduce me to a tea I've never tried. She opens the lid, shows me the fresh yellow-green tea leaves, and then starts chatting to me about the flavour of the tea and how to drink it. I typed, "I've never tried it before", and she set the kettle in front of

me, prepared the tea and made small talk. It was a great experience. She talked about going to the tea fields in the spring and picking young tea leaves and then keeping them for herself. I almost decided to buy some green tea for my tea-loving mum. But finally, she pronounced my name and started calling me Big Brother in an odd accent. She visibly changed her tone and said thank you, big brother, for the honour in a pretentious, stupid voice. I found her behaviour insulting. I would have preferred it to be an inappropriate joke rather than an intentional fawning over a male customer. Very, very disappointed and immediately went offline to return to my studies.

4.2 In the kitchen:
When I pick up my daughter from school. I prefer to spend time with her in the living room. I can take my mobile phone to the kitchen and continue shopping for underwear. The price and quality of the Buy 20 Get 4 Free promotion appealed to me. I also had to jump at the chance and buy some for my mum and girlfriends. The seller was very patient and showed me one pair at a time. They come in different colours, textures, designs, sizes and features (my mum has special requirements). The seller showed us that all the viewers typed on the chat board if they wanted them, how many they wanted, and which colour they wanted. It was very interesting. I washed the veggies and started cooking and chopping tomatoes. Meanwhile, one of my eyes was glued to the screen of my mobile phone, on which were two canes with tea and coffee stuck in them.
Meanwhile, I listen to my daughter recounts her day at school. I had to wash my fingers before typing for the seller. After cooking, I sit down at the table to rest. My daughter had already started eating. I pick up my phone and pay for the goods. 3 days later, my mum, girlfriend, and I received eight pairs of underwear.

4.3 On the sofa
Saturday mornings are usually quiet after dropping my daughter off at the tennis club. However, she had to stay with me this week because of the bad weather. She was happy to watch "How to Train Your Dragon" on TV. I had to sit on the couch with her and watch TV. After half an episode, I couldn't stand the TV anymore. Online shopping enticed me to switch on my mobile phone. I wandered between a few shops selling women's clothes. It was fun to have a girl of my size try on some of my favourite clothes. I asked the girls about the texture and size of the clothes. I also asked the girl to try on my jeans. They looked okay but could have been better. I just watched TV and window-shopped with my daughter. I have to be more careful not to spend money on unnecessary or unplanned clothes or bags. I even forget when to switch off.

4.4 On the toilet:
Moments of isolation have always been precious to me since becoming a mum. In the morning, 20 minutes on the loo can be a brainstorming session on world news or an extremely relaxing online shopping session. With my mobile phone, I can do things with friends after work or on weekends. Even though I can't have coffee with a friend

right now, I'm still happy to look at clothes, scarves, shoes and purses. Brushing teeth or doing laundry can also be shopped via live streaming.

4.5 Daughter in the living room while practising the piano:
Friday afternoons 15:30-16:00 p.m. I set up Angela's laptop for her online piano lessons. And I stay in the same room with nothing to do. I can easily play with my phone and check some weekend cooking recipes. All the while putting on a poker face to keep Angela in a serious mood and focused on her studies. I used my saved shop to check out some online shopping and see what's on sale for everyday items. Mum wanted to buy tofu powder and yoghurt yeast powder. Dad wanted an e-warm scarf for this autumn/winter, and the daughter wanted a bike for her birthday. Finally, I bought a bedding set for a friend's wedding. Sending. Class dismissed. Can you write it better?

Cases

Case Study: Feeling like at home plus a presence at a conference

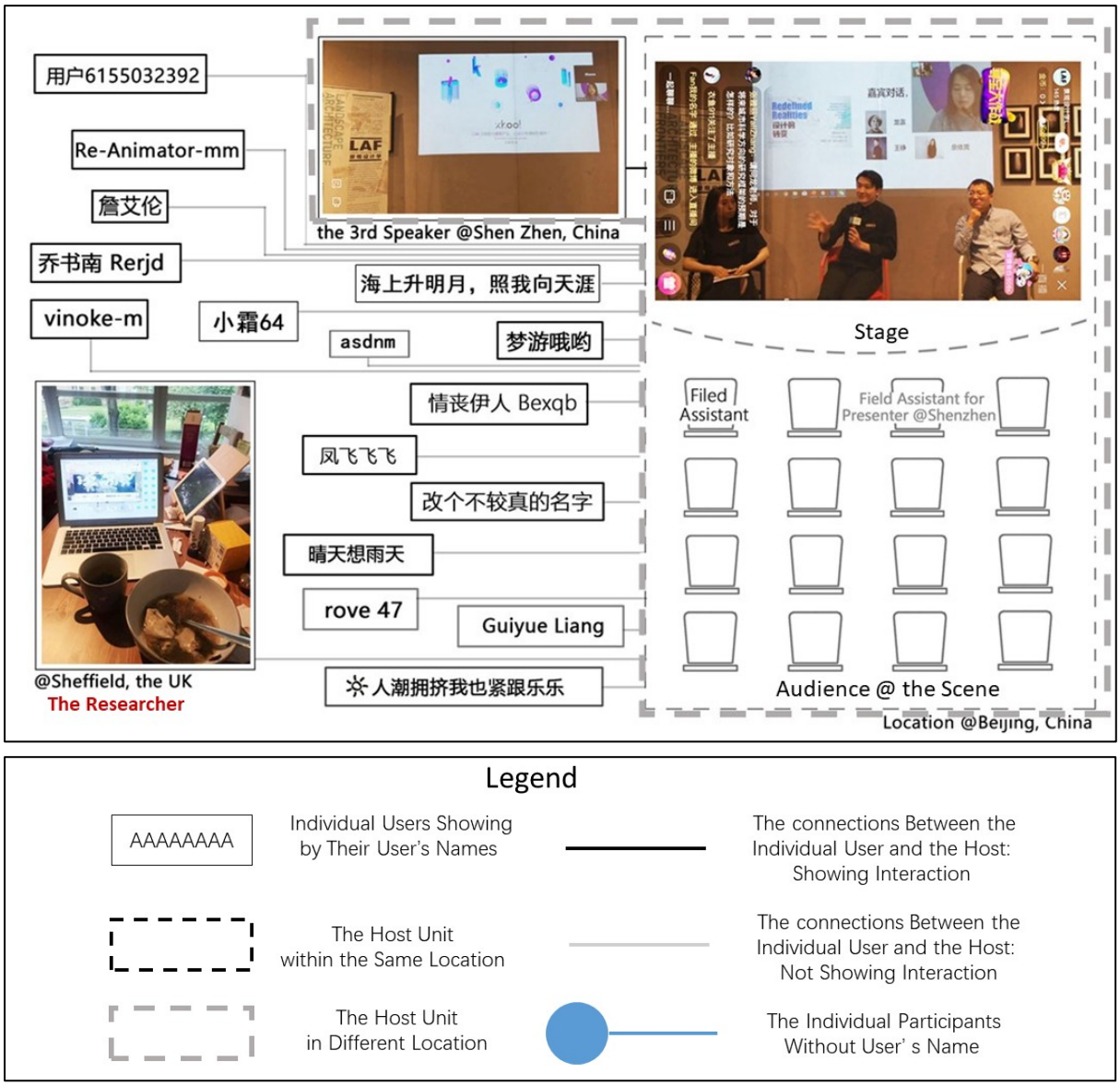


Diagram 1: Spatial Diagram of Online Broadcasting of Online Conference (Studies from the Conference "Redefined Realities in Design" Organised by Landscape Architecture Frontiers)

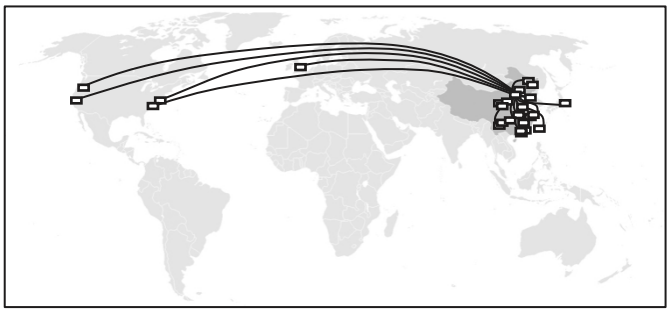


Diagram 2: Online Conference Geographical mapping (Made by Author)

The Case was taking the process of an online conference of "Redefined Realities in Design", held in Beijing, with 40 participants at the scene and approximate 990 audience (some of them are students in landscape architecture in different schools in China, Europe and USA) connecting to it for 3 hours. The host and 3 of the speakers were in the scene in Beijing,

with another speaker connected online in Shenzhen. The third speaker, located in Shenzhen, joined in online, with assistance at the scene. I participated in it on an early Saturday morning from my flat in Sheffield. By using the chat board function provided by the software platform, the users could interact in text with the host at the scene and post questions for the discussion session at the end.

Two gates, Three Object, and the Window and the Curtain

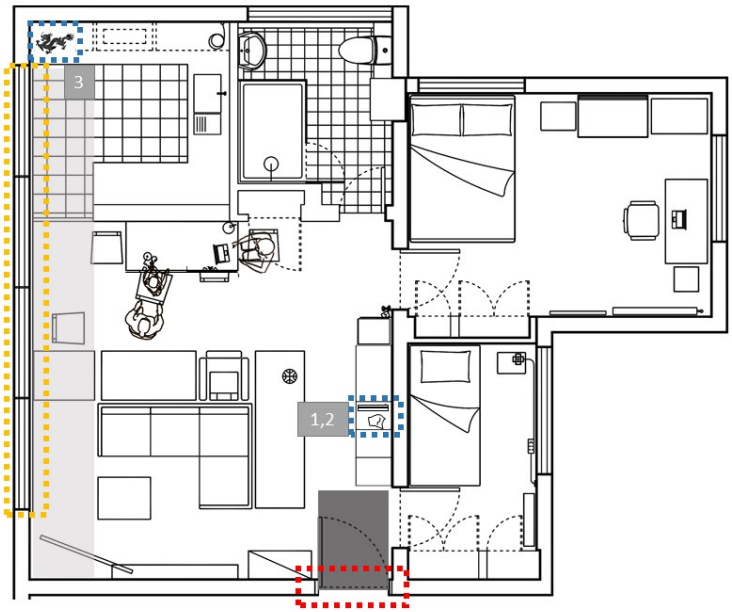


Diagram 3: The Objects within the Research Setting Plan

Setting up a new home in the UK as a Chinese single mother with a 6-year-old daughter from a city in North China. I had to choose a flat which is close to my daughter's school, within the good neighbourhood and with good security. The two-bedroom flat building provides two gates to separate my indoor space from the street, which is the same as my flat in China. I have adopted several objects from home to accommodate the space according to the living habits of the older generation (my parents and my aunt). The objects include a mirror I bought from Ikea, a stone from Tai Mountain and a bronze Chinese dragon, which are from China. The mirror is positioned opposite the flat gate (the front door), with the stone sitting in front of the mirror. The dragon is settled on a table in the northeast corner, aside from the window. The proposition of the decorations originated from the belief to guard the openings of the inside from the outside evils. The cupboard is put in the living room to hide the bathroom door from the view of the flat gate. The forbiddance of penetrating the view between the front door to the bathroom door is still an undocumented rule to individual flat plan designs in China to block the private bathroom door to the outside.

The physical barriers such as the gates, fences and curtains close the indoor space from the outside world in Chinese society. The interface is controlled by the curtain to show the space, which is usually without the presence of people, electronics or furniture. The interaction with people walking through the street is deliberately avoided. The things appropriate to show should be some "male coat or underwear" to show an image of a male living inside the flat, according to my parents. My blind curtain also

acts as a popular background when I host an online stream with the impression of its neatness and simplicity, its neutral taste between the office and the home, and the genders.

The inside-outside social and spatial categorisation plays an important role in the concept of privacy and publicity in Chinese culture, which defines the boundaries to the indoor space. The objects and setting up express the consideration for security and closeness to the inside.

The Decipher of a Screened Space

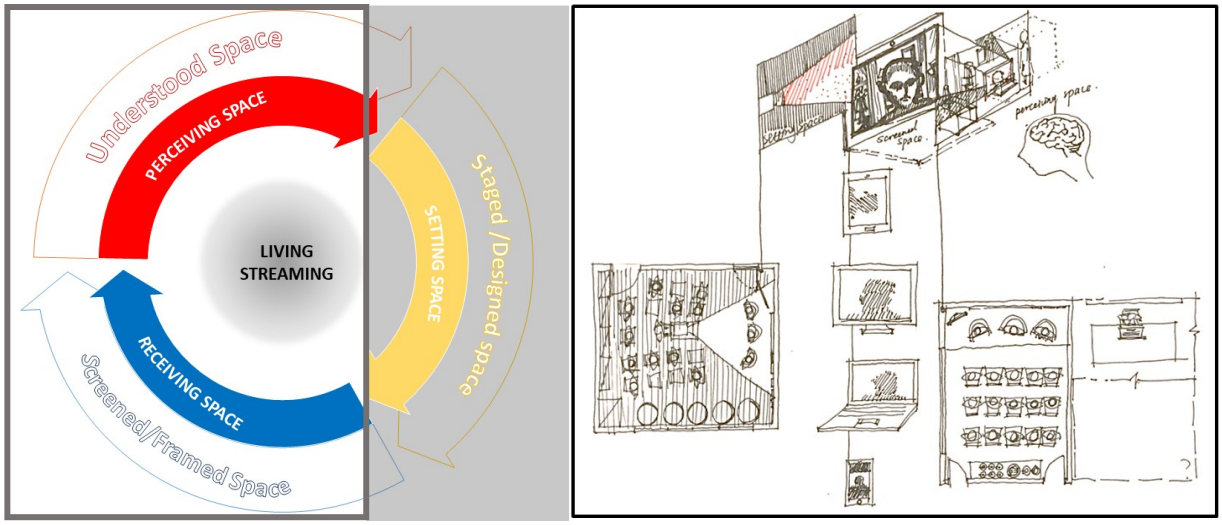


Diagram 4: The Decipher Panel of the Screened Space

The panel I created to analyse the live streaming created screen space from three perspectives. 1. Setting Space. To the broadcasters, the space is a sitting space, which requires conscious and subconscious design or stage process according to the space they want to deliver. 2. Receiving Space. The internet terminal devices receive the space and show the information as a screened/framed space, which is a physical process depending on and limited by the technology. 3. Perceiving Space. The consciously accepted space by the audiences who imaged the whole space in their understanding. In this case, as an audience. I could analyse the space from receiving and perceiving perspectives.

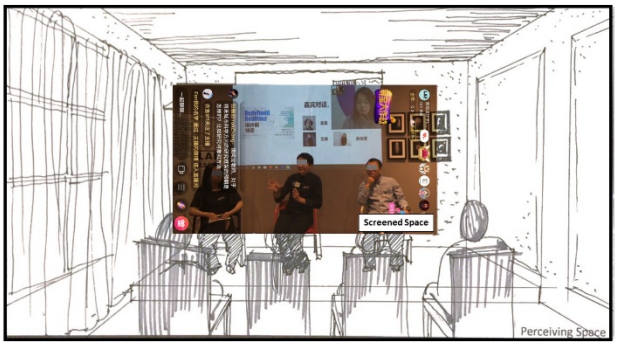


Diagram 5: The Relations Between Screened Space and Perceiving Space

The artistic photographs were framed and hanging on the wall beside the projecting content, and the scene was set within a meeting room on the campus of Peking University. The camera deliberately excluded the window, the audience and the doors. Without the witness to the communication between the presenters and the audience, the

conference was delivered in an extremely serious manner. The presenters were facing the audience in the front on the stage, who were taking turns to step up the stage to give the presentation. The The audiences at the scene were mostly students quietly and modestly by not proposing their questions in speaking compared to the online audiences. A traditional classroom in an ancient North China University was perceived by me immediately. The host, in the end, announced the setting was within a Cafeteria during the outwork hours.

The Transformable Privacy and Publicness

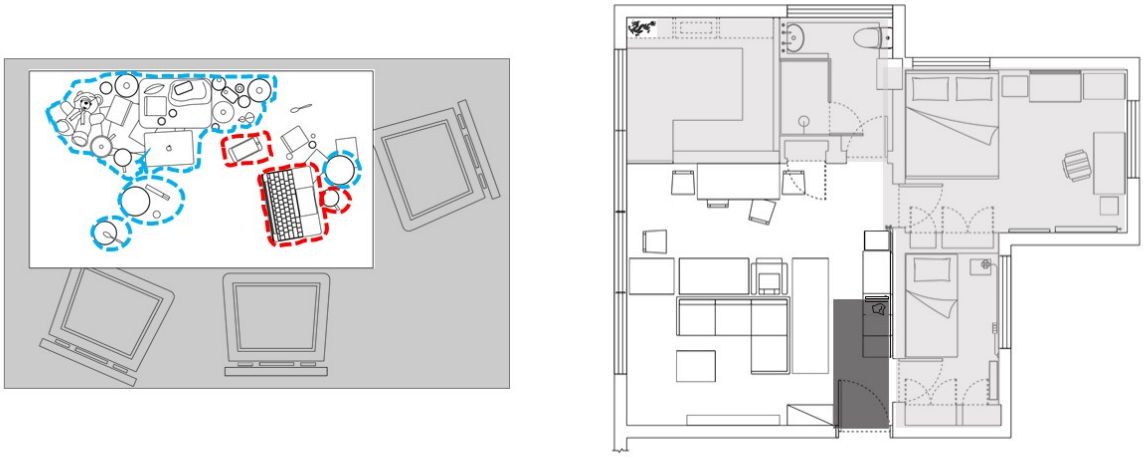


Diagram 6: The Juxtapose of the Daily Chaos and on the Table and in the Flat

The Juxtapose of the Daily Chaos on the table and within the Flat

The bowls for breakfast, the toys, the books for my daughter and me, the iPad for my daughter's online course, the seasoning bottles, and the kitchen tissues were juxtaposed with my working laptop, mobile and notebook. All of them described a typical weekend morning life of a single working mother. The Internet, the laptop, and my mobile connected me to a conference happening in Beijing.

The overlapped privates and publicness existed in the meanings of the functional areas defined by the degrees of privacy and publicity, the series of spaces created through the behaviour trajectory, and the layered visual penetrating space. The illustration shows the functional areas within a flat, with the more private space marked in grey. The entrance space also represents the old social values and cultural features of my senior family members, which were chosen not to be shown in formal live streaming.

The Series Spaces Created Through the Behaviour Trajectory

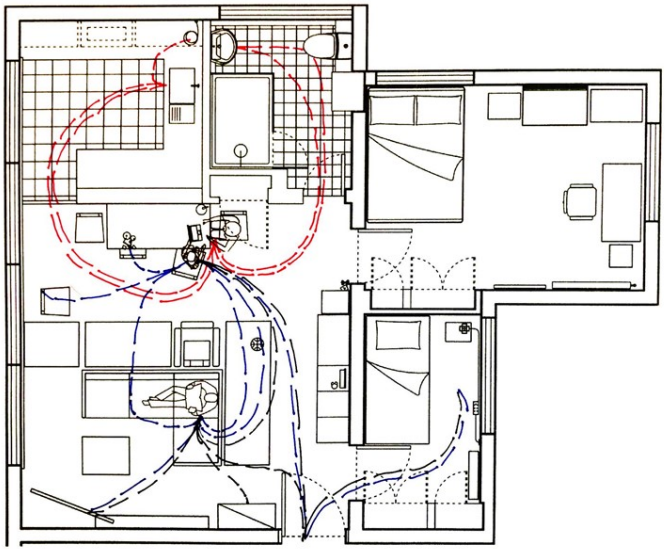


Diagram 7: The Series Spaces Created Through the Behaviour Trajectory

The changing spaces with the moving screen contents represent my spatial experiences, containing more information than a simple object. The experiences were accumulated between the concentration within the perceived space through the screen to connect me to the classroom in Beijing and the interruptions by a 6-year-old little girl's play routes and voices. The care for the family members, including providing drinks and comfort to them, links me to the female-labelled indoor spaces of the kitchen and bathroom. Taking care of the senior and the offspring is the natural job of the youngest females in China. The live streaming overlapped my weekend morning with motherhood and my professional life.

The Layered-Visual Penetrating Spaces

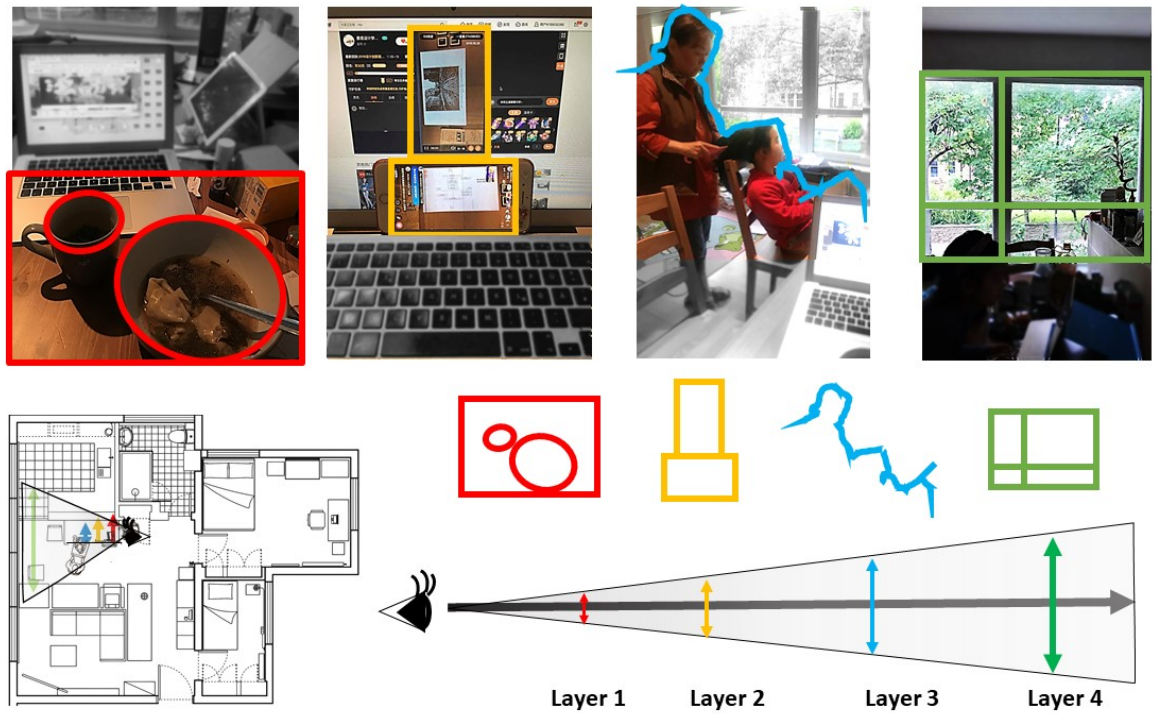


Diagram 8:The Layered-Visual Penetrating Spaces

The visually perceived space during live streaming is structured by four layers, which are the personal layer, the publicly accessible layer, the domestic layer and the threshold layer. A wake-up coffee and a bowl of hand-made traditional Chinese ravioli spoke my personal routes on the weekend morning. The personal layer represents the relations of my personal life as an audience and the public engagement with academic groups all over the world. The publicly accessible layer delivered the content of the presentations and allowed me to interact through messages. Meanwhile, my family were having a normal Saturday morning within the third layer, with the window as the threshold to define the boundaries and penetrate nature into the space in my view.

The sequences of the juxtaposition of the objects reflected the intimate levels of transformed space during the live streaming. The screened space acts as the physical screen blocked while connections different actions happened on both sides, allowing me to be aware of the things (including the activities conducted by my family members and the awareness of the nature outside my window) happening beyond the boundaries of the created publicly accessible space. Compared with screen one of the Chinese and Japanese cultural furniture, the function of the screen is linked to courtesy and self-discipline instead of acting as a wall to stop connections. The overlapping created two thresholds for me to define the publicness within the private flat and to circle the publicness through private daily chaos.

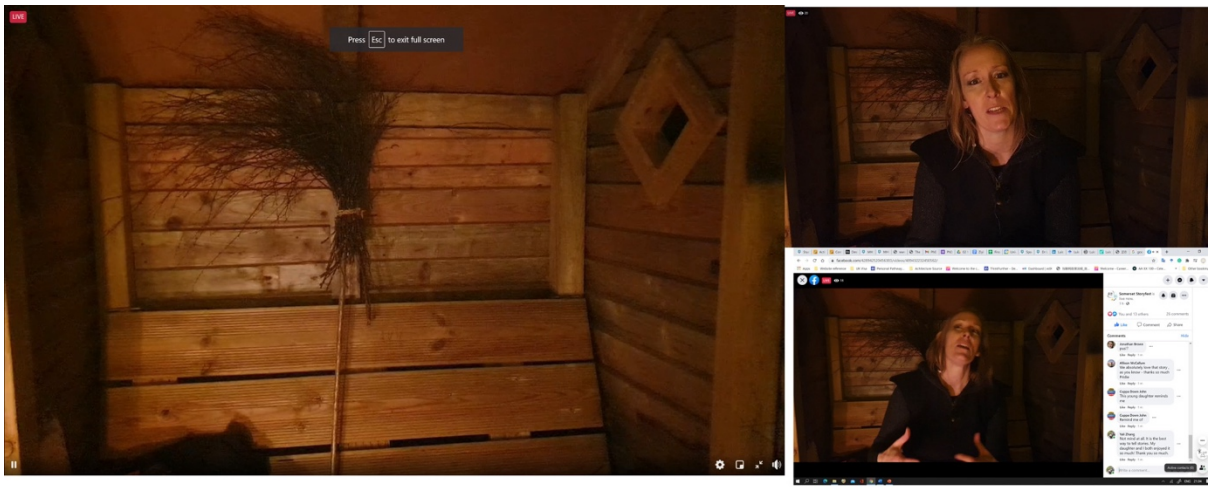
Going online through my laptop allowed me to access the public conference, which is open to a global scale space. The casual Saturday morning has been transformed into an overlapping space timely and spatially with the interactions publicly. This case

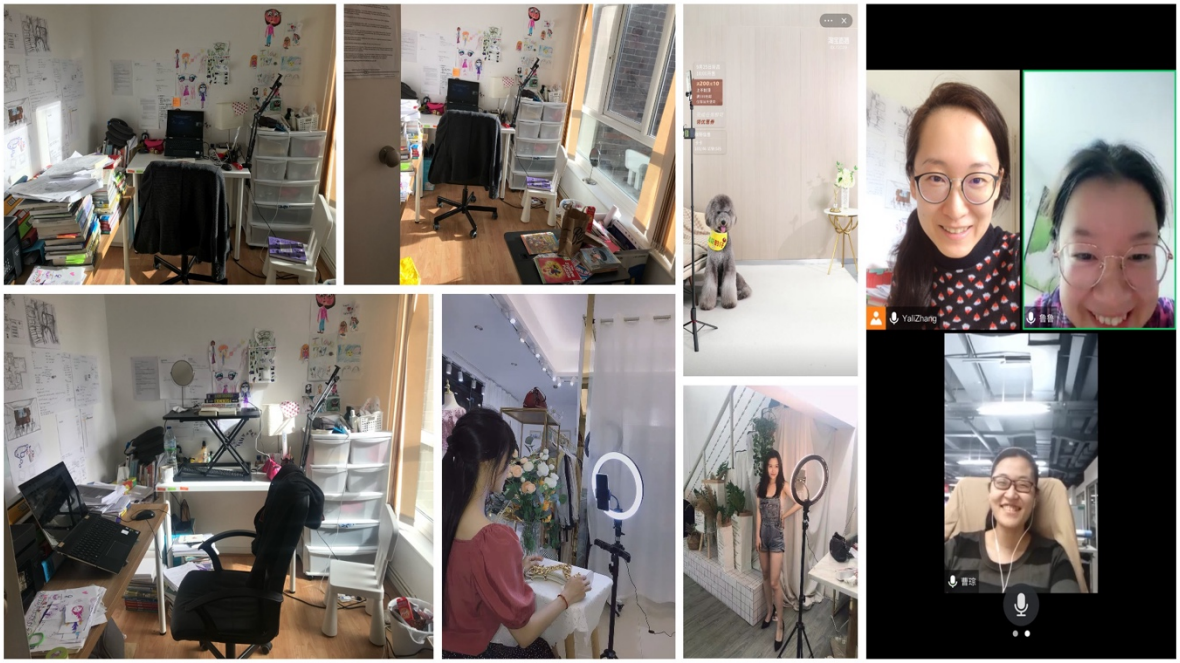
study collected data by taking diaries, including writing, drawing and taking photos and screenshots, which document and reflect the process of living streaming. Drawing and mapping as an analytical method enable me to explain, reflect, and categorise the original data, communicating me with the next step of theoretical analysis. The further research will follow the case study by adopting the procedures and methods.

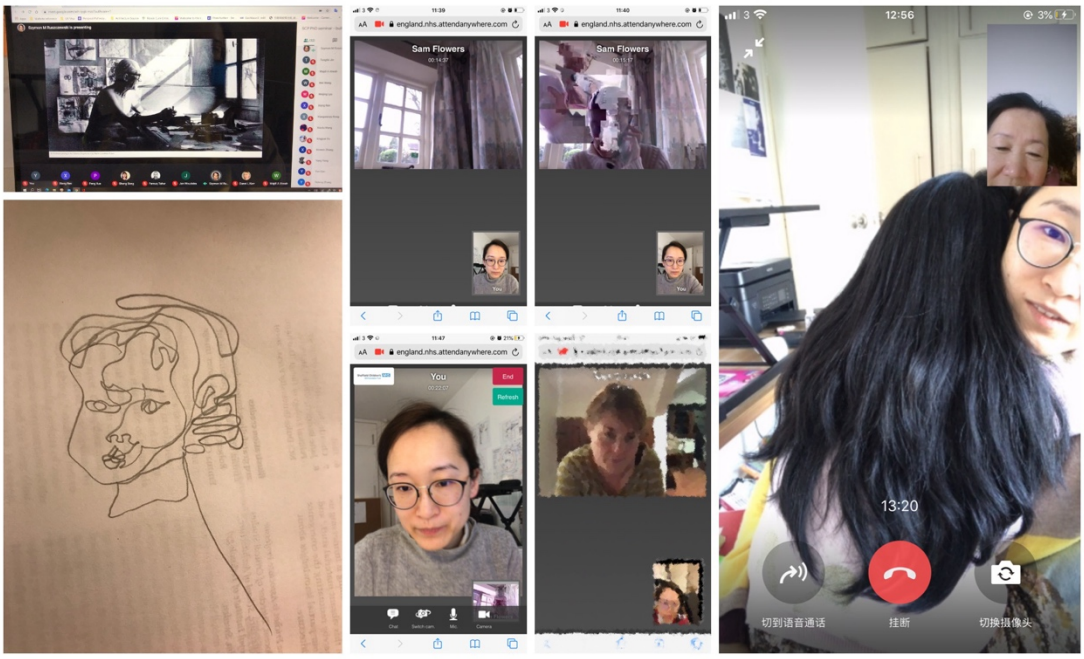
Research Phrase II

Research Photos



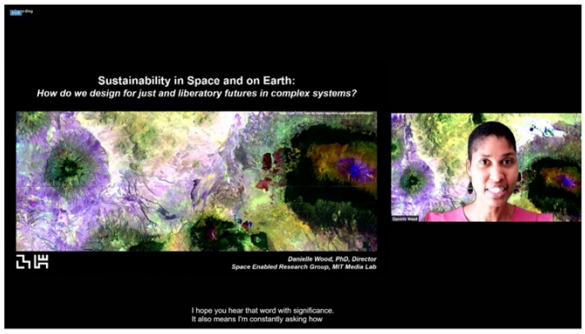


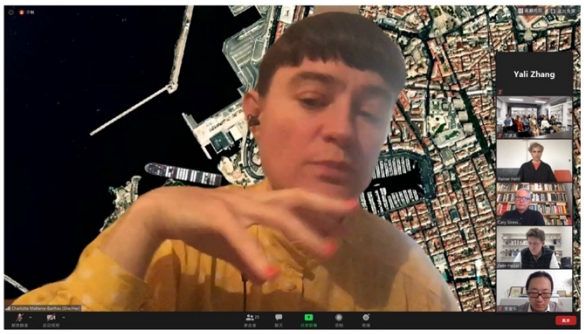



Sam Flowers
Sam Flowers
You
End
Refresh
12:56
13:20
切到语音通话
挂断
切换摄像头

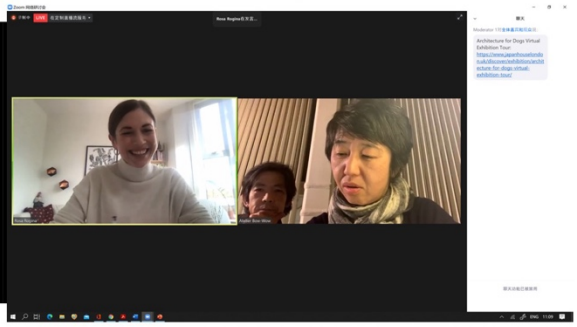


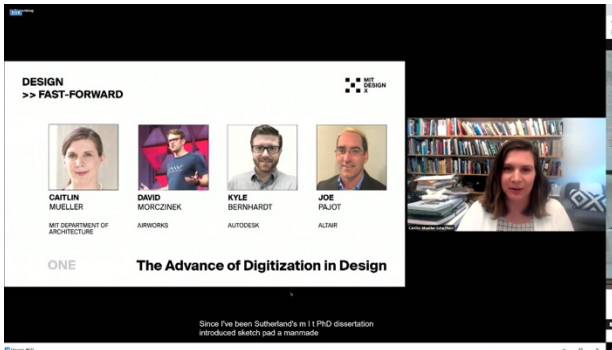


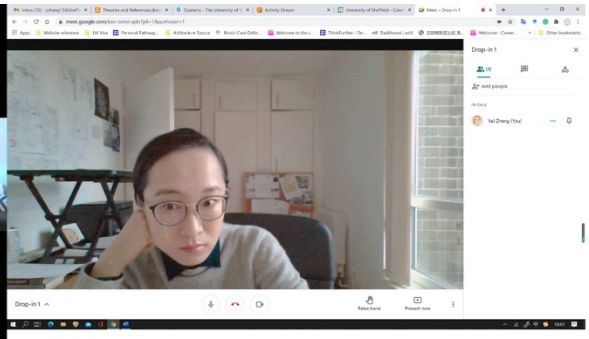

Sustainability in Space and on Earth:
How do we design for just and liberatory futures in complex systems?
Danielle Wood, PhD, Director
Space Enabled Research Group, MIT Media Lab
I hope you hear that word with significance.
It also means I'm constantly asking how


Yali Zhang

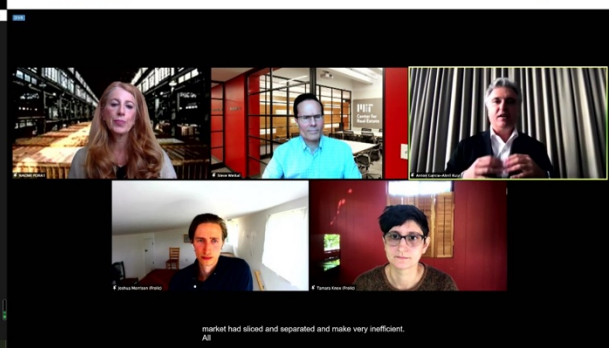

"Posthuman"
Critical P
Cultural P
Philosophical P
POST HUMANISM(S)
① Post-Humanism
② Post-Anthropocentrism
⑥ Post-Dualism
Deconstruction of the HUMAN
www.theposthuman.org

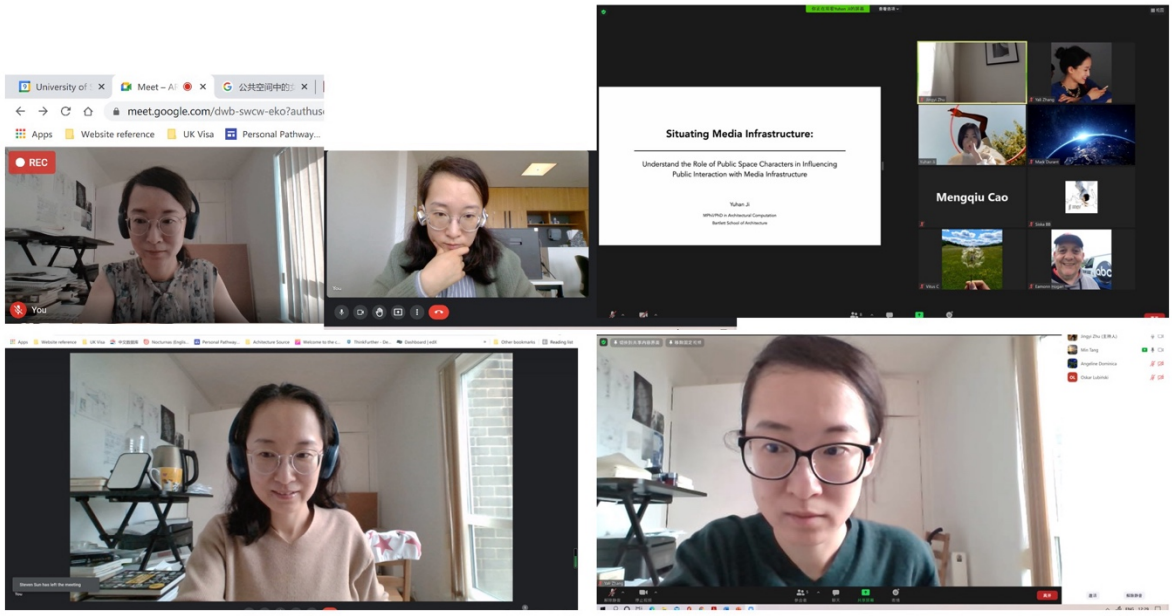


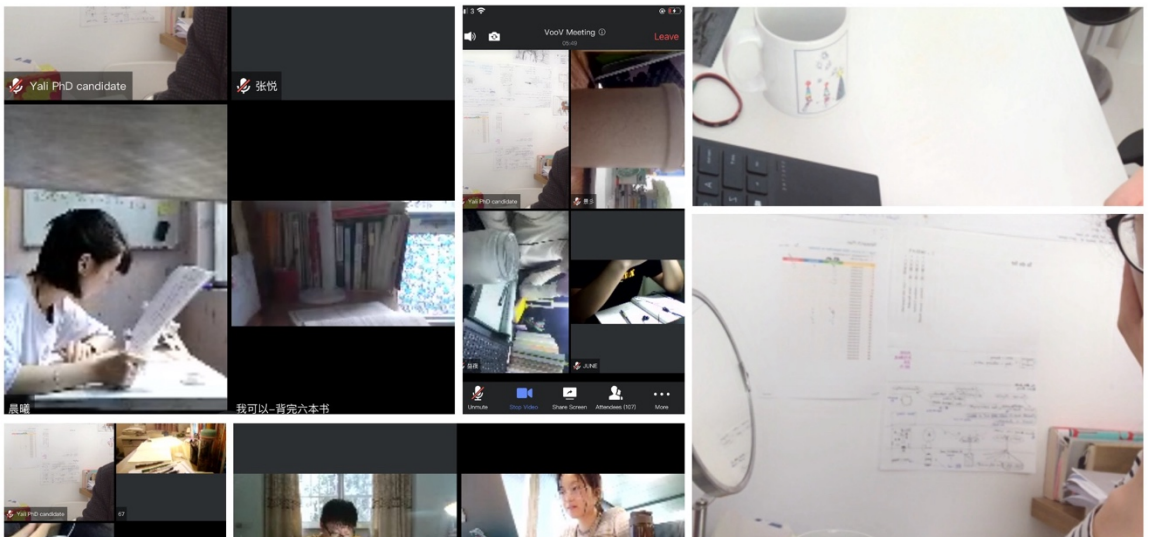

DESIGN
>> FAST-FORWARD
MIT DESIGN X
CAITLIN MUELLER
MIT DEPARTMENT OF ARCHITECTURE
DAVID MORCZINEK
AIRWORKS
KYLE BERNHARDT
AUTODESK
JOE PAJOT
ALTAIR
ONE
The Advance of Digitization in Design
Since I've been Sutherland's m I t PhD dissertation
introduced sketch pad a manmade


Drop-in 1
Add people
Yali Zhang (You)


Yali Zhang


market had sliced and separated and make very inefficient.
All


Apps
Website reference
UK Visa
Personal Pathway...
REC
You
Situating Media Infrastructure:
Understand the Role of Public Space Characters in Influencing Public Interaction with Media Infrastructure
Mengqiu Cao


Yali PhD candidate
张悦
晨曦
我可以一背完六本书
VooV Meeting
Leave

Research Phrase III

Research Journal Transcripts:

Pre-lockdown

Due to the fast spread of Covid-19 within the UK in early 2020, the U.K. government started a lockdown starting from 2020 March extended intermittently until March 2022. I could not remember the relationship between my daughter and me before intensively staying in a two-bedroom flat. According to my diary, I had reflected about spending too little time with my daughter while being physically closer to my mobile with the connection with the outer world. I checked with my phone 4 times every time when I finished my housework, with my earphones connected to my mobile. All of these led my daughter to develop a game to hide my mobile over Five times since the lockdown started. What do I do with my phone? Checking on Email, the news about Covid-19, listening to lectures even in the toilet, the laundry and the kitchen on YouTube or podcast or just wearing earphones to avoid a conversation with Angela.

Within Lockdown

There is always a difficult process along with getting used to staying at home together with a 5 years old little girl, who is 7 years old now by writing this thesis. The 21 days rule has been repeatedly approved by us starting from getting peace to be able to work separately. There are interesting measurements to mark how well we have achieved during this procedure.

- The distance
- The quiet period in time
- The opening and closing of the doors between us

My daughter was always looking for a school-like working mood with a close friend, who is me. We had to sit together in front of the dining table to do everything within half a metre distance in the first few days. Then, I should stay in the kitchen to be able to answer all her needs. After seven to ten days, I would have to stay in my room to give her private space for her online lessons and playing time with her classmates. The quiet time accordingly could be exceeded from almost 3 minutes to almost 30 minutes. She could watch a movie or play with her friend online for hours during my online work after 3 weeks. The door that had been keeping open in the first 10 days was finally allowed to close for 1 to 1.5 hours during my important online meetings.

In the first few days, all the issues came with childcare and work. The difficulties of putting her to bed after staying in the same room during the entire daytime, with the pressure of finishing my workload which required presenting to students within my GTA job. After I tried everything, I could with patience reading, singing, taking bath

and feeding her again, I had to compromise on doing my work in bed to be able to keep her company with little chats.

And the next day, my room was still a mess as it was 5 days ago. Angela's stuff invaded my reading room, my office, where still piled with the late presents we got for Christmas. The nightmare was seeing the boundary blurred from Angela's playground, my messy home and my temple, my working place. When closing the door was not working, I had a new skill which was to adjust the camera angle to the wall. All the stuff on the floor, and the domestic pictures on the wall were excluded though the camera, which transformed me within a tidy, clean and efficient space. Visually Focusing on the screen was the final mission. Once immersed myself into the emails, course briefing, design proposals, it was all calm and fresh. Looking out the window, it did connect with the screen to give me a complete space to refill my messy room. I felt alive again.

Midnight Meeting

One of the madnesses of attending international conferences/meetings is with different time zone issues. I once applied to a conference in China, which was scheduled for 3 a.m. I woke up with an alarm, checked on Angela to make sure she was sleeping comfortably. I quietly boiled the water to get a coffee, took a shower. Throwing myself in front of the desk, with a clear mind, I checked my slide again just got ready 2 minutes before my presentation.

I asked myself, was it worth it to attend midnight meetings sacrificed with my sleep? What if Angela suddenly woke up and cried for a cuddle? The only sure thing during the process was I closed my door to create the threshold from my domestic life. However, I did open a crack to see my daughter to be able to feel the warmth and contents, which ended up leaving the door half open during the remaining session of the conference.

Getting sick

We are sick since last Friday. Waiting for the testing result for covid-19 is quite consuming for me whom single handed taking care of my sick child. It is difficult to manage the daily routes and keep working with a sickness of my own. The two sessions are limited to the participation of a lecture after a lunch reading session for some encouraging talk from other mums.

Today's broadcasting started during the lunchtime reading session for my mum's friends and their children. My daughter hasn't finished her lunch yet. But she is still attracted by conversation. She joined me, and directly reading the books took my position. It went quite well, I also get support from my mum's group of friends, who were very nicely showing their admiration for me and Angela. It is very comfortable to meet with my female friends without tidy-dress and make-up online. With the real state

of heavy cold symptoms, my sound was hoarse by the sore throat, with a lot of nose-blowing moments. But I still managed to read 3 books with Angela. In the end, they opened their video camera and start to chat, which gave me a strong feeling of inclusion. By listening to them and seeing how comfortable and relaxing they are seating beside sofas and tables, I stand up and go fetch a cup of hot water. At the end of the chat, I found my daughter already started reading by herself. It is so much better to keep her in the room without worrying about children adaptions happening in public spaces even within the community gardens in China. It happened so often, even the neighbourhood next to mine had one 6-year-old girl taken by a couple who rent the flat within it 5 days ago.

Attending the lecture

The control of the chat room was narrowed by the new regulation from the University to control the participation and so-called order during the online lecture. By watching the online live channel. It is only limiting my ability to participate after registering with my official ID and linking to my WeChat, then I could discuss the content or raise questions filtered by another chatting software which could not be seen by the speaker. Suddenly, a noise of breaking glasses went into my ear. It was my daughter who dropped a bottle of marbles. I jumped into the living room and found her all right. She gave me a huge one. And I realised I did not pause the lecture. I calm down and cleaned her table and went back to my reading room to continue. A few minutes were gone. It is hard to pick it up from the shock of fear the glasses would hurt my child. So, I had to switch it to my mobile and hold it to make myself tea. It went well just as I hold it to the toilet. Blue tooth and mobile are the extensions of my body. By limiting the visual range of others to me while maintaining the single-sided video communication, it excluded the irrelevance and intentionally hidden life chaos and objectives within my flat. It expanded the public to my private kitchen and bathroom. It felt different from arranging a tv in your bathroom. It is an ongoing public engagement continuing to the private part of my home and the more private sections within my flat. **Too sick to continue.**

It is very nice to see all the good words to show how much the lecture helps the audience and how much they appreciate the speaker giving the lecture by watching the comments panels. You could see occasionally; people agreed with the ideas and how much you agreed with the other audiences. I found the phrase “common sense” could bring so many flavours from different cultures, like in Germany, Britain and in China.

All the Chinese scholars’ cameras were turned off. I don’t know why. You could only hear them talking. It is disgusting to watch the students praise their teacher (Fei Duoyi)’s terrible English pronunciation, which reminds you of the things that happened around me in the physical world. The direct and exaggerated praise could be passed within only limited conversation which is private. It is kind of awkward and wired to

show it in front of all your classmates or colleagues. It is not fair to only focus on the people who are senior to you. But it is high efficiency. It could involve all the diversities within the virtual space.

The invited professor (Tim Williamson) is using his laptop at his convenience by setting the screen quite open, which shows us only one or two-thirds of his head from the top. With occasionally leading and swinging his body forwards and backwards, it is a relaxing way to talk with him. It is quite unusual compared to the lectures held in the hall. People's behaviour is very different from how we know them in person.

Online storytelling event

Staying at home with my daughter cultivated a more sentimental mood with the weather. We like to look outside the window during the evening to listen to the raindrops and wind blowing. A promoted facebook invitation got us to a story-telling event.

In the beginning, I was working in the reading room with Angela playing her piano in the bedroom. When we realised, we were late, Angela rushed into my room, sitting on my lap with a blanket on my head. The hostess was in irish. By inviting us to her family treehouse, she connected us through the same wind and rain outside on a winter evening.

We suddenly felt the sofa bed would be a better place to snuggle together at that moment. We could almost feel the bonfire in her woodhub cast the heavy rain and strong wind outside of the room. The hot drink steams between the teller and the screen with an old-fashioned broom behind her, adding the magical feelings to her story. Angela was climbing around the sofa bed while listening carefully, and got under the blanket when she got scared. My sofa acted as a portal to shift us to a woodhub in the Irish woods during a winter evening.

Spilling Water Incident

A few accidents happened to children unexpectedly along with working at home, leaving a mess and small panic. Spilling water is one of them. Even there with strict rules about where to drink water, only drinking water from water bottles, no water on the studying table and so on, accidents always happen with overwhelming energy and curiosity.

Angela spilled water when I was in a meeting with my research group. A big noise from a glass container that touched the stone paved floor stopped me from talking. I guess everybody in that meeting heard of it and asked me immediately if I needed to check on Angela. She spilled 1 liter of water on the floor from a glass water bottle which was positioned on the kitchen table. It is interesting just to pour the water into smaller cups for her.

It was a mess. Working in the office with organised individual spaces, clean floor, tidy table and neat light makes me awake with the transition from a easter defined mother-child relationship mother to a geographically independent woman in the working place. To be away from the chaos and sweets within the domestic environment balanced myself with better connection with the other part of the world, providing the opportunities to refresh myself to be a better mother.

The boundary between private and public settings is not clear, and it is impossible to build an invisible wall over lockdown policy in one night. I want to hide a lot of things from my public or professional life. My laundry, my daily argy-bargy with family members, my untidy rooms, my half-eating pizza on the table, the unfinished housework in the kitchen and so on. They belong to a small, trivial world which should not be shown in front of people.

There is a fundamental pressure coming from separating the professional lives from the personal matters. Especially to women in China, the society is not ready to see a woman with mother or wife roles in work. Bringing children to work would become a “teaching incident” to me or bad behaviour in the working environment, or be discussed explicitly as incompetent, while to a male it would be a responsible and lovely father.

In China, to be a mother and to be a professional are two parallelled battlefields with their own individual responsibilities and requirements. Working online seems to mix them up with a new pattern of both physical and mental settings. One second, all of me was into the illusion of working behind an office desk, the next second I was fully aware I was at home with my daughter and all the domestic chaos.

So I behaved in a contractional way. The anger to be stopped from full concentration, the worrying about the glasses hurt my daughter, the instinct to run into the other room and the unsettled concerns of professional courtesy in a foreign country as a newcomer rushed into my head within one minute. I felt both frustrated and scared, frozen there until I heard people somewhere online are conforming me by saying it is okay for me to stop and check on Angela, even though I know they are all kind and considerate people.

Once I saw how Angela wet all her toys, books and iPad on the table, I could not stay calm. I told her off and left with her crying. I returned to work with the anger of her not obeying the rules we both agreed on before the meeting. However, the work was not going well. Angela’s crying went through the door and left me all guilty and sad. I started to think about why she spilled the water: maybe she was just trying to refill her cup without disturbing my meeting. The thoughts rush into my head without control. Do I have to stay here for half an hour to finish the session with Angela crying alone?

I went to the living room, carrying Angela on my lap. Cuddling her in my chair and listening to the presentation to the end. We did not talk to each other at all. After 5 minutes, Angela was happy to leave me there and go back to play by herself.

All of the thresholder, boundaries, territories and rules were thin when confronted with the relationship between me, and my daughter, my life partner. To me, the private and public both happen at the same time, if without having to show the other part on the screen. There is always a closed door for the noises and an open door for the cares.

Two Meetings in Two Rooms

The online lesson started quite late after lockdown started in 2019, Angela and I had a few days to wake up after 8.30 in the morning. Therefore, the first day we got back to online working and online classrooms, we were both late. I quickly made breakfast for us, which was an oat-porridge for me and an instant Chinese reviolies for Angela. We put the bowls in front us once we finished eating the entire online session. Angela acted naturally to push the bowl just outside the camera angle. I had to reluctantly put the bowl outside my working area, which left the desk for my notebook with my pen.
I focused on the presentation of the experts in my field for ten minutes. My closed door acted as a sound barrier between the two working spaces. I was quite happy to be able to close the door with cutting-off visual contact with my 6 years old daughter, who would take it quite hard during holidays. I could hear a small volume of the sound of Angela's lessons, the giggles and children's sounds through the door, which assured me with confirmation that she was safe and engaged. It was both a distraction and an insurance to calm my mind for work purposes.

Then suddenly Angela was crying quite loudly for my help. They could not see me properly. Why could they change their rooms? Why can they turn into cats or pirates?...The first hundreds of questions hit me quite hard with the anxiety to get back to my work. I think everyone in the classroom saw my unnatural expression with the efforts on holding my temper. Angle came twice after that with a few tech issues related to google classrooms. I was totally giving up my concentration.

Getting Better with a "Rush Hour" before Ready

Before I noticed we actually symphonised a harmonious pace with each other after 2 weeks. Angela could stay quite peacefully alone in her room with me working in the next room for 1 or 2 hours. One morning, I woke up Angela while preparing breakfast for her, talked with my parents with their new year plan online, brough the festival groceries for them online, talked with the delivery guy, printed Angela's school materials. It is 2 minutes before my working hour. I set up the chatting software for Angela with her friend, rushed back to my room and started the meeting. Then I heard a very unpleasant voice of Angela for having an unsmooth throat. She was struggling with her voice to speak. That's when I broke back to the kitchen, got her hot water with

honey, put it in her water bottle and watched her swallow the water down. With a much clear voice, giggles from the girls, I was satisfied and got back to my desk.

Angela only disturbed me twice to let me help them with a disagreement from their play. I asked her friend's parents to interfere for the next one. When there was 15 minutes to rest, I quickly checked with Angla with her water, homework. I washed my face again to refresh, and had another coffee for the next meeting.

When Angela finished her online playing, she put her “rainbow making lab (a science toy with water and paints)” on the dining table. That was when I concealed the door from closing with the worry of rushing out immediately to clean her mess. I lost half of my concentration from that, which led me to take a lot of notes without thinking through them.

Drama of a Planned Productive Day

The first day of the new academy year (2019-2020), I was fully prepared for having a productive day. I made a schedule for me and my daughter, asked my father to air babysit my daughter online, bought and pre-processed our dinners during the daytime. The genius belief “I can do it" was crushed brutally.

In the morning, Angela had her online lesson which lasted only for 15 minutes. She was able to do her homework with me in the morning. She was happy to bring her lunch to her online play date with grandpa. Three slices of pizza and some stirred Tofu with Chinese cabbages to satisfy Angela’s hunger for tomato and cheese food and to reach the standard for my parents for vegetables and various sources of protein plus a Chinese tradition. So, both of them were quite happy about the lunch menu without complaints.

I was supposed to join a lunchtime seminar online with other PhD students in our school. When my father started playing a traditional Chinese instrument erhu on his side while teaching Angela to duet with piano on her side, the issues appeared. He played a record on his side to demonstrate, and Angela started running around and screaming. With a closed door, I could still hear both of their voices. My screen meeting’s also with the background sounds of the baby crying and people’s walking and having small casual chats. My brain was not ready to process four spaces overlapping with a seminar mind setting. I could relate myself seating in building with Angela running in her bedroom, my father playing his erhu with his background sound from his reading room, next door with my colleague’s newborn baby behind her reading room while with a very thin wall between me and the people walking by or stopping for chatting in a big office.

The anxiety of maintaining a professional conduct at home as a single parent, with a slightly higher standard to survive within male colleagues as a female from Asia has

always plunk my nerve since working from home started. I felt like sitting in the middle of the seesaw. On one side was trying everything I could to concentrate on the other side was worrying about the unpredictable things that may happen to my daughter next door. I could still recall my memory of working in China. No matter how hard I worked, one sentence of “she is a single mother” even came out of a kind of tension that could easily ruin all my efforts. The projection for being incompetent to keep up with other male colleagues, the potential to miss the meetings or be soft when I see things could become a issue before any of them actually happened. I turned to the window, to feel the fresh air from the rain and mud, it was alright again.
On another layer. The anxiety, coming from a mother’s nature, could be easily removed by sending children in good hand with geographical distance from the mothers’ working place to allow a professional conduct at work with knowing the children were most likely healthy and safe. Staying close without providing the care with my own hand takes time for me to get used to.

A Few Vivid Images in My Head

- The “fluffy” Head

The most vivid image in my mind was Angela would secretly crawl in my room hiding from the camera, taught the wall and get under my table, placing her “fluffy head” on my knee to show me her cute funny face.

It is almost a natural thing for her to avoid the camera angles like the shy-hiding-behind when she meets strangers. The constant challenges to the camera scope itself acting as a game for her to play, “Be quiet, not showing myself and successfully draw mummy’s attention”.

- The Hidden Game

The hidden game is the new game invented by Angela to annoy me during my casual meetings with the people she feels comfortable with. She tried to make the minimum movement to be able to hide from the camera from the people on the screen. Or She would try her best to stay in the room quietly for a few minutes to spook us from somewhere in the room. In the end, I had moved my laptop to the standing table to avoid interruptions from her. She would have to stand on a chair to say hi through the camera.

- The Tent and Cave Games to Reading

Angela was mainly talking about the living room as her playground during the lockdown. I used the sofa to cut the room into two sessions, a dining space with the table and chairs and the playground marked with a children rug. Angela successfully redistributed the space as a “campsite” on the floor with the sofa as her storage, the dining table was her desk for online lessons and refreshment. I had helped her to set up the tent with a holder for her iPad on one end of the tent space with a lamp.

I could hear her reading stories in the tent with her friends and playing games related to caves and hiding from nature. A blanket covered small space provides a new room for her with privacy and comforts. Similarly, her friend put a scarf like a door to constitute the under-desk space into her comfort zone, a space they could not even stretch their arms with the imagination flying.

After confirming with the muted sound and turning off the camera, I am relaxed to join the meetings without showing myself. Angela quickly bumped into the room to kiss me and run away.

Half holiday for Angela and Workdays for me

After 3 weeks, Angela could fit her play plans with my working schedule. She was happy to watch YouTube Chinese Cartoons during my lecture hour. She had a late breakfast and was satisfied to move to the sofa to enjoy her movie. I went to my room and closed the door. Once I heard she was complaining about the content of the movie, I invited her to my room. Peter W. Ferrtto's presentation was interesting by explaining the concept of condition architecture with ordinary examples, he successfully engaged a 7 year old girl to his content for half an hour. I almost felt I was in a dream to be connected with Angela through something beyond a mother-daughter blood band. Angela sat on my lap and listened carefully, with her eyes wide opened. When the presentation got deeper, she kissed me and went back to her room to call her friend.

The Door From Scratching it to Hide behind it

Angela could understand her mother was giving a presentation to the audience in front of the screen after another 2 weeks. We had made rules about the manners for asking help from me when I was working. Because I am not confident about her judgement of an emergency, I had made it simple as too bored to get mother to play or getting help from mother for other reasons. The manner would be for her to knock at my door first to ask if she could come in, and standing at the door to ask me the questions. If she had to get close to the screen, she needed to greet everyone then apologise for interrupting in the middle of the meeting.

She did not feel comfortable positioning herself within the camera angle. Therefore, in the beginning, she scratched the door like a cat and mimicked a cat's sound to raise my attention. If I was too concentrated to notice her, she would pretend to be other animals to knock at the door harder with louder wounded moaning sounds. I could not get angry after she did the adorable things to her mother, and started to reflect on the rules I made in the beginning. They were too complicated for her to follow, and we had to step back by simplifying it by standing at the door then asking me to mute myself, closing the camera than talking to her. She was too shy to say hi to any of the people she did not feel like doing so. In that case, the people could only include my supervisors Florian, Emma, Luis and my ELTC teacher Peter. She successfully found the hidden point from the camera but close enough to get my attention, which is the

other side of an opened door. The greeting was changed to “mum, can you mute yourself and turn off the camera, please?”.

“Crawl or Creep forward” and “The fluffy Head”

The next step Angel explored is to creep forward from the door until she reached the end of the room under my desk. She would put her big, fluffy-haired head on my knee to pretend to be stuck between my thigh and the table board, which made me feel both funny and cute in a poor way. It is always a child’s instinct to find a method to catch their mother's heart. She found I was not mad at her at all. Then she developed a route to crawl into my room and play around the table legs and used my table as shelter to her toys and did a lot of games by herself while I was working on my own.

The new playground was suddenly her favourite place with my flat. If she stayed quiet, she could almost dominate the entire room under the camera angle. For most of my online study or lecture learning process, she would be there to hug my leg and make sure I could be distracted every 10 minutes by her funny mime. The play pattern was applied to every room in my flat except the bathroom. She hid under the table, sofa and everywhere she could to spook me by stopping me on my way to somewhere. I had to be careful not to step on her head. There is extra patience and tolerance on her behaviour during the lockdown for me to keep the smile on both of our faces.

The Crab Walk

I could always predict how long Angela would spend time with her work alone. Then if she had a good day, the awarding, asking and speaking rules did not exist in her world. She could act like a hyperactive crab walking on a beach, she would squat on the floor, with bare feet, around the rooms, over the sofa, back on the floor, bouncing on the beds, play her piano by feet and anywhere she could climb again and again. Then she knocked on my door and did her walk around my room, on my piled books, over my chair behind my back and snuggled under the table for a while then left. All I needed to do was close my door and get back to peace after that.

The Concerns and imperfections of Study and Work from Home

Angela needed help to regular her daily routine and study habits from me. However, most of the time, I am struggling to get my work done instead of being with her to help her to concentrate, get quiet, or actually accompany her with her study and piano practice. What I am still struggling with is how to distribute my time from a mother, and the time for my work. I understand if I ignore the problems for her now, it would be there for a long time with her growth. I potentially would damage her future to be able to build my own future in my career, which challenges my values of parenting. I weighed the two futures and realised they were actually only one for both of us. We have been in a life partnership since I gave birth to her. My daughter and I live each other’s life with every second when we are together. I do need to help her at this moment to avoid the unpleasant surprises happening to our future, meanwhile, to

maintain my financial stability and career ability in everyday life. What I needed was not a superwoman or a tiger mother role in my life. We help each other at a certain point to cooperate from a spiritual and material level by expressing love and support.

Getting Angela ready for a late conference

My meeting would start at 17.00 sharp with the connection to people from the USA, Europe and some in China. I had to pick and feed my daughter before it started. On the way there, I bought the bakery she likes, the juice and ice cream, hoping to buy her cooperation. The plan was to have an early tea with her meanwhile to set up a schedule for her to play or work alone from 17.00 to 20.30. I could set up the alarm to help her to regularise the time considering she could read the clock. I immediately felt guilty for not being able to be with her after working hours.

After three weeks of working together with Angela. In the good days, she tried to do her best to cooperate with me for my work and rest. The sweetest moment came one hour after the lecture started when Angela carried her little plastic Ikea chair to my room quietly to join me for a video introduction. The prefabricated structures were designed and made accordingly in the factory, then shifted to the construction site for assembling. It was documented with details and presented beautifully. Angela watched the entire thing then told me she likes what I do and architecture design. The few moments I was truly feeling the miracle of having a daughter who is interested in her mother's field. I think I did not intentionally cultivate her interests in architecture, but indeed she could pick a thing or two for herself during the process of staying with me in this precious year.

The Freedom with Herself

When the evening session went over, it was already dark outside. When I came to the living room, Angela's playground, it was all dark. She hid in the pile of toys and blankets, with countless things I could not recognise covering all over the place, all in the darkness. She started to scream when I turned on the light. I think I could live with the mess for the night after a long working day. The tidying up every day has been deleted from our hygiene standard during lockdown. In the bad days, a mother's duty for me was to prepare three relatively healthy meals a day with a compulsive piano practice for the teacher to check with her progress from weekdays. I could not recognise the fatigue was coming from covid or pure everyday chaos. I switched on the kettle and planned a very late tea. I found myself with a high temperature from playing a pretend game to check on Angela's toys. I grabbed my mobile to book another covid-19 home test kit.

A Both Vulnerable and Strong Moment at Work

After moving into a relatively stable room setting of working at home with Angela, new issues and challenges came with it.

- Setting the Rules
- Drawing territories
- Pushing the Boundaries

A New Escape for Seconds

Working at home with children is a job without off work time. There are moments I would really wish to take a few seconds to shut myself down and enjoy quiet and peace. Looking out the window to focus on the view, the sound of the rain, the leaves of green, red, yellow and brown, the birds singing in the daytime, the bugs singing at night, the colourful and unsettled clouds in the sky. Just for a few seconds, to realise me as an individual instead of a symbiosis complex with my daughter and my flat.

From Everything About Mummy to a Strong Elder Sister

During a lockdown which was longer than half a year, my daughter spent most of her time only with me within a two-bedroom flat. We were working, eating, playing, walking and doing everything together. I realised it could be really difficult for Angela to stay as the only social role of a daughter. No matter how hard I tried, Angela could not experience an equal social relationship as she was before the lockdown in school. She stated to creating everything as a role of me. The drawings of all kinds of cute animals who was wearing mother's glasses because they were all mummies. She played the pretend game with other mothers and daughters. The origami of birds and buildings were all wearing mummy's clothes because they were all mummy as well.

As a single mother, it was always my priority to take care of my child's health both physically and mentally, if I could hold myself together there. I hope Angela could have the opportunity to feel in charge or exceeded me without compromise a mother-daughter relationship. I started to pretend to be her little sister when we were outside for a daily walk. She would lead the road and commend her little sister to do things and listen to her or pretend in trouble to be saved by her. Angela has a little sister, who was 4ish years old, silly and clumsy, always needed the rescue from Angela to be able to get rid of a trap from an evil but idiot kidnapper. Angela was very confident and protective in front of her little sister. Her stories were all a conversion from the books she read earlier that same day.

Pandemic Panic with Families Online

The powerless crying through the invisible lines

The pandemic happened after the Chinese New Year time. When it first started, I was not worrying too much about my parents in China. They were living in North China which was quite far from Wuhan. Very soon, we both realised how scary it could be. The flights between China and the UK are getting too expensive to afford for me to get back with Angela. The physical isolation increased the feeling of powerlessness to me.

I understand it could be a forever goodbye. I saw my mother crying for not being able to spend a hard time together. My father was pacing up and down in the background. I thought about the option of giving up the PhD and went home to take care of them. But I noticed my daughter was talking with her friend online. Her giggles went through the door and infected me. I started to talk about the grocery shopping for them.

They care about the action of I bought things for them more than the things they got. It is a cultural and traditional setting for the spring festival. I quickie switch on the app on my phone did the shopping for them. We talked about what we were going to cook for the festival diner. I moved the talk to my dining table to share the ingredients with them. We started to cook dumplings together like what we did in China.

Calling at Night with Concerns and Pressures

There was one night, I got a call from my cousin, who told me her husband was leaving his will by recording it in the living room. He thought he was going to pass away. His chest felt like a heavy stone, the fears and despair made him cry. And my cousin sister called the ambulances, but they had to wait for a long time to get help from the hospital. She was crying. Her son, husband and herself were all tested positive for covid-19 in the afternoon. Angela was sleeping beside me. I moved to my reading room, start to write down the things she wanted me to know.

The little boy standing at the door, shivering in his blanket. My cousin dried her tears and hugged him. I could not stop my tears on the other side of the video call. I felt we were very far away with the distance even further from the UK to China. The video call passed the pain and pressure as a whole while could not show any comforts like a hug or a kiss. The window of the screen was like a portal for her to send all her expectations on me, her own life experiences, her son's future plan, everything after her life. There was nothing for me to grab, nobody to call. I was only sitting there with my pen to write down what she wanted me to do. The connection felt intangible to me. I hoped there was a line that connected us in between like a telephone line. Or she was next door to me while I was not able to get through. I would go through the door and take the boy to my space any time when she needed me.

After one hour, I saw the paramedics came. They were all been moved to some places. We were out of contact for a few days. They all survived.

Hiding from my Chid

Staying within a flat or a house with a family always comes with privacy issues from other family members. For me, one of the most difficult was to hide my tears from my daughter. I hid the tears and pressures of my divorce successfully from her by hiding it to the half an hour staying in my car before getting home. But what could I do to hide my anxiety and worrying about the thought of losing my family again from her? I was on the edge of crying in front of Angela every moment when I saw her. I could close

the door, but whenever I was alone and get ready to cry, Angela could feel that and knocked into the reading room to give me a hug. The door was not again to constitute a complete space for my own, it is a sign to show my vulnerability to my daughter. I told her there was nothing to be worried about. I will always be there for her. Grandparents will be there safe and healthy.

When it was getting late and dark, Angela would have to hold me to fall asleep. I knew it was the atmosphere I created by falling into silence during the daytime or have to check with the news on the screen, listening to the scientific explanations about the pandemics, these were not easy to hide or avoid. For a long period of time, the best I could do was to smile at her, reading stories, or watching cartoons with her. It was the little gap between them which were impossible to conceal. The space opened like an empty plan spatially. It only provided another layer with time, when Angela fell asleep. I could cry quietly beside her or close the door to bury my whimper into my diary. The room was quiet, dark and peaceful belonging to me.

Tough Festival Time

The Chinese Spring Festival holiday is a week in China, which is the weekdays for me in the UK. I hadn't made any big preparations for it. After a few online talks about cultural education from my parents. I decided to make them happier by trying to celebrate it with my own mini version. The first thing I did was to set the camera (my iPad) to a certain angle to draw the scale of my working site. I was putting the Chinese decorations I collected through the times in the UK within the camera range to make the background festive. Then, it was Angela I need to work on. She was forced to put on a red sweater with red ribbons on her head, with a mini-sized lion dance poppet in her hand.

In the beginning, Angela did not get the meaning for me to set the corner like this with other parts in the room remaining the same. She realised it was her staged scene to spend her Chinese festivals with her grandparents after she saw herself on the screen. Then she was satisfied playing within in the corner for a few minutes and started to carry the iPad all over the room to play her games with grandpa.

The next day, I rearranged the room to the old look. The festival was moved to the dining table. I had to use the clearer of the limited indoor space to rest my mind. The exhibition festive atmosphere focused on the food theme. I made different Chinese food, with the preparing, cooking and eating procedures all with them. We chat and laugh with the old memories of my grandparents. The family and culture tradition was oddly passed by through a little screen.

Playing Online with Friends Internationally

We set up our own territory quite smoothly when we were both occupied by online social interactions. Angela usually would take the living room, part of the main

bedroom with her piano, I would usually stay in my reading room which was converted from Angela's bedroom, the other part of the main bedroom to position the clotheshorse and kitchen.

In the beginning, I would assume the feeling could relate to sitting with a hot drink watching children playing in the playground. However, the situation actually was like I am working in my office, meanwhile, Angela was quite engaging with playing all different kinds of games by using all she could in the living room, with her friends from 3 countries, which were the UK, South Korean, Saudi Arabia.

Meeting Old Friend Talk

Relax, worrying, talking about bodies, showing the room of my working in and living in Making Tea and Having Food Together Online

I scheduled a meeting with my flatmates during the undergraduate period. We arrived on time even a little bit earlier considering we all were looking forward to meeting each other after we settled in different places. The lockdown seems to provide more possibilities to meet people we usually wouldn't have planned to meet in person. I know it was going to be a relaxing, happy talk among the three of us. When the meeting started, we all decided to grab the snacks, boil the water and make ourselves comfortable like we were meeting in a cafe to make after arriving. The second action is to stand away from the camera for others to see the whole picture of each of us under the topic of getting fit and gaining weight since we last met. Cao was still in her office; she hid in the kitchen and could not hold her voice down from the exciting mood. The new way of getting together does not count the distance as an obstacle for the first time. I was staying in my home office (which was my reading room). Cao was in a kitchen shared by different companies within the same building. And Zhe was in her living room of her flat in Jinan.

An Online Meeting between Two Mother

With Angle sleeping in another room, I had two choices to wake her up with a long process to get her ready to play, or I could start my talk with my previous colleague straight away with a harder time later when putting her to bed at night. I thought my energy could only support me to choose an easy time.

I saw my friend wearing casual clothes with light make-up on her face, sitting in her corridor to leave her room for her daughter alone as well. It could not be more perfect to be able to talk when both our daughters were sleeping without any concerns and distractions. We giggled like little girls and made ourselves tea and coffee on both sides and started our conversation.

She talked about the difficulty of work online at home with enormous amounts of distraction from her little daughter who was just 2 years old. Her concern about

bringing her daughter outside to the community garden or shopping mall for losing her immediately caused a distraction in Jinan (a provincial capital city in Shandong, North China). I could relate my feelings to her by sharing memories from when I was growing up and worked there. There was just a child-kidnapping case that happened in her neighbourhood, which is the high-end community there. The criminals rent the property just to kidnap the children for human trafficking 2 days ago before the meeting. She shared her fear and suggestions with me. We had to make sure there are always more than 2 people with a toddler outside the home. The fears and concerns with online or physical public spaces to females are always there, especially for mothers.

Family Drama

The video call has significant differences from the audio call was the powerful video picture delivered the information could come first to dominate your mind immediately instead of having to only listen to what had happened. I got my female friend's video call at the weekend. She looked like a skeleton on the screen. She told me calmly she had just been through surgery and her family was in an ongoing crisis. I was immediately burst into tears at her sad position. She told me an old notorious family affair happened to her of a cheating husband who wanted to marry his mistress and giving up his children and wife. The anger and empathy crushed my head, with her crying on the other side worrying about telling other relatives and friends with shame for herself. I did not know what was going on. But Angela actually hid behind the door and listened to the entire thing without saying anything. She was going to tell me her meeting with her friend was over.

I had difficulty thinking about who I should talk with first. My daughter beside me who seemed okay or my friend who on the screen who was almost devastated. Angela asked me who she was and left the room. I was worried about how she would be hurt from her memories to her father. I knew she would stay there to listen. The conversation was quite formal and expanded to a bigger question about how to care for herself and the child instead of worrying about others' faults. I found it easier to talk to someone hurt in the same way as talk to children. Staying at home with children kept me alert to always treat others with politeness and care as I behaviour in front or towards them. The care calmed my friend through the screen and eased the nerve of my daughter through the door.

Online Streaming (Meeting and Study Together) with Two Children at Home

Splash

Angela's support bubble group friend Minju is from South Korea. During the lockdown, they occasionally play in each other's houses. When Minju was here, I had two girls the same age to entertain with. In the beginning, I expected them to play with each other within a controlled environment, my flat. Therefore, I could have some alone time to work. The worst scenario was for me to be there with them playing together. I brought out the games, the toys, the snacks and beverages. I retreated to my reading

room, (which was Angela's bedroom), closed the door, calmed down and opened the books.

They started to reorganise the living room, bedroom and bathroom into a continuous playground. I told myself to focus on my own work and gave them the liberty until I heard the "splash" through the closed door. I was joining a writing retreat online with my camera off due to my low confidence to stay for long. I guess it is the signal to intervene in their water games. The bathroom was already a mess when I arrived, they left a thin layer of water within ten minutes, which I could only use dry towels to clear. I got back to my desk and everybody online started to chat with each other about how much they had done for the 45 minutes. They sound calm, satisfied with their writing. I was on the edge of getting anxious and giving up. Again, I told myself, "they learnt the lesson. they will be safe. They are at home. and I need to type out 5 hundred words this morning."

After 15 minutes, I rushed to the bathroom from a loud noise from pouring water to the ground. They two were totally soaked in the babbling water. I had to take a few breaths to stop myself from getting angry. I asked them to the bedrooms, changed their clothes, socks, dried their long hair and told them off for not following the rules. Turned off my laptop, moved my books to the living room to stay with them.

Bubble space

After a few days of staying together, the girls understood where my boundaries were and how I could be angry with them if they played with the water again. I actually was invited to my reading room by them with a promise of peaceful play and good behaviour by supervising each other by themselves.

I found setting up a working space at home was not like simply drawing a line or closing a door. The space was not within the bigger space. It was like bath bubbles, crushed together, pushed together, and hardly could be separated. They popped up and formed into a bigger sphere. My online meeting has just started. After I typed hi to the chat board, I saw two drawings on the floor on my door. I quickly balanced my time from talking to them with more surprises following that to staying there for the keynote speech I was looking forward to. The decision was quite right, I got lucky to stay for most of the speech.

It is impossible and cruel to urge their nature from jumping, laughing or running around in a flat. The half-day was much easier by joining them to chase outside with an exchange for reading quietly indoors before dinner. Once the energy was spent, they lay side by side on the sofa reading their books together. The rooms in functions were reorganised spatially and timely. My laptop and I were within the little bubble within the huge playground of my flat.

From “Staged” to “Making Believe Game”

In the late lockdown time, Angle and I could stay in our own territories and focus on different things separately for a while. I was watching “staged” on my laptop. With David Tenant and Micheal Sheen doing audio calls to each other, my screen was showing like I was in a meeting with both of them online at that moment. Angela bounced herself into my room and saw the screen. She suddenly stopped there and said, “I am sorry for interrupting your meeting, I will let myself out. Have a nice day”. I laughed and paused the show. She realised she was tricked. She got very excited and said,” mum could fake your meeting anytime to me now”. I was thinking, the “staged” could mean the scene or conventionally staged background could be not only relating but also replacing or providing an alternate setting as a third place.

Angle found the treasure and called her friend immediately to play the game. She tried every background our flat could provide, tired lying in a paper box, hiding in the wardrobe, and under the blanket, standing on the heating machine, talking in the tub. I guess her friends also had fun. They related the scene with the stories and myths they ever read and learnt in school. Dressed themselves up with all the materials they could find at home. The game was quite engaged with the playing for almost weeklong. I think we both developed a new understanding of our flat, the walls, the corners, the different pavement in each room and the under- space all over the room. I took the one above the table, she enjoyed the ones below the windowsills.

Until one day, she saw a YouTuber magician talking about perspective. Suddenly, the small toy furniture and toys became the main character to speak for them. I found the pretend game had been improved and updated to another level quite easily with the children. Play is a fascinating thing to respond to new technology and connect it to everyday life experiences.

Work Stories

It was 5 minutes late. I saw a few people were already there for the class, I was one of the late. We saw the presenter struggling to put the slides on one page. Took the chance to get us familiar with the previous pages. That’s when everybody realised, we were all in control of the same slide, that’s why the slide kept moving. The system of Blackboard is different from google meet.

The Empty Room

I found myself alone in the set-up of the online tutorial room. The blizzard feeling came from the unfamiliar interface of the screen to connect my private home to a public drop-in class. When there was only me in the room, it remained entirely private with the prepared startled transformation by someone’s sudden appearance. There is a clear contrast between the private settings of my stuff all over the place and a framed public accessible space that welcome the students to come. I turned off the camera and the microphone just to read again the module brief.

Mirror and the Checking Out Point

I did put a mirror aside of my screen to check my looks all the time even though I could see myself in the camera. There are a lot of my friends doing the same thing who wouldn't check the mirror or even carry a mirror in the office before lockdown. I used the mirror to check on my hair and my makeup. The camera seemed to flated my Asian face to a whiteboard. Without highlight my five senses, my expressions are harder to read compared to a face-to-face meeting. The mirror is a checking point for delivering the right imagines according to personal preferences.

For most of the software, there is another designed checking point before you entering the sharing meeting. You could use the room to check for more information. It acts like a mirror to check on myself. Furthermore, it helps me to check everything on my screen. Everything within the scope of the camera to show the audiences. I always came five minutes early to "stage" my room with only neutral objects related to the office environment to show in front of people for work. I carefully removed the bright coloured objects, tidied up the things on my floor which would show in the background, closed a lot of books and prints I was reading. Also, I prepared the handy things on my desk which wouldn't be seen on the camera like the mugs, pen, notebooks, lip balms and tissues. I used a red light to change the tone and the brightness of myself if the sky was not light enough.

The effort I did, in the beginning, was to get used to looking at myself all the time on the screen. However, with a few suggestions about information delivery related to facial expressions and eye contact requirements, I purchased the LED light with a computer holder to lift my laptop to make sure my eyes stay in the same line with the camera. My private home was once again transformed acting as part of the classroom for tutorials, part of a lecture hall for presentations, a part of a cafe to meet friends, a family table to hold dinner with my relatives, and a playground for Angela to play with her classmates. Instead of a door, the camera acts like a threshold allowing the transformation within a second.

Be in Three Online Space at the Same Time

At the beginning of the lockdown, the universities have moved the old teaching schedules online within 2 weeks. After a few arrangements, I had scheduled a tutorial with three online rooms which were moved according to the previous plan to have me and the other 2 tutors go around three tables to answer questions with 3 groups with different research topics. Before the updated function to set up group meetings within a big meeting, the only way is to open 3 meeting rooms at the same time for all the tutors.

The three tutorials were three tabs on my web pages. I felt the students could not have their usual discussion in front of me sitting there, focusing on one of the groups to listen to their conversation through their microphone. They felt the distance between

them equalled with the distance between them and me. And anyone who talked with me would draw the full attention of the whole class in a big hall. For a long time, all of them remains uncomfortable silent. The online meeting room does not equal a three-dimensional room. It is a flat structure of one to many. Until the last minutes of the tutorial, we all click the little cross all almost the same time.

Being in Two Online Places at the Same Time

I tried to be more thorough about my own workload and keeping a good relationship with my colleagues when I was working at home. It was the little chat and small greeting I really missing since I moved back home. The meetings could be easier fit in with timetable. But the unplanned meet around the working places with a few words passing the warmth, care, the listening and small complain, and smiles fitted among the meetings acting as a necessary distraction to flavour the inert working pace. Most of the time, I needed my colleague to see my name in the meeting as the support, even though I could not fully understand her or his research.

It happened by a mistake, I accidentally scheduled two meetings around the same time. I needed to be in writing activity with my colleagues and an important lecture to my research. I was struggling to say no to any of the events. Therefore, I muted the writing up activity with the camera on, with my attention fully on the lecture content.

The feeling was quite unusual to me by then. On one hand, I enjoyed the accompany from my friends in the writing group. At the same time, I worked on my own. It was similar to the experience of working in my office. We worked individually while staying in the same physical location. I presented myself by exposing my face in front of the camera to show in the screen for my friends, while my mind presented in the lecture, a public lecture hall in New York City. There was another link that always connecting to my mind was my daughter, who was playing in the next room.

Webpage or Zoom?

I got a chance to participate in a meeting with two-star design studios (Atelier Bow-Wow and MVRDV) in the architecture field. They provided two ways to join the meeting, zoom and webpage. The webpage was under control like a broadcasting interface with a chatting box next to the screen. The zoom could allow you to join the meeting like a peer by showing your face next to the presenters with better communication alongside the meeting preceding. They actually provided two different structures to us. The first one showing a top-down pattern, with the host on the top, the presenters below them, and other audiences at the bottom. The zoom allowed a flat structure, controlled by the host while reserved the possibility for the participants to join with the same function granted. I only asked two questions in the end by typing them on the chatting box. Angela showed them her own dog's house design and got a very positive response. Working at home through the internet on this case did provide care both to me and my daughter.

A Super Strict Host and The Lousy Audience

I participated in an online event that I was looking forward to for a long time. The host started the meeting by asking us to check with the version of zoom to make sure we could use all the functions that day. I saw most people turned off the camera and be silent. I went to get a tea. About 5 minutes, When I was back. We relocated into smaller groups to discuss a pointed topic with the mission of making a page of the slides. One of our group members passed this information to us. We started to chat about little things that happened in the morning. I assumed we all treated the event as a casual activity for different reasons considering it was called a “no boundary” activity for women in academics. I started to see the host spoke seriously about the big feminist topics, while the audience chatting, laughing with joy to know new people from different backgrounds. The eagerness to communicate during lockdown overcomes the reflection on a series of rigour topics worldwide.

In the group meeting, one of us wanted to finish her breakfast. She mentioned switching off her camera. With all the others stopped her by showing their snacks on their side, I felt the joys from informally meeting with people, which I missed for a long time. The annoying thing would be the redistribution happened too soon, which did not leave enough time for us to say goodbye to each other or leave a contact for later.

No Corner to Shy People

The online meeting space revealed everyone in an equal position. When you felt shy and not feeling like talking in front of people, it was going to become a problem. During the group meeting, there was a girl who was comfortable to talk. She was the only one who kept her camera off with muted audio setting. It was obvious to others on the screen of her rejection gesture. But it could be easier for her to hide behind people or staying the distance from the centre of the discussion. We wanted to give the space and respect her by telling her it was okay to stay only listening to us. Online meeting room does not provide the space with distance and varieties for diverse requirements.

The Excitement of Space Traveling

Some of the meetings with the participants who came from different continents raised excitement to the audiences by showing more environment of surroundings, the unique landscape or a few interruptions of the sounds from people aside or outside windows. I participated in a meeting holding by Nanjing University. During a casual introduction, the presenters actually show us their places and the things outside the window. The relatively directed feelings of seeing the nights and days at the same time, the chaotic traffic from New York City, the peaceful view in Cambridgeshire, the classroom in Nanjing University increased the immersion of the meeting. Suddenly, the sound of my neighbour’s sons coming back from school drove me back to my flat. I looked into the sunflowers on my windowsill. Outside the birds flew from one side to the other to feed their chicks. Then the meeting started.

How to Whisper During Online Meeting

We sometimes did whisper during a meeting, to apologise for being late, asking other people for help or just saying hello to an old friend who hadn't met for a long time. I fully understood it could be annoying to others. But people are people. I found it was much easier to talk during an online meeting as an audience. We just need to use WhatsApp or Wechat to type to our friends who were participating in the same meeting. The late audiences name would appear on the screen obviously for most of the online sessions. There was no place to tiptoed without drawing attention to online meetings. You could type sorry on the chatting board later. The tiny human interactions were erased at the scene by serious words which do not involve smiling or pout.

We had a new way to take notes on online meetings, which was to click on "prt sc" then copy the screenshot to any editing software files. I could see the students in the classrooms were holding their phones to take pictures of the screen or write things down in a traditional way.

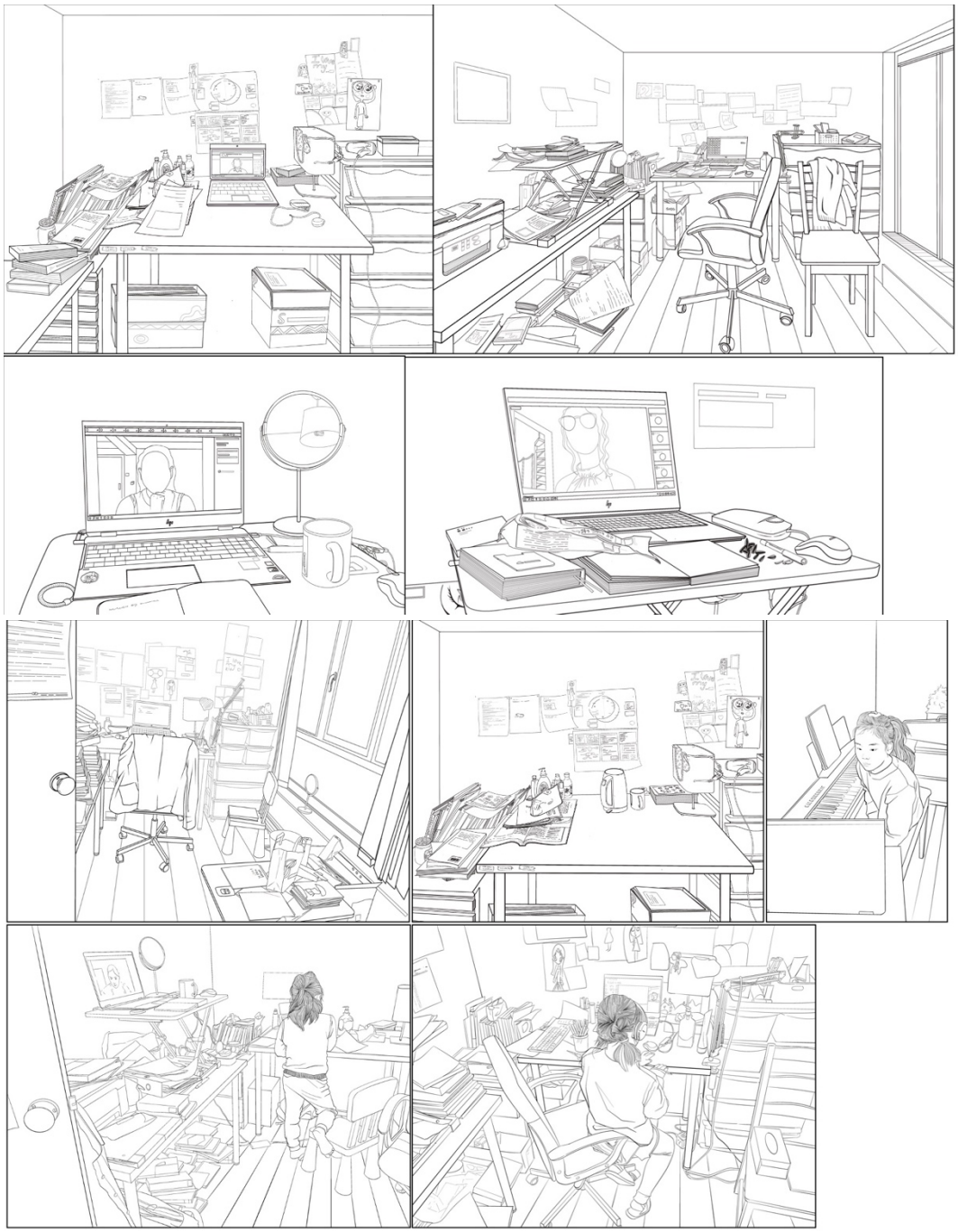
A Bad Peer Review

One of the strange things we did during lockdown was to attend a peer review session. In front of the other peers who were in the same or even worse situations with me, talking about the work, which was far behind the schedule, seeing the bereft of control both in their life and their research made me terrified. The feelings of losing more and self-doubts grew faster from the spreading of all kinds of anxieties.

I was having a meeting with other peer researchers. The time was scheduled crushed with my lunch break. When I joined the meeting, I was holding a bowl of instant noodles in front of my laptop. I adjusted the camera just to avoid showing my disorganised table. One of the researchers who I just met for the first time talked about her delayed work with a shaking voice, she could not be confident enough to present anything without changing her sightlines. When everyone was concentrating on her shared slides, I switched off my camera and took the chance to finish my lunch. Sadly, the host asked me to give a comment on her work. I was feeling bad for her situation and could not think out anything that would be appropriate to say at that moment. I asked, "how are you?" instead. It led her to tell more about her personal life, which was really hard for me to respond to. I had nodded and thanked her for hanging there. The hardest moment was past.

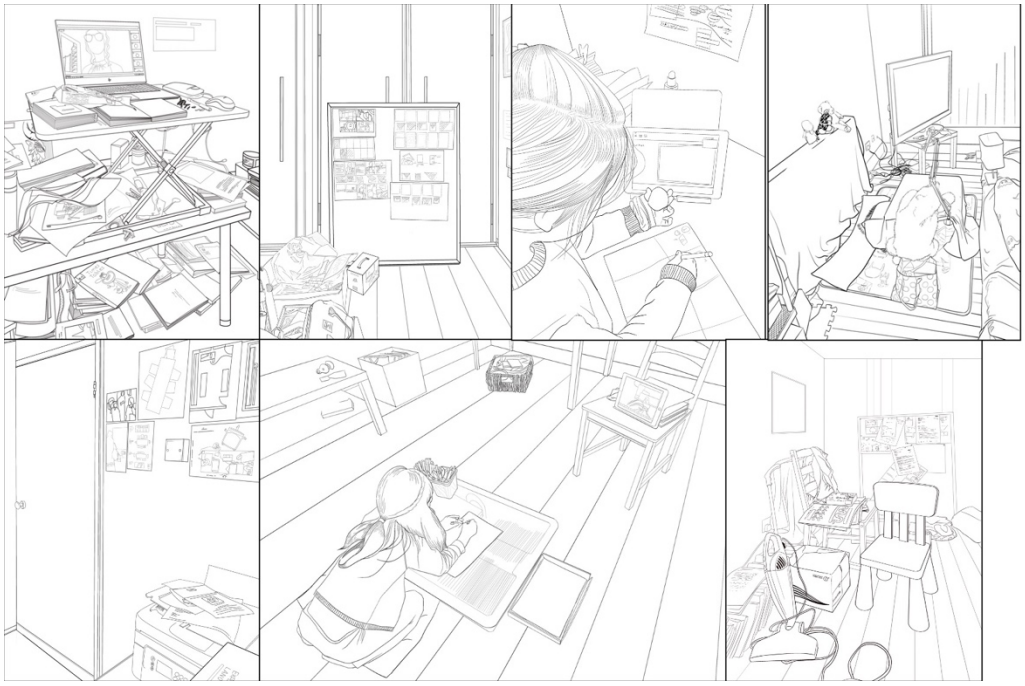
I did a few things to make myself feel better, including muting the meeting, listening to some music, resting my mind outside the window. After a few minutes, I closed the meeting and went to play with Angela.

Hands drawings




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