



**Speculating
Wedding Futures
in China
Cultural Design
in Theory and Practise**

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UNIVERSITY OF
LIVERPOOL

**Speculating Wedding Futures in China
Cultural Design in Theory and Practise**

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of the University of Liverpool for the degree of
Doctor in Philosophy

By

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Preface

Personal Motivation

Thesis Structure

Acknowledgements

XJTLU and University of Liverpool

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Collaborations

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Participants

I would like to thank all the participants of this research, both as designers and as audiences, for their contribution to the design projects out of this research. The designer participants contributed to the design research, concepts, and deliveries of the projects, while the audience participants offered their comments and critiques on those projects. The knowledge and cultural input from the participants were diverse and inspiring, which provided valuable research data.

Family and friends

Finally, I would like to offer my deepest gratitude to my family and friends, for their long time accompanying and supporting me before and during my PhD time. Special thanks to my boyfriend, who became my husband during my PhD, offered unlimited emotional support (and also research resources as we got married) to me. Love you.

Abstract

This PhD research explores the intersection of culture and design, taking wedding culture, one of the most significant family events in China, as an exemplary case study. Design is widely interpreted as a kind of cultural activity. The mainstream design, where most existing research at the intersection of culture and design investigates, often tries to solve problems and design products/services that fit into the current cultural landscape, namely design for culture. Rather than looking at this project through the lens of a design-for-culture approach, research focus has been paid to cultural design, which tries to critically visualise potential social-cultural issues and to pose questions, inspire discussions and nudge cultural changes at large. This is because it is tricky to stimulate design innovation for cultural rituals, especially when trying to change or solve the problems caused by so-called “traditions”. The main goals of this thesis include exploring how the cultural components of weddings in China are investigated and integrated into cultural design practises and what the interactions of culture and design within cultural design practises are.

This project is rooted in the practice of participatory ethnography for design and fits within the overall framework of Constructive Design Research. Following a qualitative research strategy, thirteen cultural design projects under the topic of wedding culture in China are conducted, and the process is recorded and analysed to approach findings. The findings of this research lie in three levels. At the practical level, twelve projects are presented to describe what the cultural design projects are that take marriage culture in China as the design topic. Based on that, at the methodological level, a guideline entitled Speculative Ethnography, a cultural framework, and some techniques are presented to explain how the cultural design projects are conducted and communicated, as well as how wedding culture in China is investigated and integrated with this process. Culture is integrated into the speculated future following the investigation of the past and present in layers of Cultural Cognition (with three layers of Artefacts and behaviour, Meanings and values, and Basic assumptions) and Cultural Environment. Finally, at the theoretical level, the interactions of culture and design within cultural design are examined to analyse why those projects are conducted in that way. It has been interpreted as speculative cultural intermediaries that transform cultural meanings in four stages. The novelty of findings includes extending and adapting the theories and methods in the design for culture category into the cultural design, as well as providing a culture-centred perspective instead of the technology-centred perspective as most cultural design genres do. This research will benefit design students to apply the proposed guideline, framework and techniques to integrate culture in layers when conducting cultural design projects. Cultural design is proposed as a knowledge source to encourage cultural design practise in design education in China. It will also contribute to inspiring researchers at the intersection of design studies and cultural studies to explore more theories and methods in this field.

Personal Motivation

This PhD research is embedded in a research project entitled *Suzhou's Tiger Hill Wedding Street: Modernity, Material Culture, and Bridal Fashion*, funded by XI'an Jiaotong-liverpool University (XJTLU) Research Development Fund (RDF). The main aim of this RDF project is to explore the trajectory of modern wedding culture in Suzhou by examining the material culture related to weddings, taking Suzhou's *hu qiu* (Tiger Hill) wedding market as the specific space. My own involvement, as a PhD student with a design background, is to examine how those cultural components affect the design theory and practises of wedding trends, and vice-versa. Being exposed to such a huge amount of cultural resources, how to take advantage of them in design? As both a Chinese citizen and a designer with an international education background, I quickly defined design opportunities related to the wedding culture from two perspectives based on my undergraduate and postgraduate experience previous to this PhD project. I received my Bachelor's degree of Industrial Design from a Chinese university where design was defined as solutions to problems in a general sense, or as categorised in this research as "design for culture". Under this ideology of design, opportunities in terms of Chinese wedding culture were defined to deal with the problems people encounter during the rituals, for instance, a multifunctional wedding dress that is able to change its shape to satisfy the bride in all the ritual scenarios, or a online to offline platform to buy (for the customers) and sell (for the merchants) products from Tiger Hill Bridal City. Some traditional Chinese elements might be integrated in the designed artefacts such as the red colour scheme and the *shuang xi* (double happiness) pattern. The aims of solving problems through design can also be expanded beyond commercial profits to societal goodness, such as sustainable design of the wedding dress to solve the problem of pollution caused by dress production and disposal. Alongside the design for culture, I was exposed to critical and speculative design during my postgraduate study in the UK, where design is utilised as a tool to pose questions for public discussions and debates instead of solving problems. For instance I would like to question "are the *pin li* (bride price) and *jia zhuang* (dowry) necessary in modern society", "what is the modern meaning of a wedding ceremony for new couples". The outcomes of critical and speculative design are not for the convenience or demands of the wedding-related stakeholders but to challenge the components that seem to be the conventional social norms or regulations.

My research interest is beyond design for culture but in design speculation, or as categorised in this research as "cultural design", as many "problems" within the wedding culture context have a strong link with the so-called "traditions" that are

tricky to solve. Many of the problems resulted from the contradictions of marriage values between generations and individual backgrounds. For instance, when I planned to get married with my fiancé, my parents insisted that his parents have to visit mine as a prerequisite to show their “sincerity”, as indicated in one of the marriage etiquettes. They think this is a basic etiquette in Chinese tradition, and nearly all people around them follow this tradition. I personally cannot agree with them, however, cannot persuade them or solve this problem either. I expect something or someone to change my parents, or to say, change the cultural custom. In the past four decades China has experienced transformations of the economic system since the reform and opening, and these transformations bring forth dramatic social and cultural changes. The country has embraced technological change on a wide scale, as part of its economic growth and transformation, exemplified by the rapid pace and adoption of Quick Response code (QR code) payments via apps such as Alipay and WeChat. While cultural changes are often noted as requiring a long-term outlook, in the case of China, it is almost paradoxical that a nation which prides itself on its millennia-long history has also been so open to new forms of design and technology solutions infiltrating the rituals of everyday life. In terms of the marriage rituals in China, The government played an important role in changing the tradition, one example is the Ministry of Civil Affairs promoted reform of marriage customs to advocate simple and proper marriage etiquettes (CCTV News, 2018). Design and technology solutions have brought changes to some extent as well, such as the replacement of paper wedding invitations by electronic ones. Could cultural design inform changes to the wedding traditions? If so, how?

Thesis Structure

Integrating my motivations the initial research inquiry of this thesis is: **How can culture inform wedding-related (cultural) design and how can (cultural) design have an impact on wedding culture?** With this question in mind, this thesis will present a culture-centred design approach which tries to visualise potential cultural issues and pose questions for the society at large by illustrating speculative future scenarios and gathering feedback through design communication. This approach tends to help cultural designers to integrate cultural resources in the designing process, at the same time communicate their design projects with broader audiences. The novelty of this approach includes its culture-centred perspective focusing on integrating culture in the cultural design practises, while most existing approaches try to integrate culture into the design for culture domain, and most

cultural design approaches take a technology-centred perspective. Meanwhile, this thesis will examine the interaction between culture and design within this cultural design approach, which is widely examined within the design for culture. Taking wedding culture in China as a case study, this thesis will also investigate culture and cultural design in the Chinese context, which lacks attention in the previous research. Therefore this thesis intends to benefit two groups of readers: first, cultural design practitioners and students who would like to communicate culture in China through their projects; and second, design educators and researchers who work within the culture and (cultural) design and are curious about the cultural design culture in China, to inspire more research in theories and practises. In order to outline and validate this approach and outline its contributions, this thesis is divided into the following Parts and Chapters (also see Figure 1).

Part I will investigate research gaps, objectives, and questions based on contextual review and exploratory research. Chapter 1 will present the overall research context by summarising the development of marriage rituals in China and taking the Tiger Hill wedding market area in Suzhou as the main site. Marriage rituals in China have developed from the traditional Six Etiquettes to a combination of this and Western church wedding customs throughout history, with cultural meanings and symbols changed as well. Chapter 2 will link the cultural resources displayed in chapter 1 to the field of design by reviewing how culture and design interact with each other in a broad sense. A particular emphasis will be focused on existing cultural design theories and practises. The interaction of culture and design in the Chinese context will also be explored. Chapter 3 will describe the exploratory research in which a wedding-related speculative design (as one cultural design approach) has been conducted and examined in the Chinese context. Combining reviews of both research context and existing literature in chapters 1 and 2, as well as the reflection of the exploratory research in chapter 3, the research gaps will be clarified, and research objectives and questions will be outlined.

With regard to the research questions, Part II will present the research methodology, process, results, and findings. Chapter 4 will provide the methodological framework for this research and the research process guided by it. Within the overall framework of research for, through, and about design, constructive design research, qualitative research strategy, data collection process, and validation strategy of this research will be clarified. Chapters 5-7 will present research results and findings in three scales and perspectives, with data selection and analysis being explained in due course. Chapter 5 will introduce the research result at the practical level and present cultural design in practise, where twelve design projects conducted during this research project will be described and discussed to present *what* the cultural projects are. Focusing on the designing process of each project presented in chapter 5, chapter 6 will display findings at the

methodological level to display *how* these cultural design projects are conducted. Design for the Speculative Future (DSF) as one approach for cultural design will be conceptualised, as well as a guideline, a cultural framework and some techniques for it will be provided. Chapter 7 will pay attention to the theoretical level and present an analysis on the interaction mechanism of culture and design within DSF, which will explain *why* these cultural design projects are conducted in that way. Chapters 6 and 7 both will take design projects presented in Chapter 5 as the data source. Combining chapters 5, 6, and 7, the cultural design approach, DSF and its tool, framework and communications techniques will be validated with reference to the validation strategy introduced in chapter 4.

This thesis is concluded in Part III where the research project will be summarised. Chapter 8 will respond to all the research questions, reflect on the limitations and emphasise the research novelty and contributions. The research illustrates the interaction of cultural design and culture in the Chinese context through the lens of how wedding culture informs cultural design and how cultural design has an impact on wedding culture. The findings extend and adapt theories and methods from design for culture to cultural design, from a technology-centered to a culture-centred cultural design perspective, and from the Western context to the Chinese context.

This thesis displays the general wedding culture at the national level to display how marriage rituals and weddings are practised in China despite geographical and individual differences. Several specific case studies are displayed to represent the general wedding culture in China (Yin, 2014), which later becomes the topic for design projects. When describing wedding culture in China, a large number of Chinese characters, terms and colloquialisms are mentioned, as the local language is one significant cultural component. In this thesis, the Chinese terms and colloquialisms are first presented as *pin yin*, followed by an English translation or description in brackets to explain their cultural meanings. Ancient prose is also included when describing the history of the cultural components, however might share the same English translation with the modern Chinese language. Therefore, if the English translation is widely recognised and has only one corresponding Chinese term, that Chinese term will be presented in English only after its first presentation. When a Chinese term, usually the colloquialism and ancient prose, is tricky to be accurately translated or shares the same translation with modern Chinese, the term will always be presented in its *pin yin*. For a full list of Chinese characters, terms, colloquialisms, and ancient prose involved in this thesis, please refer to the list of Chinese terms.

This research project has been reviewed and approved by University Ethics Committee at XJTLU. Data including texts, visuals and sounds collected, used and displayed in this thesis has received permission from all participants.

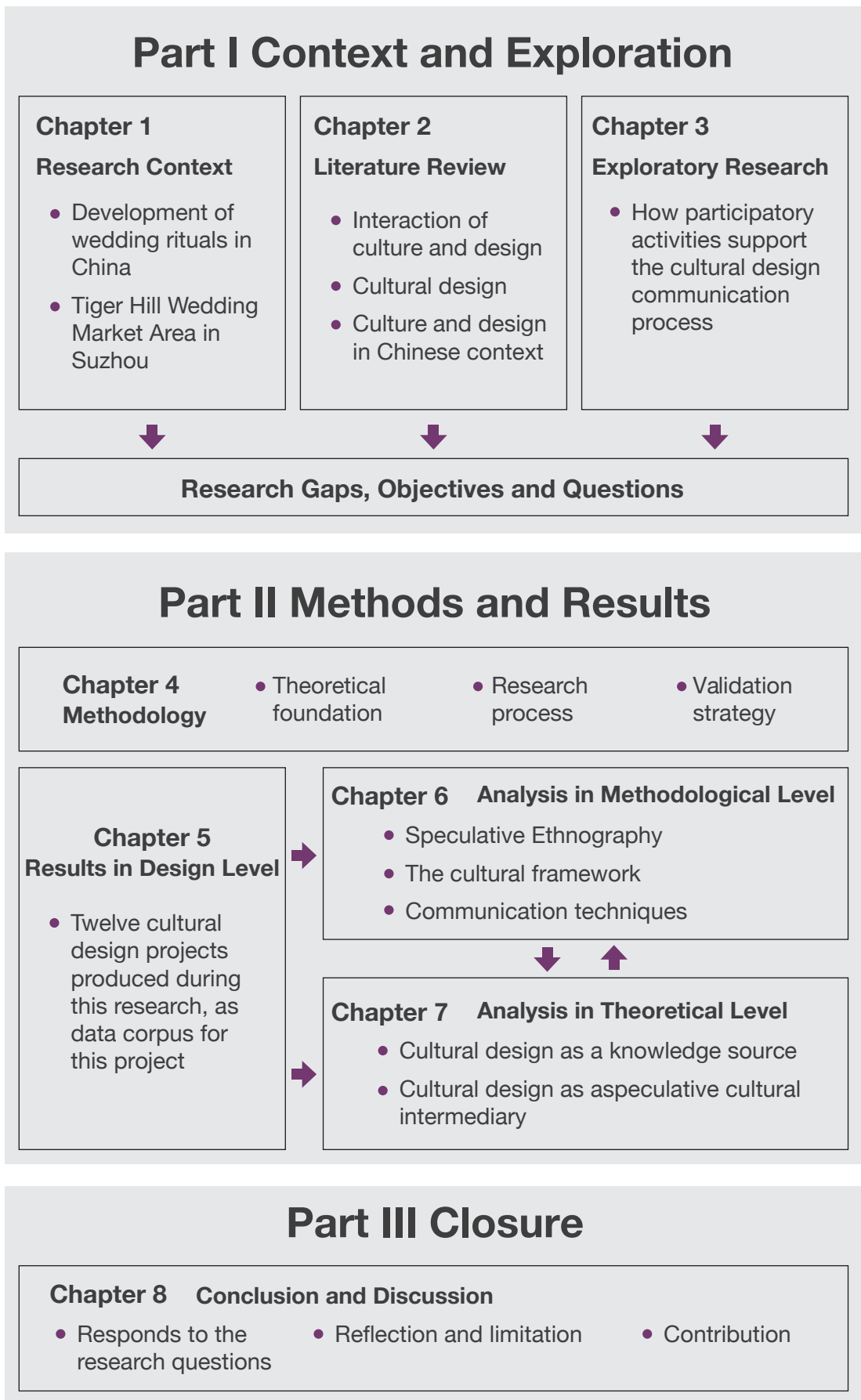


Figure 1. Structure of the thesis showing the relationship between each chapter.

Part I

Context and Exploration

Research Context

Culture and Design

Exploratory Research

Summary

Chapter 1.

Research Context: Tiger Hill Bridal City and Weddings in China

This chapter aims to introduce the cultural context in which the succeeding research and design are practised. The general development of marriage rituals in China is introduced, taking the Tiger Hill wedding market as a supporting site, being tied with the previously mentioned RDF project. The wedding market in the Tiger Hill area in Suzhou is one of the most famous wedding markets in China. It is known as the largest wedding market in Southeast Asia, taking 70% of the wedding market share (Shi, 2007; Wu, 2012; Zhou & Dong, 2012). A full range of wedding-related products such as dresses, suits, jewellery, and shoes are available on the market, in various styles of both traditional Chinese wedding costumes such as *xiu he fu* and *qi pao* (two kinds of traditional Chinese costumes), and the western white dresses and suits, as well as corresponding accessories. The items produced and consumed in the Tiger Hill wedding market are closely linked with how marriage rituals, one series of the most significant events, are practised in modern China. Tiger Hill wedding market originates from the 1980s alongside China's development of economy, government policies, and most importantly, the marriage cultural customs (Jiang, 2008). This chapter thus first introduces the general development of marriage rituals in China which is one of the dominant impact factors of the development of the Tiger Hill wedding market area, followed by descriptions of how this area has been developed in the past over thirty years. Images included in this chapter act as cultural data collected through visual ethnographic methods such as photography and mapping (Pink, 2006), which will also be introduced in chapter 4.

Literature research in this chapter is mainly within manuscripts in Chinese, as materials related to culture in China are innately sufficient in Chinese. Meanwhile, most academic articles published in international journals and conferences in English take Chinese articles as original resources. As a Chinese researcher in this project, I prefer to analyse the original resources directly to better understand the nuances between Chinese and English translations. Nevertheless, several English literatures written by non-Chinese scholars are included to contextualise views from outside China, and also to reflect upon which component of "our" culture is unique and needs further explanation to international readers.

1.1 Marriage in China: Significance and General Development

Marriage rituals in China are one of the most significant family events with a history of thousands of years. According to Chinese legend, the emperor of the Zhou Dynasty spent more than one year on his wedding; the Prince of the Tang Dynasty, Li Hong, also took approximately a year to marry his wife. The development of marriage in China is presented in this section, based on literature research and autoethnographic research. Dong (2016) categorises Chinese academic books related to marriage into ten aspects, including research on marriage laws and institutions, on customs, from the perspective of economics, literature, gender, psychology, ethics, sociology, history, and case studies. From a designer's view, the development of marriage in China is described here to figure out how the current marriage rituals and values are formulated. Therefore the description in this section focuses on the customs and values (more specifically the procedure of getting married and the materials involved in the procedure and why) and explains the societal changes that have an impact on the customs. Following the chronological order, the general development of marriage rituals in China is described in three sections: the formation of six etiquettes, the advocacy of civilised weddings, and the combination of six etiquettes and civilised weddings.

1.1.1 The formation of six etiquettes: the Zhou Dynasty and Imperial China

Marriage rituals in China are known as *san shu liu li* (three letters and six etiquettes, see Sun 2016 and Yan 2018 for instance) in the traditional customs that believed to be originated from the Western Zhou Dynasty (1046-771 BCE) and developed throughout the dynasties during imperial China. Six etiquettes describe the six processes of traditional Chinese marriage rituals including *na cai* (the proposal), *wen ming* (the birthday matching, usually by divination), *na ji* (present the betrothal gifts), *na zheng* (present the bride price), *qing qi* (pick an auspicious wedding date), and *qin ying* (the wedding ceremony, with the dowery prepared in advance). Three letters indicate the formal documents of marriage in ancient and imperial China, including *pin shu* (Betrothal Letter) presented in the process of *na ji*, *li shu* (Gift Letter) presented in *na zheng*, and *ying shu* (Wedding Letter) presented in the *qin ying*. The two families had to go through the whole process without exception. Marriage was not allowed to be dismissed after the bride price was presented. Marriage in ancient and imperial China was considered as an approach to carrying on the (male) ancestral line (Qu, 2000; Luo & Wang, 2016; Peng, 2010), which indicated its significance for the family. Etiquettes related to marriage rituals are

thus considered as the basis of other etiquettes. Six etiquettes are based on an important premise that marriage is totally decided by parents, as a Chinese saying that *fu mu zhi ming, mei shuo zhi yan* (Parents' command and matchmakers' words). Therefore, the process described in six etiquettes was dominated by the family and matchmaker, especially it followed the core values in the Confucian tradition of patriarchal thought. The groom and bride were not able to meet each other until the *qin ying* etiquette. In other words, the first five etiquettes happened between the two families, with the matchmaker as the mediator. *Qin ying*, the last etiquette, was the most important and complex part of the rituals, with members of both couples' families and friends all playing some role, be it formal or informal. The houses were decorated grandly for the ceremony, and the family members, especially the groom and bride, dressed in the most gorgeous costumes the family could afford, generally in red dresses with embroideries. The ceremony included the process of picking up the bride from her home to the groom's using sedan chairs, a formal visit to the groom's parents, and the banquet with performance. The specific rules and symbols in each etiquette might be changed in different dynasties, and marriage in each dynasty showed different characteristics. For instance, the wild geese were the tokens and gifts for the proposal and other four etiquettes in the Zhou dynasty to represent loyalty, for the wild geese are migratory birds who never break promises in their migration time. In the Han Dynasty (202 BCE-220 CE), the types of tokens and gifts increased to over thirty, including sheep, rice, glue and lacquer (pronounced similar to *ru jiao si qi* in Chinese, meaning being deeply attached to each other). Although the material symbols were changed, loyalty was always emphasised in traditional marriage. However, the concept of loyalty which was used to constraint both males and females gradually evolved to chastity as a requirement only for females in the Ming (1368-1644 CE) and Qing Dynasty (1644-1912 CE).

1.1.2 The advocacy of civilised weddings: the late Qing Dynasty and the Republic of China

The marriage rituals in the late Qing Dynasty changed drastically resulting from the introduction of European culture. In the 1860s a group of Chinese students was invited to visit European countries, which opened the visits of Chinese citizens to western countries. Those who visited Europe recorded the customs, including marriage rituals, they observed during their travels and brought them back to China. Some representative books are exemplified by *Chu Shi Ying Fa Yi Bi Ri Ji* (Diary of the visit to Britain, France, Italy, and Belgium) by Fucheng Xue (1838-1894 CE), and *Ying Yao Si Ji* (Private Notes of Britain) by Xihong Liu (?-1891 CE). Western weddings held in the church were recorded in detail in their notes and diaries. They also noted the dramatic differences between Chinese and western societies in the relations of males and females. Traditional Chinese morality prohibited the association of males and females because of the emphasis

on chastity, thus marriage was decided by parents. This kind of *bao ban hun yin* (parents arranged marriage) has always been criticised in local poems such as *Xi Xiang Ji* (Romance of the Western Chamber) by Shifu Wang (the Yuan Dynasty, 1271-1368 CE) and *Hong Lou Meng* (A Dream of Red Mansions) by Xueqin Cao (the Qing Dynasty). The diaries of visiting the western countries made the desire for independent marriage even stronger for Chinese citizens in that time period, especially for the intellectuals. They advocated *wen ming hun li* (civilised weddings) and criticised complicated marriage customs. Marriage was not totally decided by the parents and matchmaker, but the young had more freedom to choose their own spouses (Cowden, 2012). A civilised wedding generally included the rituals of getting married, receiving blessings, and the rituals of formally visiting parents (Wang, 2016). This civilised wedding process is a combination of Chinese traditional and western customs. The main procedure of civilised weddings learned from the western church wedding customs recorded in the travel diaries (Wang, 2016), however, the rituals of formally visiting parents which used to be in the process of *qin ying* were combined in this western process. It indicated that social values of the wedding were not declined with the simplified weddings. There was no unified standard for the process and dress-up of wedding ceremonies at that time, as it was not long after the civilised weddings emerged. The concept of independent marriage and civilised weddings was gradually accepted by the upper classes since 1905 in open cities such as Shanghai and Hong Kong, however, the practises were difficult, and the mainstream of marriage rituals still followed the six etiquettes. The Republic of China was a period of contradictions in terms of marriage rituals (Yu, 2009). On the one hand, young people in the new era accepted the concept of independent love and independent marriage. On the other hand, they could not be entirely free from the old moral standards. One example was that people strongly opposed old-style marriage but expected a grand wedding ceremony as it was in the tradition. In some families, independent love and marriage were allowed but required consent from parents, which also explained why the rituals of formally visiting parents were combined in civilised weddings.

1.1.3 The combination of six etiquettes and civilised weddings: since the reform and opening up

In 1950, one year after the founding of the People's Republic of China (PRC), the Marriage Law was promulgated, which abolished parents arranged marriages and enforced independent marriage. However, marriage was still not recognised as a private affair but became part of political life, especially during the Cultural Revolution (1966-1976). The wedding ceremony showed political characteristics as well, exemplified by the newlyweds bowing to the statue of Chairman Mao during the ceremony, and Chairman Mao badges are always selected as the wedding gifts (Dong, 2016). After the reform and opening up in 1978, the political factors in marriage faded, and marriage returned to family-intervened gradually. According to

the laws and regulations, they were legal couples after going through the marriage certificate application process, while they needed to hold the rituals to obtain social recognition (Dong, 2016). The process of getting married was simplified as independent dating (or blind dating arranged by the family), engagement, and wedding in general, evolved from and was more flexible than the six etiquettes. The wedding ceremony generally followed the procedure of *ying bin*, the witness of the marriage, and banquet, which was a continuation of civilised weddings during the late Qing Dynasty and the Republic of China and continues to the present. There was usually a *si yi* (professional master of ceremonies who hosted this session, similar to priests in the western wedding but without the same legal linguistic powers). *Ying bin* means the bride and groom stand at the entrance of the banquet hall to welcome guests, and guests sign in, present gifts, and take photos with the newlyweds. Witness of the marriage often includes speeches delivered by parents and/or friends, as well as ring exchange between the newlyweds. The newlyweds express their thanks to parents and all other guests before the banquet starts with a toast. The white dresses became popular customs for the ceremony, which also continues till now. There emerged wedding service companies in the 1990s to help the newlyweds prepare their ceremony such as banquet hall decoration.

In addition, there are two notable customs which emerged after the reform and opening-up in 1978 which continue to the present. First, since the 1990s, newlyweds have been increasingly demanding independent houses due to the rising trend of family nuclearization and reduced family size. Traditionally in a Chinese family, newlyweds lived together with the groom's family in their original self-built house as it was believed that the bride became a member of the groom's family instead of her natal one after marriage (Dong 2016). Therefore, a house became a necessity purchased by the groom's family for marriage when houses became commoditized. Second, with the popularity of cameras and video recorders in the 90s and beyond, newlyweds started to record their wedding and deliberately design some romantic shots, learning from popular films as inspiration (Dong 2016). Increasingly, the "record" of weddings occurred both before and during the wedding ceremony, a phenomenon that continues at present.

In the 21st century, despite geographical and individual differences, the general process of getting married is shown in Figure 1.1. It is not surprising that we may now see characteristics of both the six etiquettes and Western wedding ceremonies integrated into weddings in China as the present is always constructed based on history, but at the same time, newlyweds have more freedom with regards to personalisation. The whole marriage ritual process generally involves pre-wedding, wedding, and after-wedding sections. The pre-wedding section mainly consists of dating, proposal, engagement, photography, and *ling zheng* (marriage certificate application). Both independent dating and blind dating introduced by



Figure 1.1. The general process of getting married in China in the 21st century despite geographical and individual differences, including pre-wedding, wedding, and after-wedding sections, in some cases changing or skipping/replacing some sequences or steps.

the family are quite common. Blind dating (see Figure 1.2) can be recognised as the modern form of *na cai*, the first etiquette among the six, however, is based on the personal preferences of the young although the family and their parents also play some role. Family members or friends only introduce them to meet each other for the first time. The proposal (see Figure 1.3) in modern China is decided by the couple-to-be. They, more commonly the groom-to-be, have the full right to decide when and how the proposal ritual is held, or they could also decide not to have the proposal. Thus the proposal can happen at any time before their wedding day. The engagement starts with a family event when the two families have lunch or dinner together (see Figure 1.4). The wedding date, bride price, and dowry are usually discussed during probably more meals after the first formal meeting of the two families, with reference to *na ji*, *na zheng* and *qing qi*. In some regions such as Shandong Province, usually, the parents of the groom-to-be have to visit the bride's family even if the two families live in separate locations, to show their sincerity and respect in a modern explanation, reflecting the characteristics of *na cai* in ancient and imperial China. The newlyweds are able to decide the date to apply for their marriage certificate, usually after the formal meeting of the two families for engagement. This legal process to get married often only takes ten or twenty minutes in the Civil Affairs Bureau. The newlyweds need to provide their *hu kou ben* (household registers), identity photos, and application forms with signatures and handprints. The Civil Affairs Bureau in some cities offers the service to hold a simple ritual for receiving the certificate, learning from the western church wedding (see Figure 1.5). The general process learns from the Western church weddings where the officer asks the newlyweds whether they would like to marry each other, and the newlyweds read the marriage vows together. Inviting a professional photographer or friend to record the process of applying for a marriage certificate is quite popular among the young generations. Pre-wedding photography, varies from the recording of marriage certificate application but named *hun sha zhao* in Chinese, is the most important social activity in the pre-wedding section and has been examined in detail by Adrian (2004, 2006) and Constable (2006). There are various forms and styles, such as *nei jing* (studio photography, with artificial surroundings), *wai jing* (outdoor photography) and *lv pai* (travel photography, e.g. see Jia, Lück & Schänzel, 2016). Newlyweds often choose three to five styles with different scenarios and costumes, combining studio and outdoor photography, or choose travel photography, to produce a set of wedding photos. Some examples of pre-wedding photography are shown in Figure 1.6). The photos are usually displayed during their wedding ceremony and in their home (Constable 2006, also see details in section 5.3). The pre-wedding photography allows the newlyweds to create their identity through the scenario and costume changes that are not available in daily life.

The wedding day is a combination of Chinese traditional customs and western ceremonies hosted normally by the groom's family. Despite geographical differences

and climates, the wedding day usually starts with *jie qin* (pick-up) in the morning, followed by a *dian li* (wedding ceremony) and a banquet held in the restaurant in most cases. Pick-up is when the groom escorts the bride from her family to his. It often takes place in the morning. The bride sits on the bed at her home while the bridesmaids challenge the groom with some games at the door (see Figure 1.7). Only when the groom and his best men pass all the game tests can they enter the room and meet the bride. After getting permission from the bride's parents, the groom takes the bride to his house together. *Jing cha* (A tea ceremony) is then held at the groom's home to offer tea to his parents. Sometimes the bride and groom start to call their parents-in-law mum and dad (before they called them aunt and uncle), which is *gai kou* in Chinese. Parents give her lucky money in a red pocket, which is named *gai kou fei* in Chinese. Sometimes the process of *gai kou* happens during the wedding ceremony. This whole process of pick-up is recognised as the continuation of *qin ying* in the six etiquettes. For the ceremony and banquet, evolved from the civilised wedding in the Republic of China, the newlyweds first stand at the entrance of the banquet hall to welcome guests (*ying bin*). The wedding ceremony is held before the banquet when the couple stands on a stage, often in T shape, in front of all the guests and shares their love stories (see Figure 1.8). The procedures vary depending on the newlyweds, but generally hosted by the *si yi* and involve speeches and ring exchange as civilised weddings did. Then the couple and their parents toast to each table during the banquet (see Figure 1.9). In some northern provinces, pick-up often starts in the early morning at around five or six o'clock in the morning, and the ceremony and banquet are held during lunchtime. In Shanghai and surrounding provinces including Jiangsu and Zhejiang, the ceremony and banquet are held during dinnertime, and pick up starts at around nine or ten o'clock in the morning as they have enough time. Between the pick-up and ceremony, some newlyweds take photos with the best men and bridesmaids outdoors, such as at a park or by the lakeside (see Figure 1.10). The rituals on the wedding day, from the pick-up session to the end of the banquet, are recorded by a photography team in both photos and videos.



Figure 1.2. Blind dating gathering by parents and/or family at People's Park, Shanghai. Source: Photo by: F. Dong, 2020.



Figure 1.3. A proposal scenario at home set up secretly by the groom-to-be in Hangzhou, Zhejiang. Source: Photo by: F. Dong, 2020.



Figure 1.4. An engagement setting with a welcome area (left) and a banquet room (right) in Jining, Shandong. Source: Photo by: F. Dong, 2021.



Figure 1.5. A ritual when the couple was getting their legal marriage certificate in the Civil Affairs Bureau in Xihu District, Hangzhou, Zhejiang. Source: a screenshot from a video by: R. Linghu, 2020.



Figure 1.6. Some examples of pre-wedding studio photography (left, provided by a pre-wedding photography company in Jining, Shandong, 2018) and travel photography (right, taken in Bali, Indonesia, provided by the bride, 2020).



Figure 1.7. The bride is waiting on the bed during the door games in the pick-up session in Hangzhou, Zhejiang. Source: Photo by: F. Dong, 2018.



Figure 1.8. The couple stands on the stage and shares their happiness with the guests at their wedding in Jining, Shandong. Source: Photo by: F. Dong, 2021.



Figure 1.9. The couple toast to each table during the banquet in their wedding in Jining, Shandong. Source: Photo by: F. Dong, 2021.



Figure 1.10. The couple, the best men and bridesmaids take photos at a park during the pick-up session in Jining, Shandong. Source: Photo by: F. Dong, 2021.



Figure 1.11. Search result of "ins style wedding" in baidu.com, searched on Oct. 19, 2021.

The after-wedding ritual is usually simpler than the wedding day, consisting of one or more banquets hosted by the bride's family or the new family (the new couple), with mainly guests from the bride's family or the couple's friends and colleagues, depending on the number and time of the guests, named *hui men yan* or *da xie yan* in different parts of China (also see details in section 5.1). Without the ceremony process which only happens on the wedding day, during the after-wedding ritual newlyweds and the bride's parents usually only need to toast to each table during the banquet.

Some steps of the marriage ritual process can be skipped or replaced depending on specific circumstances, after discussions with parents. For instance, many newlyweds choose *lv xing jie hun* (wedding trips) to replace the wedding ceremony. In addition, Chinese brides and grooms are exposed to international fashion trends and wedding customs, which provide a greater variety of aesthetic choices to personalise their weddings. The styles of the restaurant wedding ceremony are becoming diverse, from a traditional Chinese style in red and golden colours to the so-called "ins style" (see Figure 1.11) which describes the styles of popular Korean, Japanese, European, and American bloggers on Instagram. They also have the choice to hold a restaurant ceremony or a church/lawn wedding, or both. There are then diversities among wedding-related products in the past and present. For example, in Chinese tradition, the bride and groom will wear red on their wedding day to fit into the joyful atmosphere, as red is historically representative of good fortune and auspiciousness. In recent years the majority of newly married couples choose to wear black and white (Zhang, 2012), which is more associated with elegance in a western context. Also, it is not uncommon for a Chinese bride to wear three or more wedding dresses on the wedding day, to fit into different scenarios such as pick up, ceremony, and banquet. Meanwhile, the function and value of the rituals have been transformed into a real-life celebration and social activity (Qu, 2000), which emphasises the significance of the banquets. The dress-up and style of the banquets are the construction of the self-image of the new couple. The couples, especially the brides, spend a huge amount of money on their dresses (4-12% of the total wedding consumption) to show their tastes and social status, which is one of the reasons for the flourishing of the Tiger Hill wedding market.

1.2 Tiger Hill and Weddings: from Wedding Market Area to Bridal City

The development of Tiger Hill wedding market and Bridal City is summarised based on a review of seventy-four news reports from 2005 to 2017 and ten field trips to the site in 2018-2021. Tiger Hill physically is a hill located in the west of Suzhou city, which is famous as a tourist destination with many historical sites on and around, such as the Huqiu Pagoda (built during 959-961 CE, Ding, 2015). Tiger Hill wedding market, as indicated by its name, is located very close to the tourist destination. Figure 1.12 shows the general transformation in locations of the market area and their positions relative to the scenic area.

The first wedding shop in Tiger Hill, the Yingbin Wedding, was opened by Li Lianhe who retired as a photographer in the 1980s, when pre-wedding photography started to get popular as stated in the previous section, according to an interview with the Secretary of the Party Committee of *Cha Hua Cun* (the Camellia Village) reported by a local newspaper *Suzhou Daily*. He started the first wedding and photography studio at *Mei Gui Tian* (the Rosefield), Camellia Village in the Tiger Hill area for two reasons. First, “*Hu Qiu*” was a famous camera brand produced by a photography equipment factory in this area. Second, one of Li’s friends who specialised in film development lived in Camellia Village, and Li needed his help (Jiang, 2008). Since then, wedding shops in the Tiger Hill area have sprung up one after another, and there were hundreds of shops by the 1990s, mainly opened by Camellia Villagers. Gradually the Rosefield has developed to a “*非*”-shaped area with around three hundred sellers (Yangzhou Times, 2006). The market for Tiger Hill wedding dresses was mainly wholesale, and the target customers were mainly wedding photography studios since at the time Chinese newlyweds usually rented their dresses for both pre-wedding photography and the wedding day due to their financial positions. Ever since the 2000s, individual customers for Tiger Hill have increased as the increasing number of newlyweds who prefer to purchase dress(es) for the wedding day, while the photography studios remain to be the customers for the market since dresses worn for pre-wedding photography are always provided by the studio. As one of the three main wedding markets in China (the other two are in Beijing and Guangzhou, Xiao & Wang, 2011), the wedding market in Suzhou was more attractive to many young customers because of the customisation service. The production of Suzhou wedding dresses was mainly “*qian dian hou chang*”, which means the factory was located right behind the wedding shop. This production mode enabled wedding dresses to be customised in a short time period. Customers were able to travel to Tiger Hill mountain while waiting for their customised dress due to the geographical

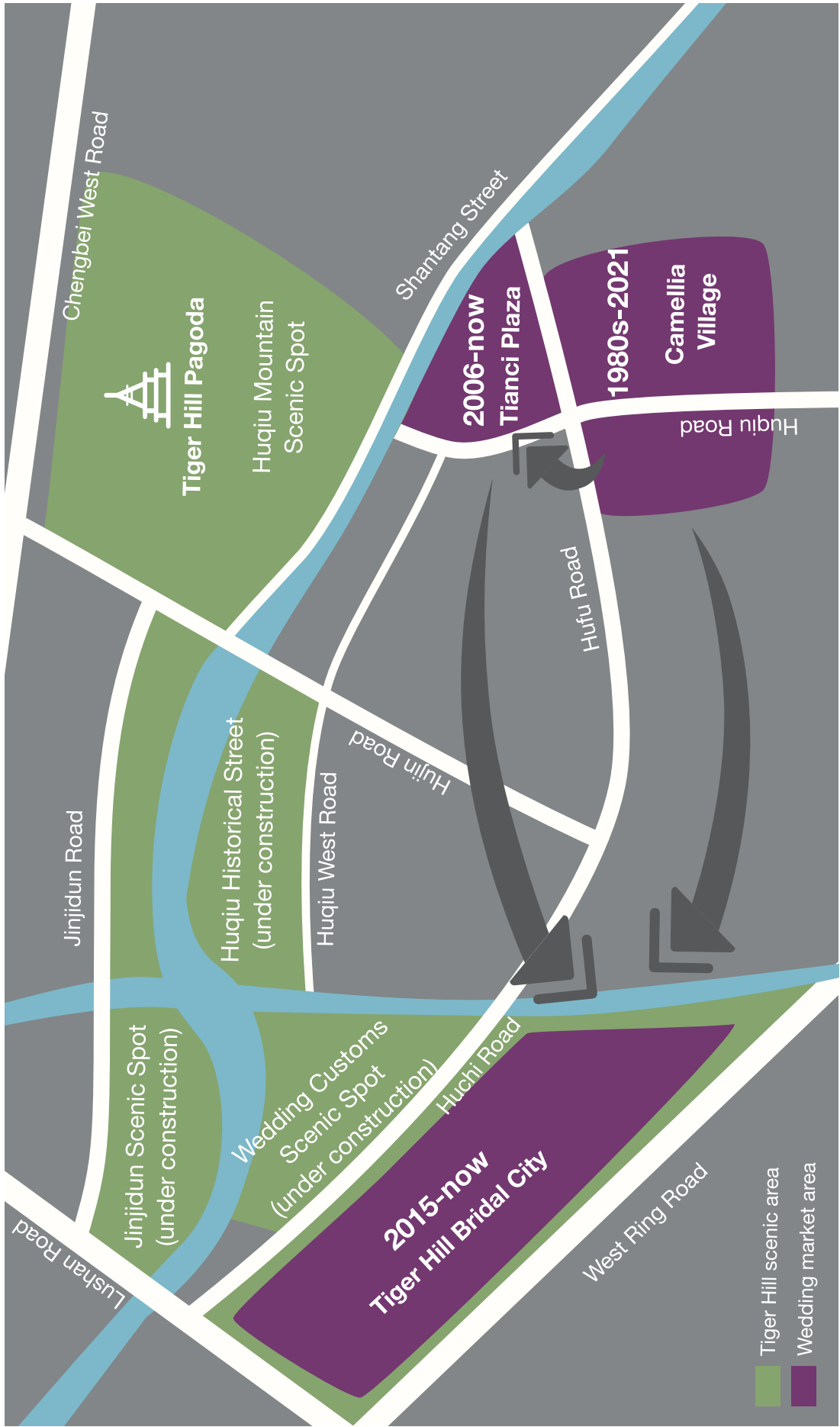


Figure 1.12. Map of the Tiger Hill scenic area and the transformation of the wedding market area.

location of the wedding market and the scenic area. Meanwhile, the transformation of wedding dress consumption patterns has triggered the restructuring of the wedding industry chain and business model. Tiger Hill wedding market has expanded from the original wedding photography to a full range of products including white dresses, traditional Chinese wedding dresses, groom suits, and groomsmen and bridesmaid dresses (Zhang, 2011). Some local brands emerged such as Jusere, Dennis, and Yolanda. However, the development of the Tiger Hill wedding market also led to many problems. As a primitive spontaneous market, the increasing number of individual customers results in vicious price competition between shops due to the similarity and plagiarism in dresses (Liu, 2012; Jiang, 2008; Zhang, 2011). On the other hand, the business model of “*qian dian hou chang*” without unified management has brought great fire hazards and a poor environment on the market street (Shi, 2014; Suzhou Daily, 2014; Chen & Hu, 2015). Due to these problems, Tiger Hill wedding market was defined as the distribution centre of middle- and low-end wedding products.

Since 2006 a number of wedding merchants have opened shops in Tianci Wedding Plaza, next to the south entrance of the Tiger Hill scenic area. The business conditions are not as good as expected, for Tianci Plaza is too close to the tourist sites where customers prefer not to shop, however, the shop rents increased compared to that at the Rose Field (Yang, 2007; Jiang, 2008). Therefore some small shops did not have enough funds to improve their dress design and production. They looked forward to independent innovation and development under the management of the government. In 2010, Suzhou Municipal Government launched a Tiger Hill comprehensive reform project to create a cultural tourism and business area. Tiger Hill Bridal City was built in 2012 and opened for business at the end of 2015 as part of the reform project (Xiao & Wang, 2011; Liu, 2011; Wu, 2012; Bai, 2015). It is located on the south of the Tiger Hill scenic area and consists of four functional zones including wedding shopping centres, experience pedestrian street, and exhibition leisure centre (under construction, Hu, 2015; Bai, 2015; Huqiu Bridal City, 2018). Wedding shops in the Rose Field such as Jusere opened new branches in the Bridal City, which means many brands exist both in the Bridal City and the old area. Customisation service remains as a highlight of Tiger Hill Bridal City. Most of the shops provide customised wedding dresses in one or two months. By 2021 most of the wedding shops in Rose Field are closed, due to the planning of the government. In the latest field trip to Tiger Hill in March 2021, standing at the entrance of the Rose Field it looks like an empty area, however, there are still around ten wedding shops scattered inside, who own the houses and are not willing to move (see Figure 1.13). Some merchants have moved from the Rose Field to Tianci Plaza instead of the Bridal City for lower rents. According to one shopkeeper in Tianci Plaza who moved here for around one month, he owns a wedding factory and opens this shop mainly for display. Many wedding dresses and suits sold in

Bridal City are made in his factory. He indicates that his factory is able to make most of the wedding dresses as long as the customers provide pictures in around ten days. Those shops who indicate they need one or two months to customise the dress do not own a factory. Nevertheless, Tiger Hill Bridal City operates very well according to observation, and in some popular shops customers need to wait to try the dresses on. The area where Huqiu Bridal City is located is planned as a wedding customs scenic area in the reform project. Thus among the wedding shops there are some artificial attractions related to traditional Chinese wedding customs such as hai shi shan meng (Vows of Eternal and Faith, see Figure 1.14). To the north of Tiger Hill Bridal City is Jinjidun scenic area (under construction), connecting with the Tiger Hill scenic area through Tiger Hill Historical Street (under construction), which are also in the planned cultural tourism and business area.

From the 1980s till today, Tiger Hill has been linked with weddings in China's popular imagination. It tells a story of how marriage rituals in China have changed. Products from Tiger Hill have been expanded to more than thirty countries and regions around the world. Tiger Hill Bridal City today attracts customers from nearby cities especially on weekends and during national holidays such as Labour's Day and National Day. In a broader scope, there are other wedding markets in Suzhou such as the Suzhou (China) Wedding Mall opened in 2011 in Xiangcheng District and Hao Bai Nian International Wedding Plaza near Suzhou railway station. Both Huqiu and other wedding markets in Suzhou are close to the old town, where there are many famous tourist destinations, indicating that the wedding industry has become one of the representative cultural components. Although the relocation of the wedding market in Tiger Hill is led by government policies, its original formulation and development of the product range are dominated by the consumption behaviour of the newlyweds, or from an anthropological view, by the wedding culture. The continuous existence of the Tiger Hill wedding market and emergencies of other wedding markets in Suzhou demonstrate the significance of marriage rituals in China.



Figure 1.13. Street view in the Rosefield, the original market site, with many closed shops and some shops secretly open. Source: Photo by: F. Dong, 2021.



Figure 1.14. A guide to some attractions in Tiger Hill Bridal City. Source: Photo by: F. Dong, 2020.

1.3 Chapter Summary

Within this chapter the research context has been introduced by describing the developing timeline of marriage rituals in China and the Tiger Hill wedding market in Suzhou. The general development of marriage rituals in China has been reviewed through literature and autoethnographic research. The particular rituals and processes that comprise the wedding in China have been practised in a similar format, albeit with regional and other variations, for nearly 3000 years. Chinese marriage rituals evolve from traditional three letters and six etiquettes in the Zhou Dynasty and imperial China, being impacted by the western church wedding customs in the late Qing Dynasty and the international fashion and aesthetic trends since the reform and opening up. The complex rituals, although having been simplified throughout history, emphasise the significance of getting married in China. Combining elements from both Chinese tradition and Western church weddings, contemporary marriage rituals in China generally involve pre-wedding, wedding, and after-wedding sections. Objects involved in the rituals such as dresses bring business opportunities, inspiring the first wedding shop in the Tiger Hill area, and leading the development of the wedding market. Within the cultural and business context, design has played some role in identity productions through creating objects (wedding dresses and so forth), providing wedding planning services, and beyond. With the research aims in mind to examine the interrelationship between culture and design, the theoretical foundation and examples at the intersection of culture and design to framing the succeeding research will be introduced in detail in chapter 2.

Chapter 2.

At the Intersection of Culture and Design

This chapter aims to link the cultural context, marriage rituals in China displayed in chapter 1, with design theories and practises. In order to understand how culture informs design and vice-versa, this chapter will first review the concept of culture and design to clarify their implications in this research (section 2.1), following which the body of literature that resides at the intersection of design and culture will be reviewed to build the theoretical foundation (section 2.2). Culture is both a resource and an outcome of design practises as described by Balsamo (2009). Research regarding methods and models to integrate cultural resources in design will be included in section 2.3. Design is categorised as “design for culture” and “cultural design” for the purpose of this research regarding the main perspectives that the cultural resources are utilised. Then special attention is paid to cultural design where the research interest is laid. The theory and practise of cultural design approaches from radical design to critical and speculative design, and to conceptual design in a general sense, will be critically evaluated in section 2.4. The final part of this chapter (section 2.5) will look into how culture in China is embedded in design practises in both Chinese and Western contexts, followed by typical design cases that integrate marriage culture in China. This chapter will be summarised by defining research inquiries which informs the exploratory research described in chapter 3.

2.1 Culture, Design and Design Culture

Both “culture” and “design” are multi-faceted concepts which are defined in a variety of ways depending on the time period and context (Sparke, 2013). The term “culture” refers to a large subject area, with numerous definitions and implementations. Early in 1952, anthropologists Kroeber and Kluckhohn (1952) reviewed over 160 definitions of culture, however, there still exist discrepancies according to Spencer-Oatey and Franklin (2009). Salehi (2012) argues that the concept and definition of culture will continue to change as humanity evolves.

Although some researchers have criticised the term or rejected it altogether as it seems all-inclusive thus unclear (e.g. Brightman, 1995; Keesing, 1974; Kuper, 2000), others still see its value (Sahlins, 1999). Culture has attracted endless examinations and attempts at definition across many disciplines, therefore any of its definitions are “strongly related to the context of the studies” (Saidin et al. 2017: 43). There are similarly multiple ongoing discussions about the nature of design, and the perception of design is changing as it develops from a category of applied arts to an independent discipline (Dourish, 2018). Ezio Manzini (2016) points out that the focus of contemporary design has shifted from object-oriented solutions (i.e. products, services and systems) to ways of thinking (i.e. methods, tools and approaches). At the intersection of art/design histories and cultural studies, this transition is described as stages of visual culture, material culture and design culture (Julier, 2006). The boundary of design is blurred as its value has been recognised in commercial, social, political, cultural and other contexts. It is necessary thus that the next section reviews the concepts of design and culture and clarifies their meanings when mentioned throughout this research.

2.1.1 Culture

Across disciplines, the concept of culture is continually contested, debated, and theorised, with efforts made to either define, outline, or even destroy the existence of the term as a realm of valid analysis. Whilst in the hard sciences, culture is a mere afterthought, in disciplines such as Cultural Anthropology, it is a kind of *raison d’être*, albeit highly contested and endlessly defined. From understandings of Culture with a capital “C” tangible heritage and “tradition” in the era of pioneering academics in the field such as Franz Boas, to the Post-structuralists and beyond, in which there is indeed no culture but instead self-constructed notions of cultures, open to a multitude of envisionings and interpretations, this term has been a crucial component of understanding how humans function and create meaning in their daily lives. While on the whole, the colonial and hegemonic nature of how ideas of “culture” have developed in parallel with those of other constructs such as “race” have been widely discussed in the latter half of the 20th century within the discipline of Anthropology, the term (Brightman, 1995; Clifford et al., 1992; Abu-Lughod, 1996; Bourdieu, 1977), nonetheless the concept of “culture” has prevailed, fraught still in the 21st century with debate and divisiveness surrounding the utility and intentionality of the term. The notion of “culture” evolved from simply referring to “growth” in agriculture and animal husbandry to a catch-all term with a plethora of interpretations, which forms the core of study for several dedicated academic disciplines. One of the most influential academics in cultural studies, Raymond Williams, positions the use of “culture” in three contexts after tracing the origin and development of the term. The three senses can be concluded as: i) a process of development; ii) a particular way of life; iii) the production of intellectual activities.

When used in the first sense to describe “a general process of intellectual, spiritual and aesthetic development” (Williams, 2015, p.52), culture” has inherited the term’s original use in husbandry, indicating to cultivate, care for, protect or honour in terms of the natural growth of plants or animals. Its uses were later extended to the tending of human intelligence, as “to refine, improve, or develop a person, the mind, etc. by education or training; to cultivate an art, subject, etc.” (Oxford, E.D., 2020). Extending from the culture of crops and animals to the culture of human minds witnesses an application of metaphor in shifting a particular materialised production process to an abstract process in the ever-changing social process (Williams, 2015).

Culture in the second sense is described as “a particular way of life, whether of a people, a period, a group, or humanity in general” (Williams, 2015, p.52). Compared to the first sense, this notion emphasises the variety of cultures. Much of the later development derived from Johann Gottfried von Herder’s explanation of cultures as both “the specific and variable cultures of different nations and periods” and “the specific and variable cultures of social and economic groups within a nation”(Williams, 2015, p.51). This sense of “culture” is consistent with an anthropological view (e.g. see Sparke, 2013; Katan, 2009; Bennett, 1998), as Eugene et al. (2009, p.22) describe the core of culture as “what we do” and “who we are”. The descriptions of culture in this sense indicate its link with behaviour, as a learned behaviour on the one hand(e.g. see Linton, 1945), and has an influence on behaviour on the other (e.g. see Hofstede et al., 2010; Eckhardt, 2002). By describing people’s minds and behaviours, this sense indicates that culture involves signifying or symbolic systems which can be learned. In other words, culture contains meaningful content. For instance, British anthropologist Tylor (1871) emphasises several cultural components acquired by members of society such as principles, ethics, law, tradition, opinions and lifestyles. Clifford Geertz (1973, p.89) in his work *The Interpretation of Cultures* describes culture as “a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life”.

The last category of culture, which is defined as “the works and practises of intellectual and especially artistic activity” such as “music, literature, painting and sculpture, theatre and film”(Williams, 2015, p.52), concerns “‘refined’ pursuits in which the ‘cultured’ person engages”(Longhurst et al., 2016, p.4).

These three senses of culture coexist and each plays a role in analysing culture as a whole (Bennett, 1998). Based on the above-mentioned theories, it is important to lay the foundations for this study: culture as a way of life involves both material and intellectual beings; culture can be learned and have an impact on behaviour as it transmits meanings in which signifying or metaphoric symbols are adopted; culture

can be relatively stable within a community and generally evolving.

2.1.2 Design

Design is a collective of actions, a way of thinking, and an evolutionary discipline. The term “design” is both a noun and a verb in linguistics. As a noun, its general use covers the meanings such as “intention”, “plan”, “intent”, “aim”, and “scheme” (Flusser, 1999, p.17). Derived from the Latin ‘signum’ meaning “sign”, design could be understood as “a sign of the times, a sign of things to come, a sign of the membership” (Flusser, 1999, p.21). As Bruno Latour (2008, p.4) put it, design needs to be “interpreted in the language of signs” as it is embedded with symbolic, commercial, and other meanings. Moving towards the design discipline, it refers to “(1) aesthetic embellishments, (2) a solution to a problem, or (3) an expressive domain of creative practise” (Balsamo, 2009, p.1).

As a verb, “design” has its root in Latin “designare” meaning to specify (Gedenryd, 1998). Some researchers emphasise the group of actions gathered in the design process including “imagining”, “creating”, “representing”, “negotiating”, “prototyping”, “fabricating”, “building”, “evaluating”, and “iterating” (Balsamo, 2009, p.1). Others focus more on the “individual or collective purpose” (Buchanan, 2001a, p.191) of these actions such as “changing existing situations into preferred ones” (Simon, 1996, cited in DiSalvo, 2015, p.15). In this sense, to design is to intend, to achieve certain aims. It is insufficient to discuss the actions without considering those who perform these actions. Traditionally people are passively engaged in the design process as subjects of user research such as questionnaires and interviews, indicating the dichotomies between “designers” and “non-designers” (Buchanan, 2001b; Manzini, 2015; Woodhouse & Patton 2004). In the last three decades design methods and approaches which directly involve “non-designers” in designing activities have emerged, two widely acknowledged approaches of which are participatory design (Sanoff 1990) and co-creation (Sanders & Stappers 2008). Simultaneously, people are engaged in design not only before but also after the implementation by design-in-use approaches (Kohtala, Hyysalo & Whalen, 2020). The “do it yourself (DIY)” style products are flourishing such as modular design and online DIY tutorials, which allows personalisation of the products. Those activities enable everyone, including those who were formerly considered as “non-designers”, as “designers” to design for their own lives and blur the professional boundary of design activities. This indicates two positions towards design, one of which emphasises the scientific nature of design and organised, systematic methods to study design (DiSalvo, 2015) while another does not see the designer as an expert role (Frankel and Racine, 2010).

In this research project, design is viewed as an intentional human activity of conceiving and implementing something created for specific purposes, in which

cultural contexts and cultural meanings are intensively explored. To make it clear of its role as both a noun and a verb, the succeeding sections and chapters use “designing” to describe the process of the activity, “Design” (in addition to the capital letter grammatically used in section titles and at the beginning of a sentence) to describe the outcome of the process, and “design” to describe it as a whole. Although the designing process involves “non-designers” through both indirect and direct ways which enable them to be “designers” to some extent, the research tends to take Design as a professional activity undertaken by “designers”, to emphasise the decision-making process of each designing step. Therefore the “designers” used in this research indicates individuals who are involved in a design activity thoroughly and play the role of decision-makers. “Non-designers”, on the contrary, is used to describe all other individuals, including those who are professional designers or design students but do not make design decisions in this project. This is to say, the distinction of “designers” and “non-designers” in this research is based on the role that individuals play in the specific design project.

2.1.3 Design culture

Design and culture are not two independent areas. The concept and different aspects of both design and culture discussed above reveal some of the interrelated elements between the two fields. Before discussing those elements in the following sections, this section clarifies the discussion scope of this research. The culture of design, or as Manzini (2016) calls it, design culture, lays the foundation of the discussion context of this thesis but is beyond the research questions (see Figure 2.1). Manzini’s definition refers specifically to the designer’s ways of life, as who designers are and what designers do, or as Eugene et al. (2009) interpret it, as the design context where the designers perform designing activities. Instead, when mentioning culture in this thesis, it refers to the non-designers’ ways of life, or the cultural context that the Design project focuses on.

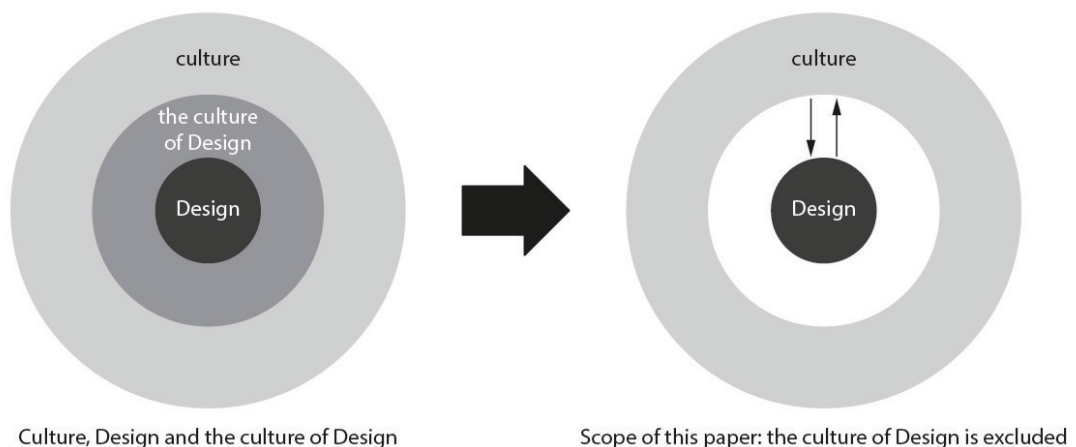


Figure 2.1. The research scope of culture, design, and design culture in this thesis.

2.2 Design as a Cultural Activity

The interpretations of culture and design discussed above indicate that design can be interpreted as a cultural activity in general, as Anne Balsamo (2009 p.1) describes the designing process as a group of actions such as “imagining”, “creating”, “representing”, and “negotiating”. Design can be seen as an activity within the framework of culture in two aspects.

Firstly, culture is understood as a resource for design through the lens of regarding culture as a way of life that has an impact on behaviour and emphasising its feature to transmit meanings that adopt symbols. As a way of life, culture and the designing process are innately linked through the user research process. Design is to nudge and change the current situation to a preferred one through new products, systems, and services (Simon, 1996). In order to ensure more predictable success with new product launches, designers conduct a series of user research using anthropological methodologies, or as Clarke (2011) suggests, “design anthropology”, to identify real user needs. Participatory design is one of the more well-known research methods which invites users to participate in the product/design development process to better interpret their demands into a design language and product functions (e.g. Trischler et al., 2017; Mitchell et al., 2015). Cultural meanings and values are embedded in designed artefacts when designers translate the user needs to real products. On one hand, cultural components of the designer’s environment affect how meanings are encoded in the designing process (de Souza & Dejean, 2000). Cultural phenomena and trends can be the source of inspiration for designers to generate design ideas (Gaver et al., 1999). On the other hand, how users decode the meanings is heavily influenced by their own cultural contexts. The incorporated values in the products also empower users with cultural identity (Moalosi et al., 2010). Designers should inform users of the functions of the product or system in a self-explanatory manner, which is the foundation of user-friendliness (Röse, 2004). It is therefore crucial to understand cultural factors and cultural differences before performing the designing activities. This understanding will then be translated into detailed design ideas and components. This process in product design is often referred to as semantics, which forms the foundation of understanding design as cultural intermediaries and will be described in the following section.

Secondly, while shaped by culture, design is culture and could also change the culture (Bourges-Waldegg, 2000). As design takes culture as resources and embed cultural meanings, artefacts that are designed and made by humanity have been seen as important cultural evidence. Studying man-made objects is an essential part of people-centric disciplines such as archaeology and anthropology. Artefacts

that people design and make could reveal the cultural context, conventions, and phenomenon of a specific period in a specific area. In a field such as archaeology, the story of humanity and culture itself IS the story of objects, in real terms, acting as tangible historic evidence of past civilisations. The production of designed objects is the reproduction of the material culture as culture implicitly affects design activities. The way people interact with products could have major influences on their lifestyle which may further shape cultural customs. When products are mass-produced and used in people's daily lives, culture is reproduced by changing user behaviour through design. However, this kind of cultural (behaviour) change often requires a long process to observe (Klasnja, Consolvo and Pratt, 2011; Rapp, 2018) and is often reviewed as "history". As Moalosi et al (2010 p.176) suggest, design can be both "a mirror and an agent of change". Design reflects the changes in culture and culture provides both meanings to the products and the context of decoding the products.

Overall, design is a channel of communication which incorporates a translation process of different values of the system where it is situated. Given the importance of design as a cultural influencer and a cultural translator, it is significant for the designers to understand why and how they can support or undermine certain cultural values (Popovic, 2002).

2.2.1 Culture as a design resource

As described above, design takes culture as a resource through ethnographic research of the "users" in the design-for-culture approaches. In most cases, special attention is paid to user and user experience as "the subject of design" (Redstrom, 2006, p.124), where culture is explored as a subconscious element underlying user behaviours and lifestyles. The mechanism and methods to transfer and utilise user information in the designing process are widely examined in design research (e.g. see Wilkinson & De Angeli, 2014; Oygur, 2018). There also exists a body of research that focuses on consciously integrating culture in the designing for culture process, being entitled such as culture-oriented, culture-centred and culture-specific design (details in section 2.3). Researchers have established culture-oriented design models and approaches to provide directions for the intercultural challenges posed in product design (Moalosi et al., 2010), machine system design (Röse, 2004), user interface design (Nielsen & del Galdo, 1996; Heimgärtner, 2013; Choong & Salvendy, 1997; Choong & Salvendy, 1998) and HCI (Röse, Liu & Zuhlke, 2001), etc. For instance, Moalosi et al. (2005) point out that incorporating the values of users is an effective way to achieve the goal of cultural respect in product design. Moalosi et al. (2010) argue that one of the challenges to consciously integrate culture in product design is to understand users' values and behaviours and translate them into viable and powerful design ideas. This indicates that culture (as values and behaviours specifically) is one of the references for design.

In the field of human-computer interaction (HCI) and user interface (UI), culture is often taken into account and visible in the context of globalisation and the international market. Every cultural group has characteristics that distinguish them from others (Hofstede et al., 2010). It is widely recognised that the cultural background of users has a great impact on the user needs, and interface preference and experience in turn (e.g. Blanchard & Allard, 2011; Jaramillo-Bernal et al., 2013; Aljasmi and Alobaidy, 2018; Alsswey et al., 2020). UI design is thus expected to fit into the international (cross-cultural at the same time) market. The cross-cultural UI design strategies are divided into three categories: 1) internationalisation, in which several UI systems are provided that allow flexible switches between different cultural users; 2) localisation, which means that UI specially designed for the target single cultural users; 3) Global, where there is only one UI system but is able to meet all target cultural user needs (Röse, 2004). More specifically, variables and elements have been explored for designers to refer to when designing for cultural users. For instance, based on the cultural models of Hofstede and Marcus, Röse (2004) presented the intercultural variables that are to be specified, analysed and integrated into human-machine systems. The intercultural variables include direct variables such as information presentation and language, indirect variables such as machine functionality and service, as well as frame variables such as environmental factors and policy systems. Instead of the entire HCI system, Saidin et al. (2017) focus on interface design, acting as a similar role as the direct variables that Röse proposes. After analysing the elements that are closely related to the user with various cultural backgrounds, they listed four interface design characteristics, colour, navigation, language and page layout, for designers to combine and integrate into UI designing. In this way, designers take culture (as variables and elements that impact user behaviours) as a resource when designing for the international market.

2.2.2 Branding, product design and service design as cultural intermediaries

As described above, when the designer and non-designer reside in different cultural contexts, the whole designing process could involve a process of decoding, encoding and transmitting cultural meanings. Design is therefore seen as a cultural intermediary as semantic transformations occur in several designing stages and in many design senses including branding, product design and service design. This section reviews previous explorations of the idea of design as cultural intermediaries, and investigates how cultural phenomena and meanings are translated into design and branding concepts.

Pierre Bourdieu (1986/2008) developed the concept of cultural capital stating that cultural knowledge could be produced, accumulated, and reproduced in all

its forms. Under certain circumstances, cultural capital could be convertible to economic capital and institutional capital. Based on Bourdieu's theory on cultural capital, cultural intermediaries refer to "the taste makers defining what counts as good taste and cool culture" (Maguire & Matthews, 2014, p.2). Located at the intersection of production and consumption, cultural intermediaries play a significant role in producing and transferring meanings which could add tangible and intangible values for artefacts. In other words, cultural intermediaries operate as translators that translate cultural capital to other values among stakeholders. Knowing and understanding the contexts and stakeholders could therefore strengthen the functional process of cultural intermediaries.

In the field of product design, researchers have shifted their major focus from the functions to the meanings embedded in the products. Crane (2000 p.2) regarded products as "a vast reservoir of meanings", and Krippendorff (2006 p.xv) argued that design "is making sense of things". Krippendorff and Butler (1984) presented the theory of product semantics to study the symbolic meanings of artefacts under specific contexts. The complex of physical, psychological, social and cultural context where the product is situated and interpreted was referred to as "the symbolic environment" (Krippendorff and Butler, 1984, p.4). Thus product semantics refers to a process instead of a result. During the process, the designer encodes designing methods and strategies into artefacts, and the user interacts with the products. The product designer has thus become a cultural intermediary by transforming certain cultural meanings to the user through different attributes of designed artefacts, including form, colour, material, and texture. For example, Hsu et al. (2013) proposed a design strategy combining local culture and global market based on the concept of "glocalisation" which reflects the connection between globalisation and localisation. By selecting and categorising design cases in three types - cultural products, Alessi products and innovative products - which respectively represent the concepts of localisation, glocalisation and globalisation, they generalised groups of attributes for each category.

Holt (2004) adopted a cultural approach to branding and proposed a cultural branding model explaining how cultural phenomena and trends could be interpreted to add values for products and campaigns. Cultural branding is a remarkable example of Bourdieu's theory of cultural capital being converted to economic capital. Dennington (2017) termed "triple semantic transformation" to describe the meaning transferring process in service design. Semantic transformation is the action of translating brand values to products which often leads to the birth of product families (Karjalainen, 2004). Triple semantic transformation explores the three stages of the transition in a broader picture. Specifically, the translation first happens from a cultural phenomenon to meaning, the meaning is then translated into certain concepts, and eventually the concepts are translated into detailed

design elements. Dennington (2017) mentioned the design case of a restaurant located in Pittsburgh named Conflict Kitchen. Unlike restaurants with relatively stable styles, Conflict Kitchen changes its visual designs and menus to serve cuisine from different countries with which the United States is in conflict. By doing so, the restaurant aims to expand the engagement the public has with the cultural and political issues.

The foundation of understanding design as a cultural intermediary is to embrace design as a meaning-driven activity. Existing studies of cultural intermediaries have covered a variety of creative industries such as advertising, branding, arts promotion, fashion, popular music, and lifestyle media (Maguire & Matthews, 2014). Examining the role of design as a cultural intermediary is a significant perspective through which to study the relationship between design and culture and requires further exploration.

2.3 Integrating Cultural Resources in Design: Culture Dimensions, Models and Design

This section describes how cultural resources are integrated in the designing process consciously, with references to culture dimensions and models. Culture, as interpreted by Hofstede et al. (2010 p.6), is "the collective programming of the mind that distinguishes the members of one group or category of people from others". Culture is conveyed on different levels corresponding to different sizes of a particular group or category, as Hofstede et al. (2010) describe the culture in national, regional/ethnic/religious/linguistic affiliation, gender, generation, social class and organisational/corporate levels. Karahanna et al. (2005) further create a hierarchy which visualises these levels to discuss culture in supranational, national, professional, organisational and group levels from the most general to the least. Nevertheless, it is widely observed that most attention in the field of Cultural Studies is paid to national and organisational cultures, for better or for worse, and Hofstede is widely used in such framings (Tian et al., 2018). Within this context, we can see that both the impact of national and organisational culture dimensions on innovation have been widely researched (e.g. Martins and Martins, 2002; Martins and Terblanche, 2003; Hogan and Coote, 2014). National cultural dimensions contribute to cross-cultural comparisons, and are widely adopted in design for global markets (e.g. Röse, 2004). Organisations may also be viewed as products of design (Buchanan, 2008). Service design, as an emerging design practise, is recognised to have the potential of generating and implementing organisational change (Junginger and Sangiorgi, 2009; Kurtmollaiev et al., 2018; Iriarte et al.,

2017). Service design inquiries into organisational systems have been explored in tandem with organisational culture models (Junginger and Sangiorgi, 2009). In recent years, transdisciplinary scholars such as Sarah Pink (Pink et al., 2017) and others who straddle the line between design and anthropology via work with future speculation and practical ethnographic fieldwork have begun to blur the line between theoretical and practical applications of design ethnography, in such areas of product design centring around Autonomous Driving Vehicles. Murray-Rust et al. (2019) offer a descriptive term of the combination of speculative future scenarios and practical applied ethnography, in proposing the practise of “entangled ethnography”, with Lindgren et al. (2021) also stressing that “people’s socio-economic status, cultural beliefs, biographical experiences in emerging technology continuously contribute to how they anticipate and learn to live with and experience technology”. This type of work reveals the crucial importance of “culture” in creating the future, rather than quantitative aspects of the cliché of “User Experience”, and to apply ethnographic techniques and open-ended, qualitative consciousness to the world of product design and development.

2.3.1 National cultural dimensions and design

The usefulness of understanding (and subsequently at times, monetizing) cultural differences for global corporations and international business has been stressed by many scholars. Some of the famous dimensions are proposed by Hall (1976, 1990), Hofstede (2011) and Hampden-Turner and Trom (1997). The cultural dimensions of Hall focus on behaviour difference (Spencer-Oatey and Franklin, 2009) and distinguish Monochronic and Polychronic time, High and Low styles of communication context, and the concept of Proxemics. After several expansions, Hofstede develops six dimensions of national culture: Power Distance Index (PDI), Individualism versus Collectivism (IDV), Masculinity versus Femininity (MAS), Uncertainty-Avoidance Index (UAI), Long- versus Short-Term Orientation (LTO), and Indulgence versus Restraint. Hampden-Turner and Trom (1997) present cultural dimensions as circles instead of dual-axis to emphasise their idea that “one cultural category seeks to manage its opposite” (p.9). They introduce the dimensions as Universalism versus Particularism, Individualism versus Collectivism, Neutral versus Emotional, Specific versus Diffuse, and Achievement versus Ascription.

Hofstede’s dimensions are the most prolific across many academic fields, including design. The significance of understanding cultural differences for global corporations and international business has been stressed by many scholars (e.g. Hofstede & Usunier, 2003; Soares et al., 2007; Oyibo et al., 2019). Most culture-specific design activities are recorded in the area of the user interface (UI), however, it is not an easy task to apply these cultural dimensions in UI design. For example, Myers and Tan (2002) list many studies concerned with understanding cultural differences that are based on Hofstede’s dimensions of national culture (e.g., Keil et

al., 2000; Straub, 1994; Watson et al., 1994), however, they believe it simplistic to only rely on national culture as determinant of behaviour. Marcus (2001) describes the UI features in five factors first and proposes cultural UI factors after combining them with Hofstede's cultural dimensions. The cultural UI factors offer a good method for explaining and interpreting cultural differences in UI design. Röse (2004) takes a step further to propose an approach to culture-specific design by combining the cultural UI factors and meta-model of culture (Stewart and Bennett, 1991). The meta-model classifies culture into two layers of objective and subjective cultures, corresponding to the visible portion and psychological features of culture respectively. The objective culture includes the economic system, political structures, social customs and arts, etc. The subjective culture, on the other hand, involves assumptions, values, and thinking patterns, etc. Based on the cultural UI factors and the meta-model, Röse (2004) organises culture in two categories of Cultural environment and Cultural mentality to represent culture facets around and within cultural groups. Cultural environment describes the general context where the cultural groups are situated, including technical development, physical environment, educational system, commercial system, and law and regulation. Cultural mentality describes the characteristics of the cultural groups including their aesthetic preference, learning habit, preferred communication mode, unconscious rules and language issues. Both cultural environment and mentality have an impact on the design of interfaces.

2.3.2 Culture models and service design

Several varieties of models depicting culture can be observed, again, across disciplines. Hofstede et al. (2010) picture different layers of culture in an onion model. Culture is categorised in Practises (visible out layers, as manifestations of cultural meanings) and Values (invisible cultural meanings) in the model, while Practises include Rituals (common activities), Heroes (individuals as role models) and Symbols (e.g. words, objects, images etc.). Hampden-Turner and Trom (1997, p. 21-22) similarly explain culture in an onion model of three layers: Artefacts and products (e.g. language, food, architecture, etc.), Norms and values (the cognitions of what is "right" and "wrong", e.g. laws, social controls, etc.; the feeling of "good" and "bad"), and Basic assumption (the underlying premise) from the outer to the core. Artefacts and products, as well as Norms and values, are defined as the explicit culture that reflects the implicit layer of culture, Basic assumption. Schein (2010) analyses culture, especially organisational culture in Artefacts (all phenomena one perceives about the group, e.g. architecture, language, rituals, etc.), Espoused beliefs (strategies, goals, philosophies, etc.) and Underlying assumptions (unconscious beliefs, perceptions, feelings, etc.) according to the degree to which culture is visible to an outside observer, which is believed as a useful frame for this research, as seen in the studio of this research process and analysis. Rousseau (1995) also illustrates a model for organisational culture,

indicating how Fundamental assumptions (often unconscious beliefs) are linked to Artefacts through Values, Behavioural norms and Patterns of behaviour. While anthropological understandings of culture are not centred on building 'models' in the same sense, the underlying thread and visions of attempting to problematize the concept of culture is a useful one for design and future studies.

Although different terms are utilised to illustrate the culture models and social scientists illustrate culture in different layers, it can simplistically be framed into three layers of elements by integrating the cultural models mentioned above. The core elements of culture are usually unconsciously understood and acted out for the group members, as Hampden-Turner & Trom (1997), Schein (2010) and Rousseau (1995) describe them as "assumptions". The cultural elements in the middle are conscious within the group but invisible to outside observers. They are Values, Norms and values, Espoused beliefs in the interpretation of Hofstede et al. (2010) Hampden-Turner & Trom (1997) and Schein (2010). The outer layer of culture is visible to both the group members and cultural observers and includes products, languages, behaviours, visible ceremonies, etc., no matter if it is divided into sub-layers by Hofstede et al. (2010) and Rousseau (1995) or merged as the Artefacts layer by Hampden-Turner & Trom (1997) and Schein (2004).

Cultural models have been adopted in service design to reflect its role as inquiries into organisations (Junginger and Sangiorgi, 2009). Service design as an emerging design practise has attracted great interests of organisations, in the same vein as earlier conceptualisations of user-centred design. Junginger (2006) has demonstrated the impact of design on generating and implementing organisational changes. Junginger and Sangiorgi (2009) further propose a framework illustrating different levels of depths into an organisation that service design can have. They nominate three types of service design (corresponding to the organisational models) which are service interaction design (artefacts and behaviours), service design intervention (norms and values), and organisational transformation (fundamental assumptions) from the outer to the inner layers. Service interaction design focuses on user-centred design such as product interfaces and human-computer interaction, which has an impact on the outer layer of an organisational culture without questioning its norms and values. Service design intervention re-constructs the norms and values of an organisation and visualises the changes of artefacts caused by the changes in norms and values. One can also apply the framework provided to the larger 'organisation' of the social group, or social structure, which is how such an understanding of the idea of 'service design' in Junginger and Sangiorgi (2009) as well as the 'entangled ethnography' of Pink et. al (2017) and Murray-Rust et. al (2019) is implemented in practise in the following chapters.

2.4 Cultural Design

Design is a concept with multiple facets and is transiting along with the societal, technological and cultural changes (Manzini, 2016; Julier, 2006). Scholars have made an effort to categorise design to clarify its different foci. Design practises are presented in four categories of commercial design, responsible design, experimental design and discursive design (Tharp and Tharp, 2013). DiSalvo (2015, p7) distinguishes design from the perspectives it deals with politics and names “design for politics” and “political design”. Dunne and Raby (2013, p.vii) display the “A/B list” in the preface of *Speculative Everything* to compare the features of design genres within and beyond solutionism. These names indicate the diverse research foci of the different practitioners, as Dunne and Raby focus on design and technology, while DiSalvo explores the field of design and politics. Nevertheless, they both make efforts to add another dimension of design besides “solution-ism” (Manzini, 2016), as DiSalvo (2015) interprets the categories of “design for politics” and “political design” as “to provide solutions to given problems within given contexts” and “to discover and express elements that are constitutive of social conditions” respectively (p.13).

We have discussed that culture acts as a significant resource for design and designers in a multitude of ways in the former sections. Inspired by the design categories above, this research presents design in two categories from the main perspectives of utilising cultural resources, which are referred to as “design for culture” and “cultural design”, to demonstrate the research focus at the intersection of culture and design. Design for culture approaches, overlapping the commercial, responsible and experimental design categories of Tharp and Tharp (2013), try to solve problems and explore possibilities under a certain cultural context and to design products/services that fit into the current cultural landscape. On the other hand, cultural design tries to visualise potential social-cultural issues within a specific cultural context and pose questions for society at large. This section will then describe the theory and practise of typical cultural design genres, including Radical Design, Critical and Speculative Design, Adversarial Design, and Discursive Design. This section further summarises the practical approaches, tools and techniques utilised in the field of cultural design.

2.4.1 From radical design to critical and speculative design

Known as radical, or anti-, or counter- design, the practise of cultural design can be dated back to the late 1960s and early 1970s, especially in Italy (Rossi, 2013; Malpass, 2017). Ever since the second World War, the development of thermoplastics such as acrylonitrile-butadiene-styrene (ABS) and polyethylene

were widely used by designers to create complex product shapes at low cost. As Julier (2014, p.111) points out, the population of plastics “has revolutionised the way designers and their public perceive consumer goods”. With the support of thermoplastics technology, “pop” as a cultural phenomenon came into the public vision with the establishment of the Independent Group in London in 1952. They defined Pop Design as “popular”, “expendable”, “low cost”, “mass produced” and beyond to express their attitude towards the “boring” modernism, within the context of relaxation and freedom in postwar (Fiell and Fiell, 2013, p. 411). They refused to the mainstream Good Design or good taste, instead designing and producing consumer products with light colours and bold shapes to catch the young. Manufacturers started to produce low cost consumer products driven by the consumer’s preference. Pop art and design also had an impact on European designers such as in Italy and France. Young designers abandoned rational modernism and sought alternatives for mainstream industrial design. However, the trap of consumerism is gradually exposed. People were beginning to realise the psychological manipulation of advertising and consumer marketing, encouraging them to consume goods they do not need. Meanwhile, the increasing ecological awareness was expressed in national and international media, and the discussion spreaded to design magazines such as *Abitare*, an Italian magazine focusing on home living, who published the first issue of *Se* as an insert in 1971 (Formia, 2017). Compared to materials such as wood and leather whose aesthetic value exists and even increases with time, the life of plastics are dramatically shorter as they are prone to discoloration and scuffing. The negative impact that rapid production and disposal of plastic products had on the environment, as well as the manufacturing and economic recession provided the social context for radical design against consumerism.

Groups such as Archizoom, Gruppo 9999, and Superstudio (all established in Florence, Italy in 1966 and 1967) devoted to critiquing the consumerist society under the context discussed above. They opposed modernism which was based on engineering and mass production, as they pointed out that its original intention was distorted by commercial interests, or consumerism (Fiell and Fiell, 2013). An influential exhibition, *Italy: The New Domestic Landscape; Achievements and Problems of Italian Design* was held by the Museum of Modern Art (MoMA), New York in 1972. The concept and practise of radical and anti-Design were presented, however, consumed by mainstream design as journals and magazines written by and for designers were rarely beyond the mainstream (Malpass, 2017). *Casabella* magazine was the main forum for radical design in the 1970s (Sparke, 2014). The year of 1973 saw the establishment of “Global Tools” in the editorial offices of *Casabella* in Milan, uniting previously mentioned avant-garde designers and groups such as Archizoom, Gruppo 9999 and Superstudio. Global Tools identified itself as “a system of laboratories in Florence dedicated to promoting the study and

use of natural technical materials and their relative behavioural characteristics” (Formia, 2017, p.204, translated from Casabella issue 377). Although Global Tools was disbanded in 1975, radical designers from another perspective emerged, exemplified by Alessandro Mendini, the editor of Casabella between 1970 and 1975, who burnt archetypical chairs as symbols of “old” modern design to represent the born of new design age (Malpass, 2017). Another influential radical design group Studio Alchimia was funded by architect Alessandro Guerriero one year after the break-up of Global Tools, with the original intention to exhibit products without the industrial restrictions. Designers from Studio Alchimia presented Bau.Haus 1 (1978) and Bau.Haus 2 (1979) by redesigning some archetypical chairs through attaching colourful materials and/or patterns to create organic shapes to sharply mock these popular but mediocre modernist aesthetics. Chair was selected as the (re)designed object in the radical design movement, as it was one of the most common daily products that modernist designers were eager to design.

Radical design groups took design as a communication medium, or as “visual essays” as Formia (2017, p. 207) interpretes it, to express their opposition to consumerism and its consequent results. The opposing strategies included providing alternative design utilising natural technical materials (Global tools) and provoking mainstream design through reproductions of typical modernist chairs (Studio Alchimia). From the mid-1970s discussions about ecological concerns developed from a highly speculative context to an academic one repected by the public, which had an crucial impact on the design culture (Formia, 2017). Although the radical design practise was visionary in the environmental issues, with the formulation of Environmental Design discipline in Italian schools, as well as the wide influence of mainstream design as mentioned above, radical design was somewhat diluted in its political, critical and anti-consumerism foundation and found their forums in art galleries in the 1980s (Julier, 2014)

Critical design is widely recognised as being introduced by Anthony Dunne in his representative book *Hertzian Tales: Electronic products, aesthetic experience*, and critical design based on his PhD research in Royal College of Art (RCA), first published in 1999 (Dunne, 2006; Malpass, 2017). The 1980s was a highly commercialised era where alternative design possibilities were limited, including radical design. Especially with the dissolution of the Soviet Union and the end of the Cold War in 1991, market-dominated capitalism became the only dimension of the society where design could hardly find a position in alternative social and/or political context (Dunne and Raby, 2013). At the same time, the designed objects were dematerialised due to the thermoplastics technology, as plastics were widely used to make object skins to cover its physical structure (Manzini, 1986, as cited by Julier, 2014). The shift to skin appearance in product design in the late 20th century could be exemplified in many consumer products such as radios and hairdryers.

Customers/users were only allowed to understand the object functions by reading the skins. Thus there emerged a branch of product design, widely known as “product semantics” in the 1980s and till now, as presented in section 2.2. Dunne noticed most designers of electronic objects created semiotic skins for technologies. Design of the electronic objects was recognised as a “package for technology” and objects were designed to communicate “cultural meanings” (Dunne, 2006, p. 1). Although there also existed explorations of how immaterial (the electronic media) and material (the object) was linked, Dunne (2006, p. 20) tended to explore a new role for electronic objects “that facilitates more poetic modes of habitation”, under the “post-optimal” context that industrial design and manufacturers were not able to offer better products. He thus developed an area for design without the commercial constraints and explored how “critical responses to the ideological nature of design can inform the development of aesthetic possibilities for electronic products” (Dunne, 2006 p. xv).

The concept of critical design in *Hertzian Tales* challenged the interaction of humans and objects (Malpass, 2017). The user was recognised as a “protagonist and co-producer” of product experience instead of a passive consumer to understand meanings embedded in products (Dunne, 2006, p. 69). Designers worked as authors to create alternative experience scenarios rather than addressing problems set by the industry. Electronic products acted as the role models which encouraged users to critically reflect on the interactions with everyday electronic objects. The *Pillow* is an abstract radio that broadcasts abstract sounds converted from the electronic climatic changes collected by a wideband radio scanner (Dunne, 2006). It questioned the problematic interface between privacy and public space. When the scanner is used to collect, for example, telephone signals in a private space such as home, it is seen as the invader, but from another perspective (which is often ignored) the telephone signal is invading the home (Dunne, 2006; Malpass, 2017). Through creating “what if...” scenarios and inviting public audiences, critical design tries to provoke social dreaming for a “better world” rather than providing better solutions.

In the context of design culture, the term “critical design” is referred to beyond what Dunne proposed in *Hertzian Tales* which focused on the human’s interaction with electronic objects but is widely mentioned to describe conceptual design activities that pose questions and facilitate discussions and debates. Many conceptual design projects are labelled as “critical design” as they share similar design ideology to pose questions without commercial constraints, such as adversarial design (DiSalvo, 2012), counterfunctional design (Pierce & Paulos, 2014), discursive design (Tharp & Tharp, 2013, 2018), ludic design (Gaver et al., 2004), slow design (Hallnas & Redstrom, 2001), reflective design (Sengers, 2005) and design fiction (Bleecker, 2009). In fact, those conceptual design genres share similar ideologies

but have multiple foci in detail. For instance, adversarial design (DiSalvo, 2012) focuses on politics and takes design as a catalyst to challenge the power relations within current political systems. Through involving the public in the political discussions, it is expected to arouse reflections on both the value of design and the political relations. Discursive design (Tharp & Tharp, 2013, 2018) stresses on communication and audience reflection in design, which encourages audiences to participate in discussions and reflections on a particular discourse.

However, the labelling utilisation of the term “critical design” is contrary to Dunne’s intention of critical design to explore alternatives of labels of (product) design (Dunne, 2009 as cited in Malpass, 2017; Dunne and Raby, 2013). When “critical design” is consumed as a provoking visual design language, its core value of questioning the single-dimensional design culture fades out gradually. In addition, the rapid technological development such as ubiquitous computing and biotechnology, as well as social and economic changes (i.e. the explosion of global population, the repaid consumption of resources and 2008 economic crisis) results in context changes for design. Many design approaches popular in the 20th century were not suitable for the updated context, however, the intention of critical design to explore more pluralism in design ideology existed. Therefore, Dunne and Raby (2013) conceptualised speculative design to invite open reflection from the public. Speculative design focused on technology as critical design did, and tried to visualise potential issues might arise from the implementation of new technologies. Both critical and speculative design originated from concerns about the absolute trust in technology. They reflected on the limitations of the market-driven technology industry, questioned the underlying assumption of design as problem solutions, and challenged social ethics, politics and ideology in general (Dunne and Raby, 2013). In recent years speculative design has attracted wide attention in several areas such as HCI (Wong & Khovanskaya, 2018), urban design (Stals et al., 2019; Sustar et al., 2020), and services (Hoang, 2018). Similar to the term "critical design", the increasing prevalence of the term "speculative design" has been labelled to describe the conceptual design in a broader sense, rather than the speculative design originally proposed by Dunne and Raby.

2.4.2 Approaches, tools and techniques

Cultural design is used as a medium to attract public attention, discussions, debates on the potential cultural issues and even to nudge forth cultural changes (Malpass, 2017). Therefore, the effective communication of Design with a broader audience is crucial for the field of cultural design. In order to achieve this goal, approaches, tools, and techniques are needed in both the Design construction and communication process.

There are limited tools and approaches being solely explored for the construction

process of cultural design. Critical and speculative design, or conceptual design in a broad sense, has been seen more as an attitude or position (Dunne and Raby, 2013) or a thought experiment (Barendregt & Vaage, 2021) than a methodology. Thus the practise is open for approaches, tools and techniques from all subjects that may be relevant to the specific design cases. Some scholars apply speculative design as a research method (e.g. Elsdén et al., 2017; Galloway & Caudwell, 2018; Sanders and Stappers, 2014; Tseklevés et al. 2022). Nevertheless, there have been techniques and tools developed for this group of activities. Auger (2013) and Dunne and Raby (2013) both propose some materialisation techniques that bridge the speculative design concepts and the audience's perception such as "design for the context" (Auger, 2013, p.13), "desirable discomfort" (Auger, 2013, p.14), and "between reality and the impossible" (Dunne and Raby, 2013, p.139). Kirby (2010) borrows the ways cinematic artefacts use to communicate the technology's implementation and proposes the concept of diegetic prototypes. Sometimes critical design and design fiction are seen as an approach themselves. Sterling (2013) describes design fiction as "the deliberate use of diegetic prototypes to suspend belief about change". There has not been a large amount of literature that reviews the methods and tools used in the practise of design for the speculative future. Sanders and Stappers (2014) make efforts to structure the "approaches to making in codesigning" (p.5), which involves approaches to speculative future ("diegetic prototypes", "make-believe role-playing with co-constructed artefacts" and "research through design prototypes", p.12). Kovačević et. al (2016) research into speculative design practise from the exhibition Design Fiction: Eutropia - Introduction to Speculative Design Practise and maps the tools and techniques in the British double diamond design process (see Figure 2.2). Although the double diamond design process has been critiqued through various perspectives, it provides a comprehensive and flexible

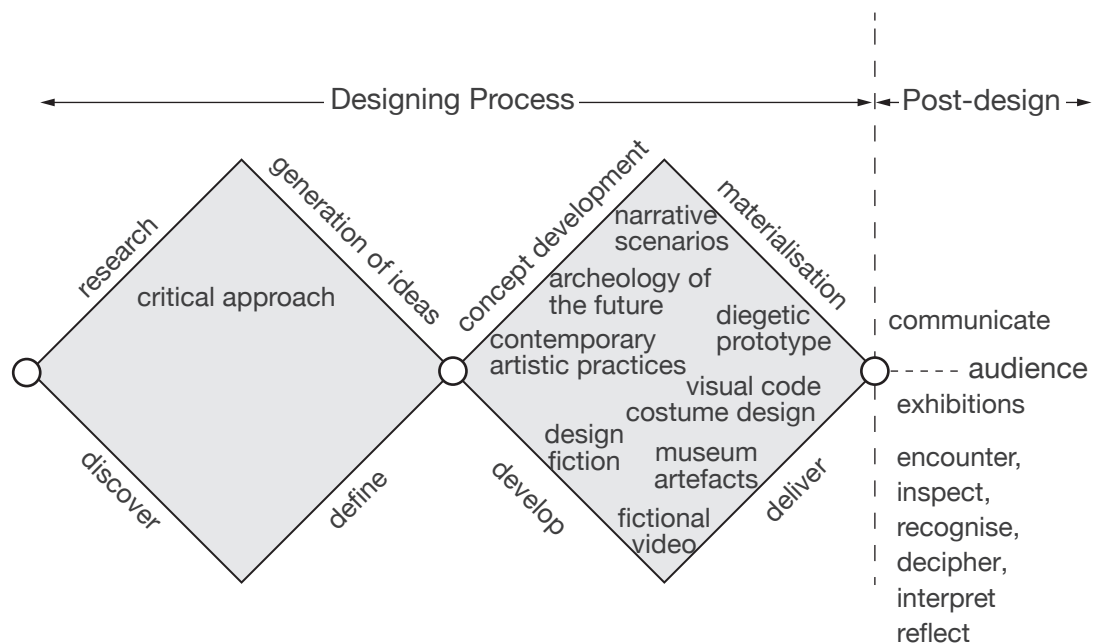


Figure 2.2. Tools and techniques visualised in the British double diamond design process (Kovačević et. al, 2016).

framework to visualise the existing cultural design tools. Cultural design tools are mapped mainly in the develop and deliver phases, which ensures the design to be critical and alternative to the commercial design, and thus forms the basis of successful design communication.

In terms of the Design communication phase, most of these existing design genres mainly rely on exhibitions (“terminal” described by Tharp and Tharp, 2013) to convey design intentions. Tharp and Tharp (2018) present a general guide of discursive design communications with the six steps of “encounter”, “inspect”, “recognise”, “decipher”, “interpret” and “reflect”, which also highlights the challenges cultural design communication faces. The “encounter” phase describes how the audiences are exposed to cultural design projects, either through exhibition, online posts or interactive activities. “Inspect”, “recognise”, “decipher” and “interpret” describe the perceptions of cultural design projects in four progressive levels. “Inspect” describes the motivation of the audiences to inspect the cultural design project they encounter. “Recognise” requires audiences to understand that the design project carries messages (but perhaps cannot read the content of messages) besides usability. “Decipher” deals with readability of the messages the designed project carries, and “interpret” deals with the comprehension of the messages the audiences perceive. The audiences are able to “reflect” effectively only when their perceptions of cultural design are at the “interpret” level. The six steps provide a general framework of cultural design communication, however need to be adapted for certain circumstances.

Taking The Pillow project as an example, it was exhibited in the Monitor as Material exhibition at the Royal College of Art. It was noticed that the project received enthusiastic responses when it was fully explained to the visitors, however, it was considered only as an exhibition rather than an alternative object without explanation. Explanations to visitors can be considered as a straightforward approach to enable audiences to “recognise” and “decipher” the Design so as to “interpret” it and “reflect” on it. Further, Dunne (2006) produced a pseudo-documentary video to demonstrate how the pillow might be “utilised” by an old lady in her house and how her family and neighbours might react to it. This pseudo-documentary video can be understood as explanations in design languages, and is entitled as “rhetorical use... by constructing narratives of use” (Malpass, 2017, p.47). Malpass (2017) cited another example approach acting as “explanations to audiences”. Rather than explaining to the audiences either through videos or pictures, the Altnet project (Sarah Gold, 2014) affected the audiences through providing object, services and system Design that could be experienced by them. This kind of narrative makes the storytelling accessible and compelling. Similarly, Elsdén et al. (2017) proposed the term Speculative Enactment, an experience-centred approach to speculative practise, where people can interact with and experience the speculation. It works by making speculation matter to

the participants, making their actions and non-actions meaningful in the designed future scenarios. Lyckvi et al. (2018) also work on the overview of the combined participatory design and design fiction process. These studies shed a light on the intersection of both participatory design methods and speculative design practise, which “inspects” the audiences through involving them in the designing process. These approaches combined the construction and communication phases together to some extent.

2.4.3 Culture within cultural design

From radical design, to critical and speculative design by Dunne and Raby, and to conceptual design in a more general sense, this series of design practises inspired the category of cultural design. Technology is the centre of most of the existing cultural design approaches, while research on culture within this notion of design is limited. Carl DiSalvo (2015) examines the ways that technology design can provoke and engage political issues in Adversarial Design. Matt Ward states one of the roles of speculative design as “technological provocateur” (Kovačević et al., 2016, p.19). James Auger describes one purpose of it as “generating a better understanding of the potential implementations of a specific (disruptive) technology in various contexts and on multiple scales” (Kovačević et al., 2016, p.15). DiSalvo (2012) examines the ways of working of speculative design in the context of food culture and describes its process as “isolating facets of culture and recasting those facets in ways that alter their meaning” (p.111). The reshaped cultural facets are materialised and exhibited at galleries and museums as the networks for cultural exchange. Reflections of culture as a way of life, such as the possible implementation of biological technology as one of the topics of speculative design, provides resources for designers to construct critical concepts. Since there are usually no products available in real life that can represent the design concepts, cultural designers mainly use provocative images and multimedia scenarios to express their critical perspectives. Users are engaged as an audience by reading and interpreting the designers’ expressions and providing their opinions. Cultural design is therefore widely explored as an effective medium for opinion exchanges through the communication and discussions between designers and audiences. However, the effectiveness of cultural design communication through exhibitions is challenged on the practical level as it fails to bring behaviour changes. For instance, DiSalvo (2012) argues that although cultural design exhibitions could spark curiosity, they fail to rouse actions. The gap between the theoretical understanding of culture within cultural design and its practical effectiveness inspires the exploratory research presented in chapter 3.

2.5 Culture and Design in China

Although creative activities with specific intentions (such as making tools with stones and wood) that could be defined as “design” in a broad notion emerged in ancient times, contemporary design in China borrows Western design ideologies, models and aesthetic styles (Xin, 2007; Bont & Liu, 2017). One stream of design education in China follows the pre-industrial design culture which treated design as an applied art of form and shape (Xin, 2007). Another stream borrows from German and Bauhaus design engineering which believe “less is more” and “form follows function” (Bont & Liu, 2017). Basic theory and application of product semantics are learnt by Chinese designers and educators as well (Sun, 2015). Guanzhong Liu, an influential design educator in Tsinghua University, China, proposed a methodology for design for human affairs in his representative book *Shi Li Xue Lun Gang* (Science of Human Affairs, 2005) which introduced the idea that design focuses not only on “*wu*” (the object) but also “*shi*”, which was similar to the concept of “lifestyle” includes who uses the object, why to use it and how it is used. Based on the concept of “artificial” described by Simon (1996) in the Science of the Artificial, Liu distinguished the concepts of “*wu*” which referred to materials, equipment and tools, and “*shi*” which referred to the intermediary relationship of “*wu*” and people. Liu (2005) also discussed the interaction of culture and design based on the concept of culture defined by several Western scholars such as Edward Burnett Tylor and Clyde Kludhohn. In the final chapter of the book, Liu presented two case studies that applied the methodology for design for human affairs. The designing process described there is highly similar to the process of “user-centred design”, beginning with defining an user group, being followed by context and user research, data analysis and design concept development. There are also scholars exploring the impact of culture on UI design in the Chinese context, exemplified by Liu et al. (2020) examines the user experience of two localised MOOCs and provides UI design suggestions for them. As the design ontology and epistemology in China are based on the Western design culture, the perception of culture and design interaction in the Chinese context is consistent with the Western/international analysis, as presented in sections 2.1 and 2.2.

Chinese traditional artefacts as design in the broad sense are researched and discussed, first often conducted by historians. The History of Chinese Crafts by Wang (1994), for example, as one of the very first history surveys, provided an overview of Chinese traditional crafts from ancient China to the late Qing Dynasty. It mainly presented the forms, styles and crafting techniques without explanation of how the artefacts were used (Xin, 2007). Chinese traditional crafts were also discussed through exploring how modern design theories were reflected

on the traditional design strategies. For instance, Sun (2015, p.50) argued that functionalism was formulated in ancient China, as recorded in Mozi (appr. 468 BC-376 BC) “[Our ancestors] only emphasised sturdiness, lightness and the ability to transport heavy objects and travel long distances when building transportations, which cost less and benefited the most.” Liu (2005) analysed how the traditional Chinese lifestyle was integrated in traditional artefacts with reference to the modern design methodology of human affairs, taking wheel design as one of the case studies.

Cultural sustainability aiming at sustaining both material and immaterial traditional (therefore local) culture across generations is recognised as firstly proposed by David Throsby (1995). Within this context, cultural products which conceptualise and materialise local culture have been intensively explored. The value of cultural products has been increasingly noticed in the international market as well with mass production where artefacts are similar in functions and forms (Handa, 1999). It is proposed that cultural products evoke the emotional experience of the natives and attract foreigners (Hwang, Mitsuhashi, and Miyazaki 2014; Chai et al., 2018). Therefore, there exists both research on cultural product design methods and frameworks in terms of local culture in China (see Hsu et al., 2011 for instance) and commercial product design with Chinese traditional elements. However, most of the cultural products only apply visual elements and those widely accepted Chinese features such as dragon and phoenix, the red colour scheme, and peony. Some of the designs are discussed through the lens of how the traditional aesthetics and philosophy are reflected in visual design. For instance, Sun (2015) examined the incense stand design entitled *Gao Shan Liu Shui* (meaning mountain and flowing water, one typical Chinese allusion, see Figure 2.3). Sun commented that this incense stand followed the philosophical principle of *Zhong Yong* (“middle way”, meaning avoiding the extremes and being just right and normal). It utilised stones to represent mountain and utilised smoke to represent the flowing water, where the traditional aesthetic principle of *yi xiao jian da* (with small see greatly) was embedded (p. 63). Liu (2005) and Xin (2007) both critiqued the Chinese cultural designs which solely adopted visual elements. As described above, Liu (2005) argued that the focus of design was “*shi*”, or behaviours and lifestyle. Xin (2007) made an effort to classify cultural products into cultural artefacts driven, cultural behaviours driven, artefacts and behaviours co-driven designs and further proposed a methodology to Chinese cultural innovation.

In terms of wedding culture and design, there are many design cases that tried to integrate the Chinese traditions in both artefact and behaviour levels. Almost all fashion products sold at the Huqiu wedding market area stay at the artefact level. The previously mentioned Chinese features are widely adopted in wedding dress design and accessory design. An example of combining both traditional

visual elements, behaviours and meanings is the double happiness chopsticks produced by GOD, Hong Kong (see Figure 2.4). The character of double happiness which consists of two Chinese characters of 喜 (happiness) is a symbol often being displayed in many Chinese wedding scenarios such as room decoration and gift packages. The combination of two happiness characters represents the happiness from both original families of the bride and groom. Each double happiness chopstick is adorned with one happiness character, and each pair of the chopsticks forms the double happiness symbol. The concept of “pair” in marriage is represented by the pair of chopsticks, another famous cultural product in China.



Figure 2.3. *Gao Shan Liu Shui incense stand design embeds the traditional aesthetic principle of "with small see greatly". Image from id-china.com.cn.*

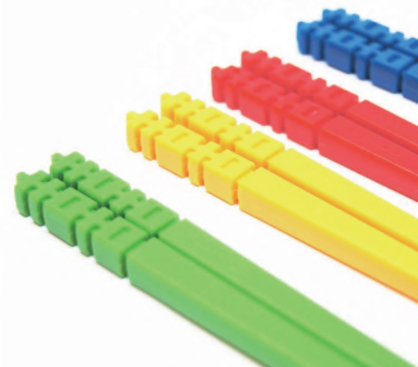


Figure 2.4. *The double happiness chopsticks produced by GOD, Hong Kong. Image from god.com.hk.*

Overall, the interaction of culture and design in Chinese context is consistent with that in the international context as presented in section 2.1 and 2.2, as contemporary design in China borrows from the international design culture. Nevertheless, methods focusing on integrating Chinese traditional culture in product design have been proposed with increasing attention being paid on local cultural sustainability. The practise of wedding-related product design mainly stays at the surface of adopting traditional visual elements. However, there is a lack of research on cultural design in the Chinese context either on the interaction mechanism within cultural design or how to integrate Chinese culture in critical/conceptual design.

2.6 Chapter Summary

This chapter reviews existing research at the intersection of culture and design. The notion of culture and design is reviewed and the position towards them in this research is clarified in section 2.1. Culture as a way of life has an impact on behaviour as it transmits meanings in which symbols are adopted. Design is viewed as an intentional human activity of conceiving and implementing something created for specific purposes, in which cultural contexts and cultural meanings are intensively explored. Based on the definitions of culture and design, section 2.2 and 2.3 describes the interaction between culture and design in detail. Culture is recognised as both a resource and an outcome of design, and design is widely interpreted as a cultural activity. With reference to the perspectives design takes culture as a resource, design is categorised as design for culture, which tries to solve problems and fit the design into a certain cultural context, and cultural design, which tries to visualise potential social-cultural issues within the cultural context and pose questions, arouse discussions and nudge cultural changes. In the practise of design for culture, culture is usually discussed as surface manifestations of human factors, in other words, the user/stakeholder needs and engagement, perhaps because the implications of the terms are ambiguous and in transitions over time (Moalosi et al., 2010; Manzini, 2016; Asino et al., 2017; Saidin et al., 2017). Methods to understand user/stakeholder needs and take them as cultural resources in design have been explored in many areas such as design anthropological research, participatory design, and co-creation. Meanwhile, there is a body of literature that recognises design as a cultural activity as it intensively explores cultural contexts and transfers cultural meanings, more specifically branding, product, and service design act as cultural intermediaries. Tools, methods and approaches that integrate cultural resources in the designing process have been proposed through adopting cultural dimensions and models in the design for culture domain such as design for the international market and service design.

With regards to cultural design, the concepts of some representing cultural genres from radical design to critical and speculative design by Dunne and Raby and to conceptual design in a more general sense have been reviewed, and tools, methods and approaches to these genres have been listed with some design cases. Most existing cultural design genres take technology at the centre, while culture is often discussed as the impact of the design outcome. Therefore, existing tools, methods and approaches are technology-centred as well, and mainly focus on the communication phase with the audience after the designing process. Through the creation of alternative futures in multimedia scenarios, cultural design projects are conveyed to the public audience usually through exhibitions to enable questions

and discussions and further to nudge cultural changes.

In the Chinese context, the interaction between culture and design is perceived similarly to that of the perception in the international/Western context, as modern design in China borrows from the Western ontologies. Some tools, methods, and approaches to integrate traditional Chinese culture in design (mostly in the field of design for culture) have been proposed, while most design practises, especially those related to weddings in China, only adopt traditional visual elements. The field of cultural design in China lacks exploration and is a valuable area to investigate. Therefore, exploratory research has been conducted to examine the practise of cultural design in weddings in China, which will be displayed in the next chapter (chapter 3).

Chapter 3.

Exploratory Research

As presented in chapter 2, culture acts as a resource for design practise through user research and co-creation in the process of design for culture approaches. Meanwhile, the behaviour of designed products via their use and users result in culture becoming an outcome of design. With this in mind, cultural design comments upon culture mainly through building futuristic scenarios via design exhibitions and similar provocative public space interactions. Without products acting as a central focus of novelty which eventually become part of users' everyday lives, as is the case in product design or other more tangible design fields, this exploratory research examines instead how speculative design as an approach to cultural design has an impact on Chinese wedding culture.

3.1 Exploration Background

Initially, this study attempted to examine the impact of speculative design on wedding cultural customs. Speculative design as described by Dunne and Raby (2013) provides alternatives for citizens to discuss and thus enable them to participate in the process of determining the future. As described in the personal motivation, when it comes to traditions which bear solid history, it is wondered whether speculative design is still able to provide alternatives to challenge and discuss them. If so, how does this happen? What enables speculative design to transfer the discussions to cultural changes? And what is the mechanism of interactions between speculative design and culture? These questions above drove the researcher to this exploratory research. The motivation guided the study to explore how design can bring forth cultural changes in terms of marriage rituals in China, and the first exploratory research driven by the previous experience therefore is based on the assumption that speculative design is an effective approach. This assumption is generally associated with the inquiry of how design is linked with culture.

The link between design and culture is often observed in the involvement of users which play an essential role in the process of designing new products and services as presented in chapter 2. Anthropological methodologies including participatory

design and co-creation are often utilised to identify the real user needs and “design for the real world” (Papanek & Fuller, 1972). User needs are later interpreted into design language and product/service details through semantics and meaning transformation. Design and culture are innately linked through user research and the co-design process. In addition to design as one cultural components, when products are mass produced and used in people’s daily lives, culture might be reproduced by changing user behaviour through design. In this way, culture is both a resource and an outcome of design practise (Balsamo, 2009).

Proposed by Dunne and Raby (2013), speculative design is conceptualised to reveal social problems and comment upon culture. It focuses on possible political and cultural issues in the future. Instead of conducting research and getting users involved in the production process, the impact of designed artefact draws more attention. Since there are usually no products available in real life which can represent the design concepts, speculative designers mainly use provocative images and multimedia scenarios to express their cultural perspectives. Users are engaged as an audience by reading and imaging the designers’ expressions. Those speculated images and scenarios, theoretically, are able to play a role in supporting the citizens to think about whether they prefer them or not, and therefore have the possibility to arouse action to pursue or avoid them. However, this theoretical impact of speculative design on culture is challenged in practise, as DiSalvo (2012) argues that although a speculative design exhibition “can spark a curiosity that might be pursued, it failed to rouse to action”(p.119). Scholars have noticed this challenge and have produced new knowledge in response to it. For instance, Elsdon et al. (2017) proposes the term Speculative Enactment, an experience-centred approach to speculative practise, where people can interact with and experience the speculation. It works by making speculation matter to the participants, making their actions and non-actions meaningful in the designed future scenarios. Lyckvi et al.(2018) also work on the overview of the combined participatory design / design fiction process. These studies shed a light on the intersection of both participatory design method and speculative design practise. Therefore, the objective of this pilot research is to explore whether and how speculative design projects have an impact on wedding culture in China through involving a broader audience in participatory activities.

3.2 Exploration Process

A set of speculative design concepts related to wedding culture in China was formed (and presented in the next section), followed by three participatory

activities including group discussions and a co-design workshop as venues for the audience to react to the design concepts. Ethnographic research, more specifically case studies of three participatory activities was conducted to observe how the audiences in China respond to cultural design projects.

Group discussions include one offline discussion with five unmarried females (aged 24-27) as participants and one online discussion that involves four married females (aged 24-28). All participants are recruited by publishing the information online that allows free registration. The aim of grouping the participants based on their marital status is to investigate whether the marital status in the case of marriage culture in China influences the discussion in a general sense. Participants in both discussions include individuals from a design background and those from a non-design background. The offline discussion process lasts for 2 hours and is recorded in video and transcribed into text afterward. The online discussion is conducted through group text chat in an instant messaging app. Both the offline discussion transcription and online chat record are coded to generate findings.

A co-creation workshop is held after the two group discussions. Interpretations of co-creation and co-design vary in who, when and how to involve in the creative process (Sanders and Stapper, 2008). The co-creation here is used to describe the workshop where participants are required to imagine the future wedding scenarios based on the speculative design concepts. There are nine participants (aged 20-31, 5 females, 7 unmarried and 2 are a couple) from both design and other backgrounds, recruited through offline posters (on the XJTLU campus) and online links with free registration, and are divided into three mix-background groups. The workshop lasts for six hours and it provides basic creative toolkits such as paper cards, pens, scissors, glue, and fabric to support the participants to communicate their ideas. The participants present their future creations in groups at the end of the workshop which is video recorded, and all the participants are interviewed for about fifteen minutes individually after the workshop.

3.3 Speculative Design Process

The designing process of this project applies what-if thinking in conceptualising the speculation (Dunne and Raby, 2013). Two what-if scenarios are created based on the questions of “what if the relationship of the bride and her wedding dresses would become weaker in the future” and “what if the relationship would become stronger”. With the assumption that the relationship would become weaker, the speculative design concept is formed as a water resolvable wedding dress that will

totally disappear when washing after the wedding day. On the contrary, another design concept is a wedding dress that is tailored from a daily dress of the bride using water resolvable material. The wedding dress is able to change back to the original one after washing. Under this circumstance, the relationship is strengthened since the bride shares more stories with the dress both before and after the wedding day.

The inspiration of the design concepts is basically an integration of marriage culture in China and philosophical theories. It started from the alienation theory that the designer/researcher encountered when reading a book about the history of Chinese marriage, where it is argued that one of the reasons for the convergence of Chinese marriage rituals is alienation (Dong, 2016). Originally identified by Karl Marx (1959), alienation theory has attracted interest from research coming from multiple different angles. After the 1950s, alienation was interpreted as the outcome of consumption, and scholarly work focused on the alienated behaviour of consumers (Xue et al., 2014). Alienated consumers continuously and easily consume products they do not really need and thus hold a weak relationship with after purchase.

Based on this theory, it is noticed that the bride in China is alienated through observation of her wedding dresses. It is common for a Chinese bride to wear three, four, or even five dresses on her wedding day. Brides wear different dresses to fit different ritual events as described in section 1.1.3. For instance, during a field trip to Tiger Hill Bridal City to help a couple purchase their wedding costumes in May, 2020, they bought three dresses, one suit and two traditional Chinese wedding costumes in total for their wedding day. More specifically, the bride bought a traditional Chinese wedding costume (*xiu he fu*, see Figure 3.1a) for the pick-up, a satin dress with a short train for *ying bin* (see Figure 3.1b), a shining white dress with a three-meter long train for the ceremony (see Figure 3.1c), a shining floor-length silver fishtail dress for toast (see Figure 3.1d). According to another wedding attended in Hangzhou, Zhejiang in August 2018, the bride changed 3 dresses on the wedding day, only wearing each dress for one to two hours (see Table 1). No matter whether they are rented or bought, after the wedding day those dresses will not be worn again. It thus is reasonable to argue that the relationship of the bride and her wedding dresses is weak by the time factor alone. This relationship without or with little (true) relation is claimed as alienation (Jaeggi, 2014, Rosa & Henning, 2017).



a	b
c	d

Figure 3.1. Four dresses one bride bought for her wedding day from Tiger Hill Bridal City. Source: Photo by: F. Dong, 2020.

- a. a traditional Chinese wedding costume (xiu he fu).
- b. a satin dress with a short train for ying bin.
- c. a shingling white dress with a three-meter long train for the ceremony.
- d. a shingling floor-length silver fishtail dress for toast.

	Price	Wearing Scenario	Wearing Time	Wearing Duration
Dress 1	1300 RMB in total, rented	pick-up	10am-12pm	2 hours
Dress 2		ceremony	5:30pm-7pm	1.5 hours
Dress 3	400 RMB, bought	banquet toast	7pm-10pm	3 hours

Table 1. Prices, wearing scenarios and durations of the three dresses on a wedding day in Hangzhou, Zhejiang, 2018.

3.4 Findings from the Participatory Activities

3.4.1 Activities 1&2: online and offline group discussions

The online and offline discussions follow the same structure with deeper and deeper descriptions of the concepts step by step. Participants are encouraged to freely exchange their opinions in each step. The discussion is divided into the following four parts.

1. The design concept was described as a magic dress which totally disappears after being worn once. The unmarried participants were curious about why and how the dress disappeared and they discussed several possibilities. The married group did not mind as long as they were not the only one whose wedding dress disappeared. They discussed more about their own wedding experience. “My wedding dresses were rented so I do not care if they disappeared or not. I would feel ominous if only my dress disappeared bizarrely. But it would be fine if others’ dresses also disappeared”, said one participant.
2. The water soluble fabric was introduced to the participants. The unmarried participants worried about the functions of the new dress such as what if the wedding day is a rainy day, while the married group did not treat it as a problem - they all had their weddings indoors. One unmarried participant mentioned the possible user behaviour change with this concept. “Maybe when I bought the dress I wanted it to disappear after wearing it. But after my wedding I changed my mind and wanted to keep it. In this case I will need to store it in a special way”, said her. The married group all agreed that if the price is acceptable they would like this dress.
3. The tailored partly water dissolvable dress was described for them to compare. The unmarried group all preferred this concept. One participant described it as “a special story for me and my husband”. The remaining part of the dress fitted their imagination that brides like keeping the wedding dress as a memento. They also mentioned there might be special rituals during the wedding ceremony because of the new dress. Surprisingly, almost all participants in the married group said they would not choose the partly resolvable dress since they thought they did not own a suitable dress to tailor. Only one participant thought the idea was creative and might be attractive to those who love to try the newest fashion.
4. The design theory behind the practise was explained. The unmarried group

thought it was a great design concept but could not share more opinions. The married group also did not care about the design theory. They only cared about the shape and price of the dress.

The participants of both online (married) and offline (unmarried) discussions tend to judge the new design concept under the current cultural context. Although the married and unmarried groups have different preferences of the design concepts, they both focused more on the functions and value for money of the dress. Their perspectives were mainly considering whether they would buy the dress for their wedding.

3.4.2 Activity 3: co-design workshop and interview results

Each group makes a wedding dress collage and a ceremony scenario paper prototype to demonstrate their future wedding creations. The design of group A was inspired by baptism from the western Christian religious concept. In their future wedding ceremony, the bride would wear a white dress with a super long water soluble train. She would be baptized by passing through a river from the entrance to the main stage of the wedding hall, where the dress train would resolve and her dress would become a floor-length train (see Figure 3.2). Group B designed a ceremony in martial arts style and created new rituals for the couple in response to the water-resolvable clothing. Similar to the wedding dress by group A, their bride would wear a dress with a super long train. The guests attending the wedding would pour their wine and drinks onto the long dress train to express their best wishes. Afterwards the bride would take off her long train and put it into a huge wine glass with wine, to make it resolve together with the groom's cloak made of the same material (see Figure 3.3). The imagined wedding ceremony of group C would take place in space. In their scenario, the couple would first meet and fall in love with each other on a barren planet that looks like desert. The bride would wear tights made of the water soluble material at this moment. Then the couple would go through a waterfall door and arrive at a lively planet, representing their new life after marriage. When walking through the waterfall, the tights would disappear and a tutu inside would show up (see Figure 3.4).



Figure 3.3. Wedding ceremony prototype, storyboard and dress collage of Group B. Source: Design by participants in the co-creation workshop, Photo by: F.Dong, 2019.

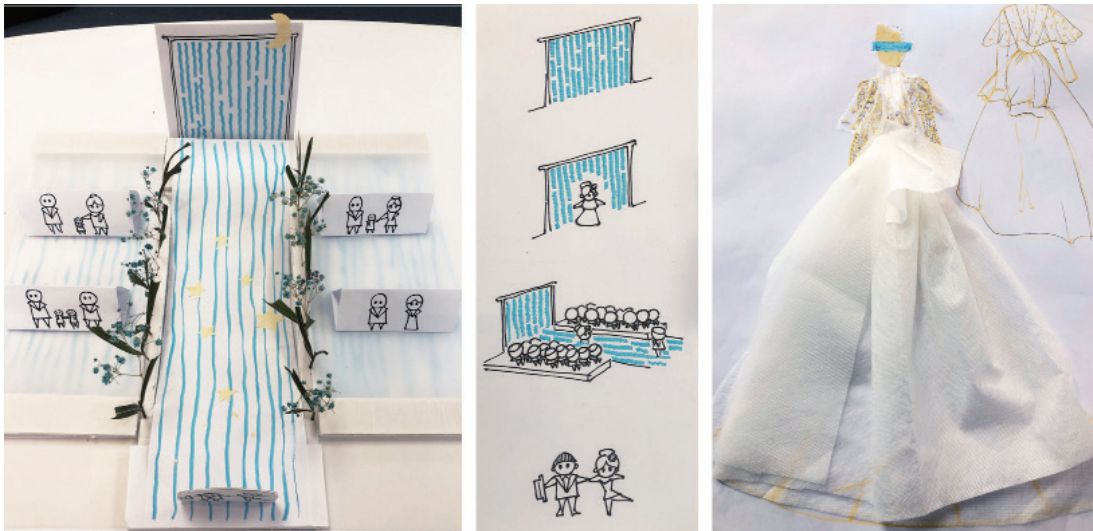


Figure 3.2. Wedding ceremony prototype, storyboard and dress collage of Group A. Source: Design by participants in the co-creation workshop, Photo by: F.Dong, 2019.

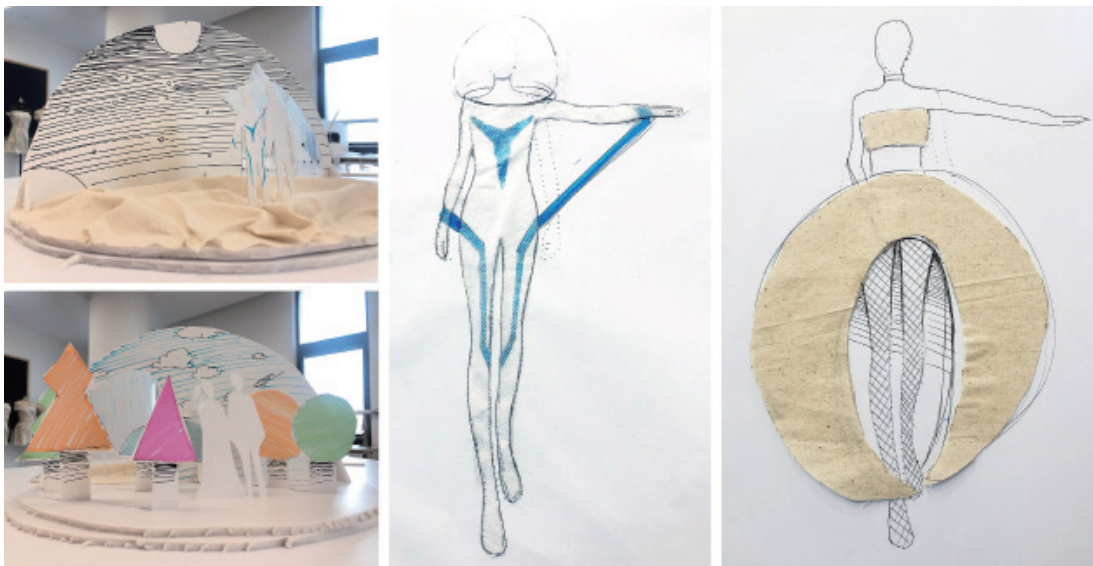


Figure 3.4. Wedding ceremony prototype, storyboard and dress collage of Group C. Source: Design by participants in the co-creation workshop, Photo by: F.Dong, 2019.

All the participants imagined more possibilities about Chinese wedding culture during the workshop no matter if they were conscious or not. Their thoughts during the workshop were critical and reflective, while most of them did not pay attention to wedding culture before. All the participants have attended some wedding ceremonies of their friends and relatives, and two of the participants (they are a couple) had their wedding in 2016. They all recalled their wedding experiences during the workshop. When talking about what they gain from the workshop, one girl said “maybe it will change my decisions on my own wedding”. It is reasonable to argue that they will also recall their workshop experiences in wedding related scenarios in the future. Only one participant had some considerations about wedding culture before the workshop, such as the differences of Chinese and western wedding and the future wedding forms. The workshop provided her with an opportunity to communicate her former thinking with other participants. “It

enriched my former imagination of a future wedding. I am very happy to express my ideas using the design language”, said her. The design task in the workshop pushed the participants to pay more attention to the cultural ritual in the future instead of the functions of the dress compared to the group discussions. The wedding ceremonies they designed are towards a preferred future. They all endured the wedding stories' positive endings, while in the group discussions participants imagined more accidents during the wedding.

3.5 Chapter Summary and Reflection

Chapter 3 presents the exploratory research that examines how participatory activities support the cultural design communication process to have an impact on Chinese wedding customs. Two cultural design concepts are proposed as a set, being introduced to three groups of audiences through online and offline discussions and a co-creating workshop. There is no doubt that involving a public audience is essential to speculative design to achieve its goal of nudging cultural changes. The provocative images and scenarios that speculative design produces make it possible to raise public attention. When exposed to new products only or as a central focus, users tend to judge the functions, costs and prices, usability and practicality at first glance, ignoring deeper potential experiences and impact on personal practise. Nevertheless, participatory activities, especially the co-creating workshop, are able to encourage opinion exchanges among the participants, and some participants described that the experience of participating in these activities might impact their wedding preparations. Co-creation activities provided participants with a platform to reflect more on cultural practises where participants were allowed to create future scenarios, which enables them to take immateriality into consideration based on the change of material culture. Although the activities are short-term and participants' reflection is limited during the activities, the experience has the potential to have continuous influence on participants in the future. The findings displayed in this chapter inspire the communication techniques in section 6.4.

From this exploratory research problems have surfaced in two aspects, which results in adjustments that shape the PhD project. Firstly, questions emerge from peer researchers about what is defined as speculative design and co-creation in this research. Dunne and Raby, who are generally acknowledged as the founders of speculative design theory, did not define it in a few comprehensive sentences. They even did not mention the term “speculative design” in their famous book

Speculative Everything. Instead they built their theory on philosophical analysis and case studies. The author interprets speculative design as a broad concept of questioning the present and providing critical comments. Others may emphasise on its characteristics of technological focus and provocative images. The diversity of interpretations of speculative design leads to questions such as “do the design concepts formulated in this research belong to the field of speculative design”. This lead to the categories of “design for culture” and “cultural design” in section 2.4 and uses cultural design instead of speculative design to clarify the research area.

Secondly and more importantly, it is too ambitious to attempt to propose new approaches to enable speculative or cultural design to change the lifestyle as the product/service design does (as described in the background of this exploratory research). Although this exploratory research indicates the possibility for cultural design projects to change the audience’s future behaviour thus nudging cultural changes in practise, it is almost impossible to observe real changes which require a long time period (Klasnja, Consolvo and Pratt, 2011; Rapp, 2018) in a relatively short-term PhD research process. What a PhD researcher could observe is how the design concept is perceived and discussed by a broader audience. In addition, the concept of “culture” is complex and interpretations vary as described in chapter 2. Behaviour change is only one of the impacts that design has on culture, and is often reviewed as "history". The interaction between culture and design for culture, as described in chapter 2, is reflected in that design is widely interpreted as a cultural activity where cultural meanings are intensively explored and transmitted. Therefore, how culture can be investigated and integrated into the cultural design process and how cultural design can transmit meanings which identifies itself as a cultural activity become the focus of the research.

Summary of Part I

Research Gaps

Within Part I the contextual foundation of this PhD project has been built up. Research gaps in three aspects are thus defined based on the literature and exploratory research.

Firstly, in terms of the research at the intersection of culture and design, the focus has been paid mainly to the design for culture domain, while attention to cultural design is insufficient. Interpreting design as cultural activities analysed design in a general sense. Cultural design is only mentioned when discussing culture and all senses of Design. For instance, Balsamo (2011 p.19) in the book *Designing Culture* describes speculative design as being “instrumental as props for the performance of identities (for the designers), and for the creation of meaning (for the visitors and other participants)”. Design has been examined through the lens of cultural intermediaries in some design-for-culture approaches only. Methods and tools proposed for integrating culture in the designing process, as well as applications of cultural dimension and models in design, also focus on the design for culture domain.

Secondly, with regard to cultural design, there is a lack of culture-centred scopes and approaches for cultural design in particular. Most of the existing interpretations of cultural design are technology-centred, from radical design that challenged the environmental issues the polymer technology brought to critical and speculative design that challenged the potential issues brought by digital and biological technologies. Existing cultural design approaches and tools mainly focus on how to materialise and communicate the design concepts, while methods on how to construct the design concepts are insufficient. In addition, the effectiveness of cultural design to pose questions and nudge cultural changes is challenged by some scholars, as cultural design exhibitions are able to attract attention but hardly bring behaviour changes.

Thirdly, in the Chinese context, limited research focused on the cultural design domain. The Chinese design culture mainly borrows from the international/Western culture, with some exploration mainly on integrating Chinese elements through the design for culture approach when designing the forms. In the field of cultural

design, there are only Chinese translations of some representative books in cultural design such as *Speculative Everything* and *Adversarial Design*. Cultural design projects and cases in China are observed in some public articles as study abroad experience sharing and were published through platforms such as WeChat and Blog, while in academic articles limited cases were noticed in the Chinese context.

Research Objectives and Questions

In response to the research gaps above, this research focuses on the interaction of culture and design within the cultural design domain in the Chinese context. It aims to understand how cultural design can be practised in the Chinese context. Meanwhile it aims to understand the interaction of culture and design within cultural design in order to explain why it can be practised in a certain way, and vice versa. More specifically, the main objectives of this research include:

1. To understand how wedding culture in China, including its history, contemporary procedures of the marriage rituals, materials involved in the procedures, and factors that shaped the culture, is investigated in the cultural design process, .
2. To investigate methods to integrate wedding culture in cultural design practises in China.
3. To analyse the mechanism of interactions between culture and design within the cultural design practises that integrate wedding culture in China.
4. To understand the way cultural design practises that integrate wedding culture in China are perceived by Chinese audiences.
5. To optimize the communication process with Chinese audiences of the cultural design practises.

In order to achieve the research objectives, three interrelated research questions are proposed:

1. How are the cultural components of weddings in China investigated and integrated into cultural design practises?
2. How to structure the communication process in China through which cultural design practises are discussed?
3. What are the interactions of culture and design within cultural design practises?

These three questions are informing each other in reflexive relation. The way cultural components of weddings in China are investigated and integrated into cultural design practises (question 1) will impact how they are communicated with broader audiences (question 2). How cultural design concepts are perceived and discussed by a broader audience (question 2) will provide insights into the way they are constructed (question 1). Understanding the way cultural design is practised (questions 1 and 2) will help understand the interactions of culture and design (question 3), which at the same time will provide a theoretical foundation for practising culture-centred cultural design (question 1).

The novelty of this research lies in the research objectives and questions in response to the gaps. There are several research projects investigating the interaction between culture and design for culture approaches, including understanding how to integrate culture in the design for culture process and interpreting design for culture approaches as cultural intermediaries. Interpretations of cultural design are often technology-centred, while culture is often utilised as design resources unconsciously. These explorations and investigations often take place in a Western/international context and lack practises in the Chinese context. This research focuses on the interaction between culture and cultural design in China, which is rarely explored by other scholars, including exploring how to consciously integrate culture in the cultural design process and examining cultural design from a culture-centred perspective in the Chinese context.

Part II

Methods and Results

Methodology

Design Level

Methodological Level

Theoretical Level

Chapter 4.

Methodology

This chapter will describe the methodological framework of this research. The research objectives and questions tend to explore cultural design in both methodological (questions 1 and 2, focusing on *how* cultural design is conducted) and theoretical levels (question 3, focusing on the interaction mechanisms of culture and design which will explain *why* cultural design is conducted in that way). Explorations in the methodological and theoretical levels are in reflexive relation in which the proposed design methods had an impact on the interaction of culture and design, while the interaction of culture and design shaped the design process. Therefore, the three questions were investigated through a nonlinear process, where the interaction mechanisms of culture and design were analysed based on cultural design practises that utilised the proposed design methods, and meanwhile the analysis of the interaction mechanisms formulated the theoretical foundation of the design methods. More specifically, this research adopts a qualitative research approach, with reference to the design research categories of research for design, through design and about design by Frankel and Racine (2010). It fits within the overall framework of Constructive Design Research (Koskinen et al., 2011), and is also rooted in the practise of participatory ethnography for design (Blomberg and Karasti, 2012). Section 4.1 will first introduce the theoretical foundation of the methodology, including the concept of research for, through, and about design, and constructive design research as a reference for the whole research structure, qualitative research as data collection and analysis strategy, as well as peer ethnography and autoethnography as wedding cultural data collection approaches. Section 4.2 will describe the research process to emphasise how the concepts introduced in section 4.1 are adopted in this research, including descriptions of three design studios and interviews with the studio participants. Section 4.3 presents the validation strategy of the design approaches proposed in this research.

4.1 Theoretical Foundation

4.1.1 Research for, through, and about design

Frankel and Racine (2010) present a framework about approaches to design research which divides them into three categories: research for, through and about design, building on the categories of clinical, applied, and basic research proposed by Buchanan (2001b). Research for design (clinical research) focuses on specific design cases that require certain information to achieve the design goal. It collects and analyses data for designers to apply and transform it into design opportunities and outcomes. There has been a wide range of terms to describe this research area such as research to enable design (Downton, 2003), practise-led research (Rust et al., 2007), and design-oriented research (Fallman, 2007). Both quantitative and qualitative methods are able to be applied in this research category, such as surveys, demographics, and structural tests at a large scale of samples (quantitative, Roth, 1999), as well as interviews, visual ethnography, and activity analysis in the natural settings of the studied objects (qualitative, Denzin & Lincoln, 2011). In addition, primary and secondary methods, as well as formative and summative methods are possible to be utilised in the research for design process. The specific research for design methods utilised in this research will be presented in section 4.1.4.

Research through design (applied research) addresses the process that generates findings beyond the clinical design activities based on many research for design methods. Quite the opposite of research for design also being called design-oriented research, research through design is also called research-oriented design (Fallman, 2007, Findeli, 1995, Jonas, 2007). The objective of research through design, therefore, is to generate new knowledge in the field of design through design practises. There has been a wide range of research being conducted within this category, and specific methods and strategies have been intensively explored, which will be presented in detail in the next section (4.1.2).

Research about design (basic research) deals with the fundamental elements that impact the process of generating new knowledge in the design field, which may include the history of design, design theory (Schneider, 2012), and the culture of design (Cross, 2007). Therefore, research about design tries to understand the behaviour of both designers and users, as Buchanan calls it “design inquiry” (2007, 58). In addition, research about design tends to define the problem for design before solving it (e.g. see Gedenryd, 1998; Lawson, 2006), which challenged the epistemology of design as solutions to problems.

The three design research categories are interrelated and form a circular process with each one informing the other, which produce design knowledge in multiple levels of “how-to-knowledge”, “knowing that” and “knowledge-of” (Downton, 2003, p.62). The “how-to-knowledge” refers to design abilities that an individual has, the “knowing that” represents the process of learning about how designers design, and the “knowledge-of” indicates the perception of design and designers. Design researchers could be engaged at and/or combining any levels/categories. This design research project follows the circular process of research for, through and about design (see Figure 4.1). It takes research through design as the main approach to answer the research questions 1 and 2 to formulate and verify design methods through conducting design projects and understanding how those projects are conducted. Research about design through literature research (chapter 2) and qualitative analysis of why those projects are conducted in that way (chapter 7) formulates the theoretical foundation for the new design methods (chapter 6). Research for design approaches provide resources for each design project. The next sections will introduce the research through design (also called constructive design research), the qualitative research strategy, and the research for design methods in detail.

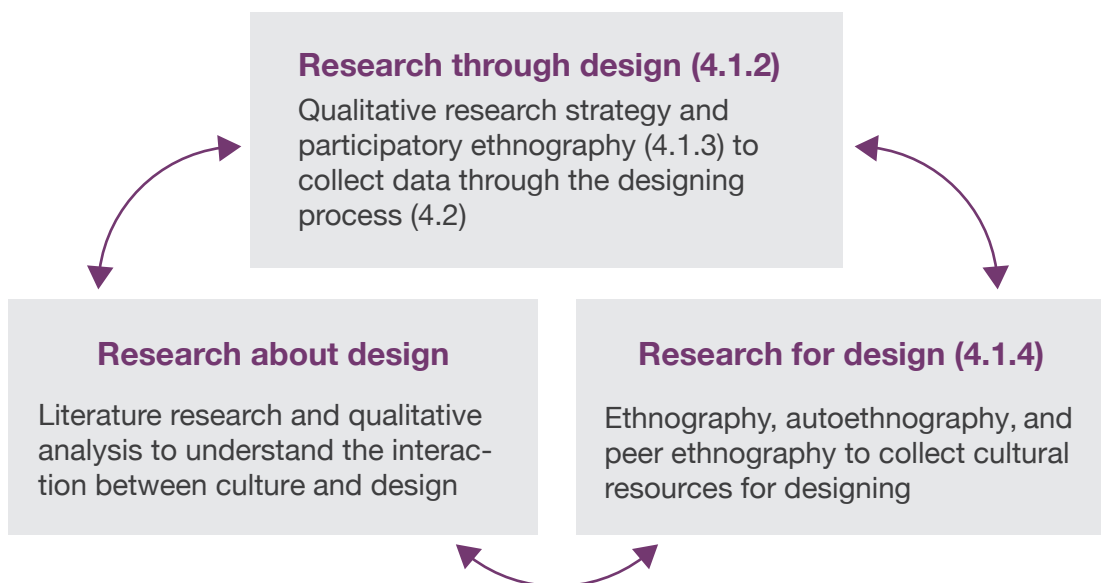


Figure 4.1. the circular process of research for, through, and about design adopted in this research project.

4.1.2 Constructive design research (research through design)

Research through design, or “constructive design research” as defined by Koskinen et al. (2011), describes the process of constructing knowledge through constructions of “things” such as product, system and space. Many research projects have utilised constructive design research methods in different scenarios described as “the lab, field and showroom” by Koskinen et al. (2011). An example of research in the laboratory setting provided by Koskinen et al. (2011) is the design prototype of a camera with rich interaction by Joep Frens. Compared to a

traditional camera that is operated by humans through buttons and touchscreen, this camera interacts with users through various parts of the product. For instance, users need to push the camera screen towards the memory card in order to save photos. The camera prototype is designed to enable the users to understand the interaction principles. Through testing the prototype with twenty-four students and collecting their comments, Frens explored alternatives for camera interaction and compared it with the traditional interaction. Conducting research in the laboratory decontextualised the researched objects from the real world which resulted in both benefits and limitations. The contextualisation on the one hand made the research more controllable without additional disturbing factors, on the other hand brought forth more uncertainties about the situation in the real world. Therefore, additional analysis is needed, from the statistical perspective for instance, to generate convincing findings.

Design research in the “field” explores the context of design based on field research, where tools and tool kits could be produced and utilised to support the design ethnographic process and recognise it from ethnography in a general sense. Design concepts are generated during the data analysis process, and are produced (or made as prototypes) and set in the context for researchers to observe how people might explore, interact with and redefine them in several weeks/months. The reframing public health project in Vila Rosario, a village in Rio de Janeiro, Brazil, exemplified constructive design research in the field. Through contextual research, it was almost impossible to apply high technology in the design for public health due to the high poverty level and illiteracy rate there. Therefore design in low cost through a low-tech approach was proposed and evaluated, resulting in research findings such as how to transfer design from technical practise to a low-tech one. However, findings generated from research in the field are localised, thus cannot be directly applied to broader contexts. It instead provides case studies for other peer designers and researchers.

The cultural design domain is closely related to the constructive design research conducted in the showroom. As described in sections 2.4.1 and 2.4.2, critical and speculative design is applied as a research approach to put technology in the debate centre before it brings social and/or political issues. Data is collected through displaying design projects in exhibitions and gathering reactions and comments from exhibition visitors, and is analysed through more artistic approaches to provide materials for debate. Usually the whole process of the design projects from the very beginning to the final outcomes is provided to the visitor in order to emphasise the design integrity. This character of design research in the showroom results in the problem that the design project may be interpreted in a way beyond the designers’ initial intention. An exhibition may include several projects being organised by the curators under a general framework suitable for

all the projects, and this framework is often based on the curators' interpretations. Therefore, other communication forms of the design project such as publication become a necessity to convey the entire design and research intention.

Overall, research in the laboratories focuses on the body and behaviour of the user, research in the field focuses on the specific cultural context based on social interaction theories such as psychology and anthropology, and research in the showroom challenges the mainstream of design culture. This research project fits within the overall framework of constructive design research, where several design activities were conducted and their processes were recorded for analysis. Through several design studios (see details in section 4.2), new design methods were proposed and verified in the field scenario in the Chinese context, where the perceptions of cultural design in China were observed and the new methods were applied by Chinese students in designing the wedding future in China. In addition, during the design studios broader audiences were involved in the cultural design project, which combined constructive research in the field and the showroom to take advantage of constructive design research in each scenario and avoid bias resulting from a single scenario.

4.1.3 Qualitative research strategy

Although there are a rich number of definitions of qualitative research in multiple academic fields, its process of improving understanding of the community is suitable to answer the *how* and *what* research questions in this project which are difficult to answer through "numbers" as quantitative research does (Aspers & Corte 2019; Busetto et al. 2020). Therefore this research adopts a qualitative research strategy to understand the cultural design process and the way culture is integrated in and interacts with design. More specifically, ethnographic approaches have been utilised to gain insights into how cultural design is conducted, with reference to participatory ethnography for design (Blomberg & Karasti 2012). Ethnography is rooted in anthropology to understand and describe the "ways people make sense of the world in everyday settings" (Blomberg & Karasti 2012, p. 89). As described in section 2.2, ethnographic methods have been widely utilised in the designing process to understand the "user". Ethnography and (participatory) design are thus in reflexive relation as how people interact with the designed objects/prototypes is observed by anthropologists, which then becomes the resources for design/iteration (Blomberg & Karasti 2012). This research takes this reflexive relation and adopts ethnography as the main approach to deal with the participatory design of the design methods. The cultural designing process was observed, recorded, and analysed to generate patterns of how cultural design is conducted (as initial cultural design methods). Then the initial methods were introduced to other groups of designers to utilise. The process of conducting cultural design projects with the support of the initial methods was again observed, recorded and analysed to

iterate the design of the design methods. The detailed process will be introduced in section 4.2. As designers naturally produce visuals such as images and videos, visual methods also originated from anthropology in the early 1900s (Pink, 2006) are adopted in the research process. Visuals created to elicit design narratives in each studio later become visual data for the research and are also displayed in chapter 5 to supplement text descriptions of each project (Müller, 2021; van den Scott, 2018).

This research is conducted during the years of 2018 to 2021, when the COVID-19 pandemic had an impact on the data collection process. Ethnographic research in the “real” world is restricted by the pandemic, therefore internet, or virtual ethnographic methods are adopted in this project. Internet or virtual ethnography (Mann & Stewart, 2000; Crichton & Kinash, 2003; Sade-Beck, 2004) is one form of ethnography that takes the advantages of engaging with people in online spaces without geographic bounds. Compared to conventional ethnographic research, it allows participants to organise and/or withdraw their words in text but meanwhile bears with the lack of nonverbal/non-textual clues such as body languages. Under the pandemic situation to conduct ethnography online, this research learns from internet/virtual ethnographic strategies to organise online observation and interview activities, which will be displayed in section 4.2.

4.1.4 Research for design methods: ethnography, autoethnography and peer ethnography

Within the framework of constructive design research, several design projects were conducted in this research during which the objects created became the research focus. In the process of conducting design projects, research for design methods were utilised to collect data required for producing design outcomes. Particularly in this research, Chinese wedding cultural data was collected through ethnographic approaches in two types. Firstly, design projects conducted by the PhD researcher were included in this research, where wedding data was collected through archive and literature research, field trips to Huqiu wedding market area, and wedding attendances. In addition, autoethnographic has been adopted as part of the “native ethnography” in which the ethnographer researches about their own people (Chang 2008, p. 44), as the PhD researcher was born and raised in China. Secondly, rooted in the participatory ethnography for design, this research invited participant designers to conduct cultural design projects, through which data about Chinese weddings was collected by the participants through peer ethnography (Elmusharaf et al., 2017; Price & Hawkins, 2002). Peer ethnography “enables community members to design and conduct interviews and analyse data” through training them with ethnographic methods (Elmusharaf et al., 2017, p.1347). In this research, the involvement of peer ethnographers was able to increase the breadth of Chinese wedding cultural data since Chinese wedding rituals and customs may vary in different geographic areas. Participants as peer ethnographers from diverse

cities and provinces in China were trained in the use of design ethnographic tools such as interviews, observations, and visual ethnography before they started the fieldwork. They were also encouraged to include their own experience of Chinese weddings in their research-for-design process. Again visual ethnographic methods such as photography and mapping are adopted as part of the field notes during data collection and as analysis to communicate the cultural context in the thesis writing (van den Scott 2018).

4.1.5 Summary: framework of this research

With the reflexive aims of investigating cultural design methods and the interaction of culture and design as described above, this project followed the circular process of research for, through, and about design described in 4.1.1. Research about design is conducted through literature research to understand the existing interaction between culture and broad sense of design (chapter 2) and qualitative analysis to understand the interaction mechanism within cultural design (chapter 7). Research through design, or constructive design research, is the main agent to generate new knowledge in cultural design practise in this project. Design activities were conducted both by the PhD researcher with reference to autoethnographic methods and by student designers participating in design studios with the PhD researcher as the facilitator, with reference to participatory ethnography. The artefacts created using simple prompts and instructions during all the design projects became objects to be used in research, where their designing process and outcomes are recorded, transcribed and coded. While design activities were organised, the designing process involved research for design approaches to collect resources for the design themes. In the case of this project, resources about weddings in China were collected for the purpose of design. The wedding cultural data was collected through archive and literature research and autoethnography in the process of each design project. The student designers were trained as participatory ethnographic researchers during the studio to collect wedding data (peer ethnography) and also encouraged to use their own experience with weddings as a resource surrounding the cultural knowledge of the materiality and practises associated with weddings in China. The analysis of the practical research (for design) process contributes to generating knowledge in the field of design and thus fits into the category of research through design and the framework of Constructive Design Research as well. Section 4.2 will then introduce the data collection process through constructive design research.

4.2 Research Process

As described in 4.1.3, this research applies qualitative methods with the concurrent flow of data collection, data analysis, and conclusion verification (Miles et al., 2014). There were five designing activities being involved in this research, two of which were design projects conducted by the PhD researcher, and three design studios with students were organised (see Figure 4.2). Design project 1 was presented in chapter 3 as the exploratory research. Detailed information of design project 2 and design studios 1-3 are shown in this section. Participants in each design studio were asked to complete cultural design projects, either individual or group projects. The most comprehensive projects (two from studio 1, four from studio 2, and five from studio 3) are selected, of which the records were transcribed and analysed. Data was analysed, and adjustments of communication techniques were made and applied to the next studio session. More specifically, analysis on data collected through project 2 and studio 1 helps generate a draft guideline entitled Speculative Ethnography, which is then adopted in studio 2 for verification and iteration. Studio 2 also contributes to a cultural framework which is then verified and iterated in studio 3. During the whole process, the interaction of design and culture is continuously examined and becomes the theoretical foundation for the construction of Speculative Ethnography and the cultural framework. This iterative process is consistent with the sampling process of qualitative research as well. There is often

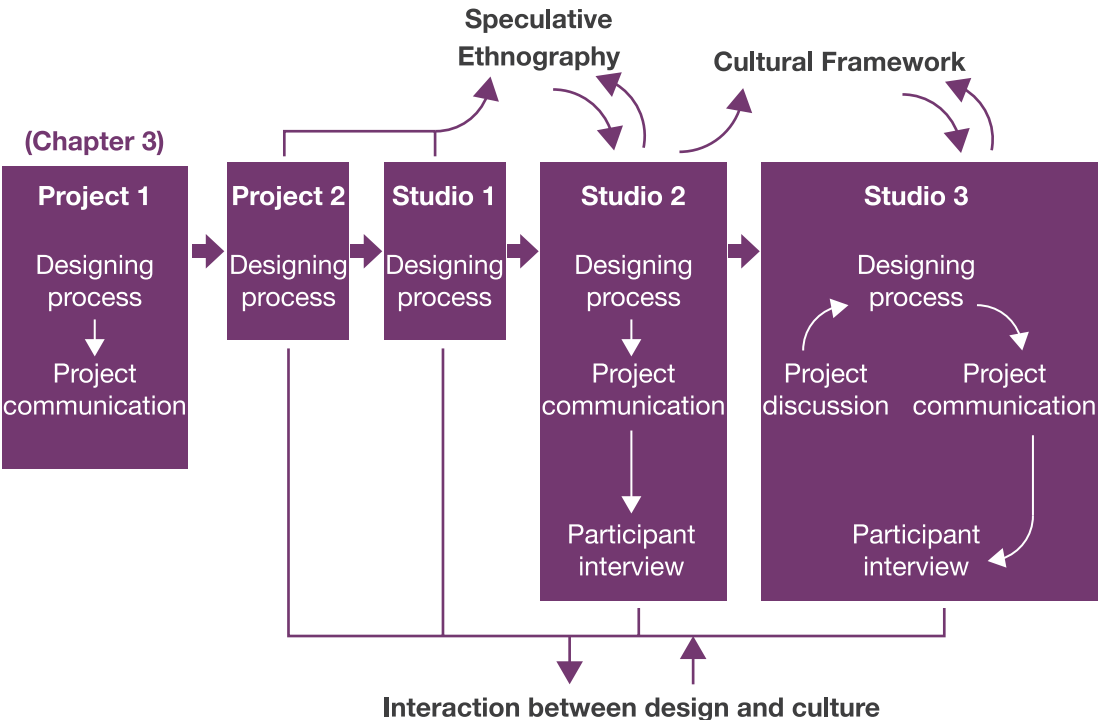


Figure 4.2. The research process involves five design activities following a concurrent flow of data collection, data analysis and conclusion verification.

no fixed minimum sample size requirement for qualitative research, and the number of participants is not often required as a priori (Fossey et al. 2002; Busetto et al. 2020). Instead, after three rounds of data collection and analysis through three studios, information is recognised as "saturation", a situation where "patterns are recurring" (Fossey et al. 2002, p. 726).

Although the number of participants may be not large, the amount of data collected is huge. Each studio lasted three to eight weeks when the researcher actively interacts with the participants every week and thus the whole process of developing a design project contributes to the data set. The final presentation of studio 1, as well as the whole process of studios 2 and 3 including lecture presentations, group discussions, and participant final presentations were recorded via screen recording. After the completion of each design project and studio practise, participants were interviewed about their designing process and studio experience. The overarching topic of all of the projects is wedding culture in China, which as an umbrella term relates to all aspects of weddings in China including pre-wedding, wedding and post-wedding rituals, as previously described in chapter 1. The primary research is conducted in a Chinese-language environment, as this is the natural means of communication for participants and studio coordinators. Therefore, data is recorded, transcribed and coded in Chinese first, and is then translated into English. Original images produced in the studios by the participants which may contain Chinese characters are shown as visual ethnographic data in chapter 5, with English translations noted on the images to ensure a wider understanding by non-Chinese speakers.

4.2.1 Design project 2

This project was conceptualised during April and May 2019. Two videos were produced to visualise the design concept. One of the videos was produced in Suzhou Tiger Hill Bridal City by two undergraduate student volunteers, one of whom from film and TV arts and another one from industrial design. The PhD researcher is involved in the videos as the amateur actress who played the role of bride, and her boyfriend (now her husband) played as the groom. Another video was self-recorded during the researcher's trip to Jeju, Korea in June 2019 and was edited by the student from film and TV arts background. By involving the researcher herself and her husband as characters in the video, the researcher could experience and reflect on the speculated cultural component naturally with reference to autoethnographic research methods.

4.2.2 Studio 1

The studio was provided through the platform of Canopy Institute of Design, an online design education platform, for student designers to freely participate with

payment. There were five student ethnographers/designers (all female, unmarried, aged 19-24) participating in the studio, all from architecture and urban planning background and these are their first projects in cultural design. The studio lasted for seven weeks for each participant to conduct an individual speculative design project with the guidance of the studio facilitator during two-hour sessions every week. At the first lecture of the studio, participants were notified that the studio belonged to a research project. They were introduced to the research project, the aims and process of the studio, and the role of this studio in the whole research project. They understood which and how their data during this studio would be used in the research project by reading the information sheet and signing up the consent form, both developed based on the University Ethics Committee approval of Xi'an Jiaotong Liverpool University.

The designing process during this studio started with Chinese wedding culture research, followed by design opportunity identification, concept development and final design communication through group presentation. Participants were equipped with design ethnographic methods, qualitative data analysis approaches, and speculative design aesthetics through lecture presentations. Detailed studio structure is presented in Table 2.

Week	Objectives and tasks	Approaches
1	To understand the concept of cultural design and to research about Chinese wedding culture.	Lecture Presentations: cultural design theory; cultural research methods - design ethnography
2	To collect qualitative data for design.	Individual research and group discussions
3	To analyze the collected cultural data and identify design opportunities.	Lecture Presentations: coding and content analysis methods; group discussions
4	To speculate the future based on the cultural materials.	Individual design and group discussions
5	To visualize and materialize the speculation.	Lecture Presentations: speculative design aesthetics: visualization and materialization techniques presented in <i>Speculative Everything</i> (Dunne and Raby, 2013)
6	To finalize the Design project.	Individual design and group discussions
7	To present the designing process and final design.	Individual design and group discussions

Table 2. The structure of Studio 1, describing objectives, tasks and approaches each week.

4.2.3 Studio 2

This design studio involves four participants (age 20-22, one male) as ethnographers/designers (hereafter referred to as designer-participants) and eighteen participants (five males) as the audiences (hereafter referred to as audience-participants) from both industrial design (IND) and non-design backgrounds. They did not have any experience in cultural design before their participation in the studio activities. The designer-participants were recruited by One Pear Education, a platform providing extracurricular design courses and workshops, and participated in the studio for eight weeks with two hours of online group discussion each week. A description of the studio was displayed on their website and students were allowed to participate with a fee if they expressed interest. The audience-participants were invited, by the designer-participants and One Pear Education, to attend a two-hour activity in groups in week eight. Each designer-participant shared his/her design project of this studio with a group of audience-participants from mixed backgrounds and encouraged them to discuss the culture components that were emphasised in the design project. All of the activities were conducted online. Similar to studio 1, the information sheets were provided to participants and signed consent forms were collected at the first lecture.

The studio structure is divided into five phases of introduction, fast hackathon, cultural research, future speculation and design communication (see Table 3). With the aim of enabling the designer-participants to conduct research about Chinese wedding culture and to complete individual cultural design projects, the introduction phase presents the concept of cultural design and its tool Speculative Ethnography (Dong et al., 2020), as well as the interaction of culture and design and approaches to cultural research for design. The presentations are based on the previous research publications of the authors. During the second phase, the fast hackathon, all designer-participants work together for twenty-four hours to brainstorm Chinese wedding aspects and arrange them into the framework of Speculative Ethnography. This phase is expected to inspire the designer-participants about Chinese wedding culture components that they want to focus on during the following design projects and to provide them with an overall understanding of the designing tool Speculative Ethnography. The cultural research phase allows the designer-participants to explore the past and present situations of their selected wedding culture aspects and generate a trend, according to the guideline of Speculative Ethnography. The designer-participants in phase four further speculate the future based on the trend and deliver the speculated future in design languages through multiple approaches including storyboards (as visualised design fictions), physical/digital product design (as props) and infographics (as decoding of the speculated future). Finally, in the design communication phase, each designer-participant shares his/her design project to a group of audience-participants and encourages them to express their

opinion on the speculated future and the audience-participants' preferred future.

Phase	Studio	Week(s)	Objectives and tasks	Approaches
introduction	2	1	To enable the designer-participants to conduct cultural research and DSF projects.	Presentations of the concept of DSF and its tool Speculative Ethnography (section 6.2); presentations of approaches to cultural research for design.
	3			Presentations about the proposed cultural framework (section 6.3); discussion of the example project in addition to presentations in studio 1.
fast hackathon	2	1	To get inspiration for Chinese wedding culture components; to understand the overall framework of Speculative Ethnography.	Brainstorming and designer-participants online discussion using ProcessOn (an online platform for real-time image collaboration).
cultural research	2	2-4	To explore the past and present of the selected culture components of Chinese wedding.	Cultural research approaches for design such as interviews and cultural probes, etc. following the guideline of Speculative Ethnography.
	3	1-2		
future speculation	2	5-7	To develop and deliver the speculated future wedding rituals based on the trend from the past and present.	Diverse design techniques depending on projects, for instance, service blueprint, sketches and prototypes.
	3	2-3		
design communication	2	8	To respond to the aims of DSF which is to elicit public discussion on the selected culture aspects.	Designer-participants presentations of their design projects; audience-participants group discussions about the projects and Chinese wedding culture guided by designer-participants.
	3	3		

Table 3. The structure of Studios 2 and 3, describing objectives, tasks and approaches each week in five phases.

4.2.4 Studio 3

This design studio aims at verifying the drafted cultural framework based on data analysis of studio 2 as well as theoretical reviews. The PhD researcher and two lecturers from Dalian University of Technology (DUT), China, are the coordinators and provide support to the designer-participants throughout the studio. Thirty-five designer-participants (age 19-23, fifteen males) are involved, from environmental artistic design (EAD, twenty-six designer-participants) and IND backgrounds. They are voluntarily divided into nine mixed-background groups (two or three EAD students and one IND student in each group), and each group spends three

weeks completing a cultural design project. All of the designer-participants and coordinators hold five-hour online discussions twice a week. The outcome of this studio is the first assignment of a compulsory course in the department of EAD at DUT. Previous to this studio, the department offered an elective course with the topic of speculative design of future cities, of which one of the coordinators was the course leader. Designer-participants with EAD backgrounds are second-year undergraduate students in this department, thus some of them have project experience in cultural design when joining this studio. Designer-participants with IND backgrounds are recruited within the department of IND at DUT. Students and graduates in the IND department are allowed to register freely after a poster about the studio is released. Similar to Studio 2, audience-participants from mixed backgrounds are invited by each group of designer-participants to discuss the design project and the Chinese wedding culture in the third week. The same as studio 1 and 2, participants are notified of the aim and process of this studio as part of a research project with the information sheet provided and signed consent forms collected.

The structure of this studio is divided into four phases (see Table 3). The fast hackathon phase is removed compared to studio 2 due to the limited time duration. Designer-participants work in groups in studio 3 instead of individually as they are in studio 2, therefore they are able to brainstorm together even if there is no fast hackathon. In the introduction phase, in addition to the similar presentations as in studio 2, the drafted cultural framework is also introduced to designer-participants to adopt in their projects. In addition, project 2 was also presented as an example project to the designer-participants in lecture 1, week 1. The designer-participants were required to discuss the example project in groups, as well as record and report their discussion in lecture 2, week 1, to demonstrate their understanding of cultural design, and Speculative Ethnography. Other phases remain the same as those of studio 2.

4.2.5 Interviews

The interviews were planned to gather feedback on the design methods provided to the students, as well as to collect data about the impact of attending the studio, through understanding the participant experience. All the designer-participants to studio 2 and 3 were planned to be interviewed after their participation. In practise, four participants to studio 2 and twenty-four participants to studio 3 were interviewed, as some of the participants were not fully engaged in the studios and some were unwilling to take the interview. Interviews were organised around two weeks after they finished the studio. Participants to studio 2 were interviewed individually, while participants to studio 3 were interviewed in the same groups as they conducted their cultural design projects. All the interviews were conducted online through an instant message APP, via text and/or audio messages with regards to the participants' preference. Each individual interview lasted for around

half an hour, and each group interview lasted for around one hour.

Interviews were organised semi-structured, where the interviews were structured in three sections with some specific questions, while more questions were asked depending on their answers to those specific questions. The three sections try to understand participants' perceptions and practises of wedding culture and cultural design in China previous of, during, and after their studio experience. Participants were first introduced to the aim and process of the interviews, and were reminded that they had the right to refuse any questions or quit the interview if they were unwilling to continue. The following paragraphs summarise the structural questions in three interview sections.

Section 1 aims at understanding the perceptions and experience of wedding culture in China and cultural design before the participants join the studio. The following questions were asked to inspire deeper discussions:

1. Have you ever experienced weddings in China before joining the studio? Please describe your role and experience, and any comments/thoughts.
2. Have you discussed wedding culture in China with others? If yes, when, where, and to whom did you discuss? Please explain the discussion experience.
3. Have you ever heard of and/or practised cultural design before this studio? Please describe your previous experience.

Section 2 aims at understanding the studio experience including the ideation and designing process and communication phase. Participants replied to the questions based on their memory and studio notes if they had. Questions asked include:

1. What do you think of the cultural design tools provided during the studio? Please describe how they support your design as well as difficulties you encountered in the process.
2. Would you please describe the communication process with the audience at the end of the studio? Were there any difficulties when communicating with them? How did you deal with those difficulties?
3. What do you think of your final design result from the studio?

In addition, if participants reported any previous cultural design practises in section 1, they were asked to compare their previous experience with the studio experience, in order to better understand the strengths and shortcomings of the tools provided during the studio.

Section 3 aims at identifying the short-term impact of the studio in their design and behaviour in the future. An open question were asked as the beginning for this section, followed by more details based on participant reply:

Did the studio experience bring you any changes, either in design or in Chinese wedding culture, or any other aspects you can think of?

4.3 Validation Strategy

This research produces outcomes at the methodological level where a design approach is synthesized including a tool, a framework and some communication techniques, which requires validation to build confidence of the usefulness of this new approach. An validation procedure of engineering design method, entitled the Validation Square, is selected as the main validation reference, as cultural design and engineering design method share the similarity of combining science and art to deal with “open problems” without right or wrong answers where relativist validation turns out more appropriate (Pedersen et al., 2000, p.5). However, there exist distinctions between cultural and engineering design goals, resulting in engineering design could be evaluated from its effectiveness and efficiency while cultural design could not. Therefore, this research follows the framework of the Validation Square but adapts it to the characters of cultural design by replacing effectiveness and efficiency to design speculativeness and cultural interactivity.

The “usefulness” of a cultural design method involves two perspectives in achieving its purpose as discussed in chapters 2 and 3. Firstly, “usefulness” indicates that it supports the process of visualising potential social-cultural issues within a specific cultural context instead of solving problems. Secondly, it has to be culture-centred, and supports the interaction between design and culture. Therefore, as shown in Figure 4.3, design speculativeness deals with the designing processes and outcomes that make the design a cultural design. This is to say, it evaluates whether the design projects conducted with the guidance of the new method are critical and speculative rather than problem-solving. Cultural interactivity examines the interaction mechanism between the design projects and culture with the proposed method, which also responds to the research question 3. Overall, the design speculativeness forms the key findings shown in the methodological levels (Chapter 6) to enable cultural designers construct practises, while cultural interactivity formulates the findings presented in the theoretical level (Chapter 7) for researchers at the intersection of design and culture to understand the mechanism within cultural design. More specifically, design speculativeness is associated with the theoretical structural and empirical structural validities, which will be presented in chapter 6. Cultural interactivity involves empirical performance and theoretical performance validities, which will be described in chapter 7.

The whole validation process embodies six steps (Pedersen et al., 2000 p.6-7), and a description of how each step is adopted in this research follows.

1. “Accepting the construct’s validity”: The proposed cultural design method was

constructed with reference to the literature, which was presented in chapter 2 and referred to in chapter 6 appropriately.

2. “Accepting method consistency”: The proposed cultural design method was constructed based on analysis of the designing process of studio participants and will be presented in data selection and analysis (sections 6.2.1, 6.3.1, and 6.4.1).
3. “Accepting the example problems”: In the case of cultural design which does not try to solve problems, this step is interpreted as to validate the appropriateness of utilising the proposed method to the example project, which will be included in the design project selection criteria in chapter 5.
4. “Accepting the usefulness of method for some example problems”: The proposed method will be displayed through its applications (sections 6.2.3 and 6.3.3)
5. “Accepting that usefulness is linked to applying the method”: Cultural design projects that utilised the proposed methods were compared with those that did not utilise the proposed methods in the verification sections (6.2.4 and 6.3.4).
6. “Accepting usefulness of method beyond example problems”: Chapter 7 will examine the interaction mechanisms of culture and design within the support of the proposed design method, which will explain the value of the proposed method beyond the example projects at the theoretical level.

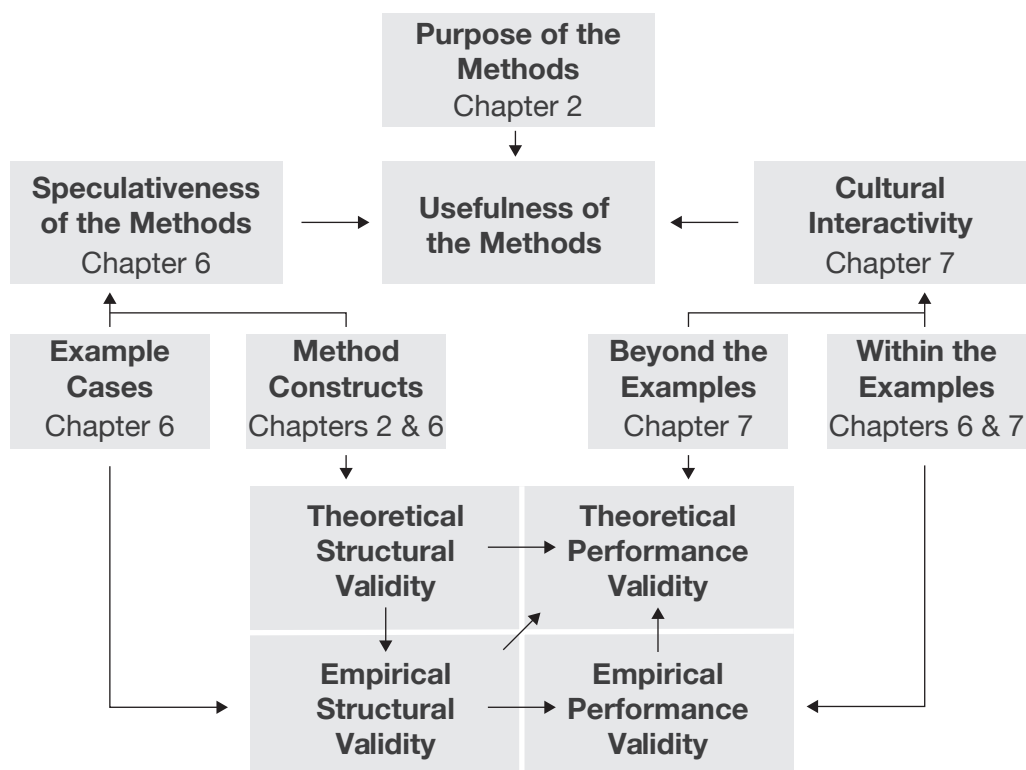


Figure 4.3. Adaption of the validation square (Pedersen et al., 2000) in this thesis.

Chapter 5.

Findings at Design Level: Cultural Design in Practise

As described in chapter 4, this research project fits within the overall framework of constructive design research where design projects conducted are objects to be researched and knowledge is produced from the design intention and design process. This chapter will present 12 design projects including design conducted by the PhD researcher (Project 2) and those selected from the above-mentioned design studios. They are linked by the constructive design research method, thus they are organised into three groups following the research process shown in section 4.2 (See Figure 5.1). Section 5.1 will display Project 2 and projects from studio 1, which are developed with only existing tools and methods described in section 2.4. Section 5.2 will introduce projects developed in studio 2 with the support of Speculative Ethnography, after which it is verified and iterated. Section 5.3 will include projects developed during studio 3 with the support of both Speculative Ethnography and the cultural framework. Describing these projects is a way of qualitative representation which formulates a solid foundation for deeper analysis (Wolcott. 1994). These projects, similar to "scenes" which are often reported in qualitative studies, serve as a data corpus for selection, transformation, and interpretation as qualitative data analysis (Zeller, 1991; Miles et al., 2014) in chapters 6 and 7. After describing *what* the design projects are in this chapter, the following chapters will examine and explain *how* the projects are developed (chapter 6) and *why* they are developed in that way (chapter 7). These projects compose the research outcomes on the design level, providing case studies for peer cultural designers and scholars.

In total there were eighteen individuals/groups involved in the project development process during the three studios. A set of criteria is utilised to select the most comprehensive student projects. The first selection criteria take into consideration the engagement of the participant ethnographers/designers. Some of the participants were involved in the studio as guest students. They did not develop their own projects but learned from the project development and discussion of other participants. Some of the participants missed several studio lectures and/or group discussions so the engagement was insufficient. Projects that were conducted without sufficient engagement were excluded from the data set. Then three criteria in terms of the quality of the project were applied. Firstly, the project tried to pose questions instead of solving problems. Secondly, the project

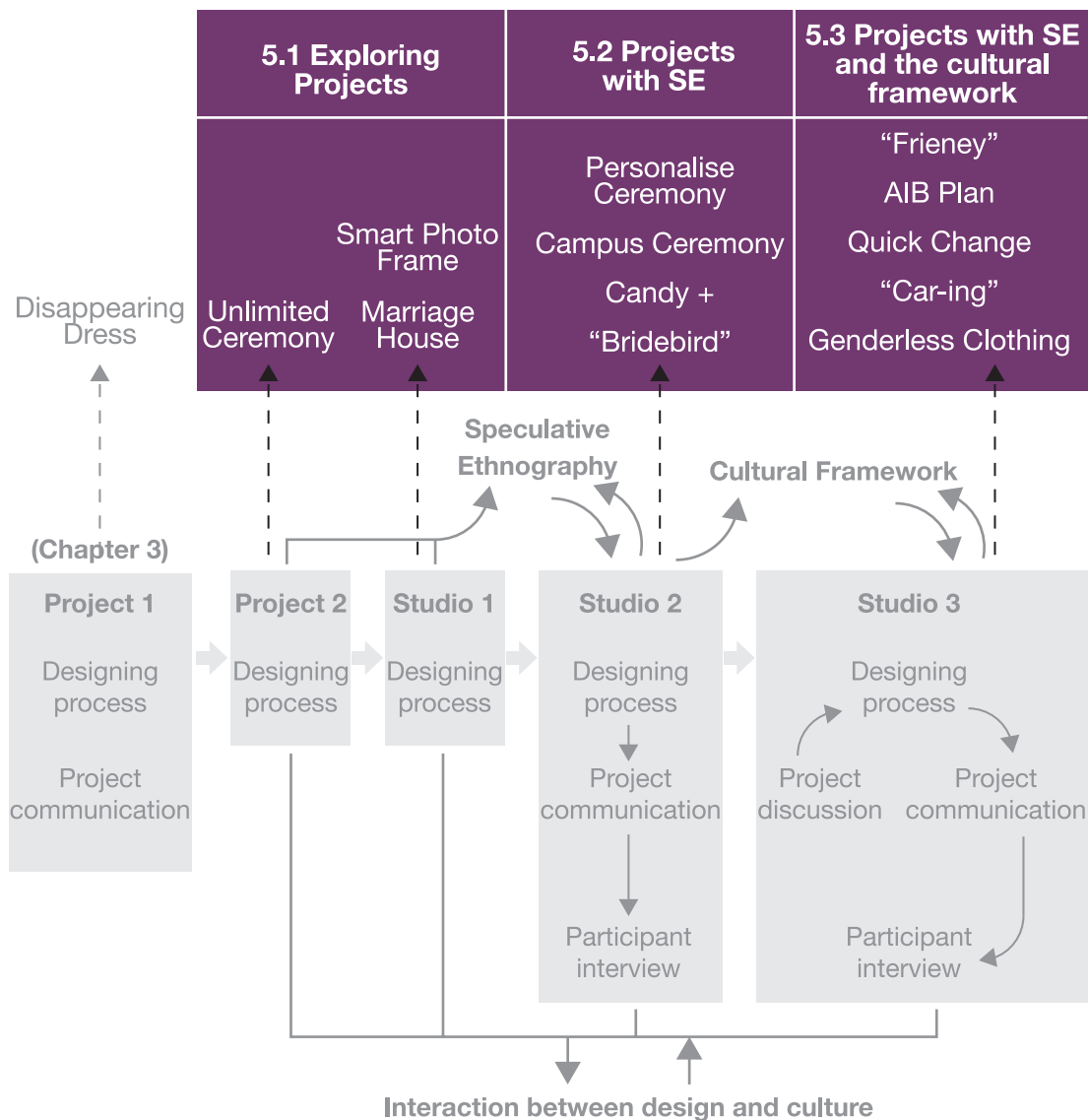


Figure 5.1. Categories of cultural design projects presented in this chapter which are linked by the constructive research methods.

presented a clear description that linked the cultural background and design concept. Thirdly, the project included design outcomes being communicated through design languages such as sketches, data visualisations, and prototypes. With reference to these selection criteria, eleven projects from three design studios are filtered and will be presented in this chapter.

An overall introduction of the projects is listed in Table 4, followed by the introduction of each project in three aspects of cultural background, design description and cultural review. In the cultural background sections the wedding cultural components in China related to each project will be presented based on the desk and ethnographic research conducted by the project designer(s) through research-for-design approaches as presented in section 4.1.4. It refers to as well as supplements the cultural context described in chapter 1, together with which constitutes the research outcomes on the cultural level. Again images included in

this aspect are recognised as visual data which supplements the text description to describe the context. The design description sections will describe the underlying ideas and design outcomes of each project. Project 2 is interpreted to convey the original design intentions of the PhD researcher. The studio projects are described based on the translated summaries from the student final presentations. As described in chapter 4, images displayed in this aspect are visual material created by the designers to show the original design in addition to the text interpretations. Images may include Chinese characters if they are originally designed so, with English translations noted on the images to ensure a wider understanding by non-Chinese speakers. In the cultural review aspect, each project will be reviewed with regard to how the project tries to achieve the cultural design aims of posing questions for society at large, as presented in section 2.4. Project 2 will be a reflexive review considering the design intention, the process, and feedback

	Project name	Addressed culture aspect	Design outcome
Exploring Projects	Unlimited Ceremony	Number of wedding banquets	Three ceremony scenarios to enable as many as possible wedding banquets in the speculated future.
	Marriage House	Marriage house consuming decision	A service system to help the newly-weds decide their marriage house; an APP and a headset as touchpoints.
	Smart Photo Frame	Pre-wedding photo display	An IoT photo frame for pre-wedding photography display, and future social connection scenario.
Projects with Speculative Ethnography	“Bridebird”	Wedding clothing (dresses and suits)	A reflective suit for the groom that reflects the bride’s dresses.
	Candy+	Wedding candy as wedding gifts	A design fiction describing how wedding candy might be treated in the future with three wedding candy ideas.
	Campus Ceremony	Couple-guest interaction in wedding	Wedding invitation, sign-in board, and ceremony process design.
	Personalized Ceremony	Wedding ceremony styles	An APP that would help the couples personalize their weddings; some future wedding style sketches.
Projects with Speculative Ethnography and the Cultural Framework	Genderless Clothing	Wedding clothing and gender	Four series of non-sexual wedding clothing design sketches.
	“Car-ing”	Entire set of marriage rituals	A special vehicle designed for future wedding and the using scenarios.
	Quick Change	Number of wedding dresses	A device for the bride to quickly change dresses on the wedding day.
	AIB Plan	The time periods between the couple meet and get married	A service system that enables strangers to know each other and get married in three minutes.
	“Frienemy”	The red envelope for weddings	Future wedding scenarios with <i>Guanxi</i> Bank where relationship acts as a currency.

Table 4. A list of cultural design projects conducted during this research project.

collected from the audience. The studio projects are reviewed from the researcher's perspective, as both a participatory observer of the designing process and an expert audience in cultural design. All the projects will be mentioned as examples to present the research results and findings at methodological and theoretical levels in chapters 6 and 7. Project and data selection for each section will be introduced in due course according to the research focus of each chapter and section.

5.1 Exploring Projects

5.1.1 Unlimited Ceremony

Cultural Background

As described in chapter 1, Chinese new couples are usually held with a grand ceremony and banquet on the wedding day, either as part of the etiquette of qin ying in the traditional rituals or after the popular restaurant ceremonies in the modern context (as illustrated in Figure 1.1). Generally in the Chinese tradition, this banquet is organised mainly by the groom's family, being considered as the main event of the wedding rituals. Although the bride and her family play some role in preparing this main event, its cost, most of the guests, and its social meanings are at the side of the groom's family. Few days after this main ceremony, there is usually another wedding banquet at the side of the bride's family, called hui men yan or da xie yan in local languages in Chinese. This event, compared to the main event, is much simpler where there is no pick-up and/or ceremony before the event focus - the banquet. The procedure of hui men yan is generally the guests have a dinner/lunch together, with the newly-weds and the bride's parents toasting to each table.

Throughout the history of Chinese weddings, couples were more likely to hold the above-mentioned two banquets to invite all their family and friends when their personal networks were limited by geography. Before globalisation when people seldom travelled, the groom and bride were often from the same town. In most of the cases, the two banquets were able to include almost all their relatives and friends. The rising trend in mobility of the Chinese population since the 1980s (Chan, 2001) has led to a large number of couples who hail from different hometowns, provinces, or even countries. These couples tend to hold three, four or even more wedding banquets to invite as many as their family and friends as possible to celebrate the marriage, but hold the ceremony only once during the main wedding event with the bride and groom's parents. In Jining, Shandong Province in China, several weddings were attended without the groom and bride. The only elements indicating it as a "wedding" are candies, cigarettes and alcohol, typical items that

appear in every wedding in China. Through interviews with young people from Jining and their parents, as well as people who have attended wedding ceremonies of this kind, it is common for young couples to have three or four or even more wedding banquets. They usually hold one banquet and ceremony predominantly with the groom's family and friends of his parents, one banquet predominantly with the bride's, and one with the couple's colleagues and friends. Their parents may also hold some other banquets without the couple's attendance (see Figure 5.2). Through design ethnography, in recent years, wedding trips are getting popular among the young. Many couples choose either a long trip to several destinations or a short trip to one destination. They may have a wedding ceremony and banquet in a small size in their travel destination, and hold the banquets with more guests when they come back. Nevertheless, some of their friends may not be able to attend due to numerous reasons such as living across different cities or not having enough spare time from their work or other obligations.



Figure 5.2. Two of the wedding banquets one couple held in Jining, Shandong, one with the couple's attendance (left) and one without (right). Source: Photo by: F. Dong, 2020.

Design description

The project describes a future where the couple would hold as many wedding “banquets” as they want thanks to internet technology and virtual reality (VR) which enable the guests to attend their wedding online. They could record VR video(s) of their wedding ceremony or produce their VR wedding movie ahead of time (see Figure 5.3) so that they may continue to hold one wedding ceremony and as many virtual “banquets” as they need. The couple would record their wedding ceremony during the main wedding event using a panoramic camera, and provide cardboard VR glasses in other offline wedding banquets for the guests to experience their ritual. There would also emerge companies providing services to help the couple produce a pre-wedding VR ritual movie. The couples could build their self-images in the movie. There would be a “wedding Hollywood” or a virtual studio with all green surroundings for pre-wedding VR movie production (see Figure 5.4-a). The guests of these “banquets”, with the support of VR videos, could either sit together as the current banquets or stay in different locations (see Figure 5.4-b, c). Future wedding ceremonies would be VR videos available for invited guests. The couples would be

allowed to print their wedding invitation on the cardboard VR glasses and mail them to their friends so that they can attend the wedding online. VR glass would become a necessity in wedding banquets along with traditional wedding candies, cigarettes and alcohol.

Cultural review

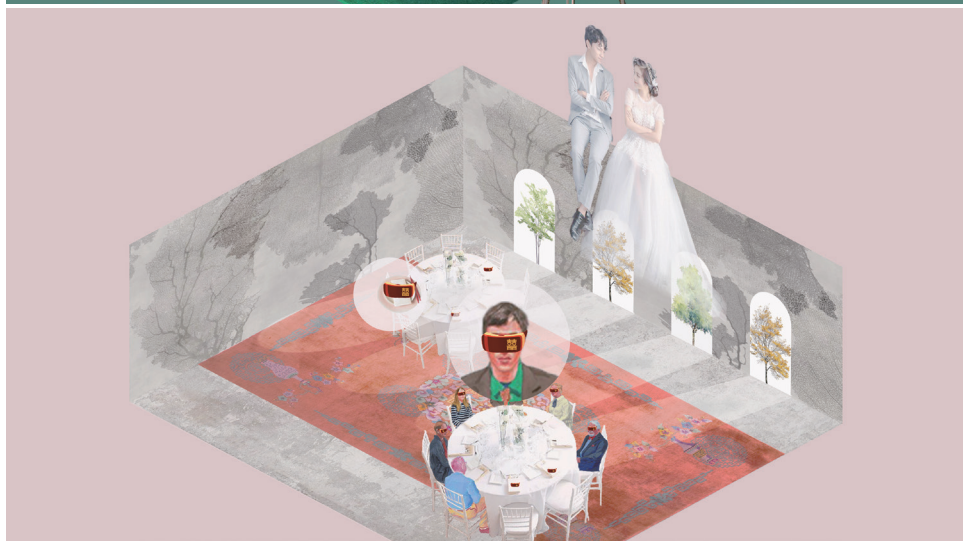
Some virtual wedding ceremonies held online or even in computer game settings have been reported by the public media. During the severe COVID-19 pandemic period when large gatherings were banned in China, wedding ceremonies without offline guests were also reported. The weddings were usually shared with their friends and relatives through live broadcast. Through the construction of the provocative scenarios, this project poses questions for both the newlyweds, their parents, and the guests. Will online wedding ceremonies still be accepted after the pandemic period? Usually those banquets without the newlyweds' attendance are held by their parents to invite guests in their relationships. For the young newlyweds, do they prefer to share their happiness with this guest group? For the guests who are attending such a wedding banquet, do they care about the ceremony session of the newlyweds? If they both give negative answers to those questions, what are the aims and meanings for them to hold or attend wedding banquets without the groom and bride? Then for the parents, why are those banquets entitled "wedding banquets", where weddings could become the direct driving force for social activities?



Figure 5.3. Screenshots of the VR videos recorded at Tiger Hill Bridal City (top) and during a "wedding trip" to Jeju, Korea (bottom), 2019.



a



b



c

Figure 5.4. Collages of the speculated future scenarios, 2019.

a. In the speculated future the couple will be able to record their wedding ceremony in a green room and create any scenarios they want on the computer.

b. The speculated future wedding banquet where VR headset would become a new symbol. The guests would be able to attend the banquet in a restaurant and wear VR headsets.

c. The VR headsets would be posted to the guests by the couple to enable them to attend the wedding from anywhere.

5.1.2 Marriage House

Cultural background

As previously described in section 1.1.3, house became a necessity purchased by the groom's family for marriage when houses are commoditized, entitled *hun fang* (marriage house). Evolved from the traditional marriage value that the bride became the member of the groom's family instead of her original family, the groom and his family is believed to provide a house for the new family in the modern context. With Chinese brides having become more and more independent, especially those who studied and/or lived in developed cities such as Shanghai and Shenzhen, the bride has increasingly played some role in the marriage house purchase. In some cases the choice of the house is dominated by the groom and his family, taking into account the opinions of the bride and her family, while in some cases the house is purchased by both families or by the newly-weds thus the decision is made based on both sides.

Through the lens of the decision making and purchase behaviours related to the marriage house, the gender equality issue is discussed by the project designer(s). The traditional marriage value reflected the concept of *nan zun nv bei* in emperor Chinese values, when males were considered superior while females were considered inferior. Women had not been allowed to study and/or work until polygamy became illegal (but still existed in practise) in the Republic of China and being completely abandoned in 1950 when the marriage law was promulgated. Females started to be allowed to study and encouraged to work, with some folk slogan that *fu nv ding qi ban bian tian* (to translate directly, women hold up half of the sky, which demonstrated the significance of females). In the more modern context women increasingly have equal educational resources and working opportunities with men, while gender equality is a popular topic of public discussion.

Design description

This project speculates a future that men and women would become absolutely equal in the society, and in marriage as well. As a consequence of limited rationality and fairness of humans, an artificial intelligence (AI) system is involved to achieve absolute equality in the decision-making process of marriage house purchase (see Figure 5.5). Four touch points are designed in the whole process with the support of a mobile APP and a headset (see Figure 5.6). This AI system would first recommend appropriate houses to the new couple according to their preference collected from both the groom and bride. The APP would allow them to choose the houses they would like to visit together from the recommendation list, and would be able to navigate them to the houses they selected. During their visit to the selected houses, a headset would be utilised to each of them to collect their emotional opinions towards the house through facial micro expression detection (see Figure 5.7). The

system would show the most equal house for the couple to purchase based on all the emotional and objective data it collected. Therefore, the final marriage house would have some characters to make it absolutely equal. For example, it may be located at the centre of the workplaces of the bride and groom to ensure that they would spend the same commute time. The couple would grade the house the same during their visit.

Cultural review

The exploration focus of this project is gender equality. In the past decades gender equality has been widely discussed in the Chinese context, through the lens of implicit discrimination against women in the job market, fertility issues, female independence, to name a few. The public has had several debates on the definitions of equal and independent, being exemplified that some extreme feminists argue that children of independent females should follow the surname of mothers instead of fathers, while others argue that the real equal indicates there is no feminism or masculism. Through the lens of marriage houses, this project is positioned in the discussion of equality and tries to quantify it in a problematic way through the involvement of an AI system. The system would be able to collect objective data and grade all the impact factors of gender equality when purchasing the marriage house based on strictly pre-set criteria. It intends to lead the audience to the question of what is the definition of equality, and how to achieve gender equality in marriage and in society at large.

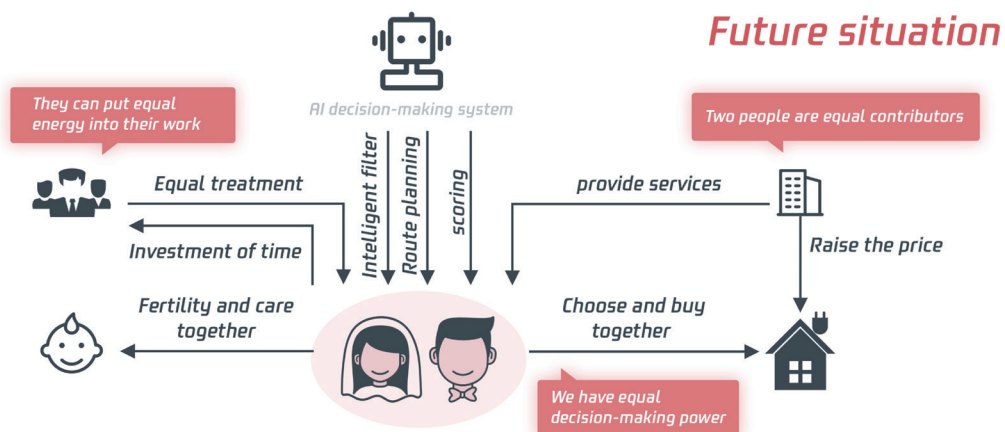


Figure 5.5. The speculated future situation where AI decision-making system becomes one of the stakeholders in buying a marriage house. Source: Design by the student designer in Studio 1, 2019.

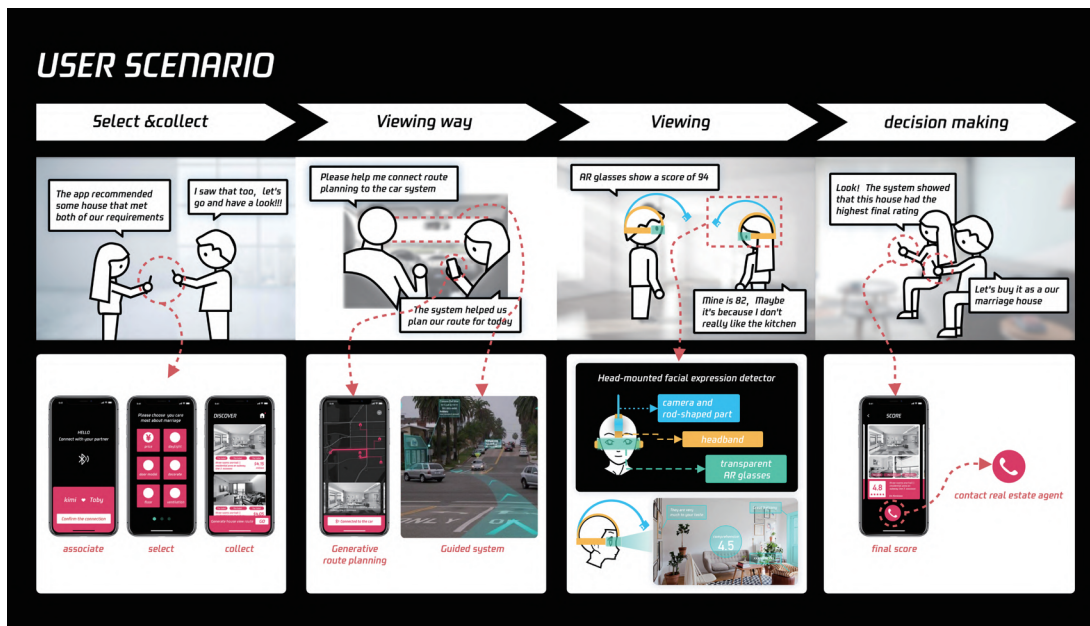


Figure 5.6. User scenario for buying a marriage house in the speculated future and props designed for each speculated future touchpoint. Source: Design by the student designer in Studio 1, 2019.

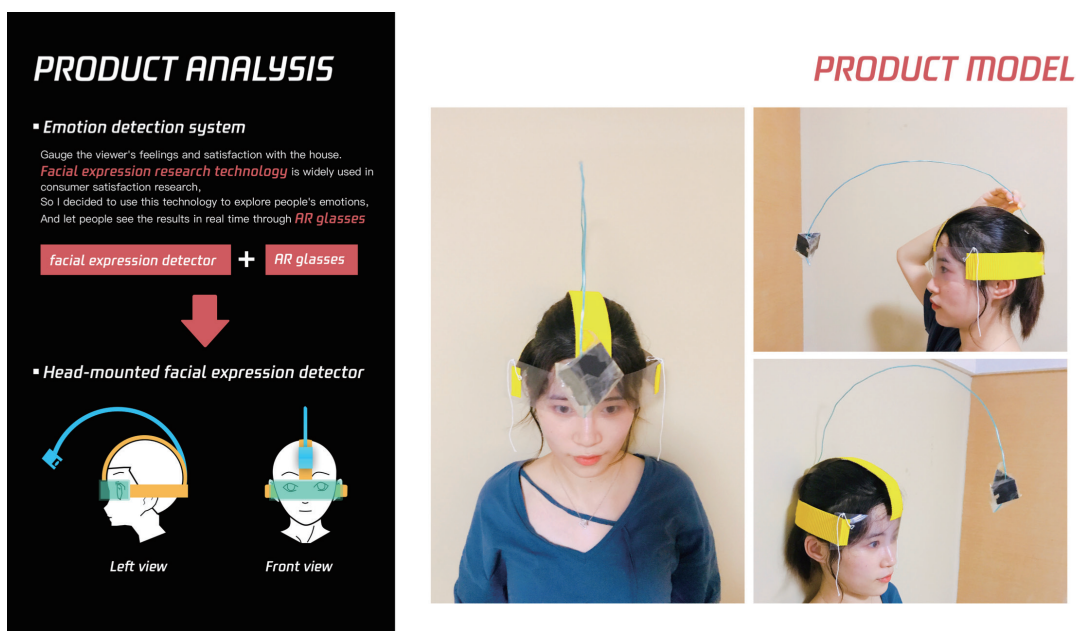


Figure 5.7. Headset prototype and its supportive technology to recognise the couple's facial expression when visiting a house to help make a purchase decision. Source: Design by the student designer in Studio 1, 2019.

5.1.3 Smart Photo Frame

Cultural background

Pre-wedding photography as described in section 1.1.3 is one of the significant pre-wedding rituals in Chinese marriages. Although the era of film cameras is over, and digital technologies expanded the channels for the couple to display their photos

such as moments in social media, various styles of studio photos, outdoor photos, and/or travel photos are usually printed and displayed in the marriage house (see Figure 5.8). The display of the pre-wedding photography at home indicates its role in three aspects as summarised by the project designer(s) through design research (see Figure 5.9). First, pre-wedding photography is a “record” of their marriage. The content of the photos such as the fashion style of the couple, the artificial or natural surroundings, and the tone of the colour represents their identity creation and popular wedding culture of the time they get married. Second, the (printed) pre-wedding photos “observe” the marriage. In many film and television works the pre-wedding photos are usually used as a symbol of their emotional relationships, for instance, touching a pre-wedding photo is often linked with love or longing, while burning a pre-wedding photo often represents disappointment with marriage. Third, online interviews indicated that the pre-wedding photos are “shown” to those who visited their house about their marriage status and identity.

Design description

The project speculates the future corresponding to the above-mentioned three aspects, with an overall speculation that physical wedding photos would always exist and digital technology would play some role in their display. Ubiquitous computing and the Internet of Things are thus noticed, researched and applied in future scenarios, and a system combining a smart photo frame and a mobile APP is constructed (see Figure 5.10). In terms of “record”, the photo frame would be able to remind the couple their anniversaries of marriage and/or the wedding day. With



Figure 5.8. Pre-wedding photos displayed in the couple's house. Source: collected and provided in the project final presentation by the student designer in Studio 1, 2019.

regards to the “observation” and “show” aspects, the photo frame would collect and display the emotional relationships of the couple through Internet of Things and the APP. Further, this project also constructed a bolder scenario that people on the street would see the pre-wedding photos instead of faces of each other to demonstrate the role of pre-wedding photos as symbols of identity and self-images (see Figure 5.10).

Cultural review

The project designer(s) convey their assumption that in the future physical pre-wedding photos would exist in the context of digital technology, as one of the “furniture” for home. Under the trend of smart homes constructed with several smart furnitures such as electronic curtains and smart lightings, this special “furniture” was also created smart and being able to be connected to the whole home settings. In terms of the wedding culture, this project has put pre-wedding photos to a status that is as significant as other furniture such as chairs and beds for people’s daily life, which intends to arouse discussions on the significance of pre-wedding photography and marriage. The scenario illustrated in Figure 5.10 demonstrates this question about pre-wedding photography as identity construction. On the other hand, in terms of technology, the privacy issue has been brought up with the smart photo frame as it is described that it would be able to collect data about the relationship between the couple.

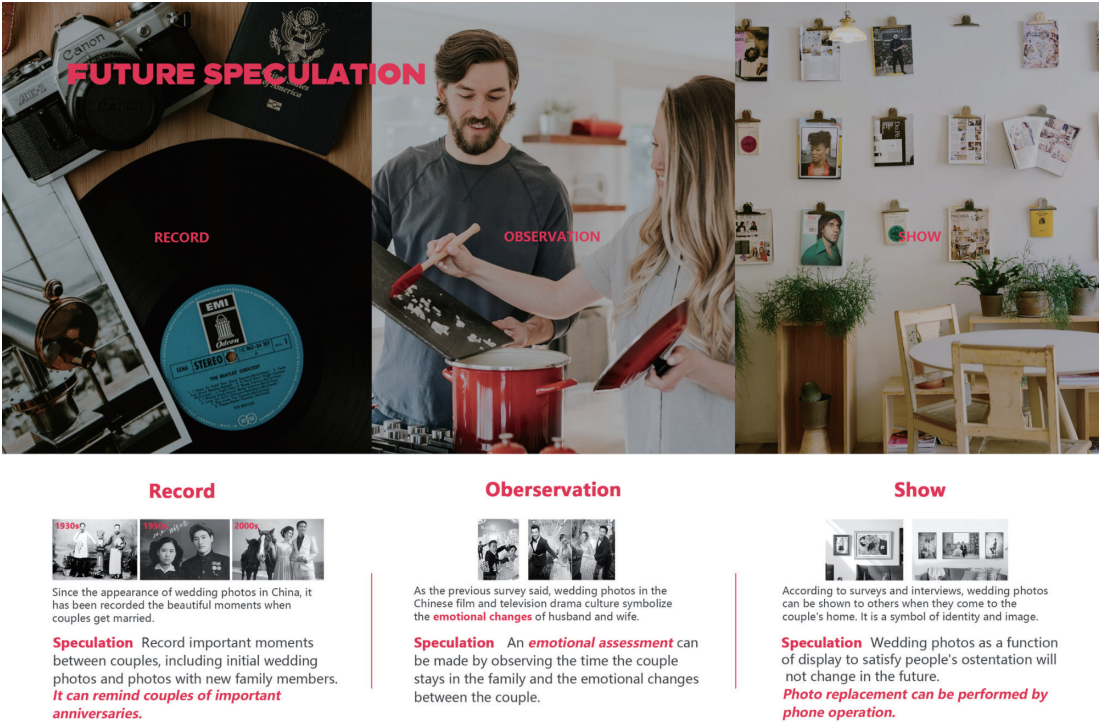


Figure 5.9. The values of pre-wedding photos being displayed in the couple’s house, as “record”, “observation”, and “show”. Source: Design by the student designer in Studio 1, 2019.



Figure 5.10. The future scenarios with the smart pre-wedding photo frames and mobile APP that the designer speculated. Source: Design by the student designer in Studio 1, 2019.



Figure 5.11. The speculated scenario where pre-wedding photos become the identity. People on the street identify each other through their pre-wedding photos. Source: Design by the student designer in Studio 1, 2019.

5.2 Projects with Speculative Ethnography

5.2.1 "Bridebird"

Cultural background

Similar to the disappearing dress project described in Chapter 3, the "Bridebird" project also focuses on wedding clothing and notices several clothing changes of the bride on the wedding day, while the project designer(s) also notices that the groom seldom changes clothes during the wedding. The groom always wears one or two sets of clothes compared to three or more dresses the bride wears. This distinction between the groom and bride was expanded to exploration of how males and females dress themselves in daily life. The general social value that the project designer(s) experienced is that females are allowed to dress themselves from all aspects they are interested in such as clothing, make up and accessories, while males only need to dress simple and clean and do not have to pay extra attention to the dressing. Reflected in the wedding ceremony, the groom normally wears suits without extra visual elements as the bride has on their wedding dresses. As presented in Chapter 1, wedding dresses in varieties of styles with embroideries, beadings, and lace are sold in the Tiger Hill wedding market area, while there are only a few shops selling suits for the groom. In addition, modern weddings in China are often considered the only chance for the bride to wear the wedding costumes, however, the groom has more opportunities to wear suits in other formal scenarios such as conference and/or other working scenarios.

Design description

Based on the designer's further exploration, it presents a wedding scenario where the groom would only be a reflection of the bride. The design outcomes in this project are sketches of a suit made of reflective materials which can change its visual effect when the bride changes her dresses, and a set of wedding dresses as props to express the reflective effect of the suit (see Figure 5.12). The shape of the future suit design is quite similar to its current style to demonstrate the concept that men's (formal) clothing has rarely changed compared to women's. The wedding dress designed as props is a combination Western (the white veil, the fishtail shape, etc.) and Chinese traditional (the red colour scheme, shape of the sleeves, etc.) styles.

Cultural review

Fashion in its social meaning represents self images. The high collar for instance, represented the high status of the wearer. In the fashion industry there exist many elements being considered as women fashion in the modern context used to be part of men's costumes in the history, such as leggings and high heel shoes. In

terms of Chinese fashion history, both males and females wore robes and gowns with exquisite embroideries although there were distinctions in the visual elements being utilised. The modern fashion has changed that some costumes are considered unisex, dresses for instance. Those changes in fashion reflect the transformation of images of males and females. Through the lens of wedding costumes, this project constructed an image that the wedding ceremony is held mainly for the bride, while the groom is only the foil for her. This reminds the audience that there was a wedding value in China that the big day was actually the bride's day, as after the wedding ceremony the bride would be devoted to the family and lose her days. Voices from another perspective might also be aroused as to why the groom has to be the foil, or why males cannot pay as much attention to their dressing and beauty as females do. The discussion might be led to the gender equality issue in marriage and in society at large, through construction of costumes in weddings.



Figure 5.12. Sketches of the speculated mirror suit and wedding dresses as the prop. The suit always reflects the wedding dresses the bride wears, indicating the groom is only the foil for the bride. Source: Design by the student designer in Studio 2, 2020.

5.2.2 Candy+

Cultural background

The Candy+ project explores *xi tang* (wedding candy), one of the symbols of weddings in China. Wedding candy can be considered as a gift through which the groom and bride and their families express their thanks to the guests. It was usually purchased from special wedding candy shops simply packaged in a red plastic bag with the double happiness character and/or dragon and phoenix (see Figure 5.13-

a), symbols for weddings in China as described in sections 1.1.3 and 2.5. Before the 21st century especially during the period of material scarcity, wedding candy received by guests was considered a rare snack especially for children. However, based on the designers' investigation, wedding candy in the modern context has become more and more concerned with the aesthetics and appearance of the packaging as opposed to a focus on the candy itself. The groom and bride usually select chocolate and/or candy from popular brands as their wedding candy and package them in various well-designed paper/plastic/metal boxes still with both the traditional and modern visual elements related to wedding (see Figure 5.13-b). Some popular chocolate or candy brands are Ferrero Rocher, Hershey's, and Want Want. Moreover, both newlyweds who prepare wedding candy and guests who receive it from newlyweds paid more attention to the aesthetic aspects of packaging over its meanings.

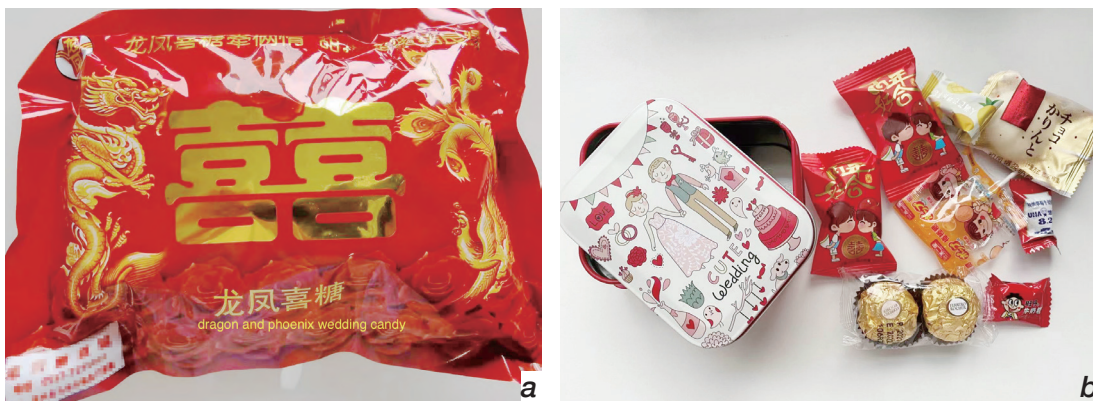


Figure 5.13. Two wedding candy package examples in different styles.
a. "Old-fashioned" wedding candies and packages in red and golden colour scheme with the double happiness character, received in Jining, Shandong. Source: Photo by: F. Dong, 2021.
b. Wedding candies and packages with both traditional and modern visual elements on the package, received in Hangzhou, Zhejiang. Source: Photo by: F. Dong, 2020.

Design description

The project speculates that in the future wedding candy will be used as a measure of the shared aesthetic standards for guests and newlyweds. The project designer(s) describe the future scenarios in the design fiction (also see Figure 5.14):

"Future [newlyweds] will care much about the uniqueness of wedding candy..., only consider choosing their favourite packages to reflect their preferences.

However, guests will not care about the uniqueness, but only care about if it is good-looking to them. As long as the guests don't like it, the unique wedding candy box will be thrown away or treated badly."

Within the design fiction, the project designer(s) designed three wedding candy packages as props for the fiction, representing three visual preferences of the

newly-weds. In addition, an APP prototype was designed to enable the newlyweds to customise their wedding candy packages.

Cultural review

The Candy+ project opens up conversation about wedding gifts, which is able to be expanded to packages of other gifts and products. Packages as the images for products are the significant field for branding and advertising. Selection of the product, especially product as a gift, thus conveys information about the gift giver through its package. By illustrating a scenario that a box of well-designed wedding candy might be disposed of by the guests due to aesthetic problems, the project designer(s) questioned the meanings of wedding gifts, or gifts in a general sense. Why are we sending a (wedding) gift? How is the (wedding) gift selected and consumed? Do we need to select a (wedding) gift that fits the gift receiver's preference even if we do not like it? What can we do if we receive a (wedding) gift that we do not like? The possible situation described in this project might attract attention to the environment problem when many (wedding) gifts are wasted.



Figure 5.14. Visual design fiction where wedding candies are carefully designed based on the couple's aesthetic taste while treated differently by the guests based on their own aesthetic tastes. Source: Design by the student designer in Studio 2, 2020.

5.2.3 Campus Ceremony

Cultural background

As probably the most significant marriage ritual in China, the wedding ceremony, or the main event, involves several steps originating from the civilised wedding

(see chapter 1). One of the meanings of the wedding ceremony has transformed from a celebration of the succession of the (male) family line to a social event that connects the newly-weds and their families (the wedding organisers) with their relatives, colleagues, and friends (the guests). The participation of the guests thus increasingly attracts the wedding host's attention. Borrowed from the Western church wedding, as presented in chapter 1, civilised weddings and ceremonies in the early years after the founding of PRC focused on the process of speeches given by the wedding organisers and one or two special guests while most of the guests acted as the audience. When the social meaning of the weddings become more obvious, more interactive procedures before and during the wedding ceremony are designed to invite more guests to participate in the ceremony.

Wedding invitation is the first link between the wedding organisers and guests that provides basic information of the wedding ceremony such as the location and time. Traditionally wedding invitations are in physical forms made of (card) paper, usually in red and with the above mentioned several visual elements, and are sent and/or mailed to all the guests (see Figure 5.15). In recent years the electronic invitations have become popular in the digital age as they are able to reach all the guests without geographic constraints at low cost. Electronic invitations allow the couple to include some of their photos, usually their pre-wedding photos in addition to basic information that paper invitations provide to the guests(see Figure 5.16). In addition, guests are allowed to interact with the newlyweds through comments and electronic gifts in the electronic invitation, especially when the guest is not able to attend the wedding ceremony. Many newlyweds choose to have both the paper and electronic invitations for their weddings. On the wedding day, many newly-weds set a sign-in area at the front door of the wedding hall to take photos with the guests (see Figure 5.17). During the ceremony some interactive procedures such as lottery and pop quizzes are often designed.

Design description

Campus ceremony describes a future that all guests to a wedding ceremony would participate in the ceremony procedures. A wedding ceremony in the theme of high school campus is presented as the prop scenario. More specifically three sub-scenarios have been constructed including the wedding invitation, sign in at the entrance, and during the ceremony. The wedding invitation is designed as a booklet, with reference to the electronic invitations that include some pre-wedding photos of the new couple. At the sign-in area at the entrance of the wedding, guests would need to fold one page of their received invitation into a heart shape and paste them on the sign-in board to show their best wishes to the newlyweds. During the ceremony, speeches usually given by the wedding organisers are designed as a collaborating speech given by all the guests. Each guest would give several sentences and sentences from all the guests would formulate a complete

speech.

Cultural review

The arrangement of interactive activities between wedding organisers and guests is tricky. In the Chinese context, the guests to a wedding ceremony consists of colleagues and friends of the young couples, relatives of the two families, and colleagues and friends of the parents. The diversity of ages and generations as well as educational backgrounds results in difficulties of the activity design. Nevertheless, the newlyweds (often suggested by the wedding service company) prefer to have some interactive sessions such as a lottery to avoid a quiet and boring atmosphere during the banquet. Discussion on the interactive activities is linked with the guests - who are invited and who attend the wedding ceremony.



Figure 5.15. An example of a printed wedding invitation in red and golden card paper, received in Suzhou, Jiangsu. Source: Photo by: F. Dong, 2021.



Figure 5.16. Screenshots of an electronic wedding invitation displaying some pre-wedding photos, received in 2021 through WeChat.



Figure 5.17. Guests and new couples are taking photos together at the sign-in area before the wedding ceremony in Zhenjiang, Jiangsu. Source: Photo by: F. Dong, 2021.

Sometimes the newlyweds might be in a dilemma when deciding whether to invite someone, such as their high school classmate but they have not gotten in touch with him/her for years. Although in reality they prefer not to invite this group of people, however, it is considered as impolite if they do not. Similarly the invitation receivers have the question of attending or not at the contradictory situation of social etiquette and personal preference. The interactive activities created in this project at first impression is problematic for the current society, as the guests might be in complex relationships with the organisers. It thus opens up conversations about approaches to deal with the contradictory of social etiquette and personal preference. The deliberate settings of the problematic scenarios intended to encourage the newlyweds to follow their hearts when deciding the guests they invite for their wedding, and to encourage the guests to reply yes or no according to their preference as well.

5.2.4 Personalised Ceremony

Cultural background

Wedding ceremony in China has evolved from a standardized process to personalised one, from family- and rules- oriented ceremony in ancient time, to regularized, revolutionary, and political weddings during the Chinese Cultural Revolution, then to individualisation and customisation in the contemporary ceremony planning services (see chapter 1). Although the current wedding ceremony may contain similar contents, newlyweds do not have to follow the strict procedures as in the past. Ceremonies are planned based on the social and family needs of the couples. The style of the ceremony varies case by case with regards to their love stories and aesthetic preference. Newlyweds are allowed to choose either a Chinese traditional style with red and gold colour scheme, or a lawn wedding in a more Western style, or combining both Chinese and Western elements (see Figure 5.18). Nevertheless, most of the wedding scenes adopt various visual elements to build different styles, while the modules are quite similar that become the identity of a wedding, a stage with background and an aisle for instance.

Design description

This project speculates that in the future the wedding ceremony would become so personalised that there would be no identical ceremonies among any couples. The following sketches illustrating designs of wedding ceremonies were created by the student designer(s) to visualise the speculated future scenario (see Figure 5.19). A mobile APP with the support of AI design is imagined to help the newlyweds design their super personalised ceremony.

Cultural review

This project poses two interesting questions although the sketches are roughly produced due to the limited sketch skills of the project designer(s). The rough



Figure 5.18. Two wedding ceremonies held by one couple in Changzhou, Jiangsu, 2021. One in the traditional Chinese style (left) and one in the Western style (right). Source: Photos provided by the couple.



Figure 5.19. Sketches of example ultra-personalised wedding ceremony scenes in the speculated future. Source: Design by the student designer in Studio 2, 2020.

sketches highlight the first contradiction revealed by this project, which is the personalisation and creation versus homogenisation and modularity. Although the original intention of the project designer(s) is to present several wedding scenes that are super personalized without any identical elements, the sketches show many similar modules utilised in the current wedding scenes such as the T-shaped stage with a background. This raises a question: can we create something totally

new without combining some existing elements? The project designer(s) might not be able to be that creative to sketch wedding scenes out of the existing visual culture. They obviously noticed this issue and expected an AI system to help them with their creativity, learning from the AI design systems such as Luban and AI logo design service provided by Alibaba Cloud. Exemplified by the AI logo design service provided by Alibaba Cloud, after filling in some easy questions about a brand or a company such as the name, slogan and short description, the AI system will show tens of logo designs for the company in a few seconds. The application of AI-aided design in wedding scenes construction opens up questions about AI or humans. Designed by humans, is an AI system really able to design for humans in turn?

5.3 Projects with Speculative Ethnography and the Cultural Framework

5.3.1 Genderless Clothing

Cultural background

In recent years with homosexual marriage become legal in some countries and gradually accepted by the public through lesbian, gay, bisexual, and transgender (LGBT) social movements, homosexual weddings come into the public vision through video records and TV shows. The project designer(s) noticed that in homosexual weddings usually the couple dress in different styles to represent their different personalities in the relationship. There are several combinations of the clothing noticed in homosexual weddings, including scenarios where they both wear suits (in same or different colours), they both wear wedding dresses, and one wears suit and another one wears wedding dress as in the most weddings. Even if they wear the same clothings, there are some differences such as veils and flowers to indicate their role in the relationship. Nevertheless, wedding clothing are all the white dresses and suits originating from British/European culture.

Design description

Genderless clothing speculated that in the future the wedding clothing would reflect the personalities instead of genders of the couple and sketched some wedding fashion (see Figure 5.20). Three personalities were outlined: feminine/soft, neutral/medium and masculine/hard. The future clothings of these three personalities were designed in similar contours but different details. The wedding clothing were not only designed for the homosexual weddings but for all couples in general. The

couples would be able to decide which costumes they would like to wear for their weddings, depending on their personalities and preference.

Cultural review

Taking homosexual weddings as the starting point, Genderless Clothing discussed not only the wedding fashion for LGBT but also the social and industrial context that defines the female and male fashion. Similar to the mirror suits sketched in the Bridebird project, this project challenges the gender image produced through fashion styling. Are the brides restricted to the white dresses (or dresses with some traditional Chinese elements) in a wedding? Do the grooms have to wear suits for their big day? Deeper behind the wedding clothing, it also questions: how and why does fashion create sexual images?

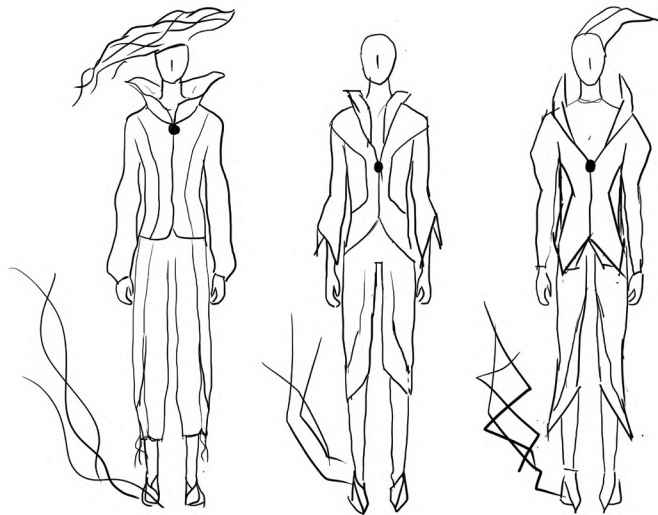


Figure 5.20. Wedding costumes represent rather than genders but personalities of feminine/soft (left), neutral/medium (middle) and masculine/hard (right). Source: Design by the student designers in Studio 3, 2020.

5.3.2 "Car-ing"

Cultural background

Chinese wedding rituals have originated from the traditional three letters and six etiquettes and borrowed from the Western church weddings to a series of pre-wedding, wedding and after-wedding activities as presented in Chapter 1. The project designer(s) of "Car-ing" interpreted this development as throughout history wedding customs and steps are merged instead of simply being deleted (see Figure 5.21). The three letters are merged as the marriage certificate with legal effect in the modern context. Etiquettes including *na cai*, *na ji*, *na zheng*, and *qing qi* are integrated in the modern pre-wedding rituals. The etiquette of *qin ying* remains the most significant ritual on the wedding day although the specific procedures are simplified and combined with the procedures of Western church weddings.

Design description

The project designer(s) described a future where all the wedding etiquettes would be merged as one step. The whole marriage ritual would be held in one place in a special wedding vehicle (see Figure 5.22), which can provide sufficient space for wedding ceremonies as well as mobility which makes it possible to keep the pick-up procedure. The huge wedding vehicle consists of a deck for the wedding ceremony, three liftable high legs with wheels to drive on the road over other cars, and a column as elevator to get onto the deck as well as to keep the vehicle stable when it stops. The mobility of this vehicle would enable it to combine the pick-up and ceremony sessions, as well as to drive to the preferred scenarios and surroundings for the wedding. For instance, the vehicle could be driven to a lawn with the deck being lowered down to the ground with the liftable legs for a lawn ceremony, and then move downtown for an urban wedding. The deck is divided into various rooms including the banquet hall with a stage to hold the wedding ceremony and banquet, the driver's compartment, and a kitchen for the banquet. The shape of the deck is designed with reference to the shape of vintage cell phones to indicate that similar to wedding rituals, people's life is merged into a cell phone.

Cultural review

"Car-ing" expresses the contradiction that Chinese people feel the wedding rituals are very complicated, however they only merge them instead of deleting some of them. When being asked why your wedding is designed with these procedures, most people would probably reply that it is decided by the "culture". Many processes in the marriage rituals are held due to cultural pressure. The wedding scenarios that Car-ing created illustrated a desperate future for some groups of people where they still have to go through each procedure under cultural pressure despite its cost, although being merged somehow. This scenario tries to encourage them to think about what they could do to avoid the future in this way. On the other hand, this scenario creation is expected to inspire those who prefer to go through all the wedding process to inherit all aspects of traditional culture. People would be able to take the advantages of the components they prefer and avoid those annoying elements when planning their wedding rituals.

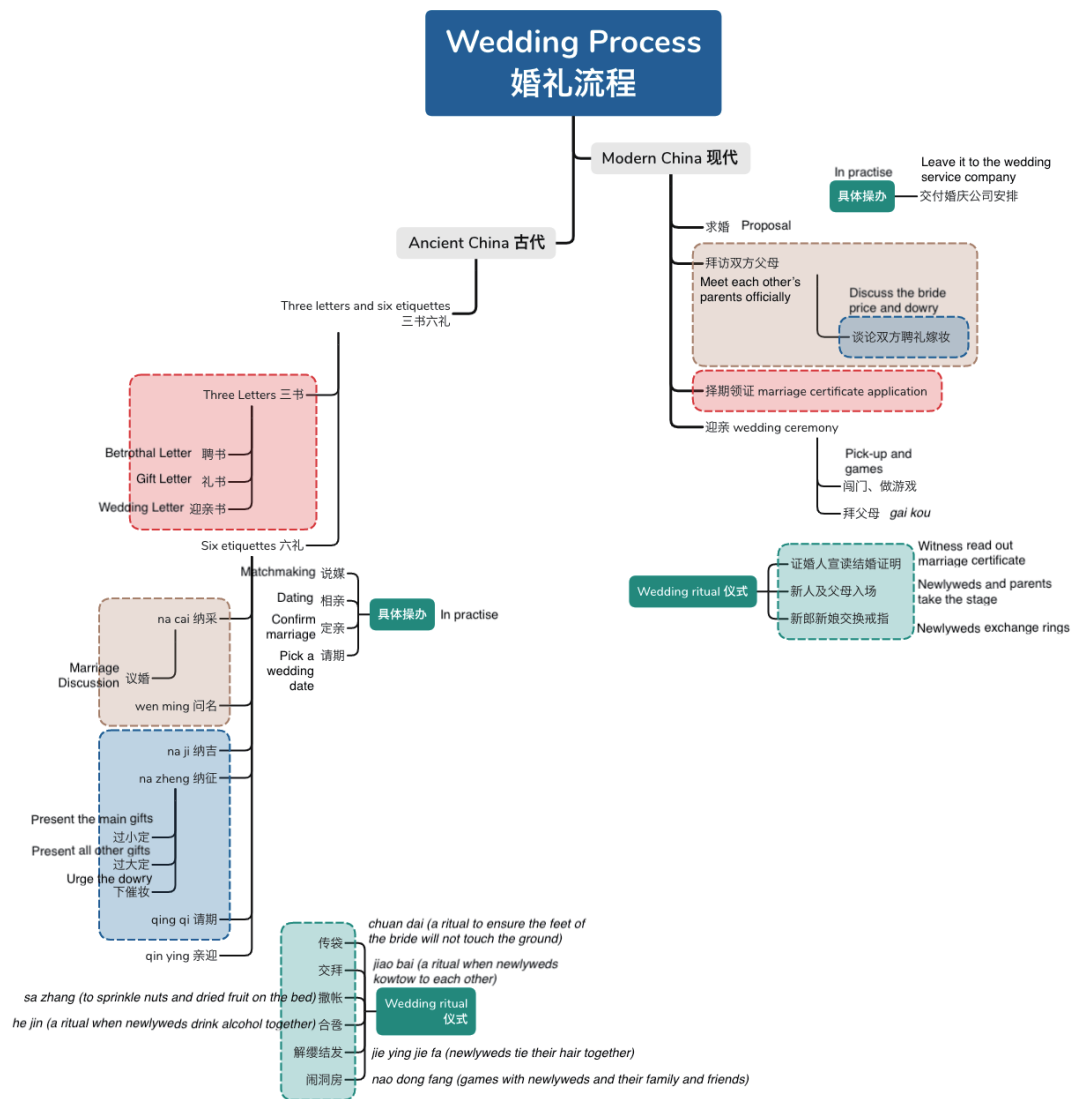


Figure 5.21. The past and present of three letters and six etiquettes in wedding culture in China (the same components in the past and present are highlighted in rectangles in the same colour). Source: Design by the student designers in Studio 3, 2020. Translated by the author.

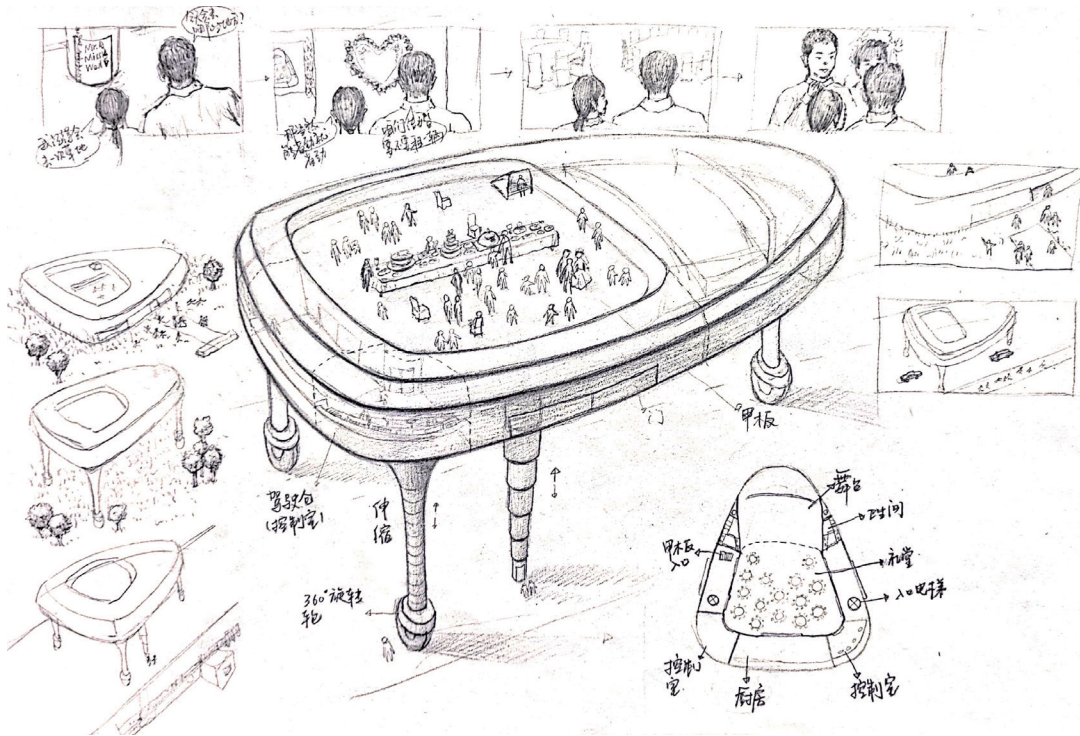


Figure 5.22. Sketches of the speculated future wedding scenarios where pick-up, ceremony, and banquet take place altogether in the special vehicle at any space, either running on the road, parking at a park or beside a church. Source: Design by the student designers in Studio 3, 2020.

5.3.3 Quick Change

Cultural background

The designers of the Quick Change project notice that a contemporary Chinese bride changes her dress several times donning multiple colours and styles on the wedding day while the bride in the past (prior to the 20th century) typically wore only one dress. The changes of wedding dress have been noticed by many designers in several projects, including the disappearing dress projects described in Chapter 3 and the Bridebird project.

Design description

Quick change is a future device with a huge circle around the bride to help her change her dresses constantly during the wedding (see Figure 5.23). Every time the circle moves from the top to the bottom, the bride will change into another dress. The device would be based on the future three-dimensional (3D) printing technology which would enable it to print fabric on the human skin at a super high speed.

Cultural review

The construction of this project is straightforward. It describes a future in an extreme situation, when the future brides would change more and more times in various dress styles. It questions the necessity of dress changing during the wedding. Visualisation of an extreme situation reminds the audience what the future

would be like if they do not challenge the culture. In addition, the reference of 3D printing technology is able to arouse discussions on the technological development and application in the fashion industry of 3D printing. 3D printing has been applied to fashion design to create complex hollow patterns directly on the mannequin without draping. This project tries to expand the printing operation area from the mannequin to human skin, which also implicits the bride acts as a mannequin during the wedding.

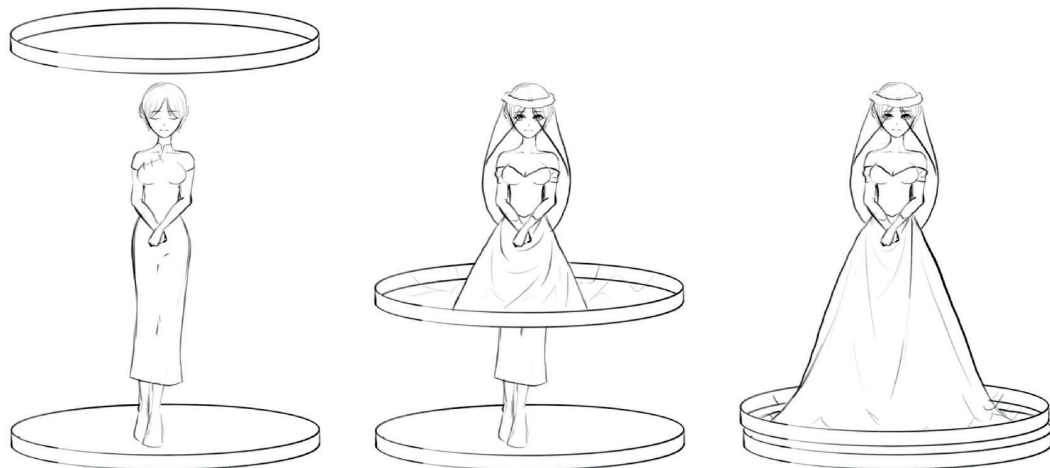


Figure 5.23. Sketches of the dress-changing process in the speculated future. Every time the circle moves from the top to the bottom, the bride will change into another dress. Source: Design by the student designers in Studio 3, 2020.

5.3.4 AIB Plan

Cultural background

The AIB plan project notices the time period needed from the couple first meeting each other, to the courtship period and then getting married throughout history (see Figure 5.24). In the past, following the traditional six etiquettes as described in Chapter 1, couples were matched by the parents' order and on the matchmaker's word, which means they know little about each other when they get married and spend their whole life developing an understanding of each other. In the modern context the couples are able to date and become acquainted with each other for years or months between when they meet and get married. There even emerged a Chinese word *shan hun* (instant marriage) to describe the behaviour of a group of people who get married very fast, after a few days or weeks of their first meeting with each other. There are more approaches for the young lovers to become acquainted with each other, being exemplified by that premarital cohabitation is widely accepted by the moral rules especially in the developed cities. Modern

technology has also enabled one individual to develop an understanding of someone else from multiple perspectives such as their self constructions, comments of their friends, or even their ex-lovers, through social media platforms.

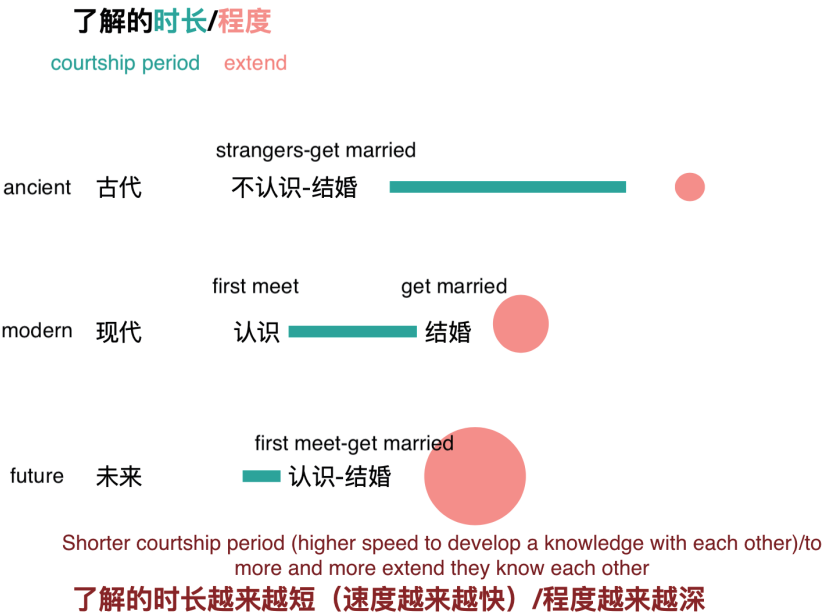


Figure 5.24. The trend of the time order and period between the couple first met each other, the courtship period and getting married. Source: Design by the student designers in Studio 3, 2020. Translated by the author.

Design description

AIB plan is a future service system that would match strangers and enable them to get to know everything about each other in only three seconds before they physically meet and get married (see Figure 5.25). Firstly, the system would take reflective surfaces such as the underground platform and car windows anytime and anywhere to display virtual portraits of the matched individuals. The system would display all the information of the matched individuals to help decide whether they are the right person for each other. Once matched successfully when both of them would be detected falling in love with each other through facial expression recognition, they would be able to get married and start their love stories. Further the project describes a future scenario where the information of the single individuals would be floating everywhere to search for a spouse (see Figure 5.26).

Cultural review

AIB plan explores the confusion in marriage of the young designer(s): how long can we get married since we meet and fall in love with each other? How long does it take to develop an understanding of each other? To what degree can we claim that we know everything about each other? Although these questions sound immature, many young lovers in China have these questions after falling in love with each other for years but not sure when is the best time for marriage. Under the pressure of the parents and the family, a female is entitled sheng nv (the leftover female) if

she does not get married at her thirty year age (although the specific age varies depending on the development of the location). However, this moral rule does not provide a guideline for these above mentioned questions. AIB plan project provided a platform for the young to discuss and try to give answers to these questions. AIB plan service created one possible scenario providing initial conversation topics: can I trust the information collected by technology when trying to understand others? Can I marry him/her when I technically know everything about him/her? Does the time matter to get acquainted with others? Through discussion of the questions it is expected they could find some clues for their confusion.

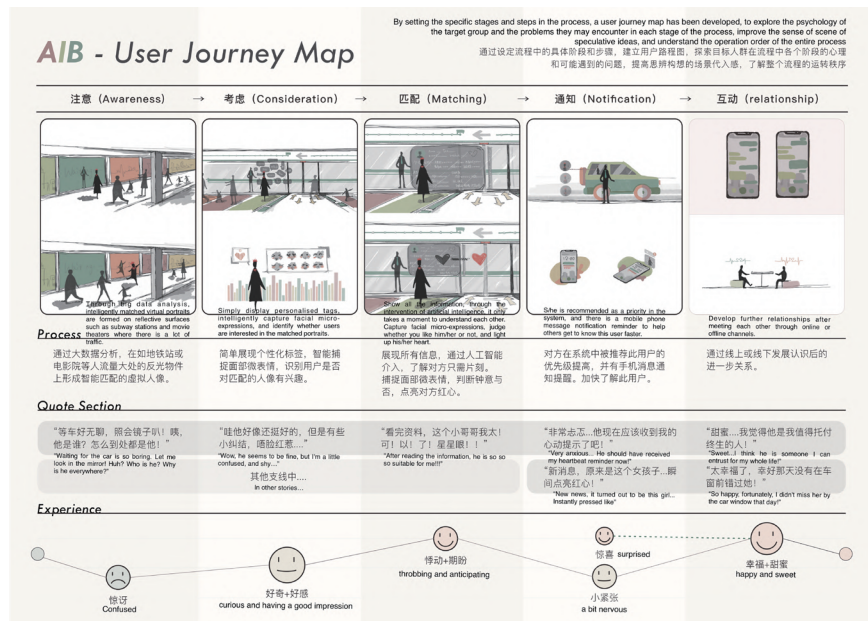


Figure 5.25. Speculated "user" journey map of the future service system design where the "user" goes through the process of awareness, consideration, matching, notification and relationship phases for dating and getting married. Source: Design by the student designers in Studio 3, 2020. Translated by the author.

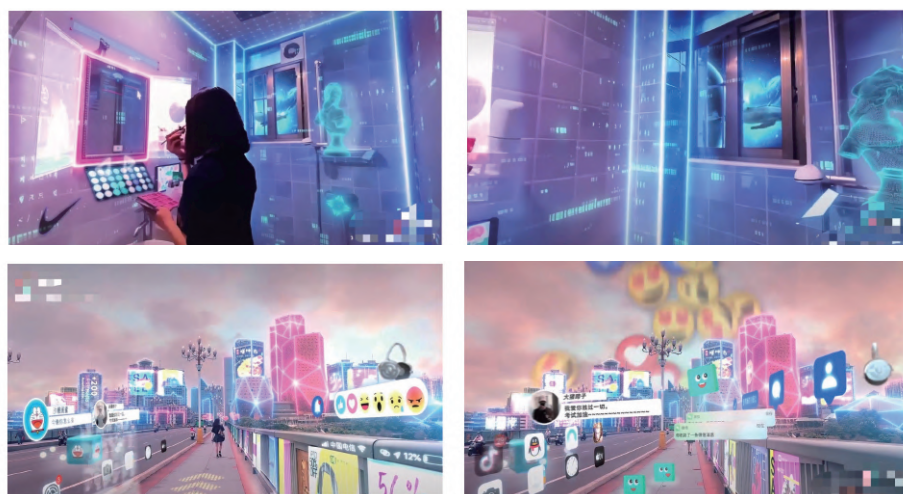


Figure 5.26. The speculated future scenario where personal information would be floating everywhere for couple matching. Source: Design by the student designers in Studio 3, 2020.

5.3.5 "Frieney"

Cultural background

Hong bao, the red envelopes, are one significant wedding symbol in China that indicates weddings as social events. All the guests who are invited to the wedding ceremony always give a red envelope to the couple to express their best wishes to them. The amount of money inside the envelope is increasing throughout history and the meaning of it changes from purely expressing best wishes to a combination of best wishes and maintaining Chinese *guan xi* (relationships). The amount of money in each red envelope, despite the geographic differences, depends on the level of Chinese relationship between the guest and the couple (and their parents), as well as how much the couples gave to the guest in the past similar events. To more and more extent, relationships are interpreted as "money". Generally in Jining City, Shandong Province, for example, the lucky money for a new couple ranges from 200-300 RMB if they are colleagues and/or normal friends, to 500-600 RMB if they are good friends, and to around 1000 RMB and above if they are best friends. Lucky money from relatives also varies, with reference to both their blood and social relationships. Generally those who maintain the best blood and social relationships with the couple and their family give more money than others, often around 3000 RMB and above. In addition, the amount of money inside a red envelope varies depending on the financial situation of the guest. There is an anecdote that someone sent a red envelope of 66000 RMB to his niece's wedding.

Design description

"Frieney" describes a future with a Guanxi Bank where the relationship would be one kind of currency (similar to virtual currency such as Bitcoin). The construction of the Guanxi Bank aims to encourage attending social events such as weddings to gain relationship points. Individuals with higher relationship points would gain higher social status, while those with low points would be faced with a series of problems such as when taking public transportations and finding a job. With the Guanxi Bank as the contextual background, "Frieney" further illustrates the future wedding scenarios (see Figure 5.27) that red envelopes will be the ticket for a wedding to buy relationship points, and the amount of the relationship points would decide the seat of the guest during the wedding ceremony and banquets (similar to the concert seating arrangement). Figure 5.28 illustrates the way that relationship points of the individual would be presented - under the eyes on the face- to implicitly interpret relationships in China as *mian zi* (face) and to make the points more visible when communicating with eye contact.

Cultural review

"Frieney" is an ironic project that critiques relationships in China represented by the red envelopes for weddings. While both maintaining relationships within social networks and sending gifts or red envelopes to the new couples are acceptable in

the social context, connecting these two aspects brings derogatory sense to both the relationship and the red envelope to some extent. Through the construction of the Guanxi Bank and the wedding settings with relationship points, “Frieney” strongly connected relationships with red envelopes, or more bluntly, to money. The scenarios encourage the audiences to consider the preferred meaning of the red envelopes or to try to find other alternatives for wedding gifts. Also it enables the audience to reflect on the guests they would like to invite for weddings - are they going to invite everyone in their social network so that the weddings would become a platform for maintaining relationships? Or would they like to invite only their best family and friends to celebrate and share the happiness of weddings?



Figure 5.27. In the future guests to a wedding would hold the red envelope as the ticket. Source: Design by the student designers in Studio 3, 2020. Translated by the author.

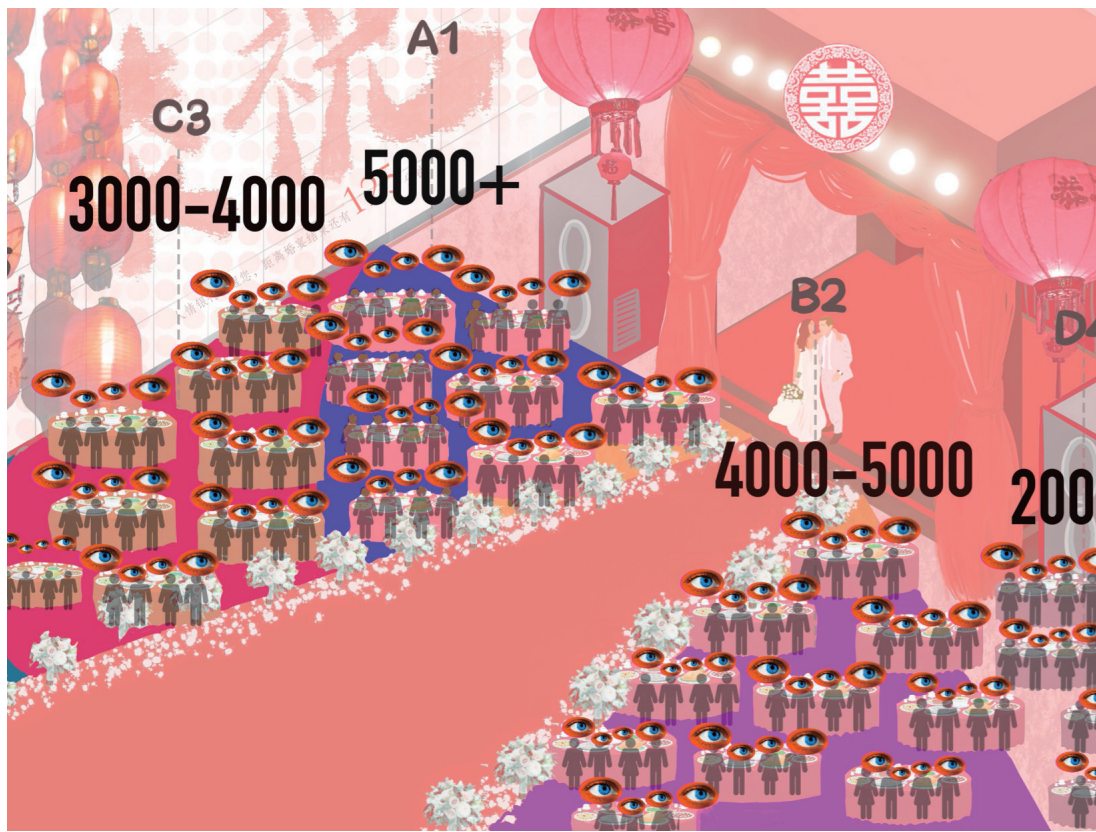


Figure 5.28. The wedding seat arrangement decided by the relationship points the guests hold and the way relationship points be displayed under the eyes. Source: Design by the student designers in Studio 3, 2020. Translated by the author.

Chapter 6.

Findings at Methodological Level: Cultural Design Guideline, Framework and Techniques

This chapter will present the research outcomes at the methodological level, describing *how* cultural design projects presented in chapter 5 are conducted and communicated with a broader audience, which will respond to research questions 1 and 2 (see Figure 6.1). A cultural design approach entitled Design for the Speculative Future (DSF) will be introduced in section 6.1, to distinguish the cultural design practises in this research from the cultural design genres previously discussed in section 2.4. Section 6.2 will present a guideline entitled Speculative Ethnography to describe the general cultural design process based on data collected from project 2 and studios 1 and 2. Based on data collected through studios 2 and 3, section 6.3 will display a cultural framework as a supplementary to Speculative Ethnography to integrate culture in layers throughout the cultural design process. Sections 6.2 and 6.3 will both respond to research question 1 to investigate how cultural resources are investigated and integrated with the cultural design practises, while section 6.4 will respond to research question 2 to explore how cultural design is perceived by and communicated with a broader audience. Data selection and analysis sections will introduce how the guideline/framework/techniques were produced, more specifically how and which data from the design practises described in chapter 4 were selected and analysed. Then the guideline, the framework and the techniques will be outlined, where their theoretical foundations presented in chapter 2 will be referred. Application sections will present how the proposed approaches are utilised by example projects, while verification sections will compare the projects that utilise the proposed approaches with those without the support of the proposed tools.

6.1 Design for the Speculative Future

Design for the speculative future (DSF) is defined as “design projects that aim at sparking public discussions on a preferable future through imagining and creating a

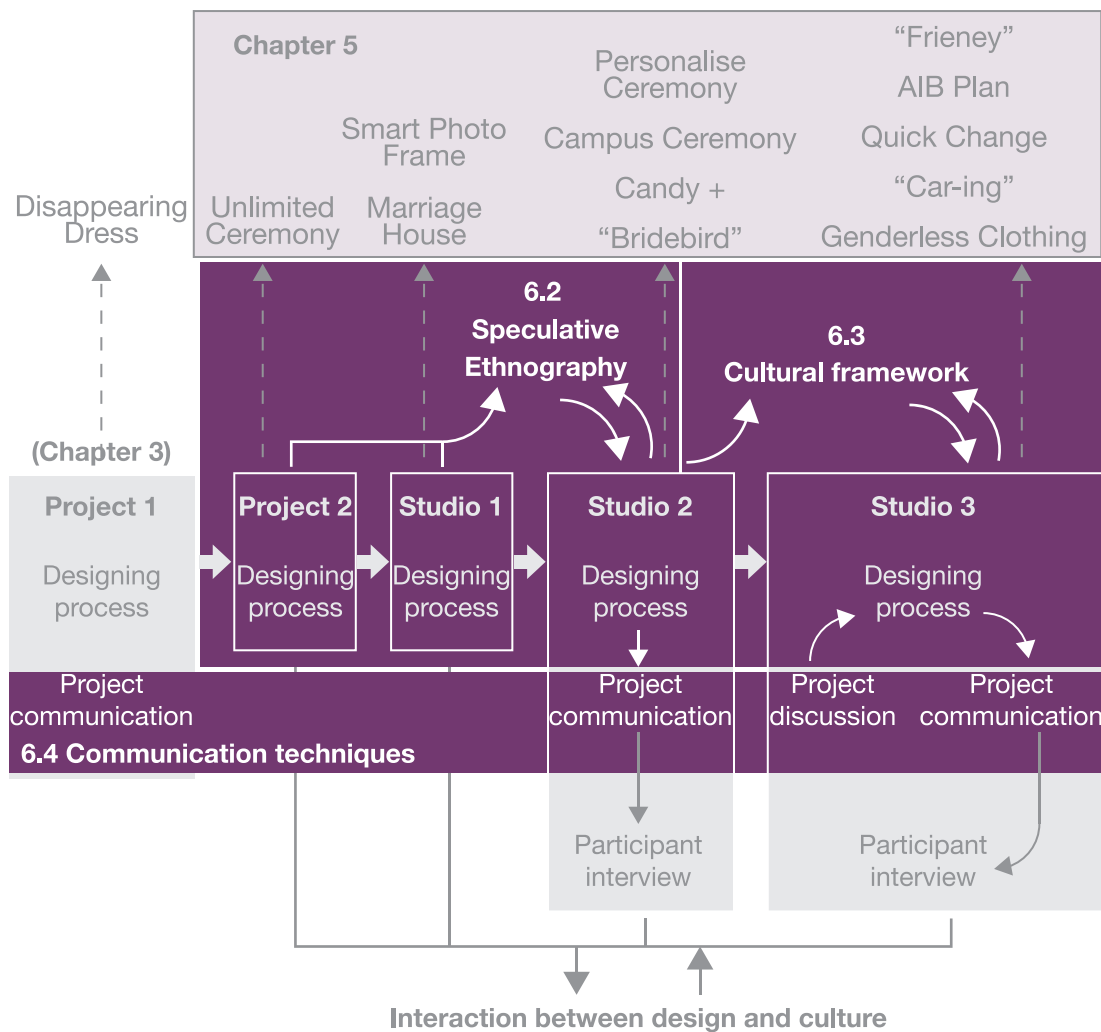


Figure 6.1. Chapter structure showing the data source and its link with the research process and chapter 5.

plausible future” (Dong et. al, 2020, p.1883). It is proposed to distinguish the design practises discussed in this research from the design activities for culture, and in the meantime clarify its culture-centred perspective among the cultural design genres discussed in section 2.4 such as critical and speculative design (Dunne and Raby, 2013), design fiction(Bleecker, 2009) and adversarial design (DiSalvo, 2015). In this sense, instead of designing an exact product or service to solve an exact problem, DSF takes “future” at the centre, which is more about scenario and lifestyle creation. It is thus closely connected with “a way of life”, an anthropological view of culture (Sparke, 2013; Katan 2009; Bennett, 1998).

Design is a future-oriented activity. Designers explore, express and test hypotheses about future ways of living (Sanders and Stappers, 2014), which means embracing uncertainty and possibility. Dunne and Raby (2013) illustrated the potential future into probable, plausible and possible based on different levels of likelihood. It shows that the probable cone, where most of the normative designers operate, is not completely coincident with the preferable one. As the future is full of uncertainty,

designers are encouraged to provide more possibilities especially in the plausible and possible cones, the alternatives to capitalism, to support collectively defining the preferable future. With this in mind, DSF operates within the “plausible”, the seeming reasonable (seeming ridiculous in the same time) circumstances, however, using the term “speculate” and its inflections instead to include their conjectural nature and critical implications. In other words, both the speculating process and its speculated result are plausible. As a result, if “Design” is understood as an intentional human activity for specific purposes, DSF is an activity that tries to critically conjecture plausible ways of life in the future (see Figure 6.2). It is categorised in cultural design, which indicates its purpose as to pose questions, arise discussions and nudge cultural change.

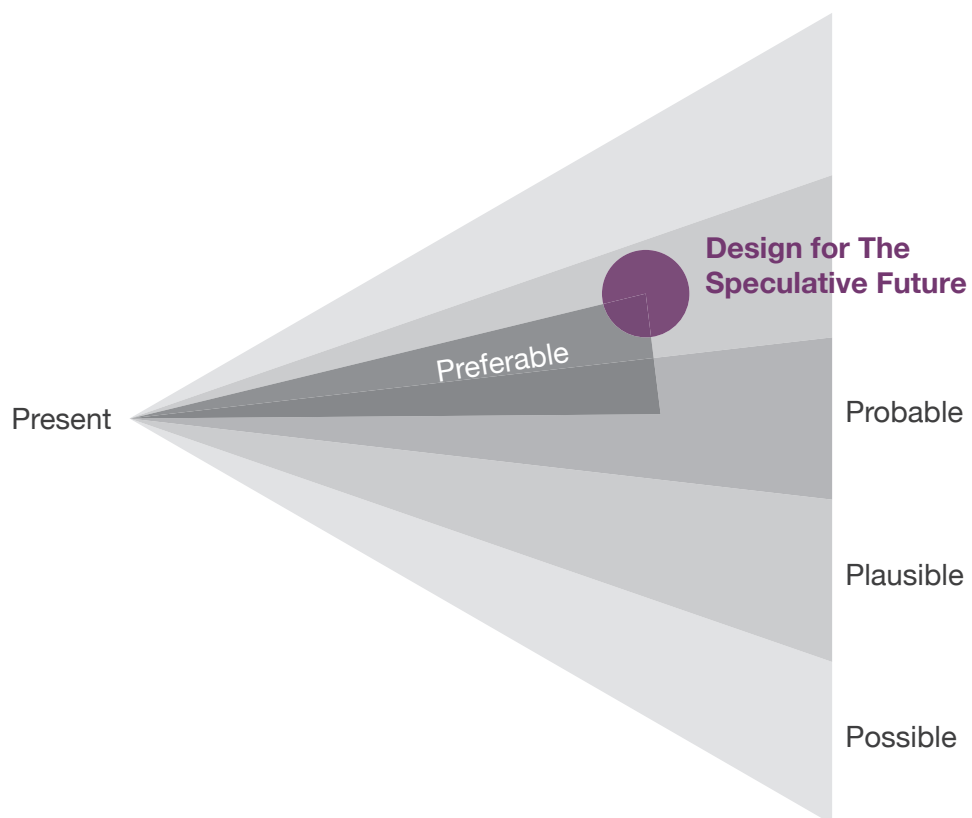


Figure 6.2. The future cones by Dunne and Raby (2013, p.5) and design for the speculative future (DSF) mapping within it.

6.2 The Guideline: Speculative Ethnography

6.2.1 Data selection and analysis

Section 6.2 will try to provide an DSF outline formulated based on design projects conducted by the PhD researcher (section 5.1) and by the student participants to

design studio 1 (sections 5.2 and 5.3). The final presentation of these projects by the participants, during which the designing process and outcomes were presented, were recorded, transcribed and coded to generate the initial outline (being entitled Speculative Ethnography). Then the initial outline was tested with participants to design studio 2, where the guideline of Speculative Ethnography (described in 6.2.3) was provided to them for cultural design practises. Then projects from studio 1 and 2 were compared to verify Speculative Ethnography (section 6.2.4).

The transcriptions of project 2 and studio projects 1-1 and 1-2 were analysed through process coding where the steps of each project were condensed and displayed. Then the process codes were grouped into higher levels through descriptive coding to seek patterns that helped formulate a method outline. Figure 6.3 illustrates the coding structure used to propose the guideline of Speculative Ethnography, followed by descriptions of the formulation process of the process codes based on the transcribed, translated and condensed presentation records of each project.

6.2.2 Introduction of Speculative Ethnography

As presented in Figure 2.2 in section 2.4.2, one method to map the existing cultural design tools is to map them in the British double diamond design process by Kovačević et al. (2016) after reviewing the speculative design practise from an exhibition. Most of the tools were mapped in the develop and deliver phases that helped visualise and materialise the speculation. With the visualisation tool of double diamond, Speculative Ethnography is mapped in the discover and define phase to support designers constructing the speculation. It contributes to proposing a seemingly reasonable future culture following logical thinking. It also contributes to the participatory activities in the post-design process, which will be discussed later in section 6.4.

As an anthropological methodology, ethnography describes culture through the immersive observation of people and society. It was introduced to the field of design at the Palo Alto Research Centre in the Industrial Design Human Interface at Xerox in the 1970s (Aiken, 2012). Subsequently, organisations increasingly adopt ethnographically-inspired techniques in design projects to deeply understand user behaviour (Kensing and Blomberg, 1998). Design ethnography is described as a discipline that identifies user needs by understanding how users live instead of asking what they want (Salvador et al., 1999). It relies on the present and helps understand “here and now” to inform the near future. Lindley et al. (2014) break its temporal constraints and formulate anticipatory ethnography, a theoretical space to open up dialogues about the distant future. Speculative Ethnography is considered as a practise in the field of anticipatory ethnography which adopts ethnographic research and informs and inspires design for the speculative future.

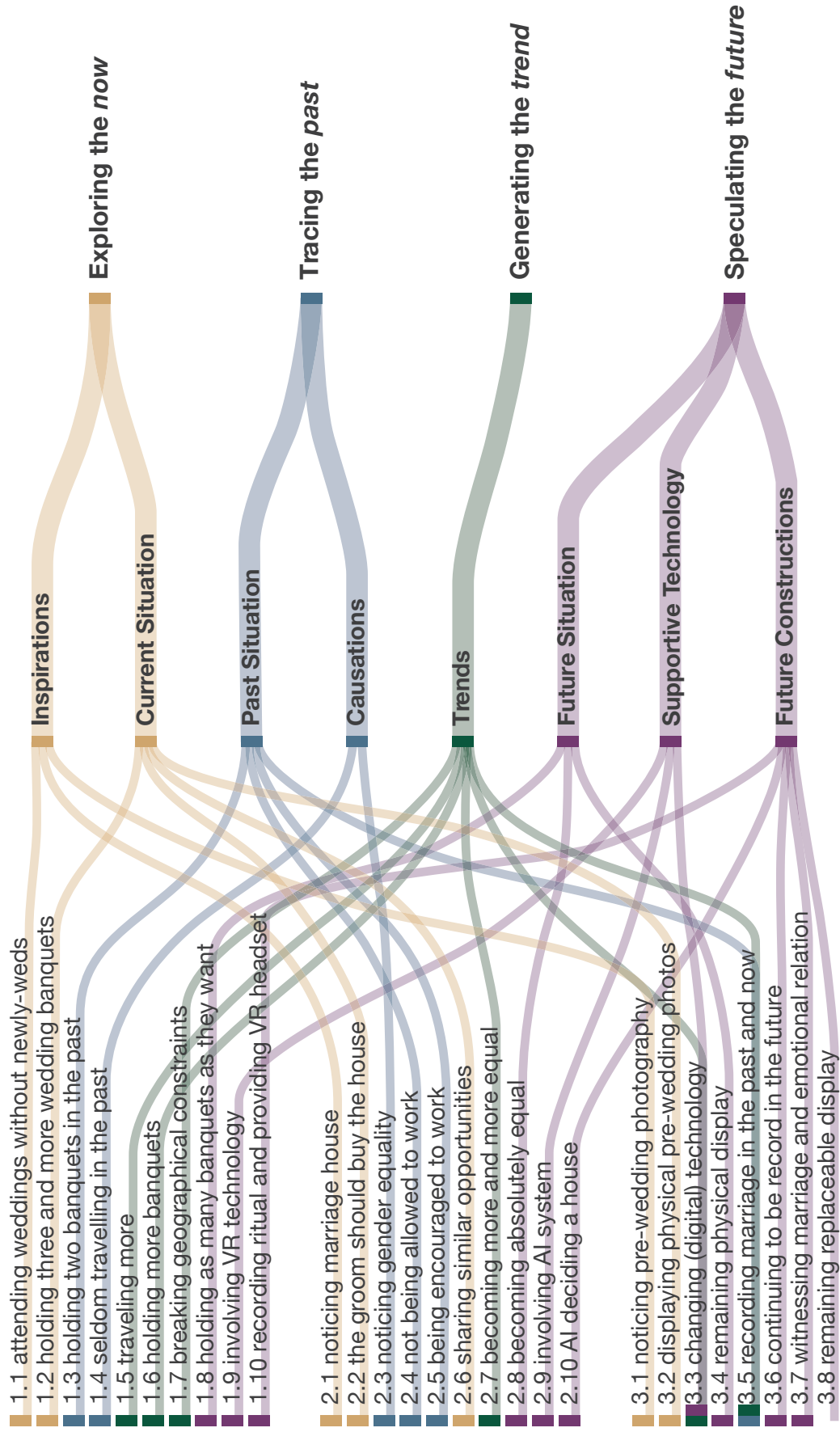


Figure 6.3. Coding structure to propose Speculative Ethnography.

VR ceremony started with **1.1** the experience of attending several weddings without the groom and bride in Jining, Shandong province in China. The only elements indicating it as a “wedding” are candies, cigarettes and alcohol, typical items that appear in every wedding in China. **1.2** Through interviews with young people from Jining and their parents, as well as people who have attended wedding ceremonies of this kind, it is common for young couples to have three or four or even more wedding banquets. **1.3** Historically, there are two banquets at a Chinese wedding, one in the groom’s family and another in the bride’s some days later (*hui men yan*). **1.4** Before globalisation when people seldom travelled, the groom and bride were often from the same town. In most of the cases, the two banquets were able to include almost all their relatives and friends. **1.5** In a modern context, however, the development of transportation enables more long-distance travels, resulting in the couples’ hometowns and working place to be three different cities, provinces or even countries. **1.6** The number of wedding banquets thus rises to three or more, and the number of wedding ceremonies remains one. **1.7** One important reason for the increase is the geographical constraints have been broken gradually with the development of transportation and people’s economic affordance. **1.8** It is therefore imagined that in the future, the couple would hold as many wedding “banquets” as they want **1.9** thanks to internet technology and VR which enable the guests to attend their wedding online. Future wedding ceremonies would be VR videos available for invited guests. **1.10** The couple would record their wedding ritual in the groom’s family banquet using a panoramic camera, and provide cardboard VR glasses in other offline wedding banquets for the guests to experience their ritual.

- 1.1** attending weddings without newly-weds
- 1.2** holding three and more wedding banquets
- 1.3** holding two banquets in the past
- 1.4** seldom travelling in the past
- 1.5** traveling more
- 1.6** holding more banquets
- 1.7** breaking geographical constraints
- 1.8** holding as many banquets as they want
- 1.9** involving VR technology
- 1.10** recording ritual and providing VR headset

Marriage house project noticed through questionnaires that **2.1** marriage house was considered as a significant component when getting married in China. **2.2** It is widely believed that the groom's family should buy a house for the couple as compensation for the bride. A reason for this according to interviews was interpreted as women devoted themselves more to marriage than men. **2.3** After a visualisation of the stakeholders related to the marriage house, it was noticed that one of the assumptions in Chinese culture was that men and women were not equal. The gender equality issue in Chinese history was explored, finding out that **2.4** women were not allowed to study and/or work at first, then **2.5** started to be allowed to study and encouraged to work in the 1950s, and **2.6** increasingly have equal educational resources and working opportunities with men. **2.7** Therefore, men and women are getting more and more equal throughout history. **2.8** Based on this trend, it was speculated that in the future men and women would become absolutely equal, so that they would share absolutely the same power when purchasing their marriage house. **2.9** However, humans might not be able to keep totally rational and absolutely equal to men and women. An artificial intelligence (AI) system is thus involved to achieve absolute equality. **2.10** This AI system would be able to filter house sources, plan routes, and evaluate feedback to help decide a house that would be absolutely equal to the couple.

- 2.1** noticing marriage house
- 2.2** the groom should buy the house
- 2.3** noticing gender equality
- 2.4** not being allowed to work
- 2.5** being encouraged to work
- 2.6** sharing similar opportunities
- 2.7** becoming more and more equal
- 2.8** becoming absolutely equal
- 2.9** involving AI system
- 2.10** AI deciding a house

The pre-wedding photography project noticed that **3.1** pre-wedding photography played an important role in Chinese marriage. In China's film and television culture, pre-wedding photography is an emotional symbol of marriage that was **3.2** displayed repeatedly. Based on visual ethnography, pre-wedding photos in Chinese houses were displayed physically in various sizes and materials, **3.3** although the era of film cameras is over. The digital technologies expanded the possibilities for the couple to display their photos such as moments in social media. The student designer thus speculates **3.4** physical wedding photos would always be displayed in the future, with digital technology playing some role. Three groups of functions were speculated. Firstly, **3.5** From the 1930s till now, pre-wedding photos have been considered as a record for marriage. **3.6** In the future, the photos would continue to be the record for marriage, in addition would be able to remind the couple of their important anniversaries. Secondly, pre-wedding photos witnessed the marriage, so **3.7** in the future they would not only witness the wedding ceremony but also the emotional relationship between the couples. Thirdly, **3.8** the display of the physical photos would remain, with the ability to be replaced with the support of digital technology.

- 3.1** noticing pre-wedding photography
- 3.2** displaying physical pre-wedding photos
- 3.3** changing (digital) technology
- 3.4** remaining physical display
- 3.5** recording marriage in the past and now
- 3.6** continuing to be record in the future
- 3.7** witnessing marriage and emotional relation
- 3.8** remaining replaceable display

In linguistic terms, whether as a verb, an adjective or a participle, “speculate” and its inflections are strongly linked to conjecture and imagination. One of the definitions of “speculate” in the Oxford English Dictionary is “to talk a matter over conjecturally” (Oxford, 2019). It has been utilised in many areas and subjects - philosophers speculate (critical and speculative philosophy, see Broad, 1924), novelists speculate (speculative fiction, see Thomas, 2001). Besides its conjectural nature, “speculative” is often utilised alongside “critical” in its implications in many areas and subjects such as philosophy (critical and speculative philosophy, see Broad, 1924) and design (speculative design as critical practise, see Malpass, 2013), which requires logical thinking. Brassett (2016) involves the term “pragmatic”, to describe a speculative philosophy as it generates the new, transforms the old and maps possibilities. Auger (2013) views the imagination of flying cars for instance as “wild speculations” and points out the possibility to “craft the speculation ... based on logical interactions” (p. 12). To avoid “wild speculations” in the designing process and distinguish the “design for” instead of “art of” the speculative future, Speculative Ethnography provides a guideline of four stages, focusing on now, past, trend and speculated future (see Figure 6.4) step by step, to help designers scientifically imagine the future.

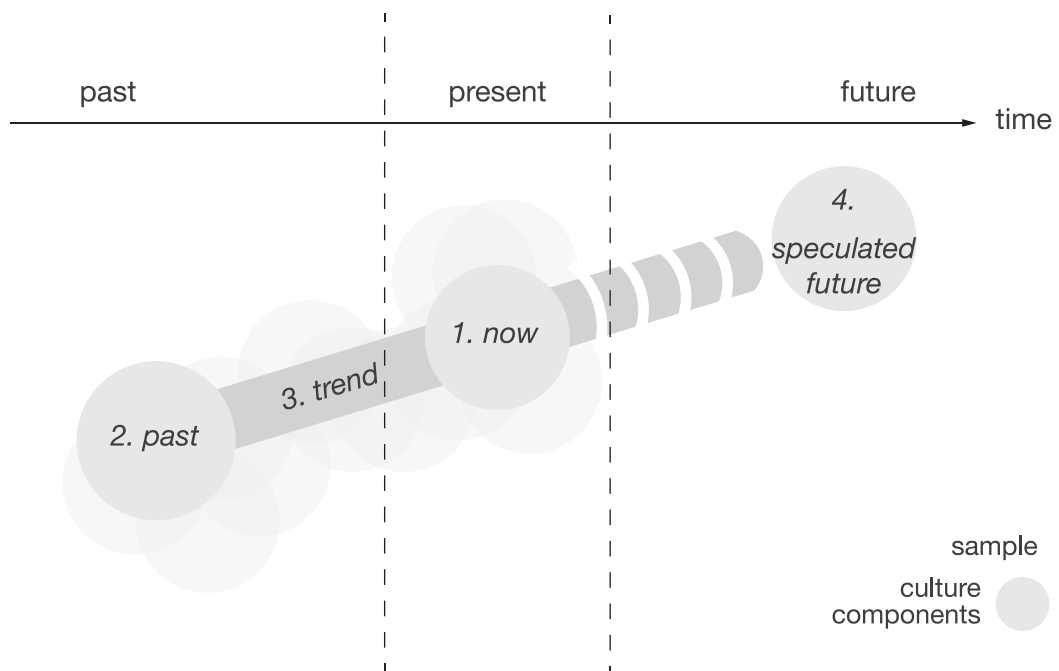


Figure 6.4. The Speculative Ethnography guideline, investigating the culture of the present, the past, and the trend and integrating it into the speculated future.

1. Exploring the now

Begin by selecting a culture component as the research interests or questions, such as the wedding banquet in the VR ceremony case. It can be inspired by any common or special case or even anecdote. Conduct research of the selected component using anthropological methodologies, such as questionnaires, interviews, and visual ethnography to get knowledge of the current situation.

2. Tracing the past

Explore the causes of the current situation. This is potentially the bridge of the now and the past since history development may be one of the causes. Research into the history and investigate how and why ancestors deal with the selected culture component. Investigations of the now and past might be a nonlinear process where both the situation and causations are examined through the lenses of now and past.

3. Generating the trend

Integrate the researched now and past, summarise the developing process of this culture component and generate it into a cultural trend. It contains what changed and what did not change throughout history. Summarise the fundamental reason for the trend, for instance in the VR ceremony case, the number of wedding banquets has changed due to the geographic constraints that have been broken.

4. Approaching the speculated future

Scientifically imagine the speculated future scenarios by speculating on the future possibilities of the culture component based on the trends. Apply appropriate technologies that have an impact on the reason (e.g. internet technology and VR have been applied in VR ceremony since they further break the geographic constraints). Develop and materialise the speculation using tools and techniques described in section 2.4.2 and other tools that fit the project.

6.2.3 Application

Speculative Ethnography was introduced to participants to design studio 2 to utilise it in projects introduced in sections 5.4-5.7. Two examples of the designing processes of these projects will be described to present how the guideline of Speculative Ethnography supported their speculation.

“Bridebird” project was inspired by the experience of the designer(s) that men were commented on as “bad boys” when they spent some time dressing up. They were expected to dress clean and simple. Similarly in the wedding scenarios, the groom only has to wear suits when the bride changes from one style to others, or traditional Chinese costumes when the bride wears in traditional way. The groom is more of a foil for the bride during the wedding (now). Reviewing history, both

the groom and bride in Imperial China wore robes with exquisite embroideries, which positioned the newlyweds in a similar aesthetic status (past). Therefore, the trend was deliberately summarised that the groom's costumes has become more and more simple throughout history, with the groom's aesthetic status during the wedding being decreased gradually (trend). Following and exaggerating the trend, the future is speculated as the aesthetic status of the groom would be decreased to a scenario where he would not have his fashion but reflect the bride's fashion (future).

Candy+ project looked into the wedding candy. Wedding candies in the modern market are packaged in nice boxes and/or gift bags. The candies inside are often selected and combined by the newlyweds according to their preference. However, the guests who receive the wedding candies pay more attention to the packages themselves rather than the candies inside (now). Historically the wedding candies were packed in simply red plastic bags by the seller while the newlyweds were not able to customise them. The guests were more focused on the candies as they may seldom have candy in their daily life (past). Therefore, there were two interrelated trends summarised: the newlyweds have more and more chances to customise their wedding candy, while the guests have been more and more interested in the packages instead of the candies (trend). The future was speculated following the trend, where the newlyweds would be able to prepare unique wedding candy and packages, while the guests might directly throw the unique wedding candy away as it does not fit into his/her aesthetic preference (future).

Although Speculative Ethnography is generated based on culture-centred projects, it could be utilised to a broader case. The provided guideline could be adjusted to be used more generally, providing it follows the structure of now, past, trend and future. One way it could be adapted is by considering the technological perspective. Auger (2013) separates the speculative design practise into two categories from the technological perspective: 1) speculative futures, which imagine the possible future developments of technology based on existing paradigms through materialising them on near future products and services; 2) alternative presents, which apply different ideologies or configurations of contemporary technology to current product development. Speculative Ethnography could be applied to scientifically imagine the future developments of technology in speculative futures. It could also be applied to speculate the possible ideologies or configurations of technology in alternative presents.

6.2.4 Verification

Projects produced from studio 1 (without Speculative Ethnography) and 2 (with Speculative Ethnography) were compared to verify the proposed tool. Firstly, in terms of the speculativeness of the projects, all projects produced from studio 2 were cultural design that distinguished them from problem solutions, while half of

the projects (two) from studio 1 were hard to be identified as cultural design. Thus only two projects from studio 1 were selected and included in chapter 5, as the other two did not meet the selection criteria of trying to pose questions. Secondly, with regards to the designing process, participants to studio 1 paid great effort to avoid providing solutions for problems, while participants to studio 2 spent more time on exploration of the wedding culture. Although Speculative Ethnography was generated based on the designing process of projects from studio 1, participants to studio 1 struggled with the ideation process based on their understanding of cultural design. With the guideline of Speculative Ethnography, participants to studio 2 were soon on track and found it clear to the differences between solution and speculation.

6.2.5 Summary

Speculative Ethnography is a culture-centred tool for DSF. It emphasises the concern for the cultural components in the entire designing process, rather than the development of technologies as most speculative practises focus on. It starts with the exploration of modern culture through design ethnography to learn people's behaviours and characteristics (i.e. the display behaviour of pre-wedding photography in studio project 1-2), which is similar to the normative user-centred design. However, Speculative Ethnography researches the development of those behaviours and tends to stand in a more neutral position when describing them, instead of defining some cultural aspects as "problems". Culture as "what we do" and "who we are" is directly re-imagined through exaggerating the trends and speculating the future behaviours during the construction of the speculated future. Contemporary technologies act as supporting elements in building future scenarios. It increases the possibility of the speculated future by materialising the re-imagined culture components. For instance, in the Marriage House project, the future culture is re-imagined as absolute equality, and the implementation of AI and the proposed AI system provides an example material culture of absolute equality. Speculative Ethnography is open-ended. The speculated future is the designers' way but not the only way to respond to the trend, which makes it possible to open up discussions and debates on the culture components that Speculative Ethnography stresses.

Speculative Ethnography also offers a guideline for communicating the cultural design project with the broader audience. By explaining the project concept following the chronological order of past, present, trend and speculated future, the speculative nature of the project is conveyed to the audience. As presented in Chapter 3, the impact of participatory post-design activities as alternatives to exhibitions that provide communication platforms for the audience and DSF project has been examined. With Speculative Ethnography, participants are encouraged to reflect on the speculated future and imagine their preferred future scenarios, which might be different from the speculated future. They would then be able to reflect on

what changes have to take place if they would like to achieve their preferred future. As the speculated future is proposed following the trend generated from the past to the present, if they would like to change the future they have to change the present in order to change the trend (since the past cannot be changed anymore). More detailed cultural design project communication techniques will be introduced in section 6.4.

6.3 Cultural Framework

6.3.1 Data selection and analysis

Section 6.3 will present the cultural framework formulated by adapting and integrating several existing cultural models (described in section 2.3) into the primary student DSF projects. Data selected for formulating the framework are the designing process of the projects conducted during studio 2 (see section 5.4-5.7 for project descriptions). The group discussions each week during the studio representing the stages of the designing process were recorded, transcribed and condensed for coding. The coding of the condensed transcriptions combined several strategies including Causation coding, Protocol coding and Process coding (Miles, Huberman and Saldana, 2014). Process coding is first conducted with reference to the guideline of Speculative Ethnography to analyse how and why the future speculation is conceptualised in each project. The analysing process then figures out the steps through which the Chinese wedding culture aspect of each project is explored through a “code1 > code 2 > code 3” coding (the symbol > means “leads to”) or “code1 < code 2 < code 3” coding (the symbol < means “caused by”) within each process code, followed by the second round of coding of the codes 1, 2 and 3 with reference to the categories mentioned in the existing cultural models (see section 2.3). Figure 6.5 displays the coding process in each stage.

The initial cultural framework was adopted by participants to studio 3 to test its application. Projects from studio 2 and 3 were compared to verify the proposed framework. Studio 2 provided participants with the DSF tool Speculative Ethnography, and studio 3 provided with both Speculative Ethnography and the cultural framework. In addition, as described in section 4.2, participants to both studios were interviewed after their studio participation, during which they were interviewed about their experience with the tool (Speculative Ethnography) and this framework for DSF. The interviews were also compared to verify the cultural framework.

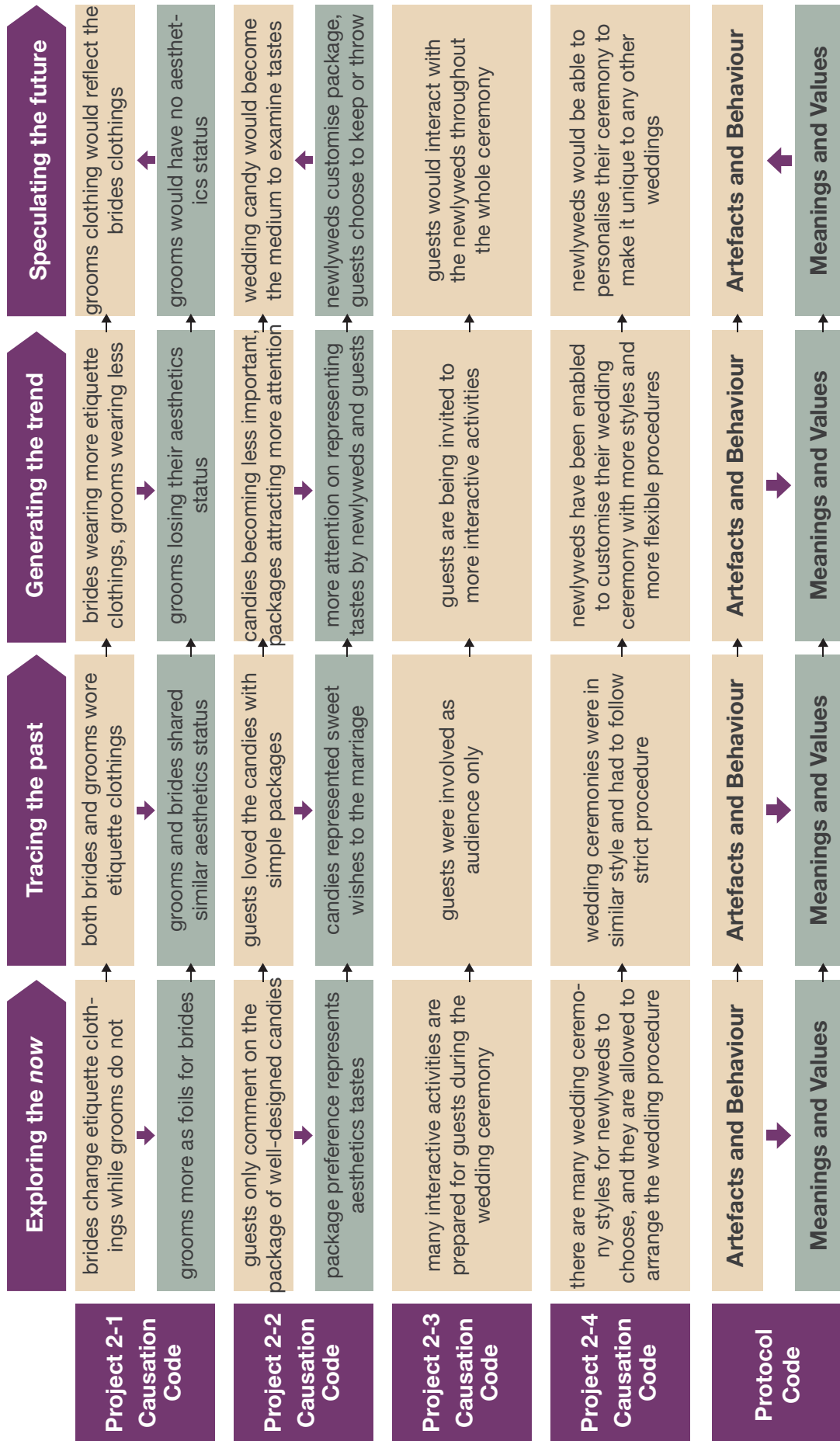


Figure 6.5. Coding process to propose the cultural framework.

6.3.2 Introduction of the Cultural Framework for DSF

The proposed cultural framework for DSF is presented in Figure 6.6, with reference to cultural dimensions and models described in section 2.3. Each cultural component, represented by a circle, consists of Cultural Cognition and Cultural Environment, which corresponds to the meta-model of culture (Stewart and Bennett, 1991) and the culture-specific design approach of Röse (2004). Cultural Cognition describes the micro components of individual behaviours and preconceived notions of culture, both visible and invisible, while Cultural Environment describes the macro-context of the society. In the case of wedding culture in China, Cultural Cognition includes components directly related to the event of wedding, such as how the new couples celebrate their marriage via what they wear and the objects that are chosen for use during the celebration and why. Cultural Environment describes components at large which have a subtle impact on the wedding culture. They are the institutions of culture in China such as the political structure, economic system, social customs, technologies, and material environment. Cultural Cognition corresponds to the similarities of the existing cultural models and describes culture in three layers: Artefacts and behaviour (visible), Meanings and values (invisible but conscious), and Basic assumptions (usually unconscious). The outer layer, Artefacts and behaviour, indicate the material aspects such as products and their using scenarios, as well as visible behaviour patterns such as the process of finishing a task. Meanings and values reflect the causation and formulation of a specific product or behaviour, and Basic assumptions situated at the core of embodied culture are underlying beliefs of the group. In the wedding culture case in China, an example Artefact and behaviour can be the visual characteristics of the wedding dress and several dress changes on the wedding day. The Meanings and values behind this phenomenon can be reproductions of self-images and the Basic assumptions can be that brides (not the groom) always wear dresses (instead of trousers) and clothing is one of the symbols of social status.

6.3.3 Application

The application of the proposed framework is described in two aspects: 1) application to the designing process; 2) application to the communication phase after the designing process. The framework is a supplementary to Speculative Ethnography, where each circle representing the cultural component of the *now*, *past*, *trend* and *speculated future* is categorised in layers in the cultural framework (see Figure 6.7). Designers as culture observers investigate culture of the present, the past and the trend (the left circle) and integrate it in the speculated future (the right circle) in layers. It is flexible for designers to investigate and integrate culture into different layers. More specifically, there are four levels of investigation and integration reaching different cultural layers (see Figure 6.8), which will be described later in this section. There are five key features about how the cultural framework is utilised in the designing process of DSF projects:

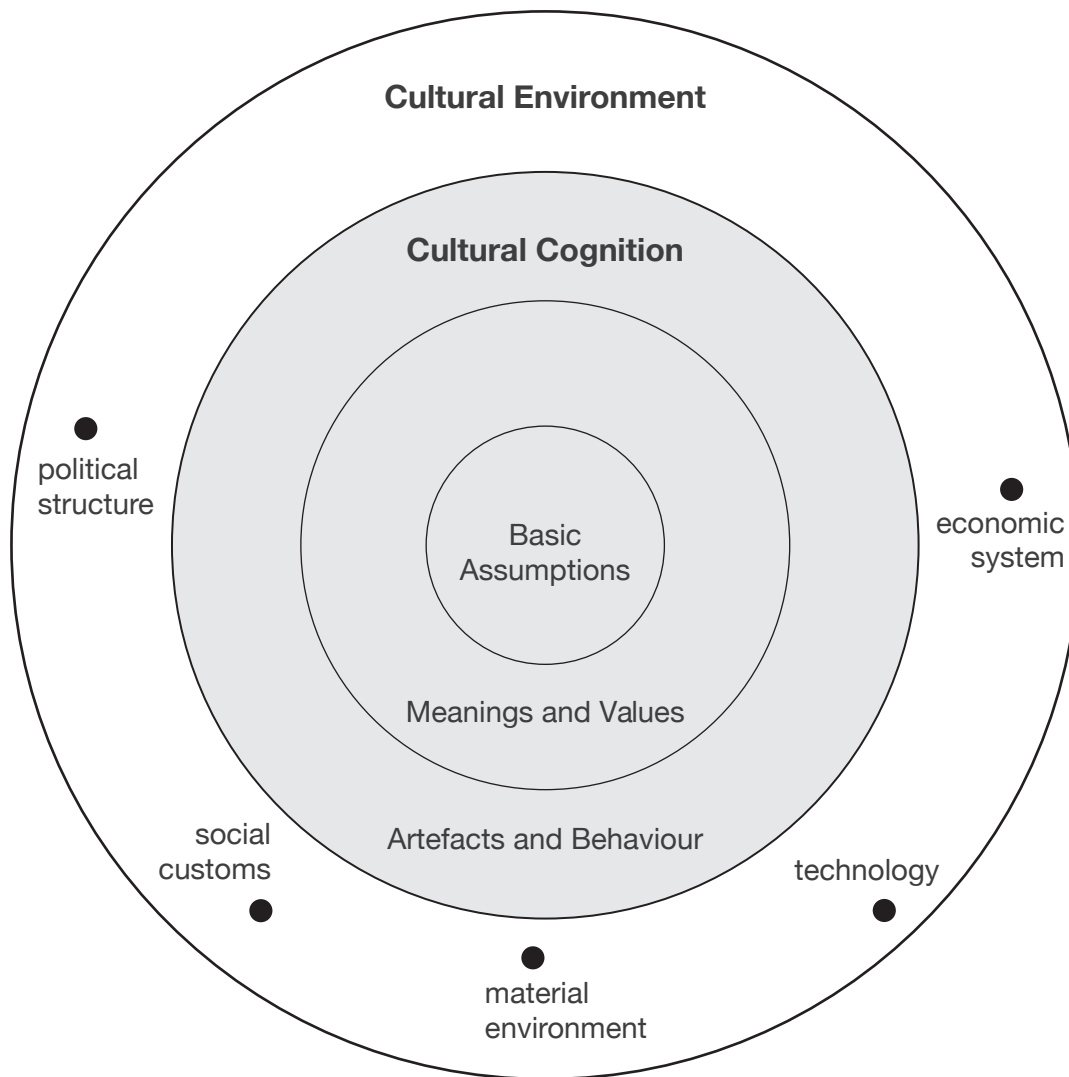


Figure 6.6. Cultural framework for DSF, dividing culture into Cultural Cognition (with three layers) and Cultural Environment (with several institutions of culture).

- The speculated culture is formed based on the understanding of the present culture and the trends generated following the guideline of Speculative Ethnography.
- Components within the Culture Environment have an impact on all layers of Cultural Cognition as a whole.
- In terms of Cultural Cognition, the exploration of the present culture is from the outside to the inside while the speculation of the speculated culture works in an opposite order.
- The links between present and speculated culture are always among the same layers.

- The outer layer of the speculated culture corresponds to both the same layer of the present culture and the inner layer(s) of the speculated culture.

Nine student projects from studio 2 (unconsciously) and 3 (consciously) utilised this framework, and each project explores and speculates different layers of culture in the designing process. An overview of these projects is presented in Table 5. It is not surprising that all the projects work on the Artefacts and behaviour layer of Chinese wedding culture, as it is the easiest aspect of culture to observe. Most of the projects (six out of eight) speculate into the Meanings and values layer, only one of which challenges the Basic assumptions in their speculation. In terms of Cultural Environment, only one project speculates the future social customs by exaggerating its trend, while other projects either unconsciously apply the current Cultural Environment into the future speculations or suppose that the future Cultural Environment is able to support all scenarios they speculate. This may be because the student designers as cultural observers are embedded in the Cultural Environment of China, as Chinese citizens/residents.

Four typical projects are then introduced in detail later in this section to demonstrate

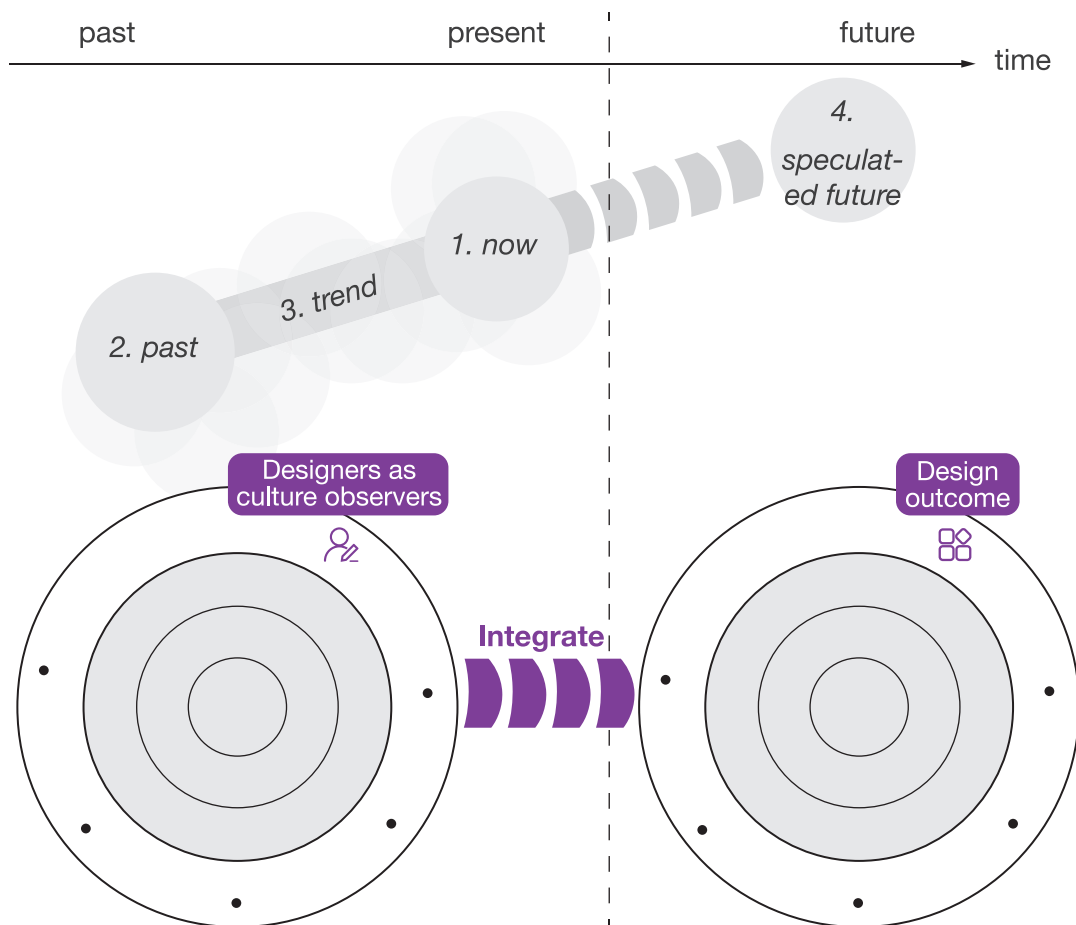


Figure 6.7. Combining Speculative Ethnography, designers as observers investigate the culture of the present, past, and trend (the bottom left circle) and integrate it into the speculated future (the bottom right circle) in layers.

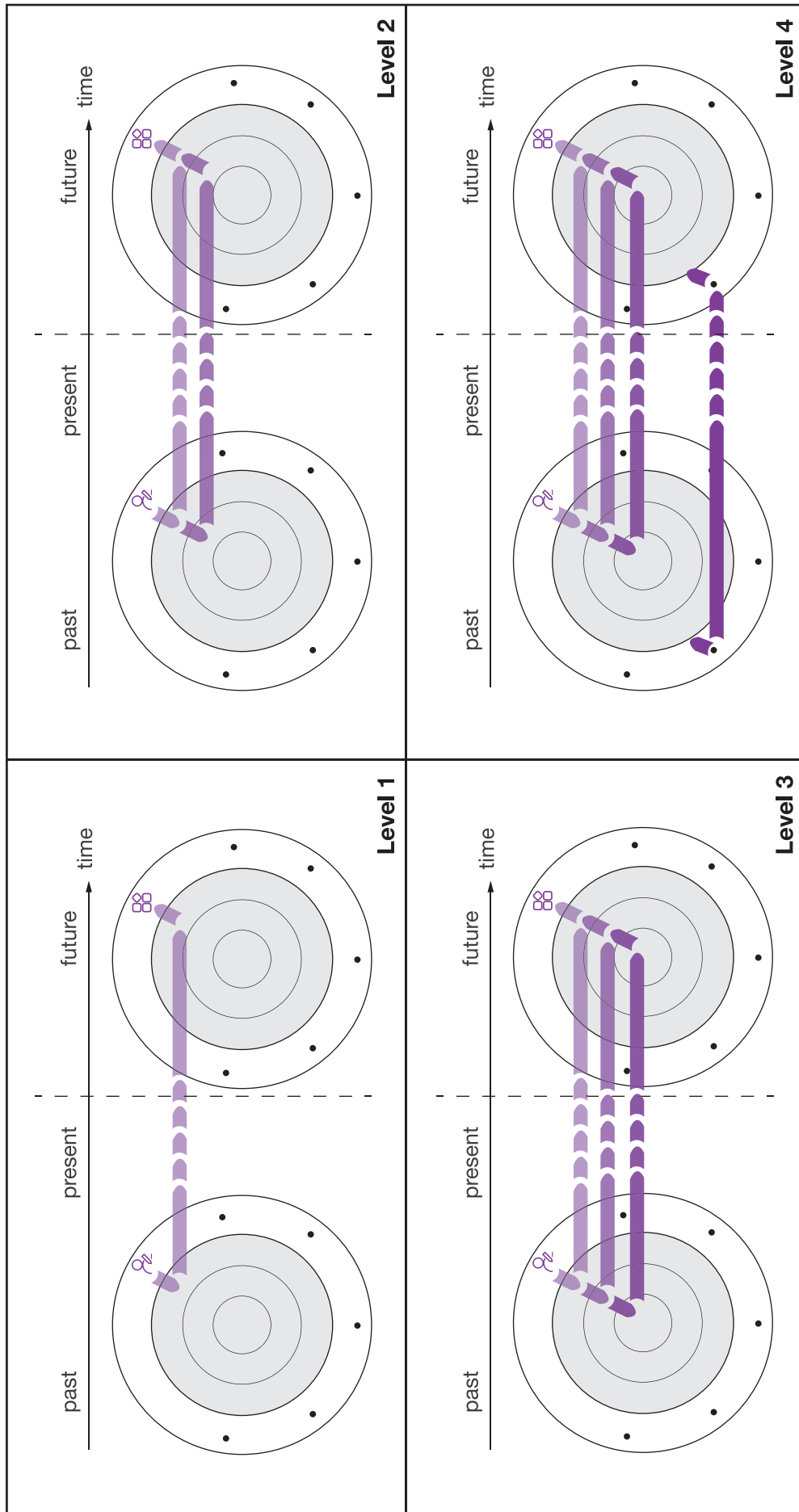


Figure 6.8. Four levels of cultural investigation and integration reaching different layers. Level 1 explores the Artefacts and behaviour layer, level 2 explores the Artefacts and behaviour and Meanings and Values layers, level 3 explores all three layers in Cultural Cognition, and level 4 explores both Cultural Cognition and Cultural Environment.

how culture is investigated and integrated in DSF projects in terms of different layers of Artefacts and behaviour, Meanings and values, Basic assumptions and Cultural Environment. Three among the four address the same culture aspects, wedding clothing, but probe into different layers, which are selected to demonstrate the flexibility of the framework implementation.

	Project name	Addressed culture aspect	Speculated layers of culture
Projects with Speculative Ethnography	“Bridebird”	Wedding clothing (dresses and suits)	Artefacts and behaviour, Meanings and values
	Candy+	Wedding candy as wedding gifts	Artefacts and behaviour, Meanings and values
	Campus Ceremony	Couple and guests interaction during the wedding	Artefacts and behaviour
	Personalized ceremony	Wedding ceremony styles	Artefacts and behaviour
Projects with Speculative Ethnography and the Cultural Framework	Genderless Clothing	Wedding clothing and gender	Artefacts and behaviour, Meanings and values, Basic assumption
	“Car-ing”	Entire set of marriage rituals	Artefacts and behaviour, Meanings and values
	Quick Change	Number of wedding dresses	Artefacts and behaviour
	AIB Plan	The time periods between the couple meet, fall in love and get married	Artefacts and behaviour, Meanings and values
	“Frieney”	The red envelope for the wedding	Artefacts and behaviour, Meanings and values, Cultural Environment

Table 5. Selected student projects from studios 2 and 3 and the cultural layers they explore.

Artefacts and behaviour: the case of Quick Change

Projects that speculate only on the Artefacts and behaviour are quite straightforward. They collect information about the present and past of products, services, behaviour, and beyond related to the cultural aspects they are interested in, and speculate the future Artefacts and behaviours following the trend (arrows 1 in Figure 6.6). The identities of Artefacts and behaviour trends are embedded in the speculated props. For instance, in the case of Quick Change, they notice that a contemporary Chinese bride changes her dresses several times in various colours and styles on the wedding day while the bride in the past (before the 1900s) wore only one dress. They interpret the trend as the bride changes outfits more times on the wedding day, with an increasing number of dress styles and colours. They then speculate on the future behaviour of the bride that she will change her dresses all the time during the wedding. Therefore they designed a device with a huge circle around the bride (Figure 5.23). Every time the circle moves from the top to the bottom, the bride will change into another dress. When sketching the dresses as props, they learn from current wedding dresses and embed their characteristics in the sketches such as changing from a *qi pao*, one kind of traditional Chinese clothing, into a typical western wedding dress. In order to make their speculation “seeming reasonable”, they claim that the device is based on the three-dimensional (3D) printing technology (Cultural Environment) and suppose that the technology could support the speculated functions of the device in the future.

Meanings and values: the case of Mirror Suit

When projects take a step further from Artefacts and behaviour to Meanings and values, they explore not only how people behave and what products/services people use but also why. Most projects involve components of this layer, and the design outcomes are more provocative compared to those who only involve Artefacts and behaviour. The designers start with exploring the Artefacts and behaviour in their interested present culture aspects and investigate the Meanings and values behind them. The future Meanings and values are speculated based on the trend they generate following the guideline of Speculative Ethnography, while the Artefacts and behaviour are speculated by integrating both the future Meanings and values and the trend of Artefacts and behaviour (arrows 1 and 2 in Figure 6.6). In the case of “Bridebird”, the project also focuses on wedding clothing and notices several clothing changes of the bride on the wedding day. The designer also notices that the groom seldom changes clothes during the wedding. He always wears one or two sets of clothes compared to three or more dresses the bride wears. The designer interprets the Meanings and values of the differences of clothing changes between the bride and the groom as “male do not need that many sets of clothes” and “the groom is the foil of the bride on the wedding day”. Based on the designer’s further exploration, it is speculated that these Meanings and values in the future will be emphasised that the future groom is only a reflection of the

bride. The physical products designed in this project are: a) a suit made of reflective materials which can change its visual effect when the bride changes her dresses; b) a set of wedding dresses as props to express the reflective effect of the suit (see Figure 5.11). The style of the suit combines the speculated Meanings and values of reflecting and the speculated Artefacts and behaviour that the shape of the suit will remain similar.

Basic assumptions: the case of Personality of Clothes

It is challenging for cultural designers to touch into the basic assumptions of the culture, as it is deeply buried and easily ignored. The designing process starts with explorations about Artefacts and behaviour and Meanings and values in the present culture, and the Basic assumptions are unveiled by the designers. It would be easier to uncover the Basic assumptions if the designers have a multi-cultural background so they can have a comparison of multiple cultures and figure out what are the assumptions underlying one certain culture (Clarke, 2011). Then the future assumptions are speculated first, followed by speculations of Meanings and values combining the impact of speculated Basic assumptions and Meanings and values trends as well as future Artefacts and behaviour combining the impact from the inner layers and trends of the same layer (arrows 1, 2 and 3 in Figure 6.6). In the Genderless Clothing case, the designers explore the clothing of homosexual weddings. They notice that in homosexual weddings usually the couple wear in different styles (Artefacts and behaviour) to represent their different personalities in the relationship (Meanings and values). This challenges the Basic assumption that clothing, especially wedding clothing shows a clear gender orientation - females wear dresses and males wear trousers. They speculated that in the future the wedding clothing reflects the personalities instead of genders of the couple and sketches some wedding fashion (see Figure 5.20).

Cultural Environment: the case of “Frieney”

Although in most cases Cultural Environment acts as a supporting element for the speculated future, it is able to speculate on the future Cultural Environment following the guideline of Speculative Ethnography. In addition to explorations of the present and past of the selected Culture Cognition from the outer to the inner, designers investigate elements in the current and historical Cultural Environment which have an impact on the addressed Cognition as a whole. The future Cultural Environmental elements are speculated based on their trends, and impacts the speculation of future Cultural Cognition. This is to say, the future Cognition as a whole is speculated corresponding to both Cognition trends and future Environment (all arrows in Figure 6.6). In the case of “Frieney”, the student designers first explore the culture of red envelopes in Chinese weddings. All the guests who are invited to the wedding ceremony always give a red envelope to the couple to express their best wishes to them. The amount of money inside a red

envelope is increasing throughout history, however the meaning of it changes from purely expressing best wishes to a combination of best wishes and maintaining Chinese relationships. The amount of money in the red envelope depends on both the relationship between the guest and the couple, and how much the couples gave to the guest in the past similar events. The designers realise that the red envelope in weddings is one of the symbols of Chinese relationship (as one of social customs in Cultural Environment). They find that the relationship net is spreading, and to more and more extent the relationship is interpreted as “money”. Therefore they speculate that in the future, relationships in China will be too complex to have a Guanxi Bank where relationships are one kind of currency (embedding the meaning of virtual currency such as Bitcoin). After setting this Culture Environment in the future, they speculate the future Cognition combining the Environment and Cognition trends, describing the future wedding scenarios (see Figures 5.28 and 5.29) that the red envelope (to buy relationship) will be the ticket for a wedding, and the amount of relationship will decide the seat of the guest (embedding the meanings of concert seating arrangement). Also, around the eyes there will display the guest’s relationship balance with the couple.

Communication phase

The aim of DFS, which is to attract public attention and generate discussion, is achieved through communicating the design projects with a broader audience. When exposed to the design outcomes, the audience is expected to decode the speculated culture via an opposite process of how designers encode it. It is theoretically feasible to uncover the speculated Cultural Cognition from the outer layer to the core by reading the design outcome, similar to the process of how designers describe the present culture through ethnographic approaches. Comparing each layer of the present and speculated culture is expected to inspire some critical insights of the audience, and to nudge cultural change in turn.

However, in the practise of the design communication phase, it is difficult for the audience to decode culture, as it requires knowledge of anthropological research. Meanwhile, most of the audience are unfamiliar with cultural design, instead understanding design only as “approaches to solve problems”. As a result, when exposed to DSF projects, they often imagine the speculated props as potential consumable “products” and substitute them in the current culture to see if the “products” solve any essential problems. They try to decode the speculated Artefacts and behaviour in the current Meanings and values, Basic assumptions and Cultural Environment. This mixture of time and cultural layer leads to confusion about the project or dissatisfaction of the functions of the “products”. For instance, in the case of Quick Change, many participants take the number of dresses during the wedding that the designers try to address for granted, instead challenging the usability of the speculation. They question the feasibility of the speculated

3D printing installation for the bride to change clothes, as they are worried about its cost, temperature, printing speed, mechanical structure, etc. of the current 3D printing technology. Details of the communication phase will be presented in section 6.4.

6.3.4 Verification

This cultural framework for DSF is verified through comparison of the projects and student feedback to the framework. In general, projects conducted during studio 3 touched deeper layers of culture than those conducted during studio 2. As shown in Table 6.1, projects from studio 2 investigated and speculated mainly the outer layers of Artefacts and behaviours (2 out of 4) and Meanings and values of culture. Studio 3 projects explored and speculated all layers, with only one project staying at the outermost layer while other projects dug into the Meanings and values (2 out of 5), Basic assumptions (1), and Cultural Environment (1). With regards to feedback from the participants, participants to studio 2 indicated that Speculative Ethnography provided a good guidance to shift their thinking from design solutionism to critical and speculative cultural design. However they felt it hard when exploring and speculating culture, as culture as a multi-faceted concept had so many components. Feedback from studio 3 participants indicated that Speculative Ethnography offered a general instruction on how to build the frame of a DSF project, and the cultural framework enabled them to fill contents into the project frame in an organised way.

6.3.5 Summary

This section proposes a cultural framework which describes culture in multiple layers to consciously integrate culture in cultural design, especially DSF projects. Most existing cultural design research projects focus more on the theory than the methods. Although some tools and techniques such as diegetic prototypes (Kirby, 2010) and design fictions (Bleecker, 2009) have been formulated, they mainly take effect on the outermost layer of culture, the Artefacts. DSF and Speculative Ethnography pay efforts to support cultural designers to speculate the future scenarios and artefacts, with comprehensive adoption of this cultural framework to illustrate how and to what layers DSF and Speculative Ethnography speculate the future culture. The framework reflects the role of DSF projects as probes to culture, and also works as a supporting tool for DSF starters. It is rooted in the cultural dimensions and models in cultural studies and corresponds to their previous implementations in the field of product and service design. The framework embraces design as a meaning-driven activity and understands DSF through the lens of speculative cultural intermediaries. In practise, it organises the cultural components researched about the now, past, trend and future in Speculative Ethnography comprehensively. DSF designers may dig and speculate on any layers in the framework, either staying at the outer Artefacts layer or investigating

deep into the inner. However, projects which only speculate on the Artefacts layer are difficult to generate expected discussions as they do not challenge the social beliefs or challenge the beliefs in an implicit way. Functions and abilities of the artefacts, compared to the beliefs behind them, are more obvious for the audience, thus the audience may define the DSF design as a problematic product design such as the Quick Change case. On the other hand, when utilising the framework, both designers and audiences as cultural observers stand within the current Cultural Environment. On the national level, designers and audiences are within the same culture as both designers and audiences in this research case are Chinese, but on the other more detailed levels such as group level designers and audiences may belong to different groups and have different (critical) understanding of the cultural cognition (Chinese wedding culture in this research). So the DSF project is a medium for cultural exchange among groups/within the nation. This may also lead to the result that the audience tends to understand the DSF artefacts in the current cultural context. Therefore further techniques need to be explored to create a futuristic atmosphere for the audience as observers of DSF projects to enable them to imagine as if they were standing in the future Cultural Environment, which is the focus of the next section.

6.4 Communication Techniques

6.4.1 Data selection and analysis

Section 6.4 intends to propose effective techniques to communicate cultural design projects with broader audiences to achieve the goal of posing questions, arising discussions and nudging cultural changes. The practise of group discussions as the communication medium has been examined, building upon the research findings presented in the exploratory research (chapter 3) that group discussions and co-creation activities after the cultural design process are able to encourage more opinion exchanges. In order to come up with targeted communication techniques, this section is an attempt to understand the Chinese audiences of cultural design (section 6.4.2) within the general framework of six steps of “encounter”, “inspect”, “recognise”, “decipher”, “interpret” and “reflect” (Tharp and Tharp, 2018) as described in section 2.4. Communication techniques are proposed (section 6.4.3) based on this understanding of the Chinese context.

As described in section 4.2, the student-participants act as audiences in the early stage of studio 3, to understand the concept of cultural design through discussing the example project provided by the researcher. Later their role shifts to one of ‘designers’ to create cultural design projects with the support of the researchers (as studio facilitators) throughout the entirety of the designing process. Both designer-participants to studio 2 and 3 communicated their DSF projects with the audience-participants. Speculative Ethnography and the cultural framework presented in the above sections were utilised as the presentation guideline for the designer-participants. They tried to present their DSF project following the chronological order of the past, present, trend and future, to explain why the speculated scenario would be the plausible future. The cultural framework provided a clue for them when presenting the past, present and future culture in layers, to make clear the speculating logic to the audience. Designer-participants were interviewed after each studio about their understanding of cultural design and experience of communicating their projects with the audiences (see details in section 4.2.5). The designer-participant group discussions on the example project, the audience-participant group discussions on the studio projects, and the interview recordings are the data sources of this section (see Figure 6.7). The discussion processes were recorded and transcribed by the designer-participants, and were analysed by the researcher through coding (see Figure 6.8 for the codes).



Figure 6.9. The general process of studios 2 and 3 (all squares) and data source for this section (gray squares).

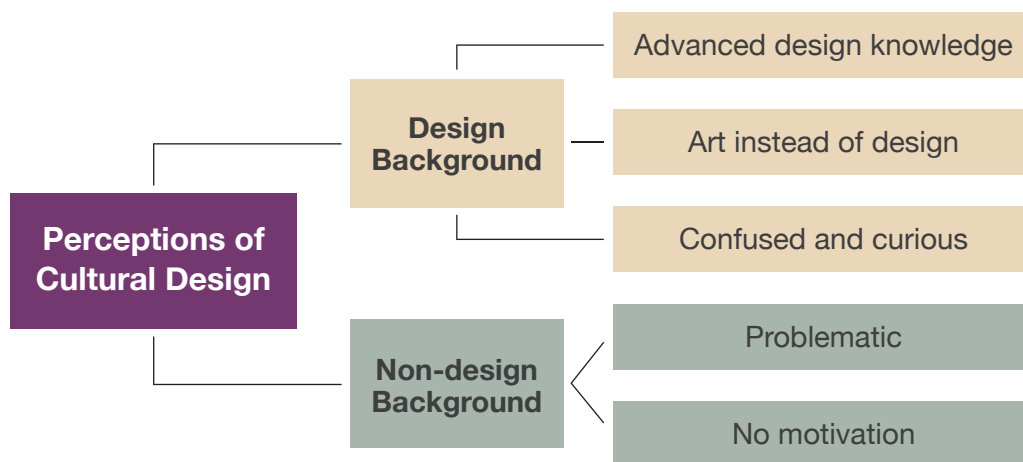


Figure 6.10. Codes for cultural design perceptions

6.4.2 Perceptions of cultural design

The perceptions of cultural design are strongly related to participants' backgrounds and motivations to participate in the studios as audiences. Generally speaking, audiences from design backgrounds are situated in the “recognise” phase while audiences from non-design backgrounds are around the “insect” level. Audiences from any background are confused about the concept of cultural design and projects. However, participants from design backgrounds had an understanding of the concept of cultural design to some extent before joining the studios and have strong motivation to investigate it, while participants from non-design backgrounds have no idea about cultural design and have limited curiosity.

Audiences from design backgrounds: advanced design knowledge

Before joining the studios, all the audiences from design backgrounds had an understanding of the concept of cultural design to some extent, mainly through online resources such as cultural design introduction articles or student projects from Royal College of Art (RCA) and University of Arts London (UAL) published by WeChat public accounts. Those WeChat accounts, especially those belonging to the intermediate agency for studying abroad, tend to describe cultural design as a qian zhan de (forward looking) design genre and a highlight in the portfolio.

Also, RCA and UAL are recognised as top universities in the UK and around the world. The importance of cultural design is stressed in the participants' minds since students from top universities are conducting cultural design projects. This results in a strong motivation for some design students to attend the studios to learn how to conduct cultural design in order to make their portfolios more competitive.

Participants can feel that cultural design is different from “traditional” design which does not solve problems but they are confused about the values of cultural design as the concept that “design is to solve problems” is deeply ingrained. Their impressions of cultural design, before the studio experiences, are objectives such as “tian ma xing kong” (imaginary and creative), “bu qie shi ji” but “bo yan qiu” (not practical but can attract attention), “chou xiang da dan” (abstract and bold), “xuan miao” (mysterious). Some participants define cultural design as “something out of the design scope” and think “it is more suitable for art students”. They cannot fully understand the cultural design projects they read online and may question the functions of the designed objects. As a result, when they acted as audiences in the studios they realised there is something to discuss related to the projects, however, not sure what exactly to discuss. They tend to understand the cultural design outcomes as “solutions”, unconsciously, and comment on the performance of the “solutions”. For instance, all the groups discussed the advantages and disadvantages of the VR ceremony project from a usability perspective, and tried to figure out how to apply VR technology to weddings. One group summarised:

“Advantages:

1. Avoid troubles in the preparation stage, such as dressing up before attending a wedding.
2. Not limited by the region, friends from all over the world can attend together.

Disadvantages:

1. No facial expressions can be seen during communication with guests, which is not conducive to real social interaction.
2. Faces in two dimensions are not characteristic. Many friends who have not met for a long time have the opportunity to meet through weddings. The possibility of such a reunion is interrupted by VR.
3. The sense of ceremony is not strong enough. It may not be used as the main wedding celebration but an additional online party.”

(Translated directly from their discussion summary)

Nevertheless, they attribute the incomprehension to their own problems - “maybe the projects are too profound but my knowledge is so limited to understand it”, one of the participants explains. In short, the perceptions of audiences from design backgrounds “recognise” level, which is although they are confused about the

concept of cultural design and many cultural design projects, they are able to recognise cultural design and have a strong curiosity and motivation to investigate further.

Audiences from non-design backgrounds: persistent confusion

Some audience-participants, usually those from a non-design background, are invited by their friends (who are participant designers in the studios) to offer feedback. Their motivation is more about helping their friends finish a task, therefore they had less curiosity and paid less effort. Although from a non-design background, “design is to solve problems” is also deeply rooted in their assumptions about the nature of design and they have little to no understanding of cultural design. This results in the audiences from non-design backgrounds being likely to inspect the cultural design project. It is not surprising that, on the one hand, they quickly questioned the functional or usability problems of the “product” faced with a DSF project. They were especially confident with knowledge related to their background and challenged the related design. For instance, in the Quick Change project, one of the audience members from mechanical engineering insisted that the designed installation was impossible because of the unreasonable mechanical structure and high temperature during 3D printing. A similar scenario happened to the “Frieny” project where an audience from a finance background commented that the design of Guanxi Bank is unreasonable from a financial perspective. They all ignored the cultural issues that the DSF project tries to expose, instead, focusing on the possibility and feasibility of the prop design in their fields of expertise. On the other hand, due to weak motivation, they were confused but not likely to delve into the concept of cultural design when the student designers tried to explain it to them. If the designers continued to explain more, many audiences tended to comment on the project in a more positive way to end the discussion.

6.4.3 Communication techniques: Interactive discussions

The communication strategies applied in the research are divided into “independent discussion” and “interactive discussion”. Discussions within nine groups of audiences on the example project, VR ceremony, are organised as independent discussions, while discussions of all the student projects are organised as interactive discussions. In the process of independent discussion, the designers deliver the design projects to a group of audiences and allow them to discuss the project independently, without the designers’ input or prompts. Interactive discussion, on the other hand, involves the designers taking part in the whole discussion. Interactive discussions with the designers’ participation result in more focus on the cultural aspects the projects try to address than independent discussions, as the designers are able to guide the discussion throughout the whole process during the interactive discussions. A brief introduction of the cultural design concept offers inspiration for the audiences to start sharing opinions, and

in particular clarification of the discussion aims is essential to guide the audiences' direction.

As presented in section 6.4.2, audiences from all backgrounds are quick to question the feasibility of the props as they are not familiar with the cultural design concept, although the designers introduce the concept, terminology, and the discussion aims when sharing the project. This might result from the long introduction session and the huge amount of information provided for the audiences. The audiences focus on the functionality and usability throughout the independent discussions in groups, and there is no external force to guide the discussion towards the relevant cultural aspects. As Tharp and Tharp (2013, 2018) describe, the designers lose control of the process in this case. In other words, the aims of cultural design are hard to achieve as the audiences may misunderstand the concept of cultural design. During the interactive discussions, on the other hand, designers are able to repeat the cultural design concept and discussion aims when the audiences are deeply attracted by the functional aspects. Many audiences start with questions instead of statements when designers are involved in the discussion, which enables a clearer understanding of the project. The involvement of designers in the discussion process enables the designers to control the process in order to inspect the audience and enable them to recognise, decipher, and interpret cultural design projects.

For interactive discussions, the designers' guidance plays an essential role in achieving the aims of cultural design. The designers of the Campus Ceremony project express that there were awkward pauses sometimes during the discussion because they are not skilled in encouraging the audiences to share more of their opinions. Some interactive discussions indicate that designers showing approval to the audiences encourages them to share more opinions, when the audiences question or comment on functionality, usability, and feasibility. However, designers trying to defend their designs may draw more audiences' attention to functionality, usability, and feasibility and ignore the cultural component or context. The audiences may not be willing to share more opinions. Instead, questions and simple tasks are effective approaches to draw the audiences' attention to the cultural aspects. Designers can guide the audiences by asking questions or giving tasks related to cultural wedding scenarios, such as "what do you think if you live in the future scenario described in the design project?", "do you prefer to live in the future scenario described in the design project?", "please describe the future scenario you are expecting in terms of this cultural component". Such kinds of questions and tasks perform well to stop the audiences from challenging the feasibility of the design and turn their attention to the cultural issues. In the Quick Change project, the designers try to explain why and how mechanical engineering and 3D printing technology are possible to develop in the future to support their design.

However, the audience is not convinced because the designers cannot provide evidence that technology development can support their design in the future. Their discussion on the technical aspect finally ends with the audience saying “I do not mean your design is not good. I only give you a suggestion”. In the “Frienemy” project the designers approved almost every opinion by saying “yes I think what you said makes sense” after any audience shared their opinion. When the audience challenged the mechanism of the Guanxi Bank, the designers still agreed first, explained that they were not experts in finance, and asked the audience “but what do you think if you live in that kind of society?” The question opens up more discussions on the wedding ceremonies among that group of audiences. In the Candy+ project, the designers first encouraged the audiences to share any opinions related to the project and the audiences mainly commented on the candy packages appearance design such as “oh the candy box is adorable”. Then the designers encouraged the audiences to think about whether they like the scenarios described in the design fiction and what kind of future scenarios they prefer. The audiences shared more opinions on the meanings of wedding candy packages and extended discussions on other wedding aspects related to wedding candy. For instance, one audience member said,

“I agree that the newlyweds convey their preference through the wedding candy, however I do not prefer that the guests only care about whether it looks good and ignore the characteristics of the newlyweds embedded in it. This may result from my assumption that the wedding ceremony will be a small event that only involves guests who hold close relations with the newlyweds. I would prefer both the newlyweds and guests to care about the wedding instead of only care about the aspects that are related to their own interests.”

These techniques support the process of recognising, deciphering, and interpreting (Tharp and Tharp, 2018), and provide more motivation for the audiences to reflect.

6.5 Chapter Summary

Within this chapter, *how* cultural design projects are conducted has been described and research results at the methodological level have been presented. The cultural design approach, Design for the Speculative Future (DSF), has been conceptualised to demonstrate the design focus on culture, instead of on technologies as most cultural design genres do. A guideline Speculative Ethnography, a cultural framework, and some communication skills for DSF have been formulated and verified through data analysis of the processes of three design studios and interviews with the participants. Speculative Ethnography provides an overall guideline for designers to explore culture following the steps of exploring the now, tracing the past, generating the trend and speculating the future, which enables the design speculative - seeming reasonable by generating the trend based on the past and present, and seeming ridiculous by exaggerating the trend when approaching the future. The cultural framework which illustrates cultural components in layers provides an in-depth reference for designers when researching culture following the guideline of Speculative Ethnography. When exploring the now, tracing the past in order to generate the trend about culture, it is suggested by the cultural framework to start from the outermost layer of Cultural Cognition, Artefacts and behaviours, and research into the inner layers of Meanings and values and Basic consumptions. When speculating the future, on the contrary, future culture is speculated from the inner to the outer, as well as being impacted by the cultural components in the same layers in the now and past. Cultural Environment where the designers stand as members of the cultural group may also be investigated and speculated in this process. Meanwhile, both Speculative Ethnography and the cultural framework provide guidelines for storytelling when designers communicate the cultural design projects with broader audiences. In addition, based on the understanding of the perceptions of cultural design in the Chinese context, some communication techniques have been proposed in this chapter to achieve the goal of cultural design in attracting public attention and arising discussion through interactive discussing activities. The proposed guideline, framework and techniques in this chapter have been verified by evaluating the design speculativeness as described in section 4.3. The next chapter will explain *why* cultural design projects are developed in this way and present the research outcomes at the theoretical level, responding to research question 3, and validating the guideline, framework and techniques proposed in this chapter in terms of cultural interactivity.

Chapter 7.

Findings at Theoretical Level: Design and Culture Interaction

Chapter 6 has proposed a guideline, a framework and some techniques for cultural design and has verified them in the design practises. This chapter will further examine the cultural interactivity of them as a whole by investigating the interaction mechanisms of culture and design within DSF. More specifically, this chapter will display how DSF, supported by the proposed guideline, framework and techniques, is able to be interpreted as a cultural activity as other senses of design do, as described in section 2.2. Firstly, DSF is proposed as a knowledge source for (student) designers in section 7.1, through which they are able to acquire knowledge in both culture and design fields. Secondly DSF is examined through the lens of cultural intermediaries and is proposed as a speculative cultural intermediary in section 7.2. In both sections, the data selection and analysis process will be presented, with reference to the design projects reported in chapter 5. The investigation of DSF as one genre of cultural design responds to research question 3 through displaying the interaction mechanisms of culture and DSF, which will be summarised in section 7.3. As clarified in chapter 4, research questions at the methodological level (1 and 2) and theoretical level (question 3) are explored in reflexive relation. This is to say, the interaction between design and culture within cultural design is examined after each design studio and then provides a theoretical reference for the next studio. After all studios it has been examined through several rounds and the final findings will be described in this chapter (see Figure 7.1).

7.1 DSF as a Knowledge Source

7.1.1 Data selection and analysis

The aim of DSF, as one genre of cultural design, in theory, is to nudge forward cultural changes by attracting public attention and creating discussions. However, as cultural and behaviour changes are large-scale and long-term processes (Klasnja, et.al, 2011; Rapp, 2019), they are hard to notice in relatively short-term research projects. The participation of either online and offline exhibitions (Dune & Ruby, 2013; Tharp & Tharp, 2013) or discussion and creation activities as described in chapter 3 can encourage some deeper exploration and culture exchange

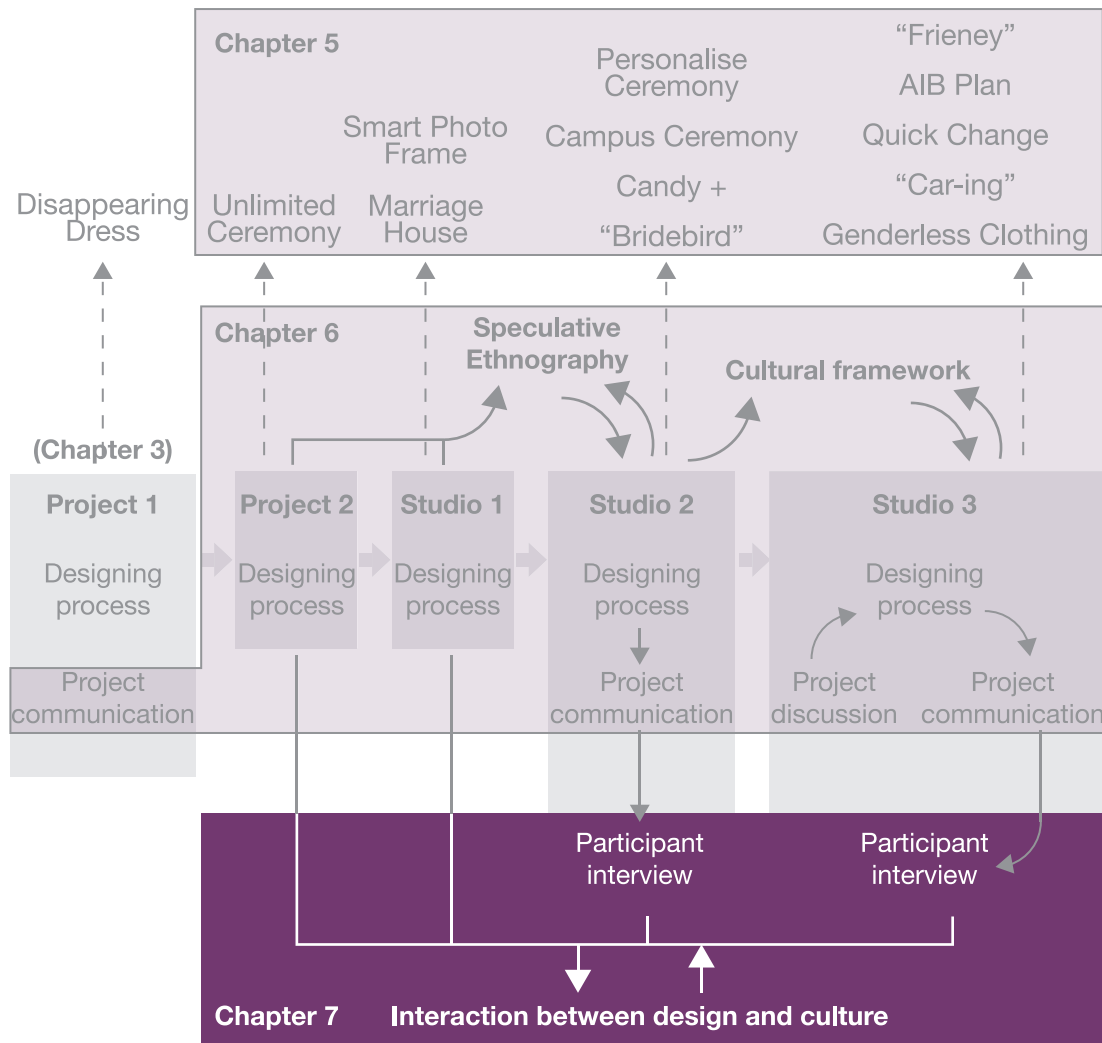


Figure 7.1. The reflexive relation between chapter 7 and the design practises and studios.

between participants or viewers, however, it is tricky to measure the impact of such activities in the long run. Nevertheless, cultural design has its values in other aspects, as indicated by Jakobsone (2019) with critical design regarded as a source of knowledge that benefits other kinds of design practise. Therefore, this section focuses on the values of cultural design, DSF in particular, in the relatively short term, examining it through the lens of the knowledge source. Data collected through interviews after studio 2 and 3 (as described in section 4.2.5) have been coded thematically to propose DSF as a knowledge source. The coding scheme is presented in Figure 7.2.

7.1.2 Cultural knowledge

Although design for culture and cultural design takes culture as a resource based on different ideologies, cultural research is crucial for both forms of design. As a result, through design practises, cultural knowledge is summarised and acquired by student designers. In the case of DSF practise, knowledge is acquired mainly through the anthropological research process in the early stage of the projects and the design communication with broader audiences for cultural exchanges. A

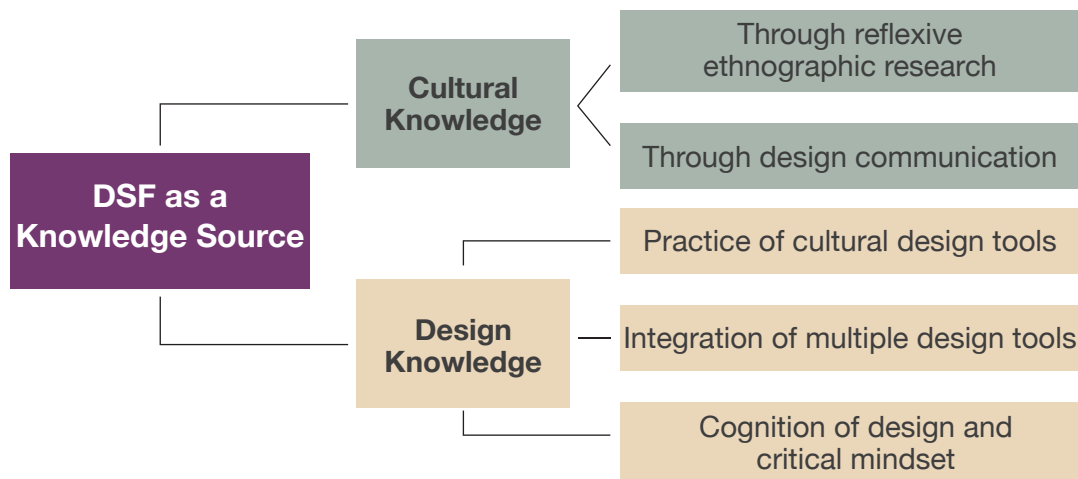


Figure 7.2. Codes for DSF as a knowledge source.

comprehensive and critical understanding of wedding culture in China, which used to be tiny ideas or scattered gossip of customs, is reported by all the participants after attending the studios. A comprehensive understanding of culture is one of the influences for the personality which impacts behaviours of an individual (Hofstede et. al, 2010; Karahanna et. al, 2005). As the participants to the studios are aged 19 to 23 who are not married, the DSF practise provides an opportunity for them to be exposed to wedding culture before they are engaged in their own wedding rituals, and to make their wedding decisions on a broad knowledge basis.

Reflexive Ethnographic Research

With the support of Speculative Ethnography as a guideline, the focus of DSF projects is closely connected with the anthropological view of culture as a “way of life” (Bennett, 1998; Katan, 2009; Sparke, 2013). This indicates that in addition to collecting data about people’s behaviour, designers also try to collect data about the meanings behind the behaviour patterns, as culture is researched in a holistic and contextual sense (Geertz, 1973). Designers research the associated lifestyle related to the selected cultural components adopting anthropological and/or ethnographic methods, and learn about its development in history in order to generate trends and speculate the future.

Studio participants all report their comprehensive and detailed understanding of one or more components of wedding culture in China after attending the studio. Before joining the studios, their understanding of wedding culture was mainly based on wedding participation experience, news articles and social media. Born and grown up in China, they regard the practise of wedding rituals as common sense instead of knowledge. As the designers of the personalised ceremony project describe, they had a negative impression of the wedding since many vulgar customs such as bride price disputes have circulated throughout various media outlets. Other participants also complained about their experiences of attending wedding ceremonies and

described wedding ceremonies as ‘complicated’, “expensive” and “exhausting”. During their research sessions in the studio, they try to position themselves neutrally to describe cultural components instead of defining some of the cultural aspects as problems in order to speculate the future. Meanwhile, cultural research reveals meanings of the wedding rituals, which makes participants understand why and how wedding behaviours are formed. The designers of the personalised ceremony project expressed that their understanding of wedding culture changed from “a single ritual and ceremony” to a series of rituals and customs containing meanings that have transformed throughout history impacted by its economic and political environment.

Design communication

The design communication activities with broader audiences provide a platform for cultural exchange. Culture is interpreted as “the collective programming of the mind that distinguishes the members of one group or category of people from others” (Hofstede et. al, 2010, p.6). Thus culture is often presented on different levels based on the sizes of the identity groups or categories, such as national, regional, organisational, and gender (Hofstede et. al, 2010; Karahanna et. al, 2005). The cultural research as a DSF process is on a certain group of people due to the time and resource limits of students, and the design communication process involves audiences out of the research group. Therefore, cultural knowledge on different levels is exchanged between the designers and the audiences and the opinions of the audiences add more information to the designers’ knowledge range.

When being asked in the interviews what the audiences bring to them during the design communication phase, designers all mention “more opinions and possibilities”, which might open up conversations of other cultural components. In the discussion of the “car-ing” project, the description of one audience member about his/her expectation of the future wedding ceremony inspired the designers to quickly notice the culture transfer from steampunk, to cyberpunk, then to “artificial intelligence punk” in the future. Designers of the personalised ceremony project expressed that they notice more aspects of weddings in China when audiences describe their expectations. Previous to their joining in the studio they identified the wedding as a “problematic” part of culture. The audiences’ discussion reminds them that they amplified the negative aspects and ignores many romantic and positive meanings of the wedding. Although after the studios, many participants still hold negative opinions of some wedding customs and they generally do not think wedding rituals can be changed in their generation as those customs are deeply rooted and have historical, economic and political reasons, their positions are chosen based on a broader knowledge.

7.1.3 Design knowledge

It is not surprising that the practise of DSF, a design approach alongside the normative design for culture, produces design knowledge for the student designers. Contributions to the students' design learning journeys including practical benefits, which are the practise of cultural design tools and the integration of multiple design tools, and ideological benefits, which provide a new cognition of "design" and a critical mindset.

The practise of cultural design tools

DSF is supported by Speculative Ethnography, which is surely practised by the student designers in the studios to imagine plausible future scenarios. The first two steps of Speculative Ethnography, exploring the now and tracing the past, provide a logical guideline for cultural design research, while the last two steps, generating the trend and speculating the future involve cultural interpretations from designers' perspective and require creativity. The practise of Speculative Ethnography in the DSF project thus is a practise of balancing scientific research and creativity in design. Speculative Ethnography is not only practised as a tool for designers to speculate the future but also a communication strategy to convey the speculated future to broader audiences. Describing both what and why the future scenarios would be like following the "past, now, trend and future" order to the audiences is able to draw more attention to the cultural components the project tries to address instead of the rationality and possibility of the speculated future. On the other hand, although Speculative Ethnography is proposed for DSF, it can be utilised in broader cases. The concept of research following chronological thinking can be utilised in any form of design, as design is a future-oriented activity that explores future ways of living (Sanders & Stappers, 2014) regardless of the distance of its vision.

In the after-studio interviews, participants all mentioned that Speculative Ethnography provides a framework for them to transfer their wild imagination into a design. Some designers of the AIB plan and "car-ing" project had conducted speculative design projects before joining the studio. They describe their former speculative design process as "*tianma xingkong*" which means they can freely imagine the future without any constraints. They are often inspired by fictional books, movies and artworks. Speculative Ethnography limits their imagination to some extent, as the speculated future has to follow the generated trend grounded in culture, however, makes them feel their design more reasonable, and offers inspiration when they are out of creative ideas. As one participant states, "suddenly there are many restrictions for my imagination, it is hard to come up with design ideas, this is a small difficulty. But later I can continue to produce ideas even with more restrictions". Some participants report that they utilise Speculative Ethnography in other design projects and creative activities. One designer of the "car-ing" project uses the term "addicted" to describe his/her practise of

Speculative Ethnography after the studio. As he describes:

“I am addicted to this thinking mode when I finally understand it. Its result can be very different and interesting. Walking on the side of the road I see something at any time, and I just spend a few seconds thinking about it following the logic of Speculative Ethnography, it’s a lot of fun.”

A participant in the AIB plan project shares his/her final year project in the interview and states that s/he delivered the project presentation following the chronological order suggested by Speculative Ethnography. The project designs a private capsule bathroom in public areas as a standardised facility for smart cities. Instead of displaying problems and solutions, the participant first describes the future culture where this design is positioned. It is described that based on cultural research on the past and present, three trends are generated, and the capsule bathroom is designed to fit into the future with these trends. “I choose to use the concept of Speculative Ethnography when preparing my presentation because I want to be more logical”, said the participants, “I plan to use it often in my future presentations. It makes me feel supported by many theories”.

Integration of multiple design tools

DSF and cultural design only define their aims in a broad sense and are open to all types of outcomes. The outcomes of DSF can either be a speculated service system or transportation or posters, etc. Therefore approaches, tools and techniques in all senses of design might be adopted in the DSF projects depending on specific cases. As shown in Chapter 6, Speculative Ethnography is proposed to help designers build the speculation. As DSF is created for public communication, designers need to adopt appropriate tools to visualise and materialise the speculation for effective communication. For instance, the process of cultural exploration from the past to the present and speculation of future is suggested to be visualised for a clear presentation; the speculated future can be depicted by either design fiction (Bleecker, 2009), or scenario and storyboard, or both. Props or diegetic prototypes (Kirby, 2010) may need to be designed to support the speculated scenarios, thus tools and skills in the field of product design, transportation design, service design might be utilised. This requires participants to have a good command of multiple design tools in order to flexibly choose and integrate appropriate tools in the DSF project.

All the projects conducted during both design studios in this research utilises data visualisation to explain to the audiences how the future is speculated, as stated in the former sections, to draw more attention to the cultural aspects instead of the rationality of the speculated future. The speculated future scenarios are displayed

via scenarios and storyboards by all the projects, as scenarios and storyboards through sketch or PhotoShop are the most accessible methods for participants from a design background. Some projects produce videos to demonstrate the procedures for the wedding ceremony. A large range of approaches is adopted to demonstrate their prop design, as their props are in varieties of forms including bank service, clothes changing installation, transportation, wedding scenes, etc. For instance, the AIB plan project displays a “customer” journey map to communicate how future couples are able to know everything about each other in only three seconds (see Fig. 5.25); the “car-ing” project builds a computational 3D model of their vehicle design to show its semantic meanings.

Cognition of design and critical mindset

DSF and cultural design are regarded as new ideologies of design for the student designers especially in China. The practise of DSF broadens their cognition of “design” from something which acts solely as a problem-solving activity to one that supports creative explorations in juxtaposition with logic-centric praxes. Critical thinking, in a broader sense, is embedded in DSF and cultural design. Critiques implied in DSF and cultural design projects are not targeted only to the cultural components that the project addresses, but also to the cognition of design (Jakobsone, 2019). The design outcomes of DSF and cultural design projects produce alternative possibilities to the cultural components (Dunne & Ruby, 2013). Similarly if we see “design” as a cultural component, the practise of DSF produces alternative possibilities to the culture of design itself. Only when student designers are exposed to a broad range of possibilities can they make their decisions for their future. DSF practise enables them to realise the social responsibility of designers. One participant states that “commercial design is of course important (I have to make a living), but I must also consider doing something interesting and valuable for the society, so that it is not in vain that I insist on choosing design as my career”.

The DSF studio experience guides the participants to the venue of being critical to everything, including the wedding culture and the design activity. With a reference to the Cultural knowledge section, participants’ perceptions of Chinese wedding culture have expanded from limited aspects of physical objects and ritual processes to multiple and critical integrations. In the field of design, the integration of multiple design tools in DSF projects encourages participants to review the tools and skills they master, notice any weak parts and practise them in the future. Participants generally are not satisfied with the final visual effect of their projects and intended to improve their sketching and visual communication design skills. The designers of the personalised ceremony project realised that the visual effect of their speculated scenarios, the wedding ceremony sketches (see Figure 5.19), does not convey their speculation to their satisfaction. They speculate that there would be no identical ceremonies of any couples in the future, however, in their

sketches the ceremonies look similar to most wedding ceremonies in the current situation - the T-shape stage, traditional Chinese furniture, romantic pink colour, etc. “We tried to sketch each ceremony differently,” said the designers, “but we cannot imagine a real unique ceremony. Also we are afraid that if we sketch the ceremony so uniquely it will not look like a wedding. We need to keep learning to improve our sketch skills, and also improve our creativity.” In other design projects after the studios, participants start to challenge the “user needs” listed by themselves or their teammates in order to avoid design bias. As one participant describes, “I start to critically think about the so-called user needs before I create something for them, to evaluate whether the needs are valuable to meet”.

7.1.4 Summary

This section examines DSF, design for the speculative future, through the lens of regarding it as a knowledge source. By collecting and analysing qualitative data of two online DSF studios (studio 2 and 3), findings are displayed that knowledge in the realms of both culture and design is acquired by student designers in engaging with this methodological tool. As cultural design tools, Speculative Ethnography (section 6.2), the cultural framework (section 6.3), and the communication techniques were practised in the DSF studios. The empirical performance of DSF and its tool, framework and techniques proposed in Chapter 6 is thus verified. Through historical and participant ethnographic research of some cultural components combined with the design communication process with broader audiences, a comprehensive and critical cognition of culture is formed by the participants. Speculative Ethnography was also utilised in other forms of design by the participants after attending the studio, revealing the success of DSF in sparking student designers’ creative thinking processes. The DSF project also involves practise of approaches and tools in other areas of design such as product design and service design. The practise of these tools trained the student participants’ ability to balance scientific research and creativity in design, as well as to integrate multiple design tools and approaches depending on specific cases. Critical and reflective thinking is conveyed to the student participants through DSF practise, in a way that enabled them to think reflectively about their own place in the design process, and understand that their own positions may impact the nature of how they engage with realising the meaning of user needs as well as other formative factors. As students start to reflect their own design skill sets and other design projects after the studios, DSF is a tool that may act as a bridge between the areas of present- and future-making, as well as a catalyst for enabling creative thinking.

7.2 DSF as Speculative Cultural Intermediaries

7.2.1 Data selection and analysis

This section will focus on the interaction mechanism of culture and design within DSF. DSF is examined through the lens of cultural intermediaries with reference to the theoretical framework founded in section 2.2 where design in many senses have been widely interpreted as cultural intermediaries. The designing process and outcomes of all DSF projects presented in chapter 5 have been thematically analysed and coded (see Table 6 for some example codes).

7.2.2 Meaning transformation stages

The Design projects indicate that Design for the speculative future acts as a speculative cultural intermediary with four key stages of meaning transformation, naming decoding culture, speculating meanings, encoding meanings and design as speculative culture (see Figure 7.3). Table 6 briefly listed the four stages of each design project presented in Chapter 5 (except for projects that only touched the Artefacts and behaviours layer as shown in section 6.3). Four representative design projects (project 2, and one from each design studio) are referred to as examples to explain each stage in detail.

Decoding Culture

In the early stage of DSF, cultural designers try to identify the selected aspect of culture (as ways of life), to decode it from the outermost layer to observe artefacts and behaviours to the inner layers discover meanings and symbols and understand the underlying assumptions, with reference to the proposed cultural framework. The decoded culture was utilised as resources to form designing concepts. When culture is utilised as designing resources, designers are expected to apply design anthropological methods to describe it. They first “explore the now”, as Speculative Ethnography suggests, to describe the culture components that they are interested in. Then the past about the selected cultural component is traced and the trend is generated by integrating the now and past. The Design concept of the future is inspired and developed based on the trend. In this way the now, which is the selected aspect of culture, leads to the inquiry about the past and forms the trend and future in turn.

In the case of Project 2 “VR Ceremony” it is noticed that Chinese young couples hold three, four or even more wedding banquets to include as many family and friends as possible, yet only have one official marriage ceremony, taking place before the ‘main banquet’. In some of their wedding banquets, the couple may even

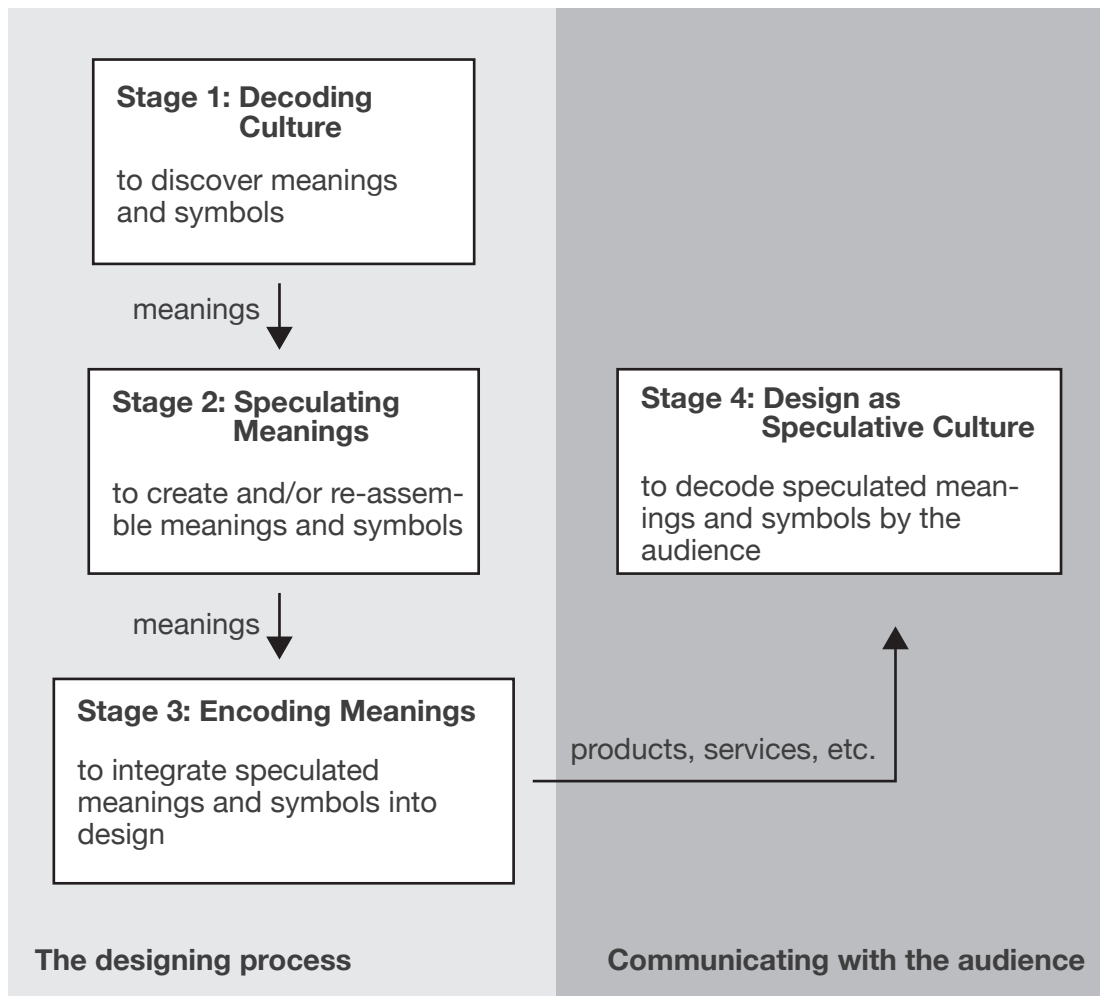


Figure 7.3. Four stages to interpreting DSF as speculative cultural intermediaries.

not be present, for instance when the guests are parents' friends (see Figure 5.1). Some of their own friends may not be able to attend due to a variety of reasons such as living in different cities or lack of time off of work, school or other factors. The meanings of the ceremony and banquets include identity demonstration of the couple and their family, share the joy of marriage and maintain interpersonal relationships (*guan xi*). The consciousness of meanings leads to the exploration of past situations and further the trend and future.

The "Marriage House" project (studio project 1-1) focuses on the cultural custom in which the groom's family is expected to buy a house for the couple as bride price/dowry. Further research indicates that the house is seen as a symbol of gender equality issues in marriage as it originates from the tradition that the bride "belonged to" the groom's family after marriage. Historical descriptions of this custom and gender equality issues are then explored and finally integrated in the future design concept.

Project name	Decoding culture	Speculating meanings	Encoding meanings	Design as speculative culture
VR ceremony	Meanings of wedding ceremony: identity demonstration, and maintaining interpersonal relationships.	Meanings would be splitted into: ceremony for identity demonstration, banquets to maintain relationships.	Speculated meanings were encoded into several VR wedding scenarios visualised through collages.	Audiences understand the VR headset as one of the speculative symbols of a speculative wedding.
Marriage House	Marriage house as a symbol of gender equality issues.	Male and female would become absolutely equal in marriage.	Speculated meanings were embedded to an AI system that decides the marriage house in an absolute equal approach.	Audiences understand the meaning of AI as absolute equal, and the marriage house as a symbol of gender equality.
Smart Photo Frame	Pre-wedding photos as symbols of successful emotional relations in marriage.	Pre-wedding photos would continue to represent successful relations.	Speculated meanings were encoded to a smart photo frame design that collect, analyse, visualise and give feedback to the emotional relation.	Audiences understand the meaning of smart pre-wedding photo frames as symbols of emotional relations in marriage.
“Bridebird”	Costume changes and styles during the wedding ceremony represent the role of the bride and groom and dressing norms for them.	The wedding ceremony would be held mainly for the bride while the groom would be the foil for her.	Speculated meanings were encoded to a mirror suit designed for the groom, to reflect the bride’s clothes during weddings.	Audiences decode the meanings of the groom being the foil for the bride by reading the mirror suit design.
Candy+	Wedding candy expresses thanks to the wedding guests, at the same time represents the aesthetic taste and economic status of the newlyweds (and their families)	Wedding candy would become a measurement of the shared aesthetic standards for the newlyweds and guests.	A scenario describing how wedding candy would be designed by the newlyweds and treated when received by the guests was created to encode the speculated meanings.	Audiences understand wedding candy and its package as the aesthetic measurement through the scenario created.

Table 6. Coding of four stages of each project as a speculative cultural intermediary.

Project name	Decoding culture	Speculating meanings	Encoding meanings	Design as speculative culture
Campus Ceremony	One of the meanings of the wedding ceremony: to connect the newlyweds and their families with their relatives, colleagues and friends.	Not applicable as this project only speculated on Artefacts and behaviour.	To embed the decoded meanings an interactive wedding ceremony procedure was created.	Audiences understand the wedding ceremony as an interactive social activity through reading the scenarios.
Personalised ceremony	The style of the wedding ceremony represents the freedom of marriage, economic development, and personal identity.	Not applicable as this project only speculated on Artefacts and behaviour.	Speculative meanings were encoded to a service system that would help newlyweds arrange their ultra-personalised wedding ceremony.	Audiences decode the speculative meanings of the wedding ceremony when reading the service design.
Genderless Clothing	Clothing of the bride and groom represents gender.	Clothing would represent personality.	Wedding clothes designed for homosexual couples were designed to encode the speculative meanings.	Audiences are able to decode that clothing would represent personality.
“Car-ing”	Meanings of different rituals in marriage have been merged instead of deleted.	Meanings of all marriage-related rituals would be merged.	A special vehicle was designed where all wedding rituals would be held.	Audiences decode that all wedding-related rituals would be merged.
Quick Change	The bride changes her clothing several times on the wedding day.	Not applicable as this project only speculated on Artefacts and behaviour.	A device was created to help the bride change clothes quickly.	Audiences understand that the bride needs to change quickly several times.

Table 6 continued. Four stages of each project as a speculative cultural intermediary.

Project name	Decoding culture	Speculating meanings	Encoding meanings	Design as speculative culture
AIB Plan	The ways strangers are matched and get married, as well as why is decoded.	The meaning of technology would replace that of “matchmaker”.	Speculative meanings were embedded in a service system that would help strangers get to know each other and get married.	Audiences understand technology as the matchmaker and understand the new way of getting to know someone and getting married.
“Frieney”	Red envelopes are significant symbols of a wedding that indicates it as a social event.	Weddings would become totally social events with Red envelopes as social currency.	With the speculative meanings a bank system and some wedding scenarios were created.	Audiences decode the future that red envelopes for weddings would become social currency.

Table 6 continued. Four stages of each project as a speculative cultural intermediary.

The “Bridebird” project (studio project 2-1) explores the behaviours and meanings of costume changes and styles of the newlyweds. It is investigated that the bride changes her clothes more than three times on the wedding day while the groom wears one or two suits. The meanings of the clothings of the bride and groom are then decoded and interpreted, which inspires the following explorations in this project.

Designers of the "Frieny" project (studio project 3-5) are interested in the red envelopes for weddings. They research into the behaviour of sending and receiving red envelopes for a wedding event, and decode and interpret the meanings of red envelopes as best wishes and social relationships. Red envelopes and social relationships then become the core of their project when tracing the past and speculating the future.

Speculating Meanings

The second stage is speculating meanings as indicated in section 6.3, when designers describe new ways of life in future scenarios, creating new meanings and symbols or re-assembling those of existing, or both. The speculated culture (as designing concepts) describes possible behaviours and values about the focused cultural aspect based on its now and past. Rather than integrating culture (as variables and elements that impact user needs) into functions/UI design, or as Holt (2004) and Verganti (2009) describes branding and product design which translate meanings into designing concepts, DSF speculates culture speculates and creates meanings before translating them.

Project 2 “VR Ceremony” describes the future in which a new couple will record virtual reality (VR) video(s) of their wedding ceremonies, with the result that they could hold one wedding ceremony and as many “banquets” as they need. The guests of “banquets”, with the support of VR videos, could either sit together as the current banquets or stay in different locations. The original meanings of wedding ceremonies and banquets will be separated so that the recorded ceremonies could enable the couple to celebrate their marriage and establish their identity while the “banquets” with videos could share their joy and maintain relationships. As a result, VR headset will become a new symbol of Chinese wedding banquets along with the traditional symbols (candy, alcohol and cigarettes). The VR video recording activity will act as another symbol of Chinese wedding rituals as the pre-wedding photoshoot, opening up the possibility of new service models.

In the future that “Marriage House” (studio project 1-1) speculates, an artificial intelligence (AI) system would help the couple to buy a house in an absolute equal marriage relation (see Figure 5.4). The AI system is able to collect and analyse data that impact the buying decision (e.g. house location, satisfaction of the spouses

and their families) and choose the house that absolutely balanced the two families. Meanings of AI such as rational and quantitative analysis are integrated into and become symbols of the speculated culture of absolute equal.

The “Bridebird” project speculates a future where the groom would become totally the foil of the bride on the wedding day. He would reflect on the bride all the time to fit into her dress up. This meaning of the groom is speculated based on research on the present and past, as guided by Speculative Ethnography described in section 6.2. A mirror suit is thus created as the prop to convey this speculated meaning.

Based on trends generation, the “Frieney” project speculates that in the future red envelopes would only represent social relationships through which no best wishes to the newlyweds would be conveyed but only to maintain relations. This speculation of meanings leads to future scenario creation where red envelopes would become the ticket for wedding ceremonies, and could buy relations as a special form of currency.

Encoding Meanings

Products, applications, services and other types of design outcomes are designed as props to fit into the speculated culture. The meanings and symbols of the speculated ways of life are transformed into design languages. This is to say, the designed props interpret culture/meanings/symbols that are created and assembled in the speculated future in the designed props. Meanings are encoded differently depending on the types of the outcomes, for instance, through semantics in product Design (Krippendorff and Butler, 1984) and cultural elements (i.e. colour) in UI design. Beside containing cultural meanings, props may also pay attention to “usability” and “user” experience to make it rather possible in the speculated culture. As indicated by the cultural framework in section 6.3, both speculated meanings of the future and artefact characters of the past and present are encoded in the future props.

The “VR Ceremony” project (project 2) produces two VR video demos. One is recorded at Tiger Hill Bridal City in Suzhou, China, where there are some artificial sceneries that are similar to those used in the pre-wedding studio photography. Another is recorded during a tourist visit to Jeju, Korea, to respond to the culture of pre-wedding travel photography. Both videos contain plots corresponding to both current wedding symbols such as pick-up and speculated meanings (i.e. the VR setting). This project further designs three collages encoding the symbols of weddings such as the round table, the red carpet and VR headsets, to demonstrate how the couple produce VR video(s) and how the guests attend their weddings (see Figure 5.3).

In the case of “Marriage House” (studio project 1-1), the AI system structure is outlined and four touchpoints are focused on using some service design tools. A mobile phone application and a headset are designed to cover the functions of house filter, navigation, facial expression recognition and buying decision making (see Figure 5.5). The system design makes the design concept technically possible, which means it transforms the speculated meanings to functions and integrates them into a human-machine system.

The speculative meaning in the “Bridebird” project is encoded to several sketches (see Figure 5.11) and a video in which the future groom would wear a mirror suit made of a reflective material, where the bride would change several costumes. The bride’s costumes as props also encode wedding symbols such as the red colour scheme and embroideries to make it rather possible.

The “Frieney” project creates a Guanxi Bank as the foundation of their future in which relation is a special currency so that the meaning of Bitcoin is encoded. Then several scenarios are visualised to describe the future wedding ceremony (see Figures 5.28 & 5.29), including red envelopes as tickets and a banquet seat arrangement system which encodes the meaning of cinema. The scenarios also utilise some symbolic wedding elements such as the red colour scheme and the wedding stages. Overall it conveys the speculative meaning that red envelopes represent relationships in weddings.

Design as Speculative Culture

The action of communicating these designs with a broader audience with the aim of arousing public attention and discussion is essential. For the audience, the designed props (products, images, interfaces, etc.) are symbols of the speculated culture. By reading the props, the audience is expected to understand the speculated culture, which is the plausible ways of life including behaviours, values, and meanings etc. This takes effect similarly to an anthropological statement that “observing the design of artefacts produced and consumed in a society often reveals the cultural situation and the people’s lives, education, needs, wishes and fears” (Moalosi et al., 2005 p.2). Therefore, the process of revealing speculated culture by observing props can be seen as a post-designing test of the meaning decoding, speculating and encoding occurred in the first three stages. The feedback from the audience is evidence of whether the meaning transformation is successful.

Through reading the collages created in the “VR ceremony” project (Project 2), audiences are expected to understand VR headsets are symbols for weddings in the speculative future, and VR enables the newlyweds to share their wedding ceremony to as many friends as possible despite time and geographic constraints. Based on audience decoding of the Design as speculated culture, reflections and

discussions may arouse such as “do I really need to share my ceremony recording with all my friends?”, “who do I want to share with?”, “what does the ceremony and banquet mean for me?” Similar discussions are expected when audiences are exposed to other DSF and cultural design projects. The project discussion sections in chapter 5 have provided possible decoding of these projects from the researcher’s point of view.

7.2.3 Conclusion

This section examines DSF through the lens of cultural intermediaries and validates the proposed methods described in chapter 6 in theoretical performance, meanwhile attempts to establish a methodological framework for cultural design. Design projects described in chapter 5 have been referred to as examples to present DSF as a speculative cultural intermediary that decodes, speculates and encodes meanings embedded in artefacts. These three aspects validate the guideline provided by Speculative Ethnography and the cultural framework. Understanding DSF from a cultural perspective places this methodology in the field of cultural design and emphasises its aim to pose questions, bring forth discussions and nudge cultural changes. The process of presentation and communication is the focus of the last stage (Design as Speculative Culture) of cultural design, which validates the communication techniques proposed in chapter 6.

Multiple tools, approaches and methods have been applied in all these four stages in addition to those proposed in chapter 6, through which a methodological framework for cultural design has been established. Firstly, at the stage of Decoding Meanings when culture is used as resources for designing, the meanings need to be carefully decoded, which is the basis of meaning transformation. Design anthropological methods are expected to be utilised in this stage. Secondly, in stage 2, Speculating Meanings, the speculating process needs to be plausible, which is seeming reasonable but seeming ridiculous as clarified in section 6.1. This is the core concept of DSF. Speculative Ethnography (2020) has provided a theoretical framework to help speculate the plausible future, and the proposed cultural framework has emphasised again the focus on culture. Thirdly, there have been some approaches that support stage 3, Encoding Meanings, which are suitable for DSF, as Dunne and Raby (2013 p.139) describes “between reality and the impossible” and the diegetic prototype proposed by Kirby (2010) for instance. Tools and methods utilised in other design senses are also applicable depending on the exact cases such as persona, scenario and journey map in service design and cultural elements that impact UI design, as noted in section 7.1. Finally, the communication methods utilised in stage 4, Design as Speculative Culture, when presenting the designed props to an audience have an integral role in the action of decoding speculated culture, which validates the proposed communication techniques.

In this case study which is positioned within the context of wedding culture in China, the fundamental stance is that wedding-related design is a cultural activity as it reflects the wedding culture and carries cultural meanings. In the process of a wedding cultural activity, design is understood as a cultural intermediary which transfers meanings. And when wedding-related design is explored from a speculative perspective, the process of a meaning-driven activity is further broken down to four stages as described above. In this process, certain aspects of the current wedding culture which raise inquiry are selected as design resources, including multiple banquets and interpersonal relationships, house purchasing and gender equality, and pre-wedding photos and marriage relations. These phenomena and issues are reflected and described in a speculative perspective in which designers present future scenarios and new symbols, such as VR wedding ceremonies, AI systems, and smart photo frames. The meanings these symbols carry can be further encoded into design languages (videos and collages of VR banquets, demonstrations of user scenarios and touchpoints when interacting with the AI system, user interface designs of the smart photo system) and create communications between designers and audiences/participants. The purpose of this process is not to respond to user needs, but rather to encourage participants to take a critical perspective to examine the wedding customs which they are familiar with and affected by and to speculate future possibilities.

7.3 Chapter Summary

This chapter explores at the intersection of culture and design studies and examines the interaction of culture and design within DSF, which responds to research question 3. DSF is proposed as a knowledge source from the perspectives of providing both cultural and design knowledge for (student/primary) cultural designers. Through practising DSF a comprehensive understanding of cultural components (in this case wedding culture in China) is acquired through reflexive ethnographic research for design and design communication with audiences. Design knowledge is acquired through practising the tool, cultural framework, and communication techniques proposed in chapter 6 and selecting and integrating tools from all senses of design. Methods proposed in chapter 6 are also adopted to other design projects by the participants after the studios. Through conducting DSF projects, a critical mindset has built up gradually as the participants started to reflect on their design skills, communication skills and perceptions of design. In terms of the interaction mechanism of culture and design, DSF is interpreted as a

speculative cultural intermediary as it decodes, speculates, and integrates meanings and the design outcome acts as speculative culture. These four stages of meaning transformation provide a theoretical reference for building up a methodological framework for cultural design. Examining DSF through the lenses of knowledge source and cultural intermediary has validated the methods presented in chapter 6 in cultural interactivity (as described in section 4.3), as project data analysed in this chapter adopts those methods. The practical and theoretical performance of the methods are accepted as they provide knowledge for the practitioners and enable DSF as a meaning-driven activity.

Summary of Part II

Part II has introduced the research methodology and findings. Chapter 4 has displayed the methodology including the theoretical foundation (4.1), research process (4.2), and validation strategy (4.3). With reference to the overall framework of research for, through, and about design, as well as constructive design research and participatory ethnography, two design projects have been conducted by the researcher and three design studios have been organised, through which data has been collected. The validation strategy of this research fits within the overall framework of the validation square and adapts it to validate cultural design methods in design speculateness and cultural interactivity. All design projects conducted through this research are listed in chapter 5 and cultural background, design description and cultural review of each project are presented. In chapter 6 a cultural design approach, Design for the Speculative Future (DSF) has been proposed, and a guideline, a framework and several communication techniques have been outlined and validated in design speculateness. Speculative Ethnography as a guideline for DSF is conceptualised based on analysis of data collected through project 2 and studio 1, and is adopted and verified in studio 2. A cultural framework that illustrates culture in layers is formulated based on analysis of data collected from studio 2 and is adopted and verified in studio 3. Several communication techniques are proposed based on understanding the perception of cultural design in the Chinese context, resulting from analysis of the interview data after studio 2 and 3. Chapter 7 focuses on the value of DSF as one sense of cultural design and analyses the interaction mechanism of culture and design within DSF. DSF has been proposed as a knowledge source and as a speculative cultural intermediary at the intersection of culture and design studies, which validated the cultural interactivity including the practical and theoretical performance of those methods proposed in chapter 6.

Part III

Closure

Conclusion

Reflection and Limitation

Contributions

Chapter 8.

Conclusion and Reflection

Embedded in a large project entitled Suzhou's Tiger Hill Bridal City: Modernity, Material Culture, and Bridal Fashion, this PhD project in the Industrial Design Department started with the curiosity about **how culture can inform wedding-related design and how design can have an impact on wedding culture**. A literature review at the intersection of culture and design has replied to the initial question by interpreting design as a cultural activity and displaying how culture is embedded as design resources. Literature review and the personal experience of the researcher also reveal that design takes culture as resources mainly from two perspectives, being entitled as design for culture and cultural design in this research. Within cultural design, the literature review cannot reply to all questions related to the interaction mechanism and how to integrate culture, especially in cultural design in the Chinese context under the topic of wedding culture. Therefore, this research has focused on the interaction mechanism within cultural design in the Chinese context, with wedding culture as a case study. More specifically, attention has been paid to the following three stages with regard to the research focus:

In the cultural designing process, the way in which wedding culture in China informs design;

In the cultural design communication process, the way in which design has an impact on weddings in China;

During the overall cultural design activity, the way in which weddings in China and design interact with each other.

This concluding chapter will first outline overall responses to the three research questions in section 8.1, through which the research findings of this project will be synthesised. With regards to research findings, limitations and reflections of this research project will be presented in section 8.2, followed by contributions to cultural design theory, practise, and education being summarised in section 8.3.

8.1 Responding to the Research Questions

This PhD research examines the practise of cultural design and explores how culture informs design and how design has an impact on culture in the Chinese context, with wedding culture in China as a case study. The following questions has been addressed:

1. How are the cultural components of weddings in China investigated and integrated into cultural design practises?
2. How to structure the communication process in China through which cultural design practises are discussed?
3. What are the interactions of culture and design within cultural design practises?

8.1.1 How are the cultural components of weddings in China investigated and integrated into cultural design practises?

A culture-centred approach, Design for the Speculative Future (DSF) has been conceptualised in section 6.1 which tries to create plausible futures in order to inspire preferable futures with reference to the future cones illustrated by Dunne and Raby (2013). Further a guideline for DSF, Speculative Ethnography, has been outlined to support the speculation of plausible futures (presented in section 6.2). Following the guideline, it is suggested that the cultural component of wedding rituals in China at the present be investigated first, followed by explorations of the history of this component. Then one or several cultural trends are summarised based on the understanding of the past and present, and the plausible futures are able to be speculated by following and exaggerating the trends. When investigating and exploring cultural components of the past and present and speculating the future, a cultural framework has been presented which organises cultural resources for design in layers (details described in section 6.3). Wedding culture in China is investigated from the outermost layer to the inner layers, while speculated oppositely from the inside to the outside. One future culture layer is speculated based on both the same layer of the past and present and the inner layer of the future. Combining Speculative Ethnography and the cultural framework, in DSF projects the past and present of wedding culture components in China are investigated in layers and integrated in the speculating process of plausible future scenarios in an opposite order.

8.1.2 How to structure the communication process in China through which cultural design practises are discussed?

DSF, Speculative Ethnography and the cultural framework summarised above

also provides a guideline for cultural design communication. The communication process is suggested as interactive discussions rather than exhibitions or independent discussions. Based on the understanding of the perception of cultural design in China, it is suggested that designers share the concept of cultural design and DSF with the audiences before sharing their projects. When introducing cultural design projects, the guideline of exploring the now, tracing the past, generating the trend and speculating the future is also applicable to the storytelling to help audiences understand the design as a plausible future. Designers are suggested to introduce the cultural component they addressed through cultural design in layers with reference to the proposed cultural framework to enable audiences to have a comprehensive understanding of the culture. In addition, several techniques such as asking questions instead of defending their design are described in section 6.4, which also contributes to the communication process in the Chinese context.

8.1.3 What are the interactions of culture and design within cultural design practises?

The interactions of culture and design within cultural design practises are summarised in two aspects. Firstly, through practising cultural design, cultural knowledge is acquired in terms of both wedding culture in China and design culture (section 7.1). Culture design practitioners are able to have a comprehensive understanding and reflection on wedding culture in China as they have investigated and speculated wedding culture during their designing process, and have discussed with broader audiences for culture exchange. For the young designers, the practise of cultural design envisioned a critical design culture in addition to design solutionism. Secondly, cultural design is interpreted as a speculative cultural intermediary as it transmits meanings in four stages (section 7.2). Culture is first decoded with meanings with reference to the cultural framework, followed by meanings being speculated and encoded in the future scenario construction. The cultural design outcomes act as the speculative culture for the audiences to decode and reflect on to achieve the goal of cultural design to pose questions, inspire discussions, and nudge cultural changes.

By responding to the research questions, theories and methods previously developed for design for culture projects have been extended and adapted into the cultural design area. Culture is investigated and integrated with design in layers in both design-for-culture and cultural-design approaches. While the design-for-culture approach often identifies some cultural components as "problems" and tries to solve them within a certain cultural context, cultural design tries to create a speculative future culture before integrating it into design. By interpreting cultural design as a cultural intermediary, a culture-centred perspective of cultural design has been provided in addition to the existing perspectives of technology, politics, and dialogue as described in section 2.4.

8.2 Reflection and Limitation

I am a Chinese designer with an educational background of industrial design in both China and the UK before starting this PhD research. I have experienced the critical environment in the UK, while to most Chinese citizens “critical” seems a popular but ambiguous concept. The different perceptions of “critical” in China and the UK are reflected through design, as the design education I received in China was mainly solutionism while in the UK was more critical. My research interest on cultural design in the Chinese context originates from my ambition to create a critical environment and bring cultural changes in China through design. Through this research project, the effectiveness of cultural design in nudging forward cultural change is still ambiguous in China, as cultural change is a large-scale and long-term process (Klasnja, Consolvo and Pratt, 2011; Rapp, 2018) that cannot be observed in short-term discussions. At the same time, it should again be noted that the rapid pace of change as mandated by the state with regards to family and social life in China has led to a greater acceptance of significant changes in daily life on a wide scale (for instance, the trend towards nuclearization of the family and size of household). In the case of wedding culture in this research, although some participants show their potential individual behaviour change by making statements such as “maybe in my wedding I will only invite those who have close relationships with me”, their real behaviour change cannot be observed until they engage in the wedding process themselves as participants. However, group discussions of cultural design projects reflect societal values in the Chinese context. On the one hand, to examine cultural design from a reflective lens, the discussion activities mirror the cultural issues that cultural design projects try to expose. Many cultural issues that cultural design projects stress can be validated by the audience feedback in the discussions. For instance, Candy+ project highlights the issue that people care about the appearance of wedding candy packages and ignore their meaning. When the project is communicated with the audiences, quick feedback from the audiences focuses on the appearance design of wedding candy boxes in the projects as well, which provides extra evidence that the meaning of wedding candy is neglected. On the other hand, the discussion activities promote the concept of cultural design and are able to draw attention to the neglected issues with the support of some communication strategies in the short term, and make an attempt to create a more critical design and social environment in China. Craig (1999, p.149) states that “the most useful contribution of critical theory...may be to cultivate a deeper appreciation of discursive reflection”.

The concept of cultural design intends to nudge cultural changes through arising attention and discussions. DSF tries to attract public attention and discussions

through creating future scenarios following and exaggerating the trend, on which the audience is able to comment and reflect whether they prefer this plausible future. The main contribution to the audiences being exposed to DSF projects is to question themselves whether they would like things to develop following the current trend. While DSF proposed in this research focuses on following and exaggerating the trends only, one possible future research direction is to explore whether and how creating alternative future scenarios could attract attention. Alternatives available for the audiences may have an impact on their reflection of the current situation and inspire them about their preferred future scenario.

The concept of cultural design is rooted in critical thinking and views the audiences as free agents to make choices (Dunne and Raby, 2013). Cultural design discussions imperceptibly encourage the audiences to view themselves as free agents and convey critical thinking to them embedded in cultural design projects. Assuming that an audience had the chance to attend many cultural design discussions, the perceptions of cultural design and critical thinking of the audience would accumulate. Assuming that more audiences had the chance to attend more discussions, the perceptions of cultural design and critical thinking of the society would accumulate. If, in the long run, the social environment is critical and inclusive of free choices, the communication of cultural design would become natural and the aims of cultural design would be easier to achieve. However, if the environment is critical and inclusive of free choices in the future, the societal value of cultural design will need to be re-considered.

This research was conducted within the framework of constructive design research as described in Chapter 4. Unavoidably the research process is non-linear and iterative, as “drifting” is considered as one of the strategies of constructive design research (Krogh & Koskinen, 2020). The research questions have evolved driven by design activities and my interpretations and insights. In particular, the overall research inquiry changed from questioning “how to nudge cultural changes through cultural design in China” to “how to integrate Chinese culture in cultural design” after reflecting on several cultural design activities conducted in China. My shifts and choices are closely connected with my experience in those activities in the real Chinese context.

During this research, a worldwide crisis broke out and has been having a great impact on almost everything including research - COVID-19. The pandemic situation limited several research activities including field trips, wedding attendance, and design activities such as design studios and communication channels. Although I have learnt from internet/virtual ethnographic methods (see section 4.1), I acknowledge the limitation of virtual methods of losing some non textual and/or implicit information conveyed by such as body languages and facial expressions.

Participant engagement and observation through online design studios are harder to manage. In addition, the pandemic situation has a potential impact on the participants involved in this research. Their thoughts and behaviours related to the research objectives such as values and ways in which they hold their marriage rituals might be nudged during the pandemic situation, which brings forth potential changes to the collected data and research findings. Meanwhile, I acknowledge the limitations resulting from my social engagement and resources as a student (PhD in China is considered as a student in most cases). These limitations shaped this research at the same time, as they shaped the design activities from which I got insights and made decisions.

8.3 Contributions

This research contributes to the practise, education and theory at the intersection of culture and design. In design studies, primarily this research contributes to cultural design practises by proposing new approaches, tools, frameworks and techniques for cultural design (Chapter 6). Although the approaches and tools are proposed and validated with wedding culture as a case study in the Chinese context, their potential of being applied to other topics and contexts has been outlined, being exemplified by the implimentation in the final year project decribed in section 7.1. For cultural design practitioners and students, this research provides theory, methods (Chapter 6) and case studies (Chapter 5) to the whole process of cultural design including conducting cultural research, integrating cultural resources, speculating futures and communicating projects with broader audiences. Practising cultural design is examined as a knowledge source for design students in the field of culture and design studies (section 7.1), which encourages design educational institutions to include cultural design in the curriculum. In the Chinese context, the perception of cultural design has been summarised (section 6.4), which inspires practitioners to communicate cultural design projects in China effectively, and helps educators to develop cultural design pedagogy for Chinese students. Examining cultural design through the lens of cultural intermediaries establishes a framework for researchers to develop more methods and tools for cultural design (section 7.2).

Through the lens of cultural studies, this research contributes to both wedding culture and design culture in China. Contextual research related to Chinese marriage rituals and the Tiger Hill wedding market area in Suzhou (Chapter 1) provides a comprehensive introduction for both Chinese and international readers to understand Chinese wedding culture critically. Moreover, this research contributes to the Chinese design culture. As this design research is conducted in China, and I, the researcher, am a Chinese design researcher who examines cultural design in the Chinese context, this research itself provides resources for understanding what Chinese designers and researchers do. Case studies presented in Chapter 5 also offer a vision of how Chinese young designers conduct cultural design projects related to Chinese culture.

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List of Chinese terms

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shuang xi 囍 (双喜) double happiness
pin li 聘礼 bride price
jia zhuang 嫁妆 dowry
xiu he fu 秀禾服 a Chinese traditional costume
qi pao 旗袍 a Chinese traditional costume
san shu liu li 三书六礼 three letters and six etiquettes
na cai 纳彩 the proposal
wen ming 问名 the birthday matching
na ji 纳吉 present the betrothal gifts
na zheng 纳征 present the bride price
qing qi 请期 pick a wedding date
qin ying 亲迎 the wedding ceremony
pin shu 聘书 Betrothal Letter
li shu 礼书 Gift letter
ying shu 迎书 Wedding letter
fu mu zhi ming, meishuo zhi yan 父母之命, 媒妁之言
Parents' command and matchmakers' words
ru jiao si qi 如胶似漆 being deeply attached to each other
Chu Shi Ying Fa Yi Bi Ri Ji 出使英法义比日记
Diary of the visit to Britain, France, Italy and Belgium
Ying Yao Si Ji 英轺私记 Private Notes of Britain
bao ban hun yin 包办婚姻 parents arranged marriages
Xi Xiang Ji 西厢记 Romance of the Western Chamber
Hong Lou Meng 红楼梦 A Dream of Red Mansions
wen ming hun li 文明婚礼 civilized weddings
si yi 司仪 a professional master of ceremonies who hosted this session, similar to priests in the western wedding but without the same legal linguistic powers
ying bin 迎宾 on the wedding day the bride and groom stand at the entrance of the wedding banquet hall to welcome guests
ling zheng 领证 marriage certificate application
hu kou ben 户口本 household registers
hun sha zhao 婚纱照 Pre-wedding photography
nei jing 内景 studio photography
wai jing 外景 outdoor photography
lv pai 旅拍 (travel photography
jie qin 接亲 pick-up
dian li 典礼 wedding ceremony
jing cha 敬茶 tea ceremony
gai kou 改口 The couple start to call their parents-in-law mum and dad
gai kou fei 改口费 Lucky money for gai kou
hui men yan / da xie yan 回门宴 / 答谢宴 wedding banquets hosted by the bride's family

lv xing jie hun 旅行结婚 wedding trips
Cha Hua Cun 茶花村 the Camellia Village
Mei Gui Tian 玫瑰田 the Rose Field
qian dian hou chang 前店后厂 the factory was located right behind the wedding shop
Shi Li Xue Lun Gang 事理学论纲 Science of Human Affairs
wu 物 object
shi 事 similar to the concept of “lifestyle”
Gao Shan Liu Shui 高山流水 mountain and flowing water
zhong yong 中庸 voiding the extremes and being just right and normal
yi xiao jian da 以小见大 with small see greatly
hun fang 婚房 marriage house, house purchased usually by the groom’s family for marriage
nan zun nv bei 男尊女卑 males were considered superior while females were considered inferior in emperor Chinese values
fu nv ding qi ban bian tian 妇女能顶半边天 to translate directly, women hold up half of the sky, which demonstrated the significance of females
xi tang 喜糖 wedding candy
shan hun 闪婚 instant marriage, the behaviour of a group of people who get married very fast, after a few days or weeks of their first meeting with each other
sheng nv 剩女 the leftover female, females who are not married after the marriage age defined by the society
hong bao 红包 the red envelopes with lucky money inside
guan xi 关系 Chinese relationships
qian zhan de 前瞻的 forward looking
tian ma xing kong 天马行空 imaginary and creative
bu qie shi ji but bo yan qiu 不切实际但博眼球 not practical but can attract attention,
chou xiang da dan 抽象大胆 abstract and bold
xuan miao 玄妙 mysterious