

DESIGNING A TEA
PAIRING EXPERIENCE

For guests in Dutch
fine dining restaurants

Master thesis
*Designing a tea drinking experience for
guests in Dutch fine dining restaurants*
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PREFACE

As I write this preface, I am enjoying a fresh Sencha tea from Japan, gifted to me by one of the people I spoke with during this project. This moment reminds me of all the people who welcomed me into their world and shared their perspectives. They brought this project to life, and made it more meaningful and enriching.

The tea sommeliers shared their extensive knowledge, introduced me to flavours I had never experienced before, and revealed the care, quality, and craftsmanship behind various types of tea. Others shared their experiences with existing tea pairings, offering insights into what truly matters to them in these moments. I also spoke with people who love fine dining and connect with other cultures through food, showing me how this concept could resonate with a diverse range of people. Each of these contributions made this project what it is today, and I am deeply grateful for the connections I have made along the way.

I would also like to express my gratitude to my supervisory team. Haian, thank you for introducing me to your culture and sharing what tea means to you. This has truly changed my perception of tea. I hope to visit China to experience the habits and traditions surrounding tea myself someday. I deeply appreciated the creative ideas you shared during our meetings, which inspired me to explore new solutions.

I also want to thank you, Eleni, for always thinking along with me and finding ways to make the project even better. Your ability to immediately envision what a concept or idea could look like helped me to elevate this project to another level. Your positive and down-to-earth feedback gave me the confidence and excitement to keep moving forward.

I hope that by reading this thesis, people will become curious about the effect tea can have on their food and feel inspired to experience it themselves. Perhaps one day, we won't be able to imagine dining out without enjoying a cup of tea alongside our meal. I truly believe in the power of this pure product and the craftsmanship of those who create it, to make it a significant part of the Western world as well.

SUMMARY

Goal

The objective of this project was to design a refined and sensory-rich tea pairing experience for fine dining restaurants in the Netherlands, to enhance the gastronomic experience and set restaurants apart from their competitors. The design aimed to support tea sommeliers by enabling effortless tea preparation at the dining table, while introducing diners to a modern brewing technique inspired by traditional tea cultures. Ultimately, the project goal was to shape guests’ perceptions of tea pairing as a refined non-alcoholic alternative to wine and make it a natural part of the fine dining context and workflow of the sommelier.

Background

Tea can enhance flavours in dishes, just like wine. Fine dining restaurants focus on providing exquisite service and leaving a memorable experience with their guests, which makes it a good setting to introduce tea pairings. The intended users include tea sommeliers and Zillennials (aged 24–34). Zillennials will shape the near-future market of fine dining, which makes them an interesting group to explore. This sub-generation has characteristics of Millennials and GenZ and values mindful, sustainable, and culturally rich dining experiences. With a declining interest in alcohol, their need for genuine experiences and conscious consumption, tea could be a meaningful and immersive alternative.

Method

To develop a concept that aligns with the fine dining context and needs of the intended users, the project combined several design activities like desk research, interviews, creative sessions, and prototyping. Interviews were conducted with tea sommeliers, passionate fine dining guests, and Zillennials to gather insights into tea pairing, user needs, and fine dining expectations. Additionally, creative sessions with design students were held to generate ideas and explore sensory engagement and cultural authenticity in the design.

Two concepts have been tested and evaluated with sommeliers who work in different restaurants, through the interaction with physical prototypes. These tests provided valuable insights into functionality, workflow integration, and their preferences. A material exploration was also conducted to investigate the use of sustainable materials like wood, clay, glass, and stainless steel for the teaware.

The iterative process combined these findings to refine the concepts, to ensure it aligns with the fine dining context while addressing the needs of sommeliers and guests. Further insights and feedback from stakeholders shaped the final design direction.

Results

Research revealed several challenges in offering tea pairings in restaurants, including a lack of staff expertise, logistical complexity, and low consumer awareness. Interviews and observations with sommeliers emphasised the need for solutions that simplify tea preparation without sacrificing quality or guest engagement. Guests expressed openness to tea pairings, but often failed to see their potential to enhance dining experiences due to existing associations with tea. These insights highlight the need to shift perceptions, improve communication and promotion, and make the preparation of tea more accessible.

User testing with prototypes of the concepts revealed that each concept had strengths depending on the restaurant style. While sommeliers appreciated the innovative features of one concept, some preferred the cultural richness and personal connection fostered by the other concept. Key design improvements included reducing the size of the tea box and incorporating elements like tea concentrates for efficiency, while still keeping a sense of tradition and connection to Eastern cultures and allow the sommeliers to interact with their guests in an engaging and personal way.

Conclusion

Dutch tea culture is often perceived as old-fashioned, and casual, and currently lacks the sophistication required to fit in the fine dining context. However, tea has the potential to offer a refined and unique alcohol-free alternative to wine in fine dining restaurants. A well-designed tea pairing has the potential to stimulate all senses and create a memorable dining experience.

The final design of this project combines an innovative brewing process with culturally authentic elements, to attract a new or younger audiences. Building on the rising trend of sharing in dining, the tea pairing encourages guests to taste together, share meaningful moments, and explore new flavours in an accessible and engaging manner.

The use of tea concentrates ensures consistency in flavour and simplifies the preparation of tea, which makes it easy for staff to integrate the service into their existing workflow. The visually striking preparation at the dining table, paired with the sommelier’s storytelling and careful movements, creates a sophisticated and memorable experience without overruling the dishes. And by offering guests a personal letter to take home with information about the kinds of tea, the experience extends beyond the restaurant.

TABLE OF CONTENTS

01 | INTRODUCTION

1.1	Context Introduction	10
1.2	Project Aim	12
1.3	Stakeholders	13
1.4	Project Approach	14

02 | UNDERSTAND

2.1	Fine dining and Tea pairing	20	2.4	Tea Cultures	40
2.2	Field Research	26			
2.3	Experience Design	36			

03 | DEFINE

3.1	Design Scope	48	3.5	Envisioned Experience	60
3.2	Design Goal	52	3.5	Design Criteria	62
3.3	Envisioned Interaction	54			
3.4	Product Character	58			

04 | EXPLORE

4.1	Design Considerations	66	4.5	Material Exploration	74
4.2	Creative Session	68			
4.3	Concept Directions	70			
4.4	C-box Evaluation	72			

05 | DEVELOP

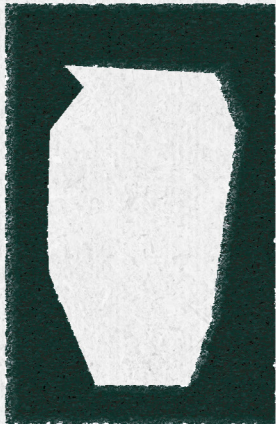
5.1	Holistic Concepts	80
5.2	Evaluation Test	91
5.3	Concept Choice	98

06 | DELIVER

6.1	Final Concept Design	103
6.2	Prototype	121
6.3	Second Evaluation	122

07 | DISCUSSION

7.1	Final Conclusion	128
7.2	Recommendations	130
7.3	Personal Reflection	132



01.

PROJECT INTRODUCTION

This chapter explains the context of this master thesis by providing a short introduction to tea and food pairing in fine dining restaurants, the aim of the design project and how the project is approached. The project brief can be found in Appendix A.

This chapter is structured in the following parts:

1.1 Context Introduction

1.2 Project Aim

1.3 Stakeholders

1.4 Project approach

1.1 Context

Introduction

Fine dining restaurants aim to provide a refined and unique dining experience through excellent service, exquisite cuisine, and a sophisticated physical environment (Tsaur & Lo, 2020). They offer curated dining menus with high-quality ingredients to create a memorable experience for diners.

Food pairing is a common element in fine dining, which can enhance the dining experience and create lasting impressions (Yang et al., 2021). It involves combining different foods and beverages to create new sensory characteristics that differ from when they are consumed individually. Similar to wine, tea can complement or contrast with the flavours in dishes and enhance the overall taste (Arisandi et al., 2021).

The wide variety of teas enables a range of different flavour combinations that could provide a multisensory experience for consumers (Figure 1). The concept of “tea pairing” or a “tea sommelier” has been around for some time but remains uncommon in Western cultures (Romeo-Arroyo et al., 2023). However, some high-end restaurants, such as De Librije in the Netherlands, offer tea pairings on their menus. These restaurants work with a tea sommelier, an expert who carefully selects and serves teas to diners. Their service and expertise are important to guide guests through the flavour combinations, and to make the pairing more interesting and understandable.

Restaurants’ recent growing interest in pairing tea with food comes from the need to provide a high-quality alternative to alcoholic beverages. An increased awareness of health and well-being has made people more conscious of their alcohol consumption (The Future 100: 2024, n.d.). According to The Future 100 report, “Health is the new wealth”. The non-alcoholic beverage market has seen significant growth in recent years, with tea being one of the beverages becoming increasingly popular. This rising demand is likely driven by tea’s potential health benefits (Romeo-Arroyo et al., 2023).

In conclusion, tea can introduce diners to a unique alcohol-free gastronomic experience. It can set a fine dining restaurant apart from others when a well-crafted tea pairing experience is offered. However, many fine diners are not familiar with the culinary qualities of tea, which makes it a less intuitive pairing choice to offer in fine-dining restaurants.



Figure 1. Tea with food.
Source; <https://cantontea.com/blogs/news/black-white-13-how-to-pair-food-with-tea>

1.2 Project Aim

In the Netherlands, tea does not have a strong cultural presence and is known as something casual or ordinary. It carries a somewhat dull image, with most people associating it with tea bags in a mug in a cosy environment. This perception doesn't align with the atmosphere of fine dining and makes it a less intuitive choice for fine dining experiences.

Restaurants often lack the motivation, knowledge, and staff necessary to offer tea alongside their dishes. Brewing tea properly demands significant knowledge and precision, which many establishments do not possess. Training staff to prepare tea correctly is essential, but there is often insufficient time available for proper training. As a result, restaurants tend to shy away from offering tea pairings, as it requires more effort than simply pouring a drink.

The challenge is to change diners' current associations with tea and perspective regarding tea pairing, by demonstrating how tea could fit within the fine dining context. This could be done by highlighting its quality, unique properties and variety. This experience could be part of a service where the tea sommelier plays an important role in guiding diners through the sensory journey. The tea pairing will take on a supporting role, enhancing the quality of the food, which remains the primary focus of the dining experience.

Additionally, it is essential for restaurants to offer tea pairings to their customers. This could be encouraged by making it easier and more accessible for them to provide tea pairings. The aim is to design a service that can be easily integrated into their workflows and routines.

The focus will be on attracting new guests in fine dining restaurants who are under 34 years old, to ensure this concept remains relevant in the (near) future. This younger generation of diners is defined as Zillennials, a sub-generation that seeks a balanced lifestyle, values meaningful experiences, and prioritises authenticity (Bogunovic, 2021).

1.3 Stakeholders

The main stakeholders of this project are the restaurant, the sommelier and the guests that visit the restaurant (Figure 2).

Guest
The guests are the most important stakeholders, as they determine the success of the concept. Without guests trying the experience, neither the sommelier nor the restaurant benefits from it. If the guests value the experience, it enhances the restaurant's reputation and validates the effort of the sommelier's work.

Sommelier
The sommelier is the creator and executor of the tea pairing experience. They ensure the pairing is not only well-curated but also make the experience memorable for the guest. The sommelier directly interacts with the guests, making their role essential.

Restaurant
The restaurant provides the setting and enables the experience. The restaurant supports the sommelier and aims to attract guests with the service.

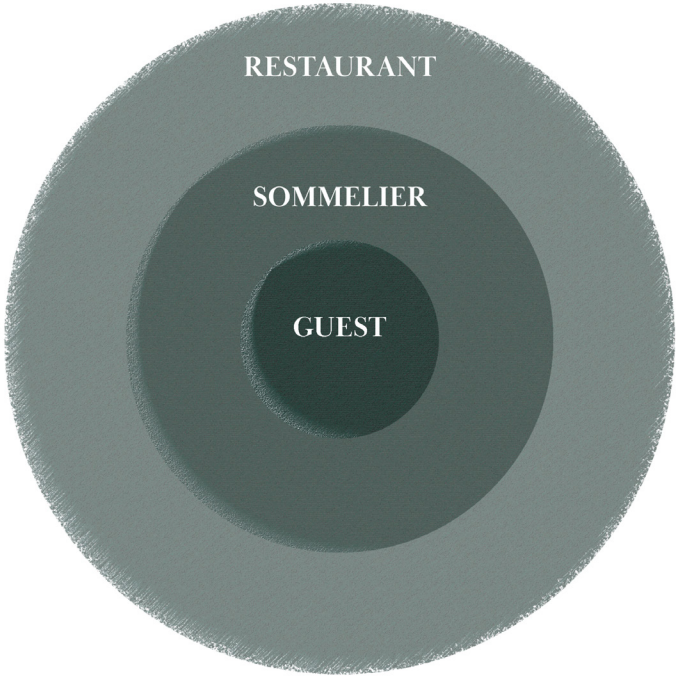


Figure 2. Stakeholder Map.

1.4 Project Approach

The project structure is defined by the triple diamond method, encompassing the following phases: Understand, Define, Explore, Develop and Deliver as shown in Figure 3. These phases form the foundation of the project approach and are used to explain the research and design activities undertaken. The diamond represents the process of diverging and

converging, which is applied throughout the project. During the diverging phase, a broad variety of information, ideas, opportunities, or solutions are gathered to explore different possibilities that align with the project scope. Accordingly, the converging phase focuses on narrowing down, making choices, and evaluating the best options.



Figure 3. Triple diamond approach.

1.4.1 Project Structure

Understand

During this phase, a deeper understanding of the context, stakeholders, and potential users will be obtained through field and desk research, in order to gain a clearer understanding of their needs and opportunities.

Define

The insights gathered will be organised in the defining phase, where an experience vision will be formulated. The vision consists of three parts: a design goal that provides a focus for the project, the defined interactions, and the product character. This will offer a clear direction for the ideation phase.

Explore

Possible ideas and solutions will be iteratively explored, developed, designed, and tested to achieve the formulated design goal. This will bring a diverse range of opportunities, which will be combined into six concept directions as the outcome of this phase.

Develop

Two concepts will be selected from the six concept directions for further exploration, based on how well they align with the vision and design criteria. The design will be further detailed and developed during this phase, and physical prototypes will be created for the initial evaluation test with sommeliers.

Deliver

One concept will be chosen for further development, based on the insights gained during the evaluation test. The concept will be evaluated with a final physical functioning prototype. The insights will indicate points for improvement and recommendations.

Conclusion & Recommendation: Testing it with potential users with the prototype of the final design will give insights into further recommendations for the development and implementation of the concept in the context.

A more detailed plan can be found in Appendix B.

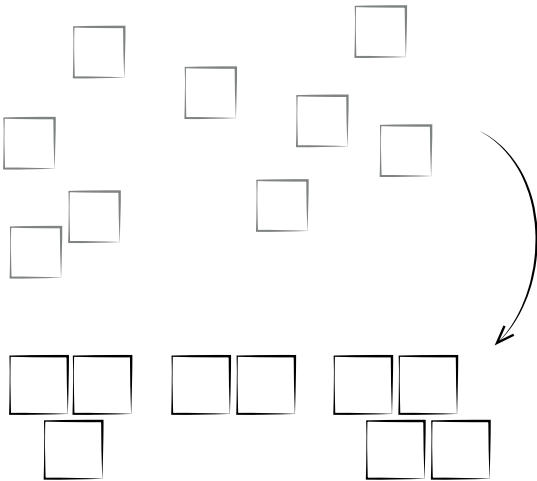
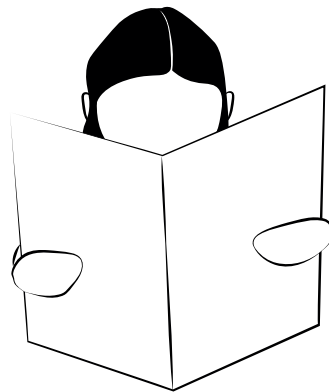
1.4.2 Research and design activities

Understand

In-depth interviews were conducted with various participants: tea sommeliers working in restaurants, tea experts, tea suppliers/sellers, and fine diners, both with and without tea pairing experience. Along with observations in fine dining restaurants during the serving of tea, a clear overview of the context, challenges, and opportunities was established.

In parallel to these research activities, books, scientific papers, and web pages were studied to complement, confirm, and enrich the collected data.

For the research on different tea cultures, the method ‘Cultura’ was used as guidance for conducting contextual user research and structuring in-depth interviews.



Define

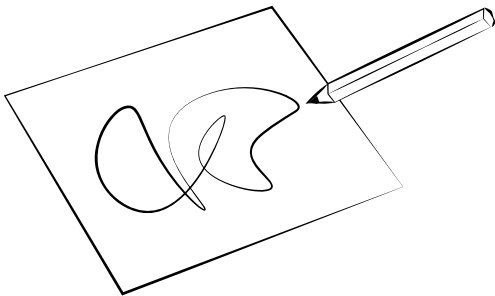
The ViP method helped to create a vision. The vision consists of three parts: defining the project focus through a design goal, outlining user-product interaction to describe the service experience, and defining the qualities and character of the product. The method concludes by specifying product features and properties and the formulation of design criteria, which lays the foundation for idea generation.

Explore & Develop

Individual brainstorming sessions are conducted multiple times, by drawing inspiration from various activities to stimulate creativity.

Furthermore, brainstorming sessions and tests with fellow students are held to incorporate different perspectives and to boost the ideation phase. A morphological chart has been created where all ideas have been clustered. These are combined, which evoked different concept directions. The concept directions are explored through sketching and low-fidelity prototypes.

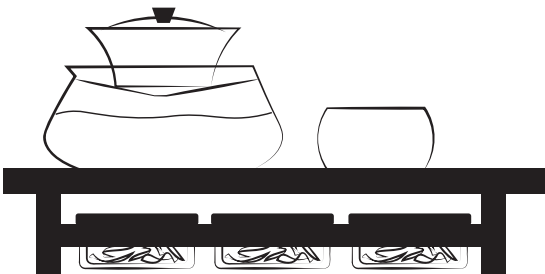
Two concept directions were chosen by plotting them in a C-box and selecting the most promising options. Further development was carried out through sketching and 3D modelling. Various materials and techniques were used to build prototypes for testing the concepts with the intended users.

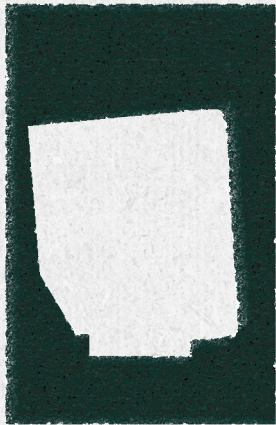


Deliver

The final design has been selected based on evaluation tests with the intended users. Small interactions are tested in detail in order to further improve the elements of the concept.

A high-fidelity prototype is built to demonstrate the actual design. Validation tests are held with future users in order to test the design on its usage and interactions using the design goal’s elements.





02.

*UNDERSTANDING
PHASE*

Tea pairing has the potential to offer a refined, alcohol-free option that could attract a new audience, such as Zillennials. They often feel overwhelmed by constant stimuli, which is why they seek genuine interactions. Therefore, experience design is becoming increasingly crucial.

A well-crafted experience could create meaningful, memorable interactions that engage and connect with consumers on a deeper level. Stimulating all senses enhances the emotional impact of an experience, and could shape perceptions and leave lasting impressions.

This chapter delves into the context of fine dining and the needs of the intended user, through interviews, observations, desk research, and trend analysis. It is structured with the following sub-chapters:

2.1 Fine dining and Tea pairing

2.2 Field Research

2.3 Experience Design

2.4 Tea Cultures

2.1 Fine dining and tea pairing

This chapter will explore the concept of tea pairing, how it could fit within Dutch fine dining culture, the values and needs of the intended users, and the potential market advantages for fine dining restaurants.

Tea Pairing

Pairing foods with beverages is a common practice in fine-dining restaurants. A perfect match can enhance the overall gastronomic experience for diners. While food and wine pairing is the most researched and ancient form of pairing, there has been growing interest in understanding the principles behind a “good pairing” more broadly.

The non-alcoholic beverage market has seen significant growth in recent years. The concept of “tea pairing” or the role of a “tea sommelier” has existed for some time, but it remains uncommon in Western dining cultures. With approximately 1,500 types of tea globally, a wide range of flavours can be offered to create a broad variety of combinations with food (Romeo-Arroyo et al., 2023).

A tea sommelier plays a vital role in pairing tea with food, using their expertise and creativity to craft a unique and appealing experience.

The sommelier selects types of tea, which requires collaboration with chefs to understand the flavour profiles of the food. By understanding the unique characteristics of different kinds of tea, sommeliers could ensure that the flavours of both tea and food enhance one another. Additionally, they inform diners about the origins and qualities of the teas, adding a storytelling element to the experience.

This project is not focused on determining which types of tea pair best with certain dishes, but on designing a service to support the sommelier to prepare and serve tea more efficiently and effortlessly. The main challenges and needs of the sommelier are investigated with in-depth interviews with sommeliers. The research will be discussed in Chapter 2.2; Field Research.

Dutch fine dining

Traditionally, fine dining in Europe was closely linked to French cuisine. However, in the early 2000s, fine dining culture began to change with the rise of New Nordic cuisine. Chefs from the three Michelin star restaurant Noma pioneered this movement, where they explored local production of ingredients and culture. The Nordic movement eventually reached the Netherlands and helped shape the current fine dining culture (The Nordics, n.d.).

Today, Dutch fine dining is all about using high-quality, fresh ingredients with a strong focus on sustainability (Figure 4). Menus are often built around seasonal and locally produced ingredients (Groentennieuws, 2023). Restaurants like De Librije (a Dutch three Michelin star restaurant) have embraced this trend, and aim to bring nature directly to the plate.

Furthermore, fine dining in the Netherlands has been increasingly influenced by international cuisine. Many chefs incorporate Asian, Mediterranean, or Middle Eastern ingredients into their menus, which creates a fusion of global and local flavours. Besides cultural fusion, there is a rising interest in conscious eating, which stimulates the trend towards plant-based and vegetarian dishes (Conceptional, 2023).

In today’s competitive market, diners have a wide range of restaurant options to choose from. To remain relevant, restaurant owners must prioritise a customer-centric approach and fulfil their customer’s needs more effectively than their competitors. It is essential for restaurant managers to understand customer preferences and integrate these elements into their menus and services. However, many restaurants fail because they do not understand, anticipate, or adapt to evolving market trends (Harrington, Ottenbacher, & Kendall, 2011).

Tea pairing offers a unique opportunity to elevate Dutch fine dining culture by providing a refined, non-alcoholic alternative, to distinguishing the dining experience from that of competitors. By offering something unique and different from their competitors, fine dining restaurants can create a competitive advantage and retain customer interest or even attract new ones (Porter, 1980).



Figure 4.
Farm to table
(free stock).

Intended User

Focusing on the next generation when developing a new concept is important, as they represent the future market and often shape consumer behaviour. Therefore, the focus will be on targeting Zillennials. This group of people is currently between 24 and 34 years old and at the start of their careers, and tends to adopt new technologies and ideas more quickly than previous generations (McKinsey, 2024).

In recent years, marketers have often grouped Millennials and Gen Z together under a broad “youth” category. However, this approach overlooks the unique characteristics of a sub-generation, often called Zillennials, who blend traits from both groups (Figure 5). Zillennials highly value authenticity, individuality, and diversity. They also prioritise personal well-being, sustainability, and inclusivity, which all align with broader Gen Z trends. At the same time, they retain some of the community-oriented and team-focused values typical of Millennials, with a lifestyle that often reflects a focus on work-life balance and mental health (Price, 2024).

As young people in today’s world are constantly exposed to stimuli and left with lasting impressions, many people feel a lack of originality in online content. Zillennials are at the forefront of a shift of people who actively seek genuine experiences that emphasise real and transparent stories.

Figure 5. Values
Zillennials (free stock).



ZILLENNIALS
late 1990s - early 2000s

Value

- | | |
|---------------------------|------------------------------|
| • Experiences | • Sustainability |
| • Authenticity | • Balanced Lifestyle |
| • Diversity & Inclusivity | • Mental Health & Well-Being |

The research highlighted several fundamental needs among Zillennials (Figure 6). Desmet (2020) outlines thirteen fundamental needs that can guide human-centred design approaches. These needs were analyzed, and four were selected based on insights about Zillennials gathered through the research.

Due to the (online) overstimulation, Zillennials seek more mindful experiences and serenity, which reflects the need for comfort. Overall, they are drinking less alcohol and have been a significant factor in the decline in alcohol consumption (Price, 2024). This highlights a need for fitness; a balanced and healthy lifestyle where tea could fit in perfectly.

As they want to be fully present in the moment, they want to be involved through stimulating all senses consciously, which highlights the need for stimulation. They also seek sustainable dining options, where they can connect with other cultures through a genuine experience, which indicates their need for purpose.

To better understand how to design an experience that meets these needs, research on the fundamental desires of Zillennials and how to create experiences that resonate with them has been conducted. The insights are discussed in Chapter 2.2; Field research.



Purpose

Incorporating traditional and cultural elements could emphasise authenticity.



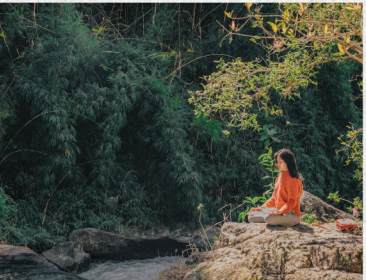
Fitness

An alcohol-free option supports their aim focus on a healthy lifestyle and well-being.



Stimulation

Engage all senses to evoke emotions and to make the experience more memorable.



Comfort

Focus on mindful consumption, serenity, simplicity and balance. Avoid over-stimulation.

Figure 6. Fundamental needs Zillennials.

2.2 Field Research

Currently, the integration of tea pairing in fine dining remains limited, due to various challenges and limitations. Interviews with tea sommeliers, passionate fine dining guests and zillennials are conducted to research the current context of tea pairing in Dutch fine dining restaurants (Figure 7). The goal is to identify the limitations, challenges and opportunities, to be able to design a suitable tea-pairing experience for the intended user.

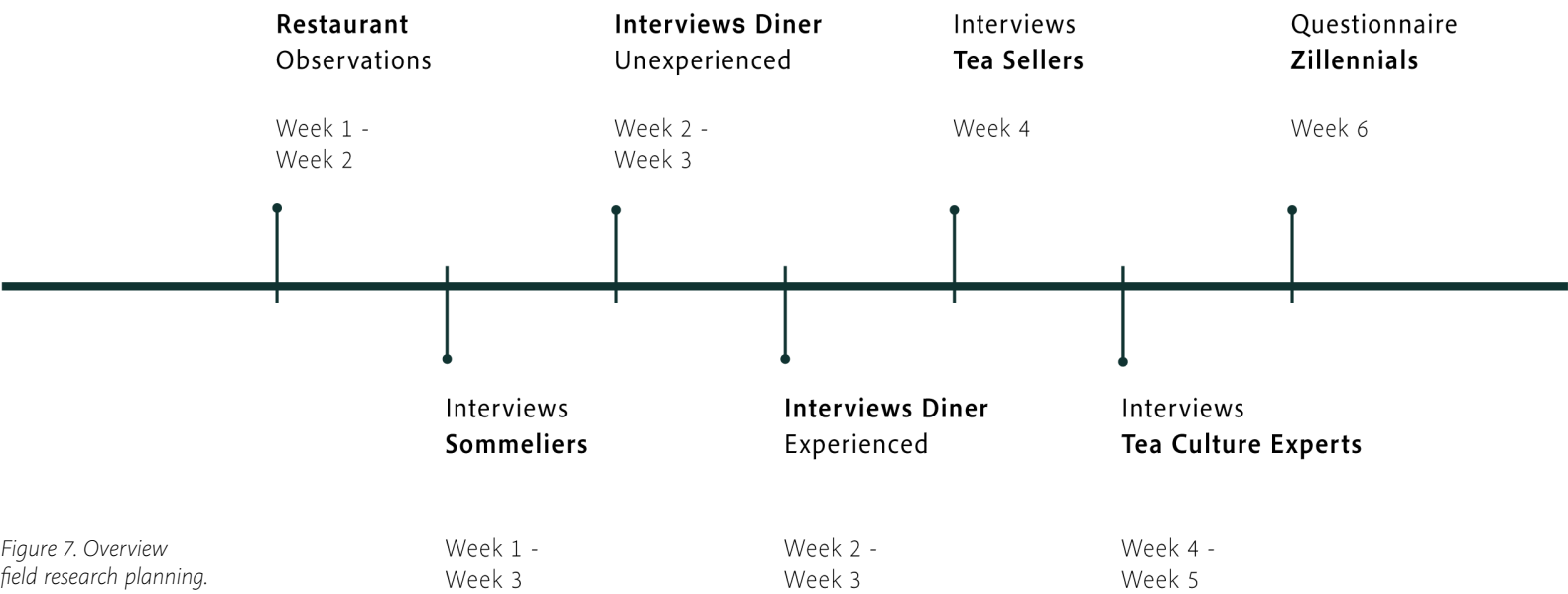


Figure 7. Overview field research planning.

2.2.1 Tea Sommeliers

Methodology

In-depth interviews were conducted with three tea sommeliers to gather insights on their experiences, challenges, and perceptions regarding tea pairing in fine dining. The participants included:

- Participant 1** - A 32-year-old tea sommelier with 10 years of experience at De Librije (Three Michelin-star restaurant in Zwolle).
- Participant 2** - A 52-year-old sommelier with over 18 years of experience at Sofitel Legend The Grand (a fine dining restaurant in Amsterdam).
- Participant 3** - A 62-year-old tea expert who has written a book on tea pairing, offers workshops, and curates tea pairings for restaurants.

The interviews focused on four key areas: restaurant motivation, the sommeliers vision, the tea pairing processes, challenges in the service, and customer perceptions or reactions. The following questions give an impression of the kind of questions asked during the interviews:

- “What is your motivation behind serving tea with dishes in a restaurant?”
- “How do you select and serve the tea alongside the dishes?”
- “What are the biggest challenges you face when preparing tea and serving tea to guests?”

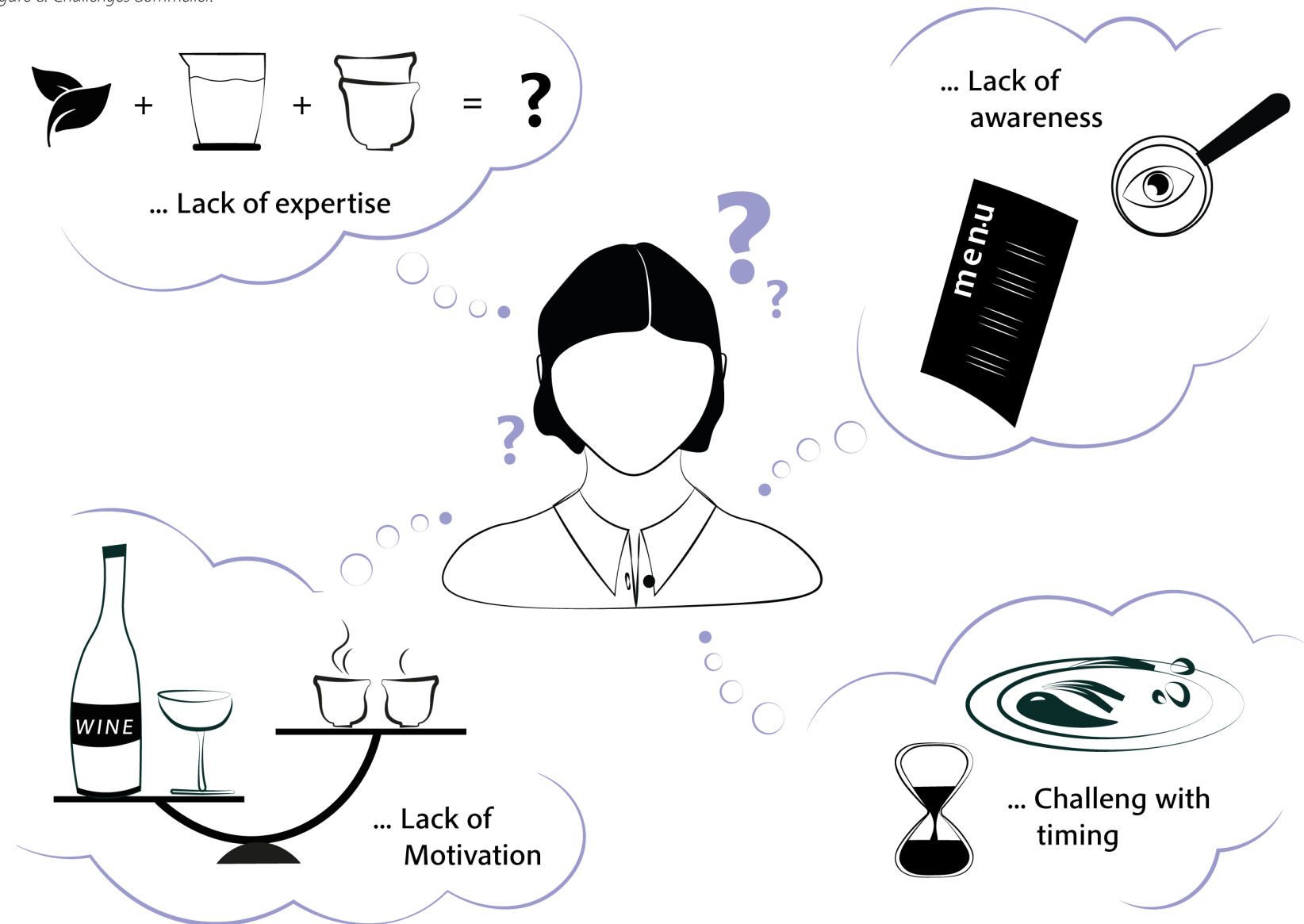
Results

The interviews with tea sommeliers revealed several key challenges and opportunities in the implementation of tea pairing in Dutch fine dining (Figure 8).

Staff knowledge and availability - One of the most significant limitations for restaurants offering tea pairings is the lack of expertise among the staff in properly preparing and serving tea. Preparing tea requires significant knowledge and precision. It is necessary to train staff in the correct preparation of tea, but there is often not enough time or staff available to conduct such training. As Participant 2 noted; *“There is not enough staff with expertise to offer tea to all guests that might be interested.”* Participant 3 also stated; *“It’s difficult to find the time to train staff to prepare tea correctly, but this is crucial for offering tea pairings to a broader audience.”*

Lack of consumer awareness - Tea pairing is still an unfamiliar concept to many fine dining guests, and this lack of awareness impacts the demand. Participant 2 mentioned; *“The tea pairing isn’t on the menu because guests don’t know what it entails, and they don’t choose it.”* This indicates that even when tea pairing is offered, it’s not actively promoted or explained well enough to diners. Participant 3 added; *“If guests knew more about the possibilities of tea, I think they would be more interested in trying it.”*

Figure 8. Challenges Sommelier.



Challenges with timing and preparation - The tea must be prepared and served at the right temperature and time to ensure it enhances the dish. Participant 1 emphasised the logistical difficulty; *“Timing is tricky; it must be paired with the food, which requires careful coordination with the chef.”* Participant 2 added; *“The tea needs to be ready just as the dish is served; too early or too late, and it ruins the experience.”*

Motivation and effort - Many chefs and restaurant staff are hesitant to explore tea pairings because they assume there is too little demand. Participant 3 explained; *“Chefs often aren’t interested, because they believe customers wouldn’t be interested.”* Additionally, Participant 1 noted; *“It takes more effort to prepare tea correctly than to open a bottle of wine, so there’s often resistance from the staff.”* Many restaurants view the business model as challenging and believe that offering tea would not be profitable. They often prioritize efficiency and convenience over providing unique experiences.

Conclusion and Discussion
The findings reveal several challenges or limitations. First of all, there is a need to improve the motivation of restaurants to train staff and to raise knowledge and awareness of tea pairing in Dutch fine dining. Without the motivation of restaurants and the awareness of guests, there is a problem with offer and demand (Figure 9). Simplifying its integration is essential, as preparing tea requires more effort and precision than simply opening a bottle of wine.

A service journey of the sommelier has been created based on the insights of the research, including the steps, challenges and opportunities. This visual can be found in Appendix C.



Figure 9. Current context problem.

2.2.2 Passionate fine dining guests

Interviews and observations were carried out with passionate fine-dining guests who have experienced tea pairings (Group A) and those who have not (Group B). This study focuses on in-depth insights from experienced fine diners to identify the challenges and opportunities and to explore guests’ perceptions of tea.

Methodology

In-depth interviews were conducted with six participants, which included two groups:

Group A (tea pairing experienced):

Participant 1: 54-year-old woman with multiple tea pairing experiences.

Participant 2: 48-year-old woman with extensive tea pairing experiences.

Participant 3: 34-year-old man who had one tea pairing experience.

Group B (no tea pairing experience):

Participant 1: 59-year-old woman, a wine connoisseur who frequently visits Michelin-star restaurants.

Participant 2: 42-year-old man who enjoys exploring different cultures through fine dining.

Participant 3: 28-year-old woman who regularly dines at fine dining restaurants for work.

The interviews with fine dining guests focused on exploring their perceptions of tea pairing, their expectations of a fine-dining experience, and their openness to trying tea as an alternative to wine. The following questions give an impression of the kind of questions asked during the interviews:

- “Are you familiar with tea pairing”
- “Would you consider an alcohol-free alternative, like tea?”
- “What is your experience with tea pairing and what was your motivation?”

The collected data were transcribed and analysed, which gave insights that will be discussed in the next section.

Results

The interviews with passionate fine dining guests revealed several key challenges and opportunities in the implementation of tea pairing in Dutch fine dining.

Perceptions of Fine Dining and Tea Pairing - Group A

viewed tea pairing as an opportunity to enhance flavour and create a unique experience. Participant 1 from Group A mentioned; *“The freshness of tea and its quality to not overpower the flavours of the food but enhance them made the dining experience unique.”* But they also felt there was a lack of communication and availability in restaurants. In contrast, Group B participants were generally unfamiliar with tea pairing but showed openness to exploring the concept. The willingness to try tea pairing was stronger among younger participants than older ones. The youngest participant of group B explained: *“I am very interested in pure products from other countries and connecting with cultures through food. Asian food is one of my favourite cuisines, and I can imagine enjoying tea with food a lot.”* Older participants were more set in their dining habits.

Cultural Associations with Tea - Both groups agreed that tea in the Netherlands is generally perceived as casual and less sophisticated compared to wine. Participant 2 from Group A commented, *“The association of tea with cosiness and informality doesn’t align with the fine dining context.”* Group B participants also noted that the Dutch tea culture lacks depth and knowledge.



Figure 10. Tea presentation in a wine glass at De Librije.



The Role of Presentation - Presentation played a critical role for participants from both groups. Group A valued when the quality of tea was expressed, with Participant 1 stating, *“Tea is enjoyable when it’s thoughtfully presented, just like wine. I like to drink it from the same glass for example.”* All of the participants of group A have had tea being served in a wine glass (Figure 10). Group B participants were more reserved, with Participant 1 mentioning, *“If tea were presented in an elegant manner, it could be interesting, but it must be done thoughtfully to elevate the experience.”*

Conclusion and Discussion
The interviews highlight an interest in tea pairing as an alternative to wine in fine dining, particularly among younger diners. One of the primary obstacles is the current perception of tea, as a casual and simple beverage (Figure 11). Furthermore, there is a general lack of awareness about the possibility of tea pairing, the variety of flavours and its ability to enhance flavours of food. Therefore, restaurants need to focus on showing diners that tea could be a refined fit in the fine dining context, and present it in a thoughtful way.

Figure 11. Current perception of tea (free stock).

UNDERSTANDING PHASE

2.2.3 Questionnaire Zillennials

This research aims to understand what Zillennials value in fine dining, and the differences between genders. The survey also focused on getting insights on how to create a tea-pairing experience that resonates with their expectations and needs (Figure 12 and 13).

Methodology
Data was collected via Instagram through a short questionnaire, which consisted of six multiple-choice questions. A total of 148 individuals participated in the questionnaire (31% male, and 69% female). The majority of participants (90%) were Zillennials, and the remaining 10% were close in age. Therefore, the responses are considered representative of Zillennials. Examples of the questions include: “What do you most value when dining out?”, “How important is it for you to have wine or alcohol during a fine dining experience?”, and “Would you be open to trying a tea pairing instead of alcohol during a fine dining experience?” An overview of how it has been presented can be found in Appendix D.



Figure 12 and 13. Examples questionnaire.

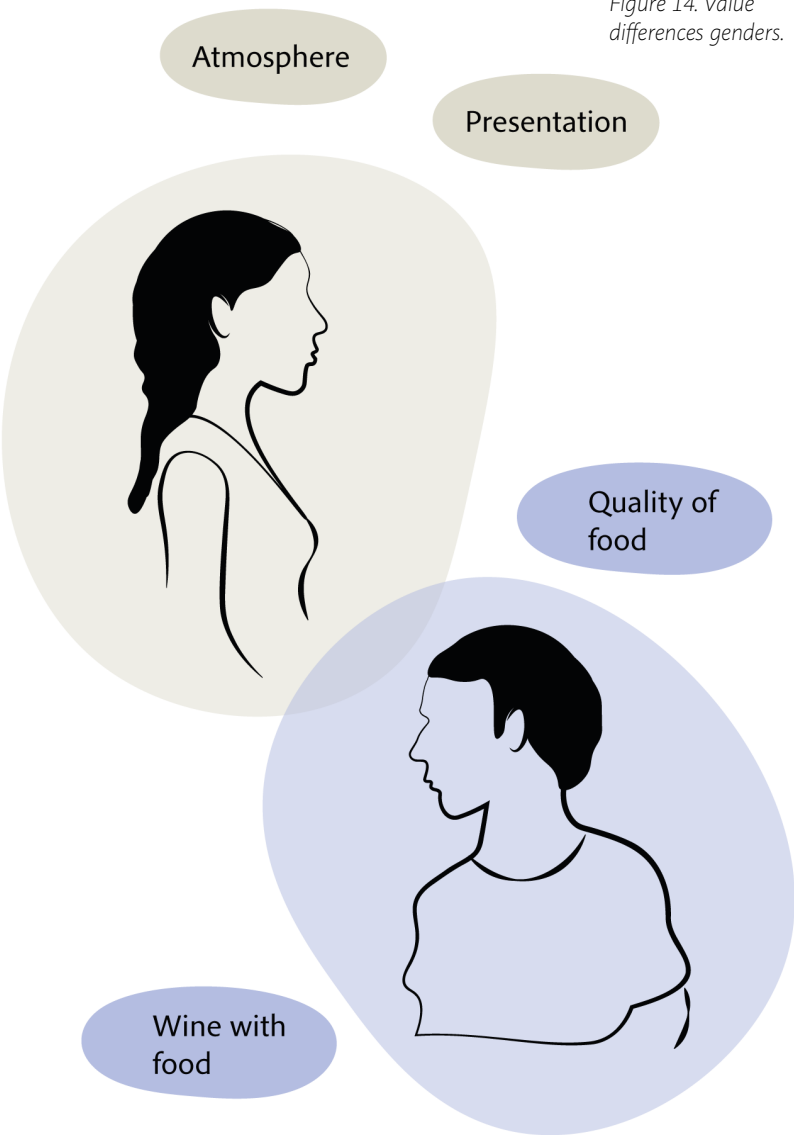


Figure 14. Value differences genders.

Results

The questionnaire revealed several shared values between male and female Zillennials when it comes to fine dining (Figure 14). The most important factor in their dining experience was the unique flavour combination, with 52% of men and 46% of women selecting this. Furthermore, both men and women placed significant value on high-quality ingredients (46% of men and 41% of women) and a focus on local products and seasonality (37% of men and 41% of women). However, men showed a stronger appreciation for the quality of the food itself (13% of men vs. 7% of women), while women placed more importance on the atmosphere (32% of women vs. 24% of men) and the creative presentation of dishes (23% of women vs. 13% of men).

In the context of alcohol, men (28%) find drinking wine with food in a dining experience more important than women (16%). However, both genders were keen on the idea of tea pairings; 48% of men and 54% of women said they would love to try tea pairings, and 46% of men and 38% of women expressed interest and would consider trying it. The biggest motivation to try tea pairings was to experience the effect tea has on food flavours, selected by 55% of men and 54% of women. This was followed by the desire to discover new and unique flavours, mentioned by 30% of men and 34% of women.

Most important factors

1	Unique flavour combination	52% M, 48% F
2	High-quality ingredients	46% M, 41% F
3	Local products & seasonality	37% M, 41% F

Figure 15. Important factors dining experience.

Conclusion and Discussion

The questionnaire revealed Zillennials prioritise unique flavour combinations, high-quality ingredients, and a focus on local products, which need to be reflected in the experience (Figure 15). Both genders expressed strong interest in tea pairings, with over half keen to try it (48% of men and 54% of women). This indicated that tea pairings could be appealing to Zillennials as a refined alternative to alcohol. Even when some a part of the participants seem to find alcohol in dining quite important.

Even though 28% of men and 16% of women find drinking wine important in fine dining, the strong interest in tea pairings highlights its potential as a meaningful, alcohol-free option. A limitation of this study is that the context in which they appreciate drinking alcohol or lowering their alcohol consumption was not addressed. Therefore, we assumed that while guests appreciate a glass of wine in special settings like fine dining, they are likely to reduce their alcohol consumption in everyday life.

2.3 Experience Design

Focusing on experiences rather than products can have a bigger impact on someone’s life and well-being. Experiences can serve as tools for achieving life goals and influencing mental states. An experience can be defined as;

The psychological effect of interacting with a product, where awareness of this effect shapes perceptions and emotional responses

(Schifferstein, 2020)

Memorable experiences can shape future consumer behaviour. To design meaningful moments, as we aim to do with this project, the focus must be on creating experiences that evoke positive emotions and fulfil fundamental psychological needs. Whether an experience is positive or negative largely depends on how well these needs are met.

The materials or products used in an experience also play a critical role in experience design, as they carry their own character, tell a story, and influence the user’s emotions and thoughts. Together, the experience and the material form the artefact (Hassenzahl et al., 2013).

To understand how Zillennials fundamental needs can be met through the experience, a visual overview of their values, interests, and frustrations regarding a fine dining experience has been represented in two personas (Appendix E). The personas were based on insights from desk research and field research.

In response to these developments and the needs of Zillennials, fine dining restaurants have the opportunity to create authentic and memorable experiences by focusing on real stories, transparency and personal engagement. They can offer diners a holistic, sensory-rich experience that enhances positive feelings through interactions, to leave lasting impressions on diners.

2.3.1 Multi-Sensory Journey

The creation of multi-sensory experiences is an effective strategy for shaping memorable experiences and can evoke positive emotions and feelings. The physical environment, artefacts, and quality of ingredients are factors that directly influence customer satisfaction in restaurants and can contribute to a lasting impression. The interaction of pouring tea into a cup and drinking it stimulates all the senses: vision, touch, hearing, smell, and taste (Schifferstein et al., 2020).

Among the five senses (Figure 16), visual perception is the most dominant. What consumers see tends to evoke the strongest feelings, making sight crucial in shaping diners’ first impressions and emotional responses. Touch is the most sensitive of the human senses and plays a key role in how consumers gather information about products. The texture, weight, and smoothness of objects influence product perception. For example, consumers often associate the weight of a product with its quality, confirming their assumptions through tactile interaction.

Moreover, a diversity of tastes can enrich the taste sensation and lead to a more positive experience. The freshness of ingredients can also positively influence the memory of the experience. Additionally, visual cues, particularly colour, can influence taste perception by enhancing flavour intensity, with brighter colours often perceived as more flavourful (Colin & Tisera, 2022).

All these sensory qualities are important considerations when designing the concept, as they can guide the creation of a memorable experience for diners.

Design is often considered beautiful or pleasing when it leaves a lasting impact with minimal resources. The challenge lies in maintaining simplicity while still stimulating the senses to evoke interest (Hekkert, 2006). Rather than focusing solely on functionality and visual aspects, the sensory qualities must correspond to the product’s character and intended interaction.

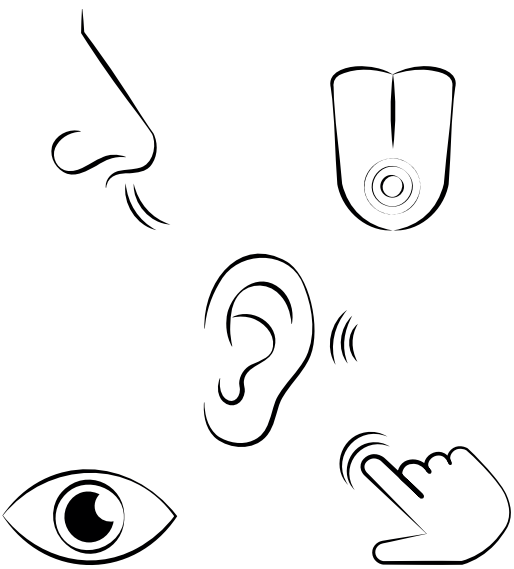


Figure 16.
Five senses

2.3.2 Authentic Experiences

As mentioned before, the desire for authentic interactions and experiences is growing stronger among Zillennials. The word authenticity is somewhat philosophical, particularly when applied to personal experiences. In Western cultures, an authentic person is someone whose thoughts, feelings, values, behaviours, and expressions align with their true self, which creates a sense of harmony (Rahilly, 1993).

The desire for authenticity is also reflected in the rising focus on mental well-being and mindfulness, which encourages individuals to be reflective, and aware of their thoughts, feelings, and behaviours. People increasingly prioritise personal growth, and emotional honesty over social pressure and external markers of success or appearance (Foresight Factory, 2024).

Authentic experience

There is a distinction between seeing oneself as an authentic person and perceiving an experience or interaction as authentic. An authentic experience can be defined as something genuine, real, or true to its origins. Authenticity is often used to emphasise quality and uniqueness and serves as a contrast to mass-produced goods (Figure 17). In the dining context, authenticity is often associated with traditional practices or habits. These traditional practices are explained as local communities that maintain their behaviour, habits and rituals as part of their cultural heritage (Le et al., 2019).

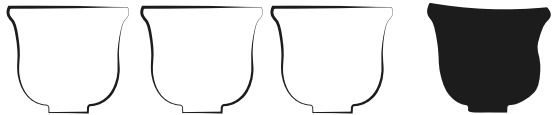


Figure 17. Unique variation.

This emphasis on authenticity is already playing a significant role in the gastronomic experience. Research shows that 83% of people view food as a gateway to discovering new cultures. This suggests that incorporating historical and cultural elements can enrich the overall dining experience (Future 100, 2024). By incorporating these aspects into fine dining experiences, restaurants can create unique and memorable moments that resonate with Zillennials.

Authenticity is a central element in Chinese and Japanese tea ceremonies, where tradition, mindfulness, and respect for nature and others are key values. The integration of authenticity in their cultures can serve as inspiration for creating meaningful experiences in Western contexts. The cultural values underpinning Japanese and Chinese tea ceremonies will be explored further in Chapter 2.4.

Meaning of the word

To explore what authenticity means to Zillennials in relation to a physical object, ceramic shapes based on a basic cylindrical form have been used as a communication tool. Fellow students within the Zillennial age group were asked to place the objects on an axis ranging from “not authentic at all” to “very authentic.” Accordingly, questions were posed about why they ranked the objects this way and how they perceived authenticity. Three different perspectives were highlighted during the discussions, which were concluded through this test.

Clear function, transparent

Objects are authentic when their purpose is straightforward and intuitive, with no hidden complexities. What you see aligns with what you experience, which creates trust through its clarity.

Reflect traditions or cultural practices

Authenticity emerges when objects are tied to specific traditions, cultural practices, or historical contexts. They carry the essence of a particular time or place.

Unique expression and craftsmanship

Objects are authentic when they showcase artisan skills, attention to detail and embody individuality. Their one-of-a-kind expression sets them apart from mass production.

Connection to nature, true to the origin

Authenticity is tied to an object’s natural origins or organic qualities. It feels unaltered, unprocessed, and connected to the earth.

2.4 Tea Cultures

While designing a service or a new product, the alignment with consumers' cultural contexts is crucial in determining whether a product or service will be accepted or rejected. Beyond the acceptance of new products or services, cultures can also serve as a source of inspiration, to enhance desired values and represent new ways to integrate them into different cultural contexts (van Boeijen & Schifferstein, 2023).

In this part of the research, the integration of tea across different cultures will be discussed. The design method 'Cultura' and Hofstede's 'Onion Model' have been used as the basis for developing research questions to understand various elements that influence or shape a culture, such as values, habits, and the artefacts or symbols people use.

2.4.1 Dutch Tea Culture

The current Dutch tea culture has been researched to develop an understanding of the cultural context in which the design will operate, as well as the behaviours and preferences of the intended user. Interview insights showed that the Netherlands lacks a strong tea culture (read Chapter 2.2). Tea drinking in the Netherlands has a dull image, is casual, and is often linked to a sense of cosiness (Figure 18).



Figure 18. PickWick commercial.
Source: <https://www.pickwick.nl/>

This image doesn't align well with the fine dining context, which means that consumers' perceptions of tea in fine dining restaurants will need to shift to make tea pairing a more attractive option.

Tea from Pickwick or Lipton is mostly consumed in the Netherlands, with black tea and flavoured varieties like forest fruits being the most popular. Dutch people typically consume weakly brewed tea, where the tea bag is briefly dipped in water. Additionally, most Dutch people are unfamiliar with loose-leaf tea and primarily drink tea from tea bags. The Dutch preference for convenience and familiarity makes changing these habits challenging.

While this reflects the current tea culture in the Netherlands and the challenges, it doesn't mean that people are not becoming more interested in loose-leaf tea. There is a growing appreciation for the quality and flavour of food, with many willing to pay a premium price for higher-quality products, and this is also the case with good-quality tea (Verywell Health, 2022).

Pickwick

Pickwick has been the market leader of tea for many years and has significantly influenced the development of Dutch tea culture. Previously, tea was primarily promoted as a luxurious and refined beverage, only accessible to the higher social classes. Media campaigns often portrayed tea as the centerpiece of social gatherings or as a relaxing break for housewives (Pickwick, n.d.). In the Netherlands, women consume nearly twice as much tea per day as men (Thee, n.d.). The way tea was presented in the media could have contributed to this difference.

Today, Pickwick targets a much broader audience and promotes tea as a beverage that supports well-being, togetherness, and personal moments of relaxation. Current marketing campaigns promote health benefits, like caffeine-free options or tea that supports the immune system. The Dutch brand also introduced tea pairing as a trend on its website, which could highlight the growing importance of providing an alcohol-free option to a broader audience (Pickwick, n.d.).

2.4.2 Chinese Tea Culture

Given China's rich culture, it is difficult to define uniform values and ways of living. Therefore, this chapter gives a generalized overview of the cultures, based on the information derived from literature and expert interviews.

Tea has deep cultural roots in China, where it was first discovered and spread across Asia through Buddhist monks. Tea represents simplicity, respect, connection, mindfulness and harmony, which are core elements of Chinese culture. The Gong Fu Cha is a Chinese tea ceremony, focused on brewing tea with precision and grace. In many Chinese households, friends and family gather to share tea, to foster connections and communication. Additionally, it serves as a meditative practice, with careful steps encouraging mindfulness and relaxation. This ceremony can be performed with various types of tea, such as green tea, oolong, and black tea (Gebely, 2019).

In China, tea consumption is about the journey of flavours, which changes with each brew. Tea leaves are placed in the Gaiwan, and hot water is carefully poured from the teapot into the Gaiwan (Figure 19). This process uses a relatively large quantity of loose leaves in a small amount of water, to bring out the full intensity of the tea's flavours and textures. Green tea can have thicker textures, while oolong can provide a long-lasting aftertaste. High-quality tea can even be re-steeped multiple times without becoming bitter or weak.



Figure 19. Chinese gaiwan.
Source: <https://bestceramics.cn/>

2.4.4 Japanese Tea Culture

In the 13th century, Japanese monks brought matcha tea from China, which laid the foundation for Japan's tea culture. Tea was consumed to enhance meditation, as it improves concentration and has a calming effect. Although coffee is becoming increasingly popular in Japan, much like in China, Japan remains committed to preserving its rituals and continuing traditional tea ceremonies (Gebely, 2019).

Japanese culture has several strong principles, like wabi-sabi (the beauty of things that are imperfect) and Shibumi (simplicity is best). These principles start to resonate in Europe, and align with Western trends towards minimalism and eco-conscious living. Japanese art has been deeply influenced by Zen Buddhism, which emphasises minimalism, modesty, and simplicity. They find greater aesthetic value in objects that are old, asymmetrical, and natural, rather than in perfectly symmetrical and new (Maikoya, n.d.).

Core values of Japanese culture are reflected in the tea ceremony. In Japan, tea symbolises hospitality, politeness, and respect for both the people around you and nature. A tea expert explained that the Japanese tea ceremony fosters a bond between host and guest while offering a moment of inner peace to escape the busyness of daily life. The most famous and important tea ceremony in Japan is the matcha ceremony, also known as chanoyu or sado (Figure 20).

The quality of the materials used in the Gong Fu Cha ceremony is of great importance in China, particularly when it comes to the tea cups and teapots. A Gaiwan is often made from porcelain, which highlights the colour of the tea, an important aspect of the experience. Porcelain also helps to cool the tea quickly to the optimal drinking temperature. In addition, glass has gained popularity in modern tea ceremonies for its aesthetic appeal, as it clearly shows the colour and quality of the tea. For oolong, red, or black tea, Yixing clay teapots are commonly used. These teapots are made from porous clay that absorbs the minerals and flavours of the tea over time. Yixing clay enhances the flavour of future brews, as the clay retains the tea's essence.

By emphasising a journey of flavours, guests are invited to discover the unique qualities of tea. The use of materials such as porcelain, glass or Yixing clay, could enhance the sensory experience and align with Zillennials' desire for high-quality, meaningful products. Expressing mindfulness and harmony during the preparation could resonate strongly with Zillennials and could express authenticity (H. T. Wu, personal communication, October 2, 2024).

Figure 20. Matcha ceremony (free stock).



In most social circles, there is usually someone trained to conduct the ceremony, although it has become less common to pursue such training. The person preparing gives each guest equal attention. Seasons hold great significance in Japan, where they also have four seasons. The Japanese enjoy celebrating seasonal changes as a way of appreciating new beginnings and have a strong connection to nature.

The expert elaborated on how the ceremonial artefacts are influenced by the seasons. In summer, a lighter and wider bowl is used to create a sense of coolness. The kettle is placed higher on the mat to allow air to circulate, and the tea is served cooler. In winter, the kettle is sunk into the floor, allowing the heat to radiate towards the guests. A thicker bowl is used to retain the heat of the water. In spring, porcelain with floral patterns is often chosen, while in winter, heavier, more robust materials are preferred (R. Pompen, personal communication, September 27, 2024).

The principles behind Japanese tea ceremonies, such as respect for others, connection with nature, and mindfulness, align closely with the values and needs of Zillennials. Each participant receives equal attention during the ceremonies. Incorporating this into the experience could convey respect, refinement, and authentic connections. This could also be reflected through the use of natural materials and unique, imperfect objects.

UNDERSTANDING PHASE

Key Takeways

Fine Dining and Tea Pairing

- Tea pairing can enhance the gastronomic experience and should be used to enhance the flavours of food without overruling it.
- Tea pairing can differentiate restaurants in a competitive market by offering a unique experience.
- This project will focus on designing a service to support the sommelier in preparing and serving tea more efficiently and effortlessly.
- The focus will be on targeting Zillennials, as they will be shaping the future market.
- Aligning the concept with Zillennials need for comfort, purpose, fitness and stimulation to ensure the concept will resonate.
-

Field Research

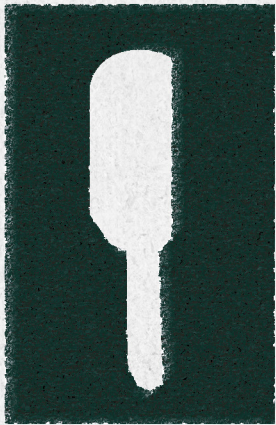
- Challenges for offering tea pairings in restaurants include a lack of staff with expertise, logistical complexity, and low consumer awareness of tea pairing.
- Younger diners are more open to tea pairing, while older diners are unfamiliar with or tied to traditional wine pairings.

Experience Design

- A well-designed tea pairing can stimulate all senses, which can create a memorable experience.
- The experience should focus on expressing authenticity, by implementing natural materials, expressing cultural traditions and creating a genuine connection between the sommelier and guests.
-

Tea Cultures

- The Dutch tea culture is somewhat old fashioned, casual and lacks sophistication which doesn't fit in the fine dining context.
- Other cultures where tea plays an important role can be used as an inspiration to see how the Dutch tea culture could be enhanced in the fine dining context.
- In China, tea represents mindfulness and connection. They focus on the flavour journey and make use of high-quality materials.
- The Japanese tea culture is rooted in respect, mindfulness, and connection with nature, the seasonal approach and imperfection in materials.



03.

*DEFINING
PHASE*

This chapter acts as a bridge between the discover and define phase. The insights that were discovered during the contextual research are structured and scoped.

A design vision has been formulated, based on aspects of the ViP Method, to define the project's focus and direction. The vision is composed of three parts; A design statement defines the project's goal and focus, to open up new opportunities. Next, the interaction between the user and the product is outlined, which describes the relationship between the user and the experience. And lastly, the character and physical expression of the product have been defined to match the design goal and envisioned interaction.

It is structured with the following sub-chapters:

3.1 Design Scope

3.2 Design Goal

3.3 Envisioned Interaction

3.4 Product Character

3.5 Envisioned Experience

3.6 Design Criteria

3.1 Design Scope

The scope, illustrated in Figure 21, sets the context for the design, defines who will provide the service, outlines the focus of the actions, and identifies the intended user and their needs.

To start with, the tea pairing will take on a supporting role, enhancing the quality of the food, which remains the primary focus of the dining experience. As such, the tea pairing should be seamlessly integrated into the fine dining context, maintaining a subtle and neutral presence.

This project focuses on designing an authentic, sensory-rich tea pairing experience for a fine dining restaurant in the Netherlands, that already employs a tea sommelier. The aim is not to determine which kind of tea pairs best with certain dishes, but to support the sommelier by making the tea service more efficient and seamless. The tea sommelier’s expertise will remain central, and the design should enhance the preparation, serving, and consumption of tea in the restaurant. The process prior to tea preparation, such as guest reception and tea selection, is outside the project’s scope. A tea sommelier enhances storytelling and deepens guest engagement. Staff with limited tea knowledge would need training, which is an aspect that will not be addressed within this project.

Additionally, adapting this concept for fine dining in other parts of Europe could be a future step, but remains beyond the current scope. The focus will remain on aligning the concept with Dutch fine dining culture and attracting new guests like Zillennials, who shape the future market and are willing to try tea pairings. Designing for experiences is relevant for Zillennials, as they seek meaningful, immersive experiences that engage their senses. They like to explore new cultures through dining out. By focusing on culturally authentic experiences, fine dining could be unique and memorable. Research indicated the fundamental needs of Zillennials, which need to be fulfilled to create memorable experiences.

The scope defines the initial direction or requirements for the concepts. Still, it doesn’t exclude the possibility of implementing other aspects in the final design that are not selected at this stage.



Figure 21. Project scope.

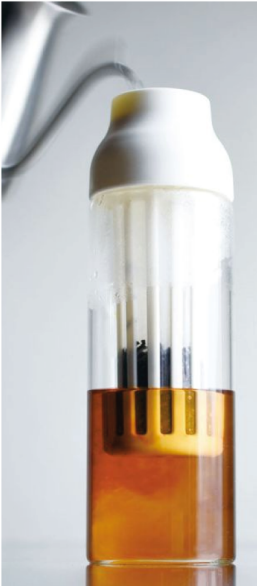
3.1.1 Kind of tea

The product must be designed to accommodate four different types of tea to ensure flexibility and variation between the courses. According to sommeliers, they typically serve the following (Figure 22):



ICED BREW

Hot-brewed tea poured over ice cubes to cool it quickly



COLD BREW

Tea steeped with cold water in the fridge for 24 hours



SPARKLING

Concentrated tea, added to sparkling water



TRADITIONAL

Traditional hot-brewed tea, served warm

Figure 22. Four kinds of tea.

3.1.2 Design Tensions

Research has highlighted four fundamental needs that can be fulfilled through experience: the need for purpose, fitness, comfort, and stimulation (Chapter 2.1.3). However, there may be a tension between comfort and stimulation for Zillennials (Figure 23). This tension arises from the need for serenity, mindfulness, and simplicity which are aspects of comfort, versus the desire for stimulation and full immersion in the experience which. Achieving a balance within the experience is essential to create harmony between these conflicting needs.

Another tension arises from the aim to develop a modern brewing technique while also seeking to evoke a sense of authenticity. Authenticity conveys tradition, connection, and genuine storytelling, whereas modernity brings innovation, novelty, and dynamic elements. Achieving a balanced experience requires harmonising these opposing needs, crafting a journey that feels both rooted in tradition and refreshingly contemporary. Successfully balancing these tensions not only enhances the overall user experience but also establishes a deeper emotional connection, making the design feel thoughtful, complete, and resonant with the guests.

The selected direction will be further explained and discussed in the next chapter, which is about the design goal.



STIMULATION

Immersion
Surprises
Discovery



COMFORT

Serenity
Mindfulness
Simplicity

Figure 23. Tension between needs.

3.2 Design Goal

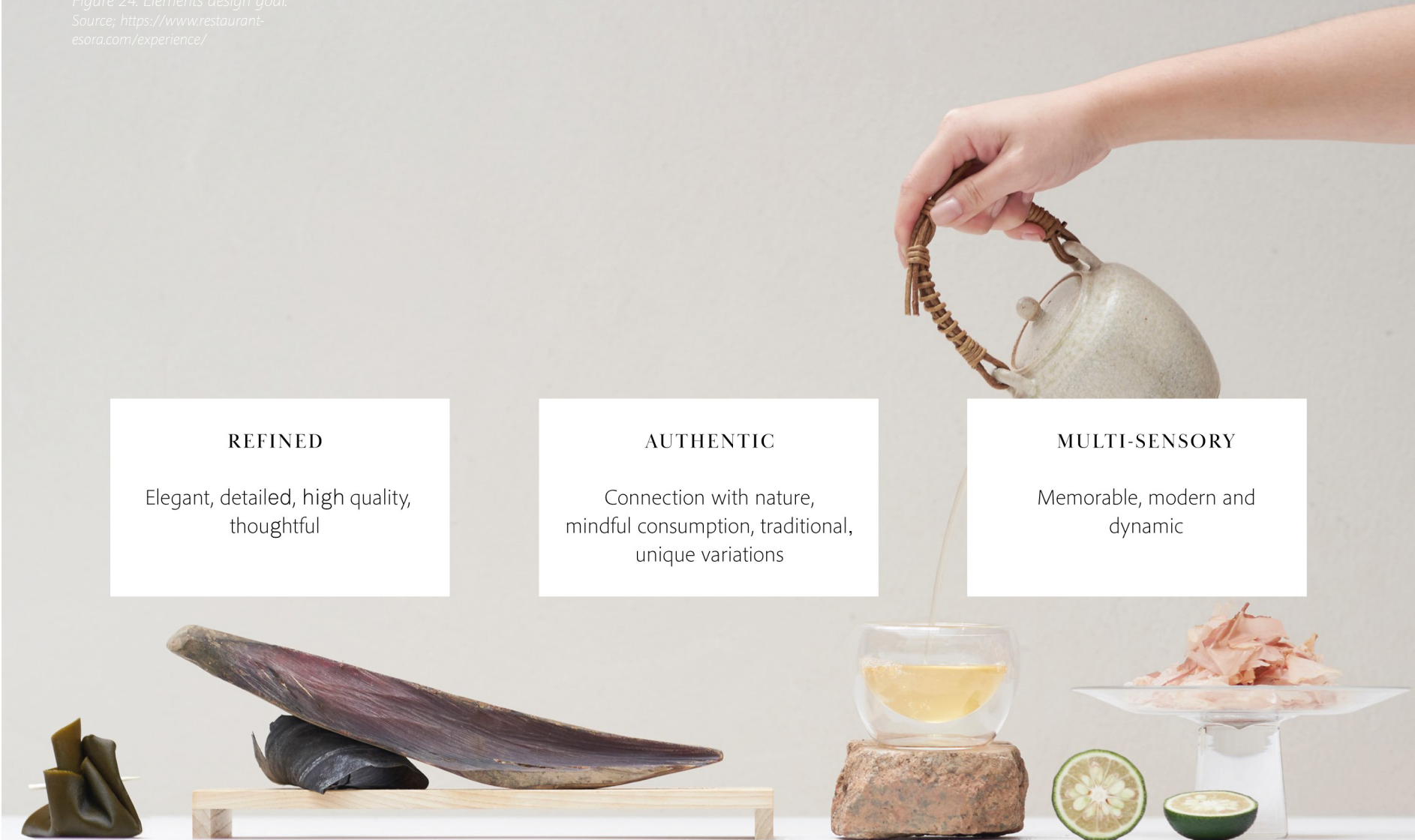
I want to **shape** guests' **perceptions** of tea pairing with fine dining and make it a **natural part** of the culinary context, by offering them a culturally **authentic**, thoughtfully **refined**, and **unique sensory-rich** experience, through a **modern** brewing technique.

A design goal has been formulated to state the desired effect on the intended user and direction for the project.

The aim is to achieve an open-minded and immersive experience, and to encourage guests to try out tea pairings. This will be done by creating a modern brewing technique, with a connection to traditional and Eastern tea cultures (Figure 24). The decision to shape perception is important, as the goal is to present tea pairing as a fresh and new concept within fine dining, which should be distinct from current associations with tea in the Netherlands. By shaping how guests perceive it, the experience can be introduced in a way that feels refined, and part of the culinary context.

The culinary context refers to the seamless way the concept should integrate into the table setting, but also into the workflow and environment of the sommelier.

Figure 24. Elements design goal.
Source; <https://www.restaurant-esora.com/experience/>



REFINED

Elegant, detailed, high quality, thoughtful

AUTHENTIC

Connection with nature, mindful consumption, traditional, unique variations

MULTI-SENSORY

Memorable, modern and dynamic

3.3 Envisioned Interaction

The interaction vision illustrates the envisioned relationship between the intended user and the experience. The meaning the experience should evoke is expressed through a metaphor (Figure 25).

The tea pairing experience is like being **gently guided** through a **serene** nature reserve by boat. As you glide along, landscapes reveal themselves from a **new perspective**, without actively needing to search for them. Their details are enhanced by the **calm pace** of the journey. The journey is **harmonious**, full of **surprises**, and invites you to take in each moment with **fresh eyes**.



Figure 25. Impression, Soleil Levant. Monet 1872

3.5.1 Interaction movement

In addition to the interaction quality, the way the sommelier moves and conducts the interaction influences how the experience is perceived and how it brings meaning to the intended user. Movement interaction description can highlight the outcomes of product use (Diefenbach et al., 2013). Four qualities have been selected that describe the movement of the interaction; Slow, precise, stepwise and gentle (Figure 26). With stepwise, a ritualistic sense of the experience has been meant where the focus lies on carefully conducting several steps. This fits the vision and meaning the product should bring to the user.

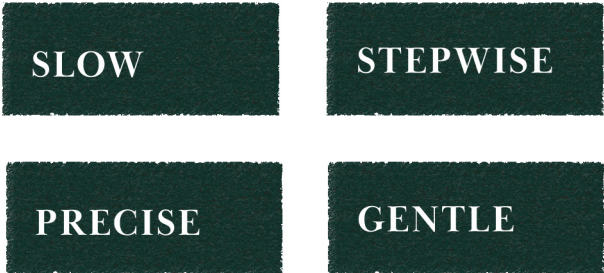


Figure 26. Movement interaction.

3.2.2 Interaction Quality

The metaphor has been used as inspiration to translate the meaning and quality the experience should evoke into characteristic descriptions of the interaction (Figure 27):



Immersive

Engage guests deeply, involving all senses



Harmonious

Express balance, surprise and enhance calming qualities, while keeping focus on the food



Sophisticated

Focus on elegance and cultural richness. Nothing is over-the-top, everything is intentional

In addition to outlining the guest’s interaction during the tea pairing experience, specific elements must be provided by the sommelier to ensure the desired interaction is achieved.

Figure 28. Interaction qualities sommelier.



Attentive

The service and presentation is focussed on meeting the needs of each guest

The sommelier plays a crucial role in shaping the service and guiding the guest’s journey. Their interaction with the guest should embody the following key qualities (Figure 28):



Transformative

Guests leave with a newfound appreciation and understanding



Seamless

Effortless integration into current fine dining workflow and routines

3.4 Product Character

Materials and products are essential in experience design, as they bring their own character, tell a story, and shape the user’s emotions. To achieve the desired experience, the product should embody the following qualities (Figure 29):



Thoughtfull

The **details** feel **considerate** and intentional, and shape perception



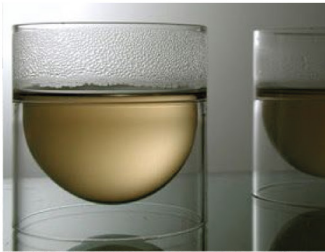
Subtle

The details feel **serene**, yet **impactful**, without being **overwhelming**



Pure

Product feels **natural**, **honest** and simple. The design will contain **high-quality**, raw materials.



Modern

Should offer a **fresh take** on traditional tea, with a **minimalistic** aesthetic

Figure 29. Product Character.

The mood board visually represents the character of the product, described as quietly luxurious. It should convey refinement through the use of high-quality, natural materials. The product should not feel excessive but instead feature subtle design details. It aims to offer a fresh take on tea brewing, with a clean and modern aesthetic.

Two additional mood boards have been created. One explores how the product could express authenticity through materials, shapes and textures (Figure 30). The other one shows how it could fit seamlessly into the fine dining context, by making sure it doesn’t distract the food but enhances it (Appendix F).



Figure 30. Mood board Authenticity.

3.5 Envisioned Experience

The most important elements of the design goal, intended interaction quality and movement, and the product character are summarized in a visual, to show how these elements come together in the different steps of the service (Figure 31). The service encompasses all the steps carried out by the sommelier to deliver the experience to the guest.

* Kind of Interaction				
SOMMELIER 7 steps	SERVICE	Sommelier arrives at the table with the teaware	Positiones the teaware at the table	He adds the tea leaves to hot water
	PRODUCT	Tea, teapot, spoon, cup	Tea, teapot, spoon, cup	Tea, teapot
	QUALITY *	Elegance, Authenticity	Attentive, Harmonious	Seamless, Subtle
	MOVEMENT *	Gentle, Precise	Precise, Stepwise	Slow, Precise
GUEST 3 steps	ACTION			
	SENSES	Sight	Sight, Sound	Sight
	FEELING	Curious	Open, Interested	Engaged, Anticipating

The product the sommelier interacts with, as well as the type of interaction, is detailed at each stage. Simultaneously, the guest perceives the experience and has minimal actions to perform. The senses stimulated and the emotions evoked during the experience are described at each step. This visual has been used as a guideline for ideation and conceptualization.

While steeping, shares knowledge, let guest smell the leaves	Separates tea leaves from water (after 1-4 minutes)	Sommelier pours the tea in the designed cup		Explains what the consumer can taste with first sip
Tea, spoon	Teapot, (seaf)	Teapot, tea cup	Tea cup	
Sophisticated, Immersive	Seamless, Subtle	Mindfull, Sereen		Transformative, Immersive
Gentle	Precise, Gentle,	Slow, Gentle		Gentle
Smells the tea			Grabs the tea cup	Drink from the cup
Sight, Sound, Smell	Sight	Sound, Sight	Touch	Touch, Taste, Smell
Engaged, Inspired	At Ease, Trusting	Calm, Present	Curious, Calm	Surprised, Content

Figure 31. Envisioned experience.

3.6 Design Criteria

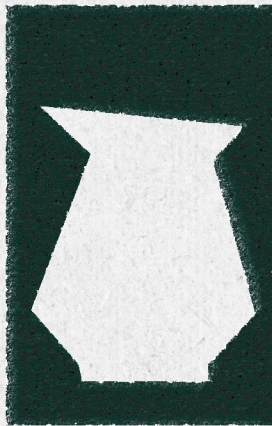
The vision has set the foundation for the design criteria. These criteria were defined based on insights from research, focusing on the most important findings, and aspects of the vision

that align with the design goal. They were defined to ensure the design goal’s success and to provide a framework for evaluating the concepts and selecting the final design.

Make it a natural part of the culinary context	<ul style="list-style-type: none">• The teaware are stable and comfortable to transport and use• Allow easy separation of tea leaves after the appropriate time• Presentation and preparation must fit the table setting• It must be easy for the sommelier to indicate the steeping time
Express authenticity	<ul style="list-style-type: none">• The teaware should express a sense of uniqueness• The tea preparation should balance a modern and ritualistic experience• The product should show visible cultural elements
Express refinement	<ul style="list-style-type: none">• The tea experience should feel special for each guest.• Tea should have a drinkable temperature right after serving it• Tea leaves should have enough space while steeping, to ensure optimal infusion
Stimulate senses	<ul style="list-style-type: none">• Visual representation should be elegant and draw attention• The interaction between the sommelier and guests should be conscious and calming

Key Takeways

- The sommelier will provide guests with a tea pairing service, by brewing tea at the dining table in a modern way.
- Shape guests’ perceptions of tea pairing as a refined, natural part of the fine dining experience, using a modern brewing technique inspired by traditional tea cultures.
- Products support the sommelier in efficient tea preparation, serving, and storytelling while shaping a memorable guest experience.
- Use of high-quality, natural materials like wood, glass, and ceramic that reflect purity and tradition while supporting a modern aesthetic.
- The sommelier will interact in a slow, precise, stepwise, and gentle way to reflect a ritualistic sense of care.



04.

*EXPLORING
PHASE*

This chapter describes the outcomes from the ideation activities and starts with design considerations which influenced the ideation. The ideas were not only generated through the development phase, but throughout the project. Several design activities are conducted to explore possible design opportunities within the formulated design goal, like sketching, discussions with stakeholders, individual brainstorming sessions and collaborative design sessions with fellow students.

The ideation led to a few potential design directions. This chapter is structured with the following sub-chapters:

4.1 Design Considerations

4.2 Creative Session

4.3 Concept Directions

4.4 C-box Evaluation

4.5 Material Exploration

4.1 Design Considerations

The flavour of tea is influenced by the temperature of the water, the amount of leaves used to brew the tea, the movement during brewing, and the steeping time (Erkens, 2022). These factors have been carefully considered, to make sure good quality tea will be brewed with the design of the service.

Temperature

The ideal water temperature varies depending on the type of tea (Figure 32). For instance, black tea requires a temperature of 85-95°C, while green tea can become bitter at these temperatures and instead needs a lower temperature of 65-80°C (Erkens, 2022).

To reach the optimal temperature for brewing, sommeliers can use kettles that allow precise control of the water temperature. Several sommeliers mentioned using such kettles during interviews. However, for those who do not have one and instead use hot water with a specific temperature from sources like a coffee machine, there are alternative methods to cool the water. One effective technique is to pour the (boiling) water into a separate, cold teapot. This immediately reduces the temperature by about 10°C. Half a litre of water will take just over two minutes to cool from 90°C to 80°C. If then transferred to the teapot intended for table-side preparation, the temperature drops another 5-10°C, making it perfect for brewing green tea (Erkens, 2022).

Tea Leaves

The amount of tea leaves used to brew the tea influences the strength and intensity of the flavour and depends on the kind of tea. For those inexperienced with brewing tea, it is advisable to measure the amount of tea leaves. However, the sommeliers working in the restaurants have indicated that, due to their expertise, they are able to judge the correct amount of leaves without the need for measuring. Therefore, a measuring tool is not necessary in the design of the tea experience.

Portion Size

Drinking tea from a small cup encourages mindful sipping, allowing the drinker to focus more on the tea’s subtle and refined flavours, aromas, and textures. Serving tea in smaller cups could evoke a sense of a tea ceremony and enhance the cultural link to Eastern practices. Additionally, the tea cools faster, which makes it easier to enjoy it at the optimal drinking temperature.

A glass of wine served in restaurants typically contains 120 ml. Furthermore, Chinese teacups, often used in traditional tea ceremonies, typically have a capacity ranging from 50 - 80 ml. To encourage mindful consumption, the tea will be served in cups with a capacity of 75 ml. With a small teapot containing 200 ml of tea, guests can refill their cup once and offer someone else at the table to taste the tea if desired.

Movement

Bitter flavours can be released faster through the movement of tea leaves while steeping, which could result in an unpleasant taste. Therefore, the movement of the tea leaves will be minimized during the preparation of the tea. The only motion will be the natural movement of the tea leaves floating and “dancing” in the water.

To ensure proper infusion and to allow their flavours to be fully extracted into the water, the tea leaves will need enough space to unfold. This is a mistake that is visible in a lot of Western brewing system design, and will therefore be consciously considered in the design of the service.

Steeping Time

The steeping time for tea typically ranges from 1 to 4 minutes, depending on the type of tea. Green tea generally requires a shorter steeping time compared to white or black tea. To ensure precise brewing, the design will include an element that subtly indicates the steeping time without being intrusive, such as an alarm.

Japanese Green Tea	60 - 70 °C	2 min - 30 sec	Oolong	85 - 95 °C	1 min - 40 sec
Chinese Green	70 - 85 °C	1 min - 30 sec	Black Tea	85 - 95 °C	90 sec - 30 sec
White Tea	85 - 95 °C	90 sec - 30 sec	Pu Erh	100 °C	15 sec - 45 sec

Figure 32. Brewing information.

4.2 Creative Session

A creative session was conducted to generate ideas from different perspectives and to explore different ways the experiences could be shaped. The ideas were generated by thinking about how the sommelier's presence and actions and how the design of physical elements could capture guests' attention, evoke curiosity, convey authenticity or create a sense of calmness.

The session began by explaining the role of the sommelier and guest in the experience and explaining the required elements of the service that enable the preparation of tea at the dining table for guests (Figure 33).

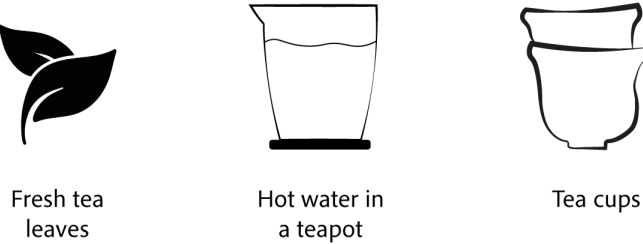


Figure 33. Basic elements tea preparation.

The basic required steps that would shape the service are also mentioned to the participants;

1. Bringing the tea set to the table
2. Setting up the tea set
3. Placing the tea leaves in the water
4. Removing the tea leaves from the water
5. Pouring the tea into cups

Ideas were captured on Post-it notes and showed a wide range of opportunities (Figure 34).

In the second assignment, the group tackled four key design questions;

- How might a cup evoke a feeling of luxury and refinement?
- How can the quality and purity of the tea leaves be showcased?
- How can it be shown that the tea is prepared specially for each guest?
- How can the preparation engage all the guests' senses?

The questions were written in the centre of a large sheet of paper. Participants could sketch or write down ideas on the paper for two minutes, then had to pass the paper to the participant on their right. This continued until ideas had been brainstormed for all four questions.

Morphological Chart

This collaborative process generated interesting and creative ideas and offered valuable insights for a tea experience. After the session, a morphological chart has been created to stimulate the generation of more ideas. The combined ideas formed the base of the six concept directions.



Figure 34. Creative session.

4.3 Concept Directions

The individual brainstorming sessions and group discussions resulted in six design directions. Figure 35 provides an overview of the concept directions and their corresponding names. "C1" represents Concept One, and so on. The concepts are arranged from the most modern to the most authentic, with C1 being the most modern. Detailed explanations of all six concept directions are provided in Appendix G.

The concept directions were developed by envisioning an experience flow that incorporates ritual elements to create a new approach towards preparing tea in Dutch fine dining restaurants. The concept ideas were further developed through sketching, with a focus on functional aspects and interaction types. These explorations are aligned with specific design criteria that form the foundation of the concepts;

- Allow **easy separation** of tea leaves after the appropriate time.
- The tea experience should **feel special** for each guest.
- Tea should have a **drinkable temperature** right after serving it to guests.
- Tea **leaves** should have **enough space** while steeping, to ensure optimal infusion.



4.4 C-Box Evaluation

The six concept directions were plotted in a C-box to identify which directions could be interesting for further development into a concept, with ‘C1’ referring to Concept One, and so on (Figure 36).

On the vertical axis, modern vs traditional is displayed. Modernity refers to a unique, innovative, or surprising way of making tea, while tradition connects to the cultural heritage of tea preparation. On the other axis, ritualistic vs streamlined is represented. The term ritualistic refers to the careful conduction of steps to prepare the tea, while streamlined indicates a more fluent or simplified process designed to reduce complexity.

When placing the concept directions in the C-box, they are primarily divided into two sections, representing two distinct and somewhat opposing approaches. Selecting a concept direction from the traditional and ritualistic section would create a more authentic cultural connection, which emphasises the care in tea preparation and could appeal to guests who value a more extensive service. On the other hand, a direction from the modern and streamlined section offers an innovative and convenient experience without compromising quality. Both approaches are worth exploring, so one concept direction from each was selected.

From the authentic cultural direction, concept direction 6 (C6), the “Tea Box” was chosen over “Two Pots” (C5), because it scored better in the quality it conveys and it demonstrates a stronger connection to Eastern tea cultures.

From the modern and streamlined section, a combination of the “Slow Release” (C3) and “Slow Drip” (C2) concepts will be developed further. The Slow Drip is aesthetically captivating and has a calming effect, but there is uncertainty about whether this brewing method will ensure high tea quality. The Slow Release principle offers convenience, which does not fully align with the fine dining context, and will be reimaged in a design that reflects the calmness and aesthetics of the Slow Drip. These concept directions show the potential to align with the project’s vision.

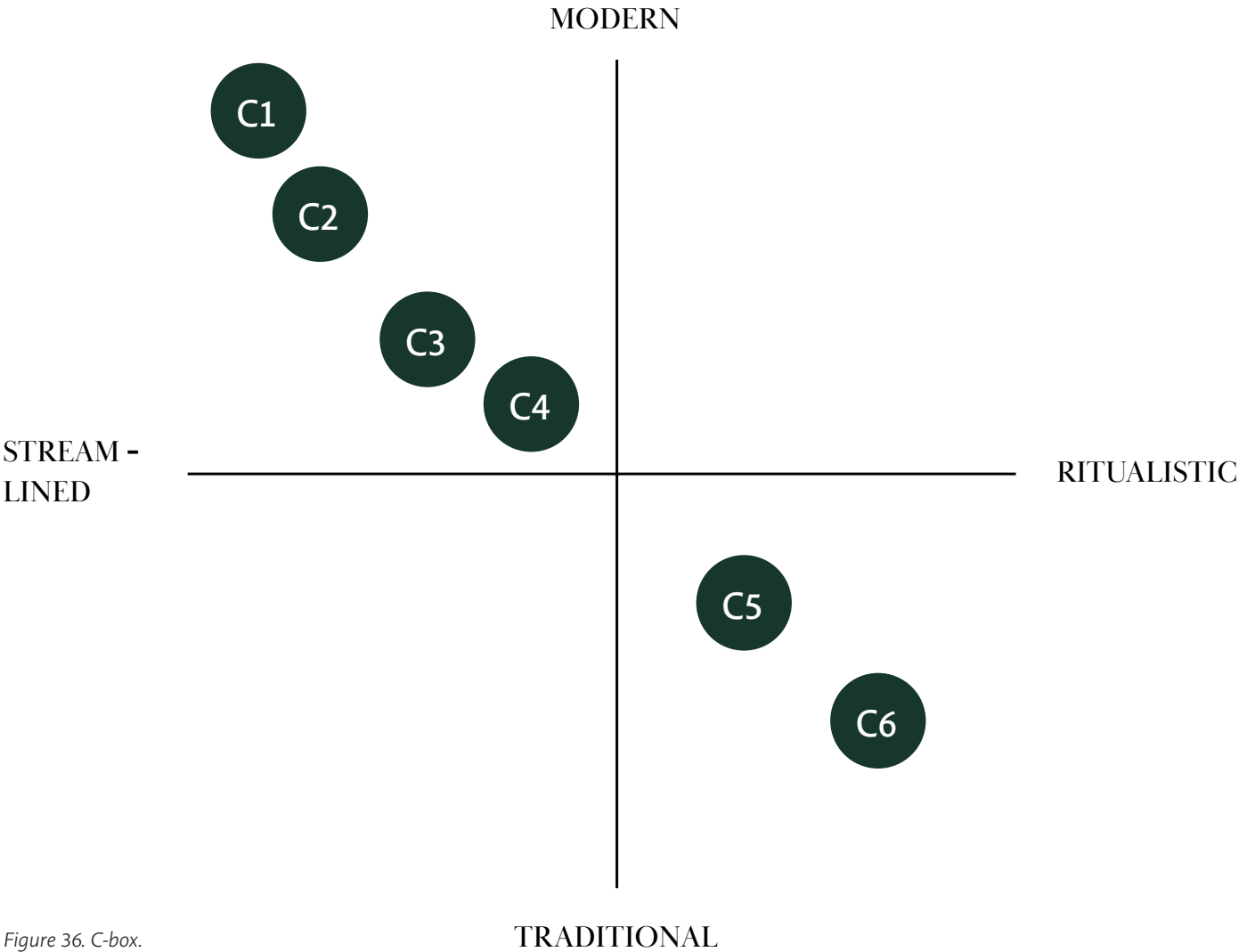


Figure 36. C-box.

4.5 Material Exploration

As part of the development phase, several materials have been explored (Figure 37). Careful selection of materials contributes to how the design is perceived and valued by guests. In total, four materials have been selected: wood, clay, stainless steel, and glass. Combining materials like wood or clay with stainless steel or glass can blend cultural authenticity with modern simplicity, which can resonate with Zillennials’ values and the defined project vision.

Wood represents a strong connection with nature and conveys a warm and pure feeling. Clay, often used in traditional teaware, can create a link to authentic tea ceremonies when implemented. These materials are intended to reflect a sense of honesty and purity and to feel welcoming. This aligns with Zillennials’ values of connecting with other cultures and their desire for a connection to nature. The purity and honesty, combined with a minimalist design, encourage mindfulness and a deeper appreciation of the tea experience.

Copying the design of teaware from Eastern cultures could feel unauthentic in a fine dining context. By expressing modernity, a bridge is created between the cultural authenticity of brewing tea and the new way tea will be brewed and

presented in the fine dining context, resonating with Zillennials’ desire for authentic experiences. Therefore, glass and stainless steel are selected to express modernity. These materials offer a cool, sophisticated, sleek, and industrial aesthetic, with qualities that are well-suited for brewing tea. The transparency of glass for example allows the color of the tea and the tea leaves to be visible, while stainless steel provides durability, resistance to heat, and excellent thermal conductivity.

One of the requirements was to incorporate unique variations in elements of the teaware to express a sense of authenticity in a modern way. These variations can be achieved through different material processing methods. Both handcrafting and machine work have been explored, along with the associated costs of each technique.

All functional properties have been explored to determine how they can benefit the design. The specific properties and qualities of each material guide their function and placement, shaping the design to be both aesthetic and practical. An overview of the insights can be found in Appendix H.

Figure 37. Material selection.



CLAY



WOOD



STAINLESS STEEL



GLASS



05.

*DEVELOPMENT
PHASE*

Two concept directions have been selected based on the C-box analysis. These directions have been further developed into two concepts. Besides the functional aspects and the type of interaction that has been thought of with the design of the concept directions, the concepts have a clear service scenario, and materialization. They also show how they support the preparation of four kinds of tea and describe how they stimulate the senses.

This chapter is structured with the following sub-chapters:

5.1 Holistic Concepts

5.2 Evaluation Test

5.3 Concept Choice

5.1 Holistic Concepts

The following design criteria are considered for the design of the concepts;

- The teaware should be stable and **comfortable** to **transport** and to use.
- It must be easy for the sommelier to **indicate** the **steeping time**.
- The **presentation** and preparation must fit the **table setting**.
- The product should show visible **cultural elements**.
- The tea preparation should **balance a modern** and **ritualistic** experience.

5.1.1 Concept 1 | Brewing Essence

This concept is designed to immerse the guests by bringing them along in a ritualistic way of preparing tea. The steps to brew the tea are simple, which allows for the sommelier to connect with their guests in a genuine way. The focus is on expressing the quality of the tea and the tea leaves, in a harmonious and transparent way (Figure 38).



Figure 38. Brewing essence.

Figure 39. Open box.



Functional Aspects

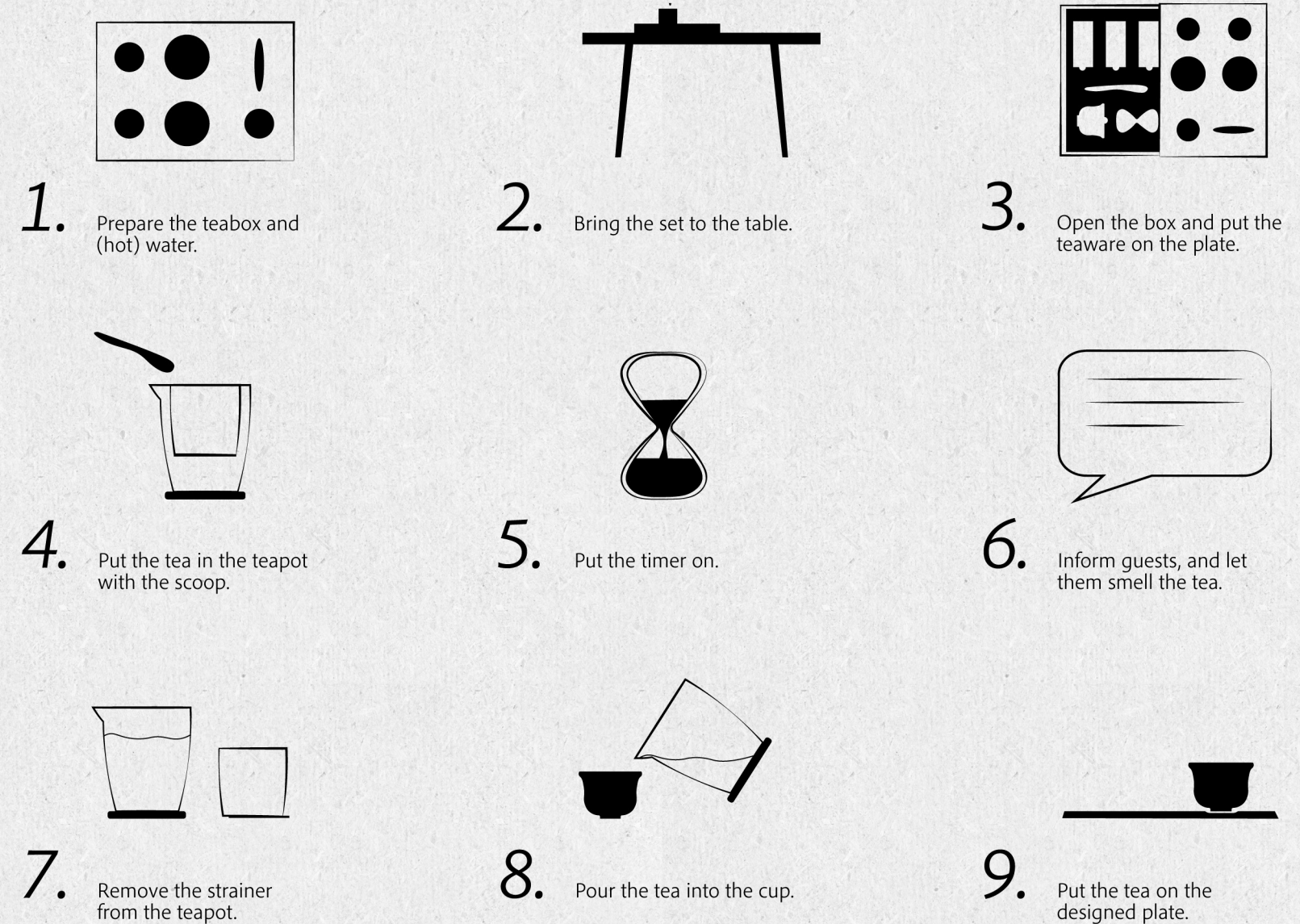
The concept is based on the “tea box” direction, where each component of the teaware can be positioned on a beautifully crafted wooden box, with carved circles to ensure every element fits securely during transport (Figure 39). The box features integrated handles, for the stable and safe transportation of the teaware to the dining table. It carries a teapot with an integrated strainer, a glass for drinking tea, three glass containers holding different types of dry tea leaves, an hourglass for indicating steeping time, and a scoop for adding tea leaves to the teapot.

User Scenario

The sommelier fills the teapot with hot water in the kitchen and brings the tea box to the table with the teapot and tea glass on top. At the table, the sommelier carefully opens the box and places the tea container, scoop, and hourglass on top. Using the scoop, tea leaves are added to the integrated strainer in the teapot. The hourglass marks the steeping time, ensuring the perfect brew.

Once steeping is complete, the strainer is removed and placed back on the box. The concept direction integrates tea with food by reusing tea leaves in dishes, letting guests smell the leaves at the table, or designing a special plate that perfectly fits the teacup to physically connect the food and tea during the experience. The teapot remains on the table, allowing guests to refill their cups or share the tea with others (Figure 40).

Figure 40. Scenario brewing essence.



Four kinds of tea

The user scenario explained how hot brewed tea is prepared, but the concept should facilitate the preparation of four kinds of tea;

Sparkling tea and cold brew - In the same position where the strainer is normally placed on the box, a small cup holding the concentrate is placed. Instead of adding tea leaves to hot water at the dining table, the concentrate is added to sparkling or cold water. While there is no steeping time, the sommelier will still invite guests to smell the dry tea leaves to stimulate their senses.

Iced brew - The tea is brewed in the same way as hot tea, but it is poured over ice cubes in the tea glass to cool it immediately. The ice cubes are transported in a compartment that fits on top of the teapot, with an insulating layer in between to prevent the heat from melting the ice.



Figure 41. Cup design details.

Design details and materialisation

The tea box balances modernity and tradition through its minimalistic yet refined design. The box, crafted from locally sourced wood, exudes warmth and a connection to nature. The box should feel organic and friendly, with simple curves and rounded edges. The design should reflect the purity of the tea, without asking for too much attention. The drawer will be hidden underneath the upper part, to make the appearance of the box more minimalistic and elegant.

Transparent glass is implemented in the base of the teapot and tea cans, to highlight the colours, purity and quality of the tea leaves. The teapot's simple design incorporates subtle cultural references through its form and material combination, bridging the traditional ritual of tea preparation with a contemporary aesthetic. The carved wooden circles symbolise harmony and order.

A more modern design of the glass where the tea will be served balanced the traditional aspect and makes it a better fit within the fine dining context (Figure 41). The tea glass fits within the fine dining context because of its elevated design. The tea will be visible at the same height as wine glasses, to make it seem just as important. The drinking glass will be made from a combination of materials like glass and ceramics or glass and wood. The material combination will make the glass unique and express teas quality.

A mood board has been created to showcase the inspiration for the design details, look and feel, and materialisation of the concept (Figure 42).

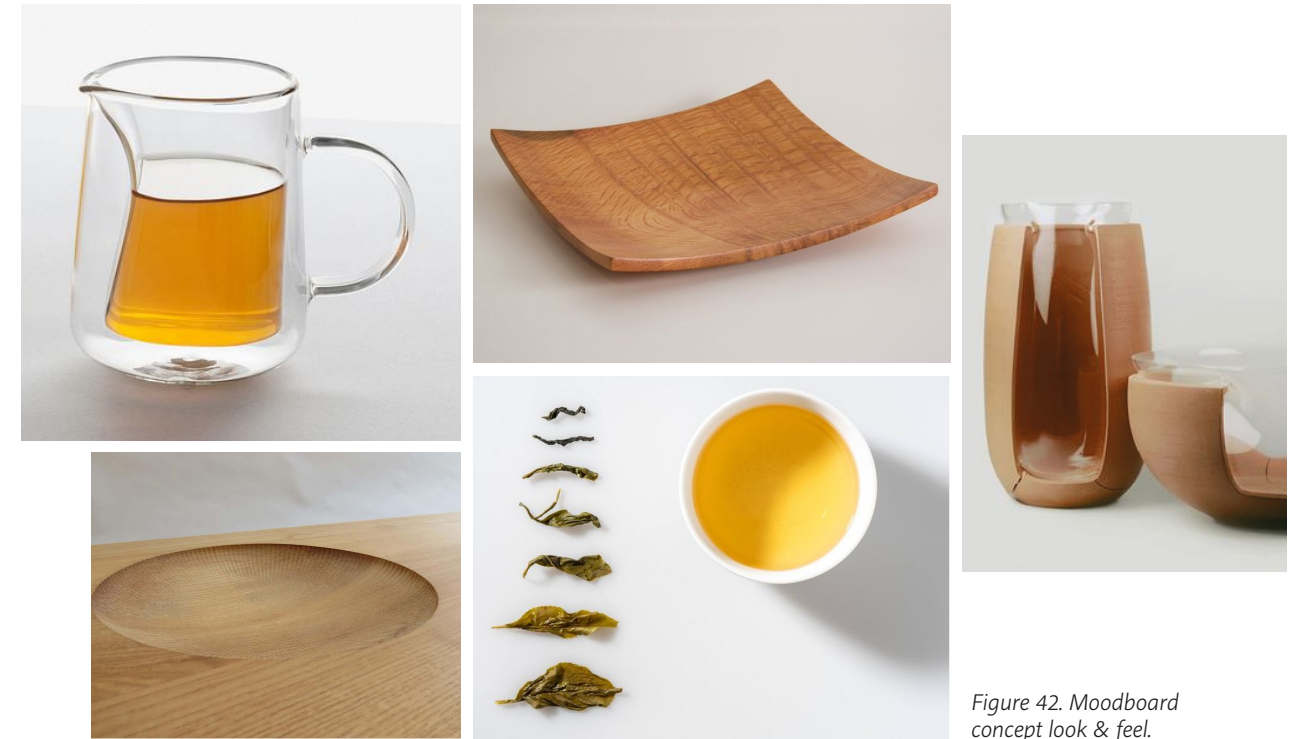


Figure 42. Moodboard concept look & feel.

5.1.2 Concept 2 |
Slow Release

This concept emphasises the calming effect of releasing tea from one compartment to another, combined with the element of surprise offered by an innovative brewing method. It is designed to immerse guests in a tranquil, ritualistic tea-brewing experience, while incorporating a unique process that still requires the precise execution of each brewing step (Figure 43).

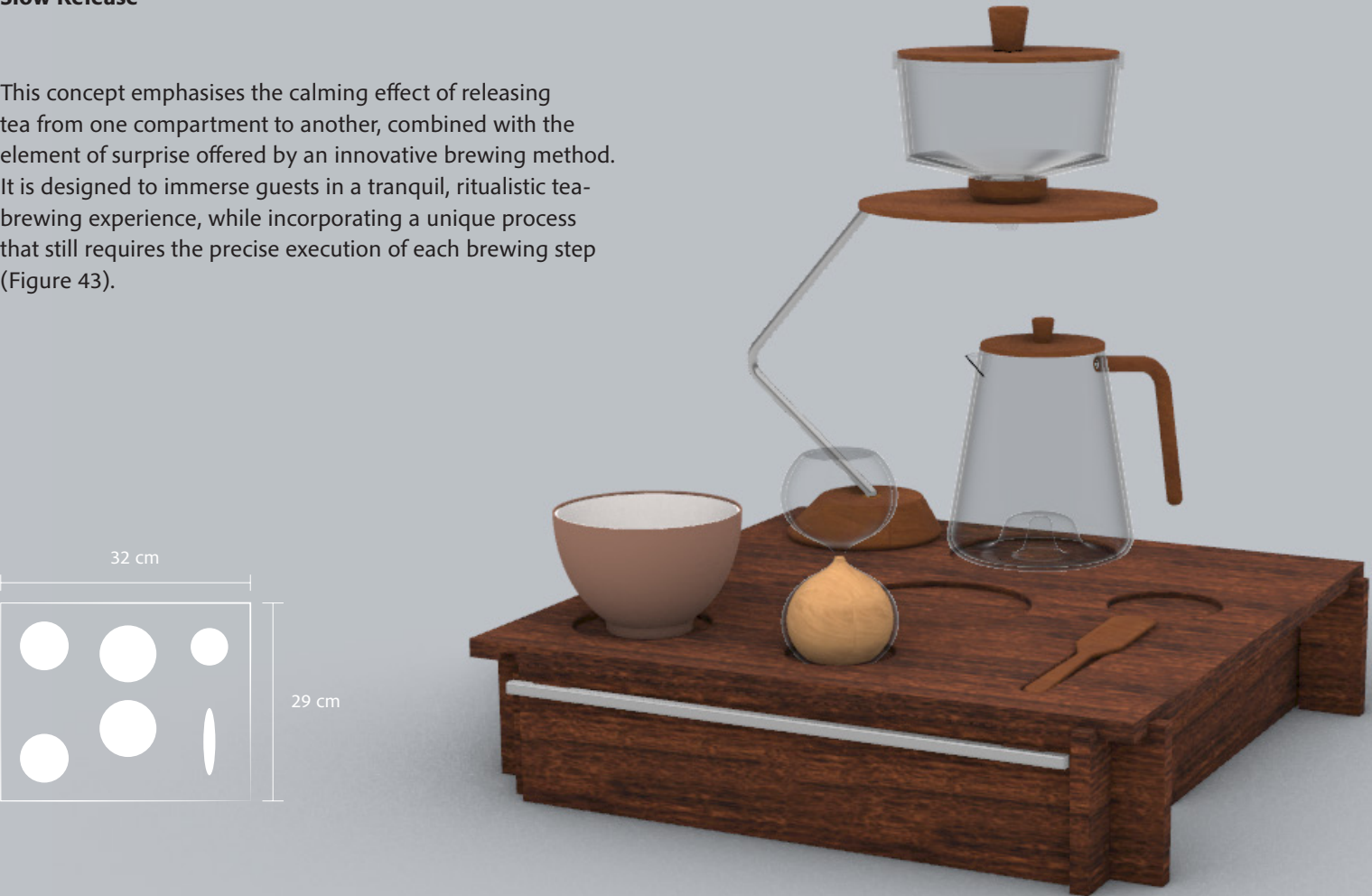


Figure 43. Slow Release.

Functional Aspects

The box features integrated handles designed for the stable and safe transportation of the teaware to the dining table (Figure 44). It carries a teapot which consists of the upper and lower compartments, three glass containers holding different types of tea, an hourglass for indicating steeping time, and a scoop for adding tea leaves to the teapot. The upper compartment is where the tea is added to the water, to brew the tea. The leaves will be visible, and the higher upper compartment will enhance the floating and light aesthetics of the tea leaves 'dancing' in the water. The elements are placed on a tea box, where each component of the teaware can be positioned on a beautifully crafted wooden box, with carved circles ensuring every element fits securely during transport.



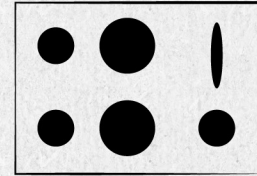
Figure 44. Open Box.

User Scenario

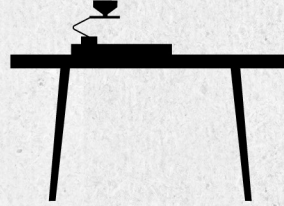
The interaction is centred around the act of tea-making, beginning with preparation in the kitchen and culminating in the slow release of tea at the table. The sommelier fills the teapot with hot water in the kitchen and places it, along with a teacup, on top of the tea box. At the table, the sommelier carefully opens the box and arranges the tea container, scoop, and hourglass on top. A candle is then lit beneath a scent dispenser, where used tea leaves are placed to release a subtle aroma that complements the tea served during the course.

Using the scoop, the sommelier adds tea leaves to the integrated strainer in the teapot. The hourglass marks the steeping time, ensuring the perfect brew. Once steeping is complete, the inner section of the upper compartment is gently lifted, creating an opening through which the tea is released. The tea flows slowly into the lower teapot compartment. As the final step, the sommelier pours the tea into the guests' cups. The teapot remains on the table, allowing diners to share and enjoy the tea with other guests.

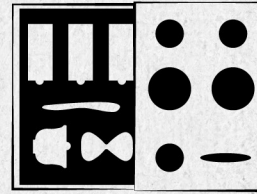
The user scenario is represented on the next page (Figure 45).



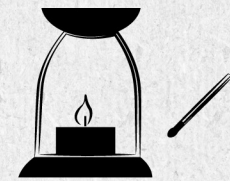
1. Prepare the teabox and (hot) water.



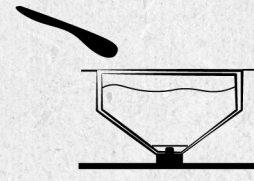
2. Bring the set to the table.



3. Open the box and put the teaware on the plate.



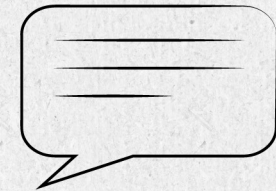
4. Light the candle in the smell dispenser.



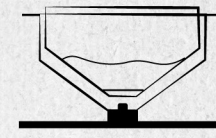
5. Add the tea leaves to the water with the scoop.



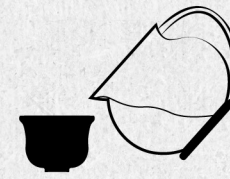
6. Put the timer on.



7. Inform guests, and let them smell the tea.



8. Strain the leaves and release the tea.



9. Pour the tea in the cup

Figure 45. Scenario slow release.

Four kinds of tea

The user scenario and description explain how hot brewed tea is prepared. The concentrate is placed in the upper compartment, where the tea is normally brewed. Instead of adding tea leaves to hot water at the dining table, the concentrate is released in the same way as brewed tea and flows into the teapot, which contains sparkling or cold water. While there is no steeping time, the sommelier still invites guests to smell the dry tea leaves to stimulate their senses.

Iced brew – The tea is brewed in the same way as hot tea, but it is poured over ice cubes in the tea glass to cool it immediately. The ice cubes are transported in a separate pitcher or directly in the cups and can be placed on top of the box.

Design details and materialisation

The teapot and its components strike a balance between modernity and tradition, featuring simple shapes and carefully selected materials. The box, made from locally sourced wood, radiates warmth and a connection to nature. Its design is minimalistic yet refined, with integrated woodworking details inspired by Japanese craftsmanship, reflecting how this new tea culture can seamlessly fit within a fine dining context.

The upper and lower compartments are crafted from transparent glass, showcasing the colour and purity of the tea. The teapot's minimalist design subtly incorporates cultural references through its form and material combination, blending the traditional ritual of tea preparation with a contemporary aesthetic. The carved wooden circles evoke harmony and order (Figure 46).



Figure 46. Cup and box design details.

5.2 Evaluation Test

A successful tea-drinking experience in a fine dining context should integrate seamlessly into the work environment and workflow of the sommelier. The two concepts were evaluated with the intended user to determine their functionality and added value, as well as to identify which concept or elements are most promising for further development in the final design. These aspects have been tested to highlight suggestions for improvement or refinement and to enhance ease of use, in order to create a final design which meets their needs.

The evaluation focuses on answering the following research questions:

- How intuitive does the service feel to perform, and does it function effectively?
- Does it integrate seamlessly into the workflow and context of a fine dining restaurant?
- Would they be inclined to offer this service to guests, and do they believe it enhances the fine dining experience?
- Which concept do they prefer, and why?

The user evaluation was conducted individually with two sommeliers, who both work for different restaurants and had been previously interviewed during the analysis phase. One

sommelier works in a more classic fine dining restaurant, and the other one in a younger and more modern fine dining restaurant.

In the first part of the test, the sommeliers showed how they would perform the service for their guests, by using a prototype. More information on the prototype and how it has been made can be found in Appendix I. They were guided by simple step-by-step instructions provided on a piece of paper.

This approach assessed how intuitive the conduction of the service and interaction with the product felt, and to evaluate whether the service was executed as envisioned. Since there were two concepts to test, each sommelier conducted the service twice. After completing each service, they were interviewed to identify pain points, challenges and opportunities and to gain feedback. After both tests, the concepts were compared in a final interview to gather insights into their preferences. The execution of the service has also been filmed and analyzed.

Images of the prototypes used for the evaluation can be found on the next page (Figure 48).

To balance the modern and innovative method of preparing tea, it will be served in a traditional ceramic cup that reflects the aesthetics and traditions of Eastern cultures. The cups will be handcrafted from locally sourced clay, adding a unique and authentic element to the teaware. The inner surface of the cup will be coated with a white glaze, enhancing the visibility of the tea's colour once poured. The exterior will be finished with

a transparent glaze, showcasing the natural elegance of the clay. The cup will have a thin profile to ensure a comfortable drinking experience and to convey refinement. A mood board has been created to showcase the inspiration for the design details, look and feel, and materialisation of the concept (Figure 47).

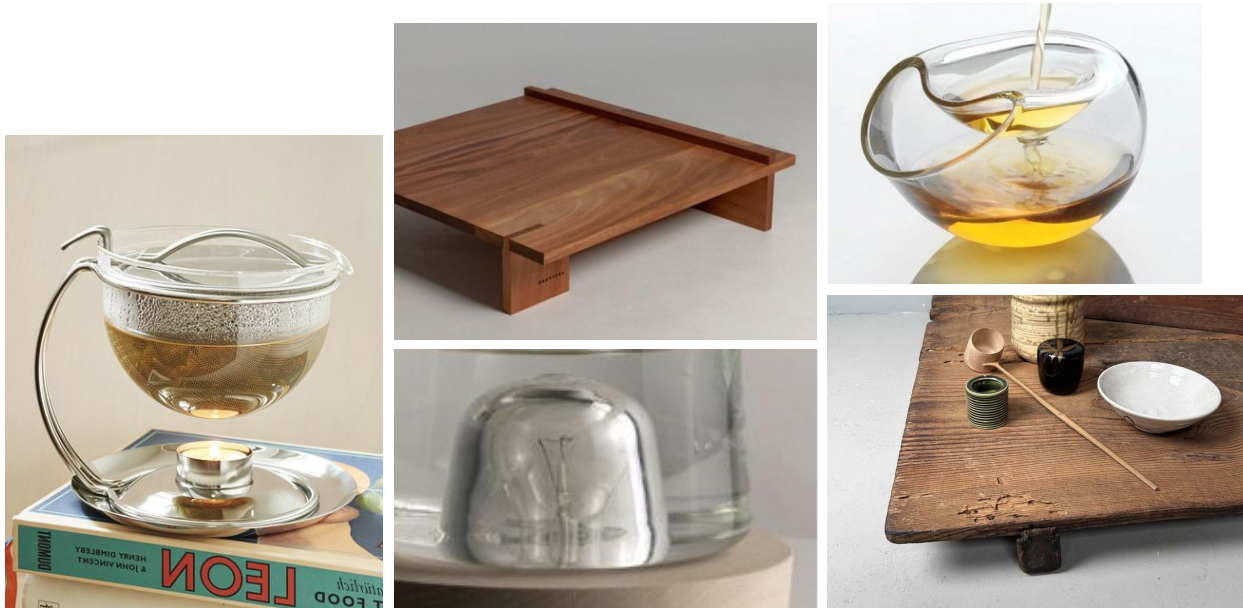
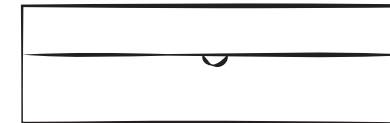


Figure 47. Mood board concept look & feel.



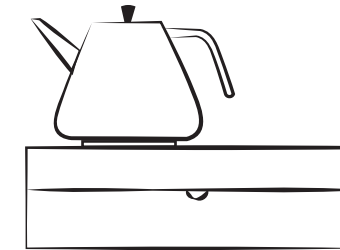
Figure 48. Prototype in restaurant The Grand.



Tea Box

The sommeliers noted that the box used for the tea set was too heavy and occupied too much space on the fine dining tables. This could discourage restaurants from adopting the concept, as storage space is often limited. A more compact and lighter design would be preferred.

Another suggestion was to limit the number of components or reduce the size of the components used in the service. Currently, the tea cans hold about 15-20 grams of tea, which is suitable to make 4-8 servings (depending on the amount and type of tea). By reducing the amount to single-portion containers, less space would be required. The sommeliers indicated that a maximum of 3 kinds of tea leaves would be ideal to have in the tea box.



Pouring water over tea leaves

The sommeliers placed a kettle with hot water on the tea box and brought it to the table, instead of already pouring hot water into the teapot in the kitchen. They mentioned that it is essential to pour the water over the tea leaves, instead of adding leaves to the water. Adding the leaves to the water causes them to float on the surface, which results in a poorer infusion. This feedback indicates the need for a separate compartment to transport hot water to the table, while ensuring it remains the desired temperature for brewing the tea. One of the sommeliers mentioned she sometimes brings a small kettle to the table when she occasionally brews tea at the table, as the kettle maintains the temperature of the water.



Steeping time

Another deviation from the intended service was the duration of the interaction during steeping. The tea needed 2–3 minutes to steep, which was too long for the sommelier to engage the guests, as they had limited time for each service per table. They approximately spend 20–30 seconds talking about the tea while steeping and also explained qualities during other activities. The sommeliers left the table and returned after 2 minutes to strain the tea.

One of the sommeliers mentioned that this could create additional pressure in their workflow, as she needed to return to the table at the right time. The other sommelier mentioned that she didn't really consider this a problem, as she currently experiences this sometimes while preparing tea for guests. She has no problem with asking guests to strain the tea themselves or to come back to do it for them.

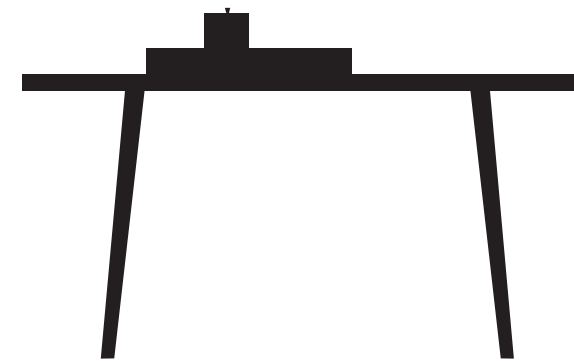
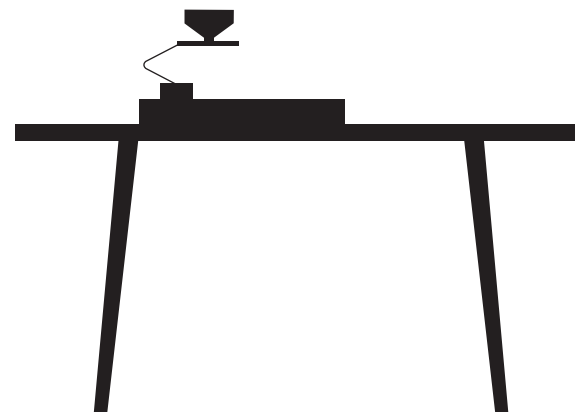
Three potential solutions were discussed with the sommeliers. The first option is to increase the amount of tea leaves, which could reduce the steeping to a maximum of one minute. However, this solution would result in higher costs and greater waste of tea leaves. The second option is to ask guests to strain the tea themselves, by alarming them with a calming sound. However, the experience needs to feel refined and attentive, which is better achieved when the sommelier strains and pours the tea themselves. The third option involves using tea concentrates, which are prepared in advance and will be mixed with hot water at the table to make tea. While this could be a logistically efficient solution, it might detract from the ritualistic and cultural elements of the experience.

The first sommelier expressed her preference would go to the concentrates solution, to avoid having to come back at the table while still being able to conduct the whole service for their guests from beginning to end. It would allow other staff to perform the service as well. The other sommelier sees the benefits, but also mentioned her concerns on the fact it could be too contemporary for the luxurious and refined experience she wants to offer. She finds great value in the traditional aspect of brewing tea, and the attention the brewing steps require. If traditional elements could be incorporated into a concept where tea concentrates would be used, it might become more appealing.

Concept Preference

Regarding their preferences, the first sommelier expressed a strong liking for the slow-release concept, describing it as calming and innovative. She believed it would pleasantly surprise the guests, without being overwhelming. She could also envision using it for tea preparation at the dining table and being visually striking. In her eyes, the other concept was perceived as too simple and similar to methods she had seen before, making it less original and appealing.

The other sommelier expressed more interest in the first concept, as it expressed stronger cultural elements and allowed a more careful and personal interaction with guests while preparing tea. By taking more time for the guests, the service would be perceived as more attentive and valuable in her opinion. Therefore, she found the slow release concept a bit too convenient.



Teaware

The sommeliers both saw some limitations regarding the idea of the smell dispenser. The food has to be the most important element in the fine dining experience, and the smell of tea could overrule the smell of the food. This could have a bad influence on the perceived flavours of the food. Besides that, not all restaurants are allowed to have candles on the table, due to safety and fire regulations. Another idea that the sommeliers were not very enthusiastic about was the integration of a teacup on the dining plate. This would logistically be too hard, as the chefs would need to know who would drink tea in advance, and the cup could get dirty from the food. Therefore, these aspects will not be considered in the concept.

Both sommeliers appreciated the idea of using locally sourced clay for certain elements of the tea ware. They were also intrigued by the possibility of incorporating multiple materials for the drinking cups, such as wood and glass or glass and ceramics, to create a unique aesthetic. They were enthusiastic about the idea of offering refills at the dining table or enabling guests to share tea with others at the table, to add a communal element to the experience.



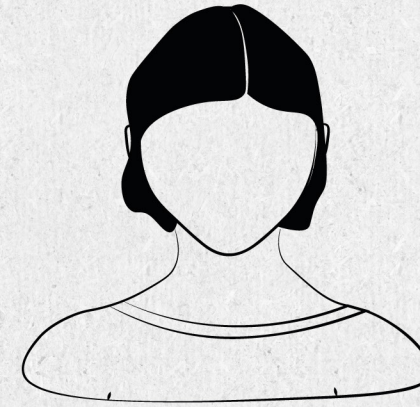
Visual Presentation

During the observation, several opportunities to improve the visual presentation of the concept were identified. The teapot used for one concept had a glass lid, which allowed light to shine through. The tea leaves were significantly more visible than they were with the concept that had used a wooden lid. Additionally, the strainer used in the first concept reduced the visual appeal of the tea leaves compared to the teapot where the leaves floated freely before being strained. Based on these observations, incorporating a glass lid and avoiding the use of a visible strainer would enhance the aesthetics of the experience.

Conclusion

The sommeliers work for a different kind of restaurant, which results in a variation of needs and a different concept preference. A comparison between both sommeliers is represented in Figure 49. All the pain points have been analyzed, which resulted in needs that both sommeliers share, and which highlight the difference between the sommeliers. This has been summarized in a visual, which can be found in Appendix J.

Figure 49. Comparison two sommeliers.

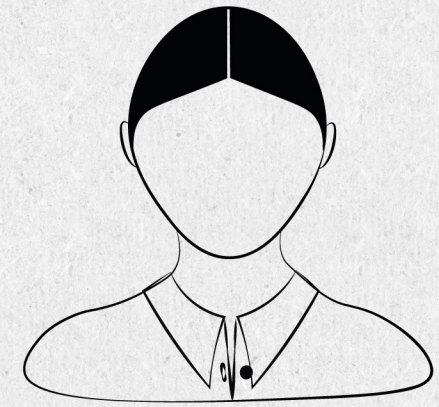


SOMMELIER 1

- Works for a trendy fine dining restaurant, which attracts a younger audience
- Aims to surprise her guests and values convenience

Concept Preference | SLOW RELEASE

- Calming, aesthetic and innovative
- A new way of brewing tea, which draws the attention



SOMMELIER 2

- Works for a classic fine dining restaurant, which attracts an older audience
- Aims to connect with her guests, by brewing tea in a traditional way

Concept Preference | BREWING ESSENCE

- Evokes genuine connection, connection to the origin of tea culture
- Brewing tea most important element of the service.

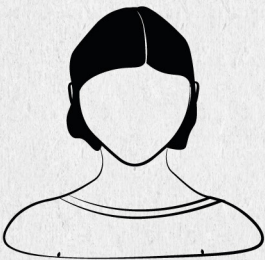
5.3 Concepts Choice

A decision must be made regarding the type of fine dining restaurant the concept will target. As Sommelier 1 works at a trendy restaurant which attracts a younger audience, this concept is more likely to appeal to Zillennials. The focus has been placed on addressing her needs in the final design (Figure 50). To ensure the sommelier can conduct the entire service without requiring action from guests or having to come back to the table, the decision was made to work with tea concentrates in the final design. This also eliminates the need to bring a separate water container or kettle to the dining table.

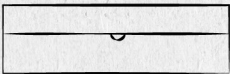
Research insights (see Chapters 2.2.2 and 2.2.3) revealed that Zillennials value being surprised and want to connect with other cultures through food, but it should not overpower the dining experience. Therefore, the aesthetic, calming effect and modern approach of brewing tea through the ‘Slow Release’ concept will serve as a foundation for the final design, to offer a surprising element in the experience.

The concept ‘Brewing Essence’ facilitates a genuine interaction between the sommelier and guests, while also expressing strong cultural references. This creates an authentic experience and fosters a connection to other cultures. The aim is to integrate these elements into the final design as well, to ensure the concept feels meaningful and resonates with the target group.

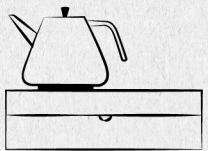
Figure 50. Needs
Sommelier 1.



SOMMELIER 1



The box is too big
and heavy



The bring a kettle
to the table



Too much time to
inform guests

- Reduce the amount of components
- Reduce the size and weight of the box
- Separate water container or kettle, to bring water to the table
- Retain water temperature
- Avoid having to come back to finish service
- Perform entire service, without requiring action of guests

Key Takeways

Concepts Overview

- 1. Brewing Essence:**
 - Ritualistic tea preparation, focused on simple steps to connect with guests.
 - Prioritises cultural expression and personal interaction.
- 2. Slow Release:**
 - Emphasises a calming, innovative brewing process with upper and lower teapot compartments to showcase floating tea leaves.
 - Focuses on serenity and visual appeal.

Evaluation Findings

Sommeliers preferred different concepts based on their restaurant style and target audience.

- **Sommelier 1:** Preferred Slow Release for its calming and innovative qualities, aligning with younger, trendy restaurant settings.
- **Sommelier 2:** Favoured Brewing Essence for its cultural richness and personal interaction, aligning with more traditional fine dining.

Shared Feedback

- The tea box needs to be lighter and more compact.
- Incorporate a method for transporting hot water separately, as pouring over tea leaves is essential for proper infusion.
- Steeping time needs adjustment to avoid workflow disruption; possible solutions include tea concentrates or asking for guest engagement.

Chosen concept

Slow Release has been chosen for its alignment with Zillennial preferences for surprise, innovation, and a calming experience. Elements of Brewing Essence will be integrated in the final design as well, to ensure the concept is meaningful to the target group.



06.

*DELIVERING
PHASE*

The concept is designed to attract Zillennials and is therefore based on the requirements of Sommelier 1, as described in Chapter 4.9. This sommelier aims to surprise guests with a calming and innovative tea-brewing experience and values convenience. She preferred not to actively involve guests in the experience, except for allowing them to smell the leaves and taste the tea at the end. Consequently, this concept makes use of tea concentrates to prepare the tea at the dining table for the guests. A modern method of brewing tea has been combined with traditional elements.

This chapter is structured into the following sub-chapters:

6.1 Final Concept Design

6.2 Prototype

6.3 Second Evaluation



Figure 51. Final design.

DELIVERING PHASE

6.1 Final Concept Design

This final design is created by considering all the requirements that have been used as a base for the concept directions and holistic concepts, while also considering the following;

- The teaware should **express** a sense of **uniqueness**
- The tea experience should **attract Zillennials**

Concept Explanation

The tea is prepared with a tea concentrate, which is added to water at the dining table by the sommelier. The concentrate is held in a small and transparent gaiwan, which maintains a connection to Eastern cultures and showcases the tea leaves. Floating elegantly within the gaiwan, the leaves highlight the tea's purity and freshness. The lid of the gaiwan strains the leaves while the concentrate is poured into the teapot (Figure 51).

The preparation process is visually striking, as the intense colours of the concentrate are highlighted while it slowly drips through an integrated funnel into the teapot. This gradual infusion causes the water's colour to change, which adds an aesthetic element to the experience (Figure 52).



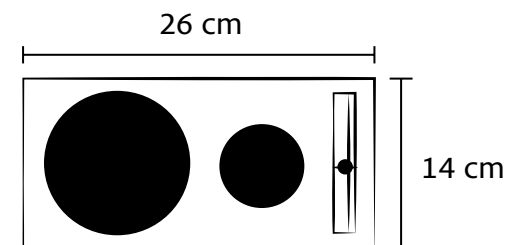
Figure 52. Adding concentrate to water.



Figure 53. Overview teaware.

All the elements are represented in figure 53. Tea concentrates make it simple to brew tea at the dining table and allow the sommelier to engage genuinely with the guests. A thin drawer underneath the tray can be pulled out, where elegant containers with dry tea leaves are stored. The sommelier can ask guests if they want to smell the tea leaves and show them the freshness and quality of the leaves. When the tea has been served to the guests, the teapot is placed on a plate already present on the dining table. An integrated light will enhance the ambience, draw attention from other guests, and highlight the colours of the tea in the teapot.

The sommelier's movements are slow and precise, fostering a mindful moment within the fine dining experience. Guests can relax and enjoy the preparation without needing to participate actively. Their senses will be subtly stimulated to avoid overstimulation, maintaining a serene ambience that reflects the quality of the tea.



Changing perception of guests

This tea experience is designed to transform how diners perceive tea and make it a refined and sensory-rich part of fine dining. Every element of the experience has been carefully designed to highlight the quality and serenity of the tea, while keeping the main focus on the food.

The visual presentation plays a key role in the experience. The robust wooden tray with the stainless steel details is a visually dominant aspect of the design, which should express refinement, while still having a connection to nature and conveying a sense of authenticity. The colour of the tea is visible through the transparent glass, making guests aware of the different kinds of tea that are served during the dining experience. The concentrate slowly drips into the teapot and is consumed from small cups, which brings a serene and mindful ambience to the table.

The interaction between the sommelier and guests is another central element. The sommelier's precise, careful movements and their explanation of the tea could evoke a genuine connection with the guests and deepen their appreciation of tea. By sharing its origin, flavours, and pairing rationale through storytelling, the sommelier highlights the tea as a premium product. This interaction should make tea feel special and worth its value.

Guests are invited to smell the tea leaves, providing an opportunity to appreciate their aroma and understand the craftsmanship behind the tea. The cups slightly bend inwards at the top, which ensures the aroma of the tea is clear when drinking from the cup. A handwritten letter is given at the end of the experience, which contains information about the kind of tea they consumed. This gives the experience a personal touch, providing guests with a physical memory to take home. This letter not only allows diners to revisit the experience but also serves as a conversation starter and a subtle way to promote the tea pairing to others.

By incorporating these elements, the concept allows diners to rediscover tea as a sophisticated and meaningful complement to their dining experience. It is no longer just a drink but a ritual that enhances the meal and leaves a lasting impression.

Figure 54. Tea Concentrates.
Source: <https://www.foodies-magazine.nl>



Concentrates

The tea concentrates method was invented by tea sommelier Mariëlla Erkens, who was interviewed during the analysis phase. The method involves preparing a tea concentrate by adding a large amount of tea leaves to cold water and storing it in the fridge for 24 hours (Figure 54). The concentrate can be used similarly to a syrup; an amount of it can be added to hot, cold, or sparkling water to make various kinds of tea. The process of preparing the tea concentrates is illustrated in Figure 55.

This principle is inspired by the Chinese method of preparing tea, which is brewed with a relatively high concentration of tea leaves to highlight its delicate flavours and aromas. It is also inspired by the Turkish approach, where tea is steeped in a teapot throughout the day to create a strongly flavoured brew, which is diluted with hot water when served. The concentrate prepared using Mariëlla’s method however uses cold water. Due to the cold water, the bitter flavours are not released, and the sweet flavours of the tea are enhanced. This results in a tea of even higher quality than that prepared traditionally with hot water.



Figure X.
Process of preparing concentrate.

The tea concentrate would be prepared in small bottles of 70 ml, which is the exact amount needed to prepare 200 ml of tea (the quantity that will be served during the experience). To make 70 ml of concentrate, 3 grams of tea leaves should be added to cold (filtered) water. The amount of tea leaves should be measured in advance. When a tea pairing is ordered, one bottle of concentrate can be poured into the glass gaiwan, and 130 ml of the desired type of water can be added to the teapot in the kitchen (Figure 56).

The restaurant where Mariëlla Erkens works as a sommelier has tried using the concentrate and found it highly beneficial. The preparation makes the performance of the experience effortless and makes it easy to integrate into the workflow of the sommeliers. Because the preparation of the tea is easier to conduct than preparing (hot) tea in a traditional way, the concept has the potential to be served to more guests as waiters who have no experience in making tea can still perform the experience. They only would need to know the basic information about the tea to tell the guests, to make the experience feel refined. This way, the concept doesn't depend on the sommeliers and can be easily adopted by different restaurants.

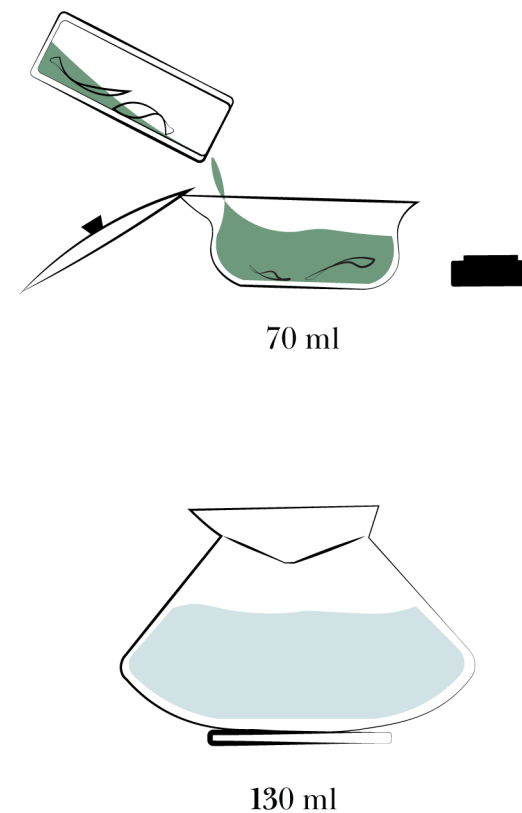


Figure 56. Capacity gaiwan and teapot.

Design details and materialisation

The tea concentrate method is relatively new, and not many restaurants are familiar with it yet. Designing the experience around the use of the concentrates will offer significant advantages to the restaurant. However, the convenience of the method could also compromise the refined and sophisticated feel of the experience. Special attention should be given to the design of the teaware, the materials chosen for the elements, their presentation, and the overall interaction. An overview of how these elements can be manufactured and made can be found in Appendix K.

The wooden tray forms the base of the design (Figure 57 and 58). Compared to the box used during the first evaluation test, the tray is less than half the size. This makes it easier to fit on the table and lighter to transport. Handles are integrated into the sides of the tray. It is made from unprocessed, rough wood to create a direct connection to nature and evoke an old, authentic feel. All the produced trays will look slightly different. The upper part of the tray features carved circles, designed to hold all the elements securely. The carved wooden circles symbolise harmony and order. They are covered with a stainless steel plate, which adds a refined touch and prevents water from staining the wood in case of tea spillage.



Figure 57 and 58. Tray design.

Figure 59 and 60.
Drawer with cans.



Three small cans containing dry tea leaves can be stored underneath the tray (Figure 59 and 60). A wooden frame holds a glass plate, which forms the drawer. The drawer consists of a flat surface with tea cans suspended from it, which makes it easy to grab them. The glass makes the attention go to the tea leaves, and makes the cans seem like they are floating in the air. This represents the purity and freshness of the tea. This design also reduces the tray's overall weight. The tins are made from glass, including the lids. The lid has an elegant stainless steel knob. Glass doesn't affect the aroma of the tea leaves and prevents the scent from dissipating, which makes it an ideal material for this purpose.



The teapot is made from borosilicate glass, which is highly heat-resistant. The gaiwan is also made from glass to emphasise the colours, purity, and quality of the tea leaves and concentrate. The teapot's minimalist design is inspired by an analysis of teapots from Eastern cultures and incorporates subtle cultural references in its form (Figure 61). It features an integrated funnel with a small hole, which allows the concentrate to drip into the water in a serene and calming manner. The funnel is removable for easy cleaning and quick filling of the teapot with water. The teapot also has an ergonomic and elegant handle for effortless pouring into the cups.



Figure 61. Teapot
and Gaiwan

To keep the tea warm after preparation, the lid of the gaiwan can be placed on top. When the tea has been served to the guests, the teapot is placed on a ceramic plate, which is already positioned on the dining table (Figure 62). The plate has an integrated light, which illuminates the teapot at the table. The light will shine through a structured plate of glass, which will create a unique effect of the light passing through. This creates an enhanced ambience, draws attention from other guests, and highlights the colours of the tea in the teapot. A mood board has been created to give an impression of the visual feeling of the plate (Figure 63).



Figure 62. Plate design.



Figure 63. Mood board plate.

The tea will be served in small, handcrafted cups made from locally sourced clay in the Netherlands. Created by local artists, the cups aim to feel unique, refined, and authentic. They will seamlessly fit the fine dining context while having their own distinct presence on the table, ensuring tea is taken as seriously as wine. The design draws inspiration from Eastern teaware and aesthetics, combined with a modern, local twist.

The exterior will have a natural coating, highlighting the clay's original colour and slightly unrefined texture to showcase craftsmanship and authenticity. The interior will feature a white glaze to enhance the tea's colour. Thin walls will ensure the cups are comfortable to drink from and maintain a refined appearance.

The design is inspired by the Japanese principles of 'wabi-sabi', which embrace the beauty of imperfections and authentic, aged objects. Furthermore, the cups will hold 100 ml, encouraging mindful consumption of the tea. This idea is derived from Chinese tea culture, where tea is also enjoyed in small cups.

The cups represented in Figure 64 were made by Rotterdam-based artist Rink Schelling. Most of her work is created using locally sourced clay, which she collects from nature herself. The cups shown in the figure were specially made for this project and are crafted from clay sourced from Rotterdam and The Hague.

Figure 64. Cup, made by Rink Schelling.





The final element of the teaware is a letter, handwritten by the sommelier, which includes information about the tea that has been served, its origin and the flavour combination with the food (Figure 65 and 66). This element will give the experience a personal touch. The letter will be written in calligraphy and have a special stamp with the restaurant's logo on top of it. It will be given to guests after the tea is poured into their cups. Guests can take the letter home as a physical memory of the experience and to remember which tea they enjoyed. This element also serves as an effortless way to introduce the tea experience to a wider audience.

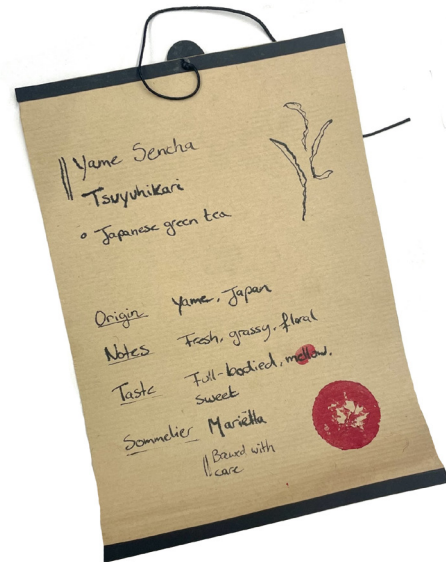


Figure 66.
Letter inside.

Attracting Zillennials

This tea concept is tailored to resonate with Zillennials by addressing their core values and desires through a mindful, sophisticated and ritualistic experience. The storytelling element provided by the sommelier creates a meaningful connection, offering guests an insight into the origin and pairing of the tea, which aligns with their desire for purpose, for genuine engagement and cultural exploration.

The multi-sensory nature of the tea experience meets Zillennials' need for conscious stimulation. The visual appeal of the tea's vibrant colours, the aroma of the tea leaves, and the tactile elegance of the teaware create a calming and immersive experience. The slow, graceful preparation process encourages mindfulness, allowing guests to pause and reconnect with the moment, which is an essential aspect of their pursuit of balance and well-being.

While designed with Zillennials in mind, the tea pairing concept should resonate across all generations and not exclude them. How the experience could resonate with other generations has been explained in Appendix L.

User Scenario

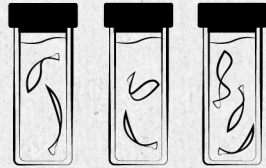
The scenario has been visualised on the next page (Figure 67). First, the sommelier fills the teapot with water in the kitchen and pours the concentrate into the gaiwan. All the elements are arranged on a tray, with carved circles ensuring they fit perfectly. A handwritten letter contains information about the specific tea, which is also placed on the tray. At the table, the concentrate is carefully strained as it is poured into the teapot through the integrated funnel.

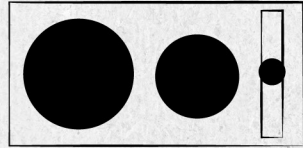
While the concentrate slowly drips into the water, the sommelier pulls out the drawer beneath the tray and retrieves one of the cans containing fresh tea leaves. These are presented to the guests so they can smell the aroma and observe the quality of the leaves. The sommelier then explains the type of tea, its origin, and how its flavours complement the food. Next, the tea is poured into cups, and the teapot is placed on a specially designed plate with an integrated light that illuminates the pot.

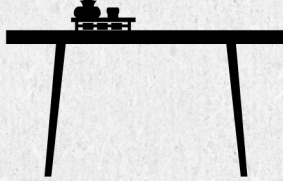
The teapot remains on the table, enabling guests to refill their cups or share the tea with others. The information card is handed to the guests, allowing them to revisit the details or take it home as a keepsake to remember the tea they enjoyed.

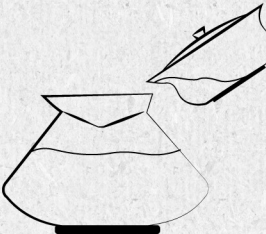
Figure 65. Letter
on the tray.

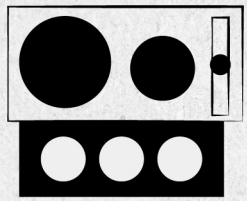
Figure 67. Scenario final concept.


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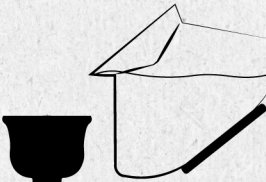
1. Prepare the concentrates.
- 

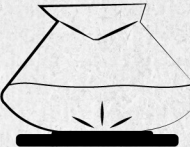
2. Prepare the tray and (hot) water.
- 

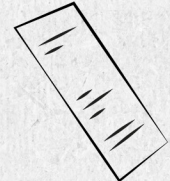
3. Bring the set to the table.
- 

4. Strain the concentrate and add it to the water.
- 

5. Pull the drawer and let guests smell the tea leaves.
- 

6. Inform guests, and talk about the tea.
- 

7. Pour the tea into the cup.
- 

8. Put the teapot on the base and to light it up.
- 

9. Give guest the informative letter.

Four kinds of tea

In the defining phase, four types of tea were selected to be able to be prepared with the design of the concept; a hot brew, cold brew, iced brew, and sparkling tea (Figure 68). The tea concentrates make it effortless to serve these different types of tea, as the concentrate can be added to water at different temperatures, similar to syrup.

Sparkling tea, cold brew, and hot brew are prepared by adding the concentrate to carbonated water, cold water, or hot water, respectively. The iced brew is prepared by adding hot water to the concentrate and then pouring it over ice cubes in the cup. The ice cubes will already be placed inside the cups when brought to the table on the tray.

Timing and groups of people

The preparation of tea at the dining table can be adjusted based on the sommelier's time. If time is limited, they may skip steps like using the funnel or letting guests smell the dry tea leaves. As tea pairings are not yet widely adopted, they are typically ordered by one to three guests per table. For larger groups, the sommelier can suggest preparing a larger quantity. In such cases, a bigger teapot, holding double the amount of tea, can be used, brewed with two bottles of concentrate. Testing the concept in context will determine if a larger teapot is needed and if the suggested adjustments to the preparation process meet the needs of both sommeliers and guests.



Hot Brew
Water 80-100 degrees.

Sparkling
Cold and carbonated water.



Cold Brew
Water 10-12 degrees.

Iced Brew
Hot brew + ice cubes.



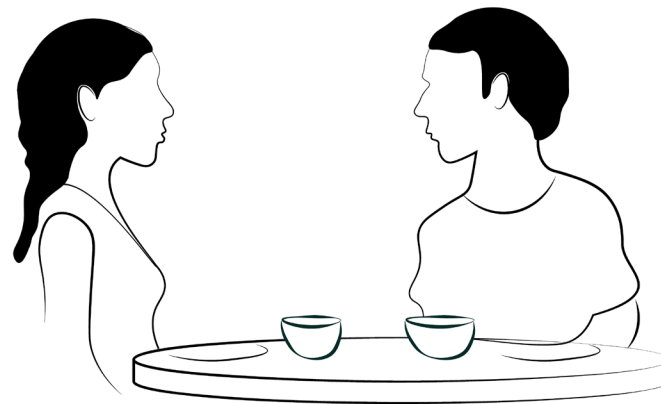
Figure 68. Four ways to prepare tea.

Sharing

Sharing tea can be a powerful way to change people's perspectives regarding tea and introduce more people to the experience. Some guests may be the first to try it, while others discover it through their companions. Each teapot serves 300 ml of tea, made with 100 ml of concentrate and 200 ml of water, and comes with two 100 ml cups on the tray. These smaller portions encourage guests to share and consume the tea mindfully, which could foster moments of discovery and conversation together. This was an aspect highlighted during interviews with passionate fine diners, who miss having something to discuss when not consuming alcohol, like people do with wine.

A single teapot contains an ideal amount of tea for one guest or two guests, depending on how much they like to consume. If more guests wish to try the tea or if they particularly enjoy it, another pot can easily be ordered. The concentrate ensures quick and consistent preparation at the table, allowing for seamless refills during the dining experience. By selling the concentrate portion, the focus remains on the quality and uniqueness of the tea. It also allows each cup to be consistently flavourful and refined.

This sharing concept enhances the social dynamic at the dining table and allows guests to explore and enjoy tea together. The presence of multiple cups on the table adds a sense of abundance and harmony, while the convenient preparation of the concentrate ensures the experience stays effortless and elegant. For restaurants that aim to sell more tea because they are concerned about the commercial viability of the sharing principle, an alternative strategy could involve serving just one cup with the tea pairing. This would create an experience that focuses more on individual enjoyment.



Sustainability

As the concept is designed for Zillennials, who are environmentally conscious and highly value sustainability, it is essential to consider how the experience can minimise its impact while still creating a meaningful and memorable dining experience. Some elements of the teaware are locally produced with great care and attention. This artisan approach supports local economies and reduces the overall carbon footprint of the concept. The materials chosen for the tea pairing experience balance sustainability with durability, ensuring minimal environmental impact while enhancing the dining ritual;

Glass

This material is infinitely recyclable, making it highly sustainable. For effective recycling, the glass must be cleaned and separated from other materials. The glass elements are designed for easy recycling, with only the wooden knob press-fitted to the lid, allowing simple disassembly with light pressure.

Clay

The cups are made from locally sourced clay, which is biodegradable in its natural state and aligns with eco-conscious practices. The glaze used inside the cups is free from harmful chemicals, to maintain recyclability or safe disposal in nature.

Wood

High-quality, untreated oak wood is used for elements like lids, reflecting a natural and renewable choice. To ensure sustainability, the wood must come from responsibly managed forests. Wooden components are biodegradable and can be repurposed or composted if needed.

Stainless Steel

Stainless steel is durable, resistant to damage, and fully recyclable. The stainless steel plates in the tray are removable and extend the lifespan of the wood by protecting it from water stains.

Figure 69. Quality of tea leaves (free stock).



While the concept introduces more physical components compared to a single bottle of wine, for example, it can be perceived as more sustainable. Preparing different kinds of tea with concentrates eliminates the need for excessive packaging or transportation of bottles from other countries. while still expressing quality (Figure 69).

The use of tea concentrates also supports sustainability by offering precise portion control. Each serving is designed to provide just the right amount of tea, reducing the risk of over-preparation and waste. Additionally, used tea leaves can be reused in dishes, such as desserts or savoury infusions, creating a circular approach that integrates tea across the dining experience. This practice not only reduces waste but also adds an innovative touch to the menu and aligns with current fine dining trends.

DELIVERING PHASE

6.2 Prototype

A final prototype was created to gather essential feedback on user interaction, ease of use, and workflow integration from a sommelier, as well as impressions and changes in perception from guests after the experience. The prototype needed to be both functional and aesthetically representative to allow for a realistic evaluation of how the concept would perform in its intended environment and to gather valuable insights for final design improvements.

The prototype was produced using various prototyping techniques, including 3D printing, vacuum forming, wood milling, woodworking, welding, linoprinting, and clay modeling. Wooden elements were successfully integrated into the design as envisioned, while glass elements were replaced with plastic to replicate aesthetic qualities as accurately as possible. Metal details were crafted using stainless steel or painted with chrome spray paint to achieve a similar appearance. The cups were handmade by a ceramic artist in Rotterdam. The final prototype is shown in Figure 70.



Figure 70. Prototype in context.

6.3 Second Evaluation

A prototype of the final design was tested within two fine dining contexts to evaluate its functionality and to gather feedback. Two sommeliers were asked to interact with the prototype and perform the service for guests.

One sommelier had been asked to evaluate the two concepts during the first evaluation test, where the choice was made to design the final concept for her needs (see Chapter 5.2 - 5.3). She works at a vegan fine dining restaurant in Amsterdam that attracts a younger audience. Testing the concept in this restaurant provided valuable insights into how it fits within the workflow and environment of restaurants that aim to attract the intended users.

The second sommelier, interviewed during the understanding phase, works at De Librije, a three-star Michelin restaurant in Zwolle. Testing the concept in this setting helped validate the refinement and sophistication of the design, as acceptance in such a prestigious environment would highlight the quality and potential of the final concept.

Evaluation Test

To begin with, the sommeliers received a brief description of the prototype and its components, followed by a paper outlining the steps for conducting the service. They were then asked to perform the service using the prototype (Figure 71). Afterwards, the sommeliers were interviewed to evaluate the design and provide feedback. Examples of questions asked after the evaluation include:

- How intuitive does it feel to perform this service?
- Are there specific challenges you foresee in integrating this concept?
- Do you see yourself working with these products and offering this service?
- Do you think this concept fits the restaurant where you work?



Figure 71. Sommelier testing the prototype.

The second part of the evaluation involved guests representing the target group. They experienced the tea pairing service in the restaurant at a dining table, where snacks were used instead of full dishes to simplify the process while demonstrating tea's impact on food pairing. After the experience, both the guests and sommeliers were interviewed separately to gather insights into their interactions and overall impressions of the final concept. The steps that were listed to conduct the service can be found in Appendix M. Questions asked to the guests after the evaluation include:

- Has this experience changed your perception of tea? If so, how?
- What did you think of the presentation and the attention given to the tea?
- Would you recommend this experience to others?
- Did you find the sommelier's explanation and interaction valuable?

Main insights sommeliers

The final concept was well received by both sommeliers. Both sommeliers indicated that it aligns with the desired expression of the restaurants and that the concept has strong potential for implementation. Both sommeliers were curious about how the concept would perform during peak hours and whether the service would become too time-intensive. After highlighting the flexibility of the concept and the possibility of adapting the service based on time constraints, they envisioned it as adding significant value.

The sommelier from Bonboon in Amsterdam appreciated the integration of her idea to work with concentrates in the final design. She was impressed by how the concept created a new tea culture that emphasizes quality and care while maintaining an authentic feel which makes the concept new in an accessible way. Although she noted that the steps of the service required some initial thought, she believed the process would become intuitive over time. She values the interactive element of sharing tea, and the ambient lighting under the teapot which would add warmth and draw attention to the table.

Her feedback suggested labelling the cans with concentrate to clarify which tea they contain and when it was prepared. She also proposed preparing slightly more concentrate than required, to allow guests to adjust the tea's flavour to their preferences. Reflecting on the concept's potential;

"I think it shows the luxurious side of tea. The concept represents a beautiful fusion of Western and Eastern cultures through the design, functional aspects, and combination of materials."

The sommelier from De Librije particularly appreciates the use of tea concentrate to reduce bitterness, ensure consistent quality, and simplify timing with dishes. He felt the refined presentation of the teaware was perfectly suited for their high-end setting and could elevate tea to a more luxurious status:

"It shows guests that thought has been put into it and provides consistent quality. The presentation looks polished and luxurious. We would love to show it to our guests this way."

The sommelier also valued the focus on a younger target group, as he mentioned they start to attract younger people who are open to discovering new things. With his feedback, he raised some concerns about scalability and mentioned the desire for different sizes of teapots. Additionally, he noted the importance of testing whether Dutch guests would be willing to pay for a small cup of tea:

"The small cup is interesting, and I understand the reasoning, but will people in the Netherlands be willing to pay enough for a small cup of tea?"

Furthermore, both sommeliers recommended replacing the handwritten note in the concept with a printed card. They liked the idea, but were worried about the looks of it when someone wouldn't write it neatly.

Main insights guests

The guests mentioned they were positively surprised by the experience. They appreciated that the tea could be drunk immediately, as it is usually necessary to wait quite a while for tea to cool down. The interaction with the sommelier added significant value, making the experience engaging and giving them a sense of discovery;

"The guidance from the sommelier makes it very valuable and a personal experience without being overbearing."

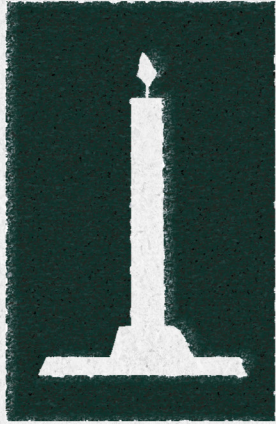
One guest expressed her enthusiasm for the idea of drinking tea with food, particularly after experiencing it firsthand. She noted that during periods when she chooses to drink less alcohol, she often misses having a good alternative to wine and tends to drink wine in restaurants even when she would

prefer not to. She remarked that this experience offered a completely different way of drinking tea compared to what she is used to at home. Both guests even mentioned that they might start consuming tea differently at home because of the concept. The other guests also particularly liked the illuminated base plate and the teaware presented on the wooden tray, which added to the atmosphere. The personal note was interesting to receive and gave a special touch to the experience. But one of the guests mentioned that a printed note could have had the same effect, and maybe would reduce some of the work for the sommelier.

Furhtermore, they were uncertain about the design of the teacup. The unfinished exterior made it less appealing to drink from, as it felt too robust and textured, which was not very comfortable. They suggested that drinking from a wine glass might create a more refined experience, comparable to drinking wine.

Conclusion

The concept successfully blends authenticity and modernity, delivering a luxurious and meaningful tea experience that adapts well to various restaurant contexts. Both sommeliers recognized its strong potential but emphasized the need for practical refinements and further testing to ensure smooth implementation. Guests appreciated the concept as a unique and valuable addition to the dining experience, providing a refined alternative to wine and fostering a memorable, personal connection through the sommelier's guidance.



07.

DISCUSSION

This part of the thesis report discusses the project outcome. It includes a final conclusion with limitations, recommendations for future work, and a personal reflection on my process during this thesis project.

This chapter is structured with the following sub-chapters:

7.1 Final Conclusion

7.2 Recommendations

7.3 Personal Reflection

7.1 Final Conclusion

The Goal

The goal of this project was to design an experience for pairing tea with food in fine dining restaurants, to provide people with a refined, alcohol-free alternative to wine. Tea’s ability to enhance or complement the flavours of food, along with its rich history and cultural background, can add a sophisticated element to the gastronomic experience while offering a healthy, light, and refreshing beverage to accompany a dish.

However, in the Netherlands, tea is often associated with sipping a hot beverage from a cosy mug on the couch, with a (fruity) teabag hanging in it; an image that doesn’t align with the fine dining context. Therefore, this project focused on changing people’s perception of tea through a specially designed experience. This experience is intended to bridge modern and culturally authentic elements, to create a new tea culture that adds meaning and depth by incorporating aspects of tea’s origins.

A tea sommelier would select the types of tea to pair with dishes through close collaboration with the chef and carefully prepare the tea at the dining table for each guest. To ensure a genuine connection with guests and to avoid overshadowing the food, the tea preparation process should be effortless, while still paying attention to detail and maintaining a refined touch.

Value of the Concept

This tea concept is tailored to resonate with Zillennials (ages 24–34), which is a sub-generation shaping the near-future fine dining market and consuming less alcohol than older generations. The tea is brewed with a tea concentrate, which will be added to any kind of water at the dining table. This enables the sommelier to prepare tea in advance and ensures convenient service, while still delivering a refined and meaningful experience to guests.

The vibrant colours of the tea, delicate aromas, and natural materials in the teaware create an immersive and calming experience. The storytelling element offered by the sommelier fosters a deeper connection with the guests and offers them an insight into the tea’s origin and flavour combinations. This aligns Zillennials desire for purpose, genuine engagement, and cultural exploration, and could make tea a key element of fine dining.

Sharing tea can be a powerful way to change people’s perspectives regarding tea and could make more people curious to try the experience. This could enhance the social dynamic at the dining table and allow guests to explore and enjoy tea together. The presence of multiple cups on the table adds a sense of abundance and harmony. The slow and intentional preparation process invites mindfulness and being in the moment.

Limitations of the Concept

The tea pairing concept faces several challenges. One key limitation is the time required per table. During busy service, sommeliers or waitstaff may struggle to dedicate enough time to deliver a meaningful and refined experience, potentially making it feel rushed. Additionally, the experience’s success depends heavily on the sommelier or waitstaff’s ability to engage guests authentically and genuinely; without this, its impact may not be as successful. Investigating training methods for staff such as developing guidelines, scripts, or workshops for storytelling and tea preparation techniques could address this issue.

Another challenge lies in the perception of tea’s value. High-quality tea, comparable in price to wine, may be difficult to sell in the lower segment of fine dining, where guests may not yet recognize its premium qualities. Future steps could include analyzing the costs of premium tea compared to wine to develop pricing strategies that balance profitability with guest acceptance.

Lastly, further research could be conducted to explore the best ways to promote tea pairings in restaurants, such as featuring them on menus, offering recommendations from the sommelier, showcasing concentrates, or highlighting the concept on restaurant websites.



7.2 Recommendations

This section outlines key recommendations for enhancing the tea pairing concept. It emphasizes improving visibility and storytelling, conducting market and demographic research, and exploring how the concept can extend beyond the Dutch market and fine dining into broader culinary contexts.

Enhance visibility and promotion

Currently, many people are unfamiliar with the potential of tea to enhance the flavours of food and the care and craftsmanship behind high-quality loose tea leaves. To make this concept successful, tea pairings should be better promoted through menus, sommelier recommendations, and visually appealing displays in restaurants. Creating a dedicated, luxurious space to showcase tea concentrates can spark guests' curiosity and highlight the sophistication of tea pairing. Placing information on restaurant websites can also boost awareness and accessibility.

Staff training

The designed experience heavily relies on sommeliers and waitstaff to deliver genuine, careful and engaging interactions. Therefore, further research is needed to explore effective ways to develop the skills required to facilitate the experience. A training program could be designed to guide restaurant staff through practising the interaction and preparation and offer feedback on their approach.

Combining tea and wine

To lower the threshold for trying a tea pairing in a fine dining restaurant, guests should have the option to choose a pairing that combines wine and tea. Many people aim to reduce their alcohol consumption but view fine dining as a special occasion where wine enhances the gastronomic experience. Serving tea between wine courses could allow guests to reduce alcohol intake while staying focused and present.

Develop pricing strategies

Many people are unaware of the quality differences between various types of tea and do not realize how high-quality loose tea leaves differ in taste from the teabags often consumed at home. This can result in guests being unwilling to pay nearly as much for a glass of tea as they would for a glass of wine in fine dining restaurants. Further research is needed to analyze the costs of premium tea compared to wine and to develop pricing strategies that balance profitability with guest acceptance.

Demographic and market research

As the Dutch tea culture has been researched and the experience designed to fit Dutch fine dining, it is uncertain whether the concept would be suitable for fine dining cultures in other countries. To make this concept broadly applicable, further research should investigate how different demographics perceive tea, what they value in fine dining,

and their expectations regarding tea pairings in fine dining restaurants. This research could explore how to position the concept beyond the Netherlands to appeal to diverse cultural contexts.

Broaden accessibility

As fine dining restaurants typically invest more in service and the dining experience, and guests are willing to spend more on wine to enhance their meals, the tea pairing experience has been designed with a focus on fine dining. The next step for the project could be to analyze how tea pairings can be incorporated into regular dining settings to make the experience accessible beyond fine dining.

Local production

Currently, most of the tea used for tea pairings originates from Eastern countries like China, Japan, or India. Research shows that Zillennials often choose or highly value restaurants that focus on sustainability by using locally sourced or seasonal ingredients. While local production has been partially incorporated into the design of the elements used for tea preparation, collaborating with local European tea producers from plantations in Italy, Germany, or even the Netherlands could further enhance sustainability and promote locally sourced products (Figure 72). This could increase the experience's appeal and value to the intended users.



Figure 72. Het Zuyderblad,
Dutch tea plantation.
Source: <https://www.seasons.nl>

7.3 Personal Reflection

Before I started the project, Haian Xue (my thesis chair) challenged me to find a topic that would resonate with me, by observing the people around me and really listening to what they say. This approach allowed me to discover a topic that was personal, fascinated me, and could become meaningful to others. The freedom to define the scope and focus challenged me in unexpected ways. While I initially felt overwhelmed by the possibilities, I learned to trust the process and let the project take shape naturally. It was a chance to dive into a world I hadn't yet explored, and that excitement kept me motivated throughout the project. This approach allowed me to discover not just a design solution for this context, but also a deeper understanding of how I work best as a designer.

One of the most rewarding parts of this project was exploring the context and connecting with the people involved. Talking to sommeliers and fine dining enthusiasts made the project feel alive and gave me richer, more meaningful insights. These conversations were inspiring and made me realise how much I enjoy connecting with others to uncover new perspectives. It energised me and made the work feel meaningful, as I wasn't just designing for a theoretical user but truly understanding their challenges and desires. This is something I want to keep doing in future projects.

The process of designing, testing, and refining was tough at times but incredibly valuable. User tests with sommeliers revealed things I hadn't anticipated and highlighted areas for improvement. It was humbling to see how no design is perfect on the first try. Watching how the concepts worked (or didn't work) within the flow of a fine dining setting reminded me how important it is to balance creativity with practicality. This experience reinforced how essential collaboration and user feedback is in creating designs that feel both functional and meaningful.

There were definitely moments of doubt and frustration, especially when things didn't go as planned or the results didn't live up to my expectations. But I learned to embrace those moments, because they pushed me to rethink my approach and led to some of the most valuable lessons in the project. I also worked on being kinder to myself, by recognising even small progress, and reminding myself that not everything has to be perfect to be valuable.

One of the most special aspects of this project was connecting with other cultures. Learning about tea traditions from around the world, especially Chinese and Japanese tea ceremonies, gave me a deeper appreciation for their values of mindfulness,

respect, and connection with both people and nature. It was fascinating to see how these cultural narratives could be incorporated into a fine dining experience, and it reminded me of the universal way food and drink can bring people together. These cultural explorations not only added depth to the project, but also expanded my own perspective.

Through this process, I also found myself being drawn to the world of tea. It's become a new hobby and something I genuinely enjoy exploring. The craft, culture, and care that goes into what seems like a simple cup of tea is something I hadn't experienced before. My perspective on tea has completely changed, especially now that I understand the nuances of flavour, the importance of brewing techniques, and the difference in quality. It was nice to work on something I actually believe in. I hope this project will continue after graduating, and that tea airing actually becomes a natural part of fine dining.

Looking back, I'm proud of how much I've learned throughout this project. From diving into a new context at the start to seeing the final prototype come to life. I've gained new skills, meaningful insights, and a clearer idea of the kind of designer I want to be.



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