Ritualia

A toolkit for multi-cultural food ritual
observations, analysis & idea generation

Gaia Germanò · Master Thesis in Design for Interaction

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TUDelft

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*[...] Cooking, it has never been sufficiently emphasized,
is with language a truly universal form of human activity:
if there is no society without a language, nor is there
any which does not cook in some manner at least some of
its food (1978, 471).*

*Thus we can hope to discover how, in any particular
society, cooking is a language through which that society
unconsciously reveals its structure, unless ▪ just as
unconsciously ▪ it resigns itself to using the medium to
express its contradictions (1979, 495).*

Lévi-Strauss

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Chapter 0 lays the groundwork by introducing the project's main focus and presenting the key research questions.

0.0 Introduction

Due to its essential role in human existence, food has emerged as a significant subject for various disciplines, particularly in the late 20th century. Exploring food mirrors prevailing paradigms like behaviorism, structuralism, or functionalism, highlighting the interdisciplinary nature of food studies. Throughout history, esteemed thinkers from diverse fields such as philosophy, sociology, and anthropology have grappled with inquiries about food within the broader context of understanding human nature (Gerhardt, 2013).

Food fulfills biological functions, and its importance is significant from a social, systemic, and symbolic perspective (Plester, 2015). In fact, through the medium of food, humanity, knowledge, and culture are intertwined (Fiese et al., 2006). Food preparation and consumption represent how a particular culture has developed dietary patterns (Vanhonacker et al., 2013).

Over the centuries, humans have created complex rules, commonly called manners to regularize one's approach to food and how it should be eaten. A strong link between what people eat, how others perceive them, and how they characterize themselves is striking. Food fosters humans in building their cultural identity (Chambers et al., 2007).

In recent years, food studies have increasingly recognized the importance of analyzing food as a cultural practice that involves embodied experiences, social interactions, and language use. Researchers have emphasized the role of food in creating and maintaining social relationships, identities, and meanings (Belasco, 2008; Fischler, 2011). Food rituals and related practices, such as cooking, serving, and consuming, have also been studied as essential cultural practices that reflect and reproduce social norms and values (Sutton et al., 2018).

Another crucial aspect of the relationship with and through food is language. Language reflects cultural identity and contributes to the formation and transformation of cultures in multicultural contexts, impacting processes of acculturation and language shift (Gumperz, 1972). Within the realm of food, the language surrounding culinary practices has been extensively examined as a dynamic arena where negotiation, resistance, and the construction of intercultural communication and identities occur (Piller, 2003; Parasecoli, 2014). The acculturation of dietary habits, which involves adapting one's food habits to the norms of a new cultural context, has been highlighted for its complex interplay between language, culture, and food practices (Gerhardt, 2013).

Against this backdrop, this graduation report explores the interplay between food, culture, and language in the context of the Netherlands. The report first examines the social function of food and its relationship with commensality and food rituals. It then analyzes food's embodied experiences and language's role in shaping food cultures. Finally, it presents a case study on the acculturation of dietary habits among Turkish-Dutch and Dutch-Surinamese communities in the Netherlands.

The complexity and layers of multicultural contexts represent a challenge for designers when analyzing a context. Understanding the nuances and intricacies of different cultural perspectives is

essential in developing inclusive and meaningful design solutions.

Designers increasingly seek knowledge about the specific environments and circumstances in which people interact with products. This information is crucial for designing products that seamlessly integrate into individuals' lives and cater to their unique needs and preferences (Visser et al., 2005).

Given these challenges, emerging context mapping techniques have been embraced in design practice and education to gain deeper insights into the intended users' context (Hao et al., 2017). These techniques offer the potential to provide designers with valuable insights into the cultural, social, and linguistic dimensions of food rituals, facilitating their navigation through the intricacies of such contexts.

Nonetheless, researchers must remain mindful of potential ethical and environmental challenges when exploring sensitive contexts related to food practices. Moreover, the need for a robust framework for ritual observations complicates the exploration process, demanding a reliable toolkit to enhance accuracy and depth.

A framework for understanding rituals in diverse cultural contexts can help researchers capture and comprehend their complexity. In fact, a systematic approach is essential to effectively observe and analyze rituals, considering the intricate social, cultural, and linguistic aspects. This research project seeks to capture the foundational elements of food rituals, providing researchers with tools to identify essential aspects within the material world (artifacts) and their connection to habitual actions (gestures) and language.

The **Ritualia** **toolkit** is designed to support designers as they delve into the intricacies of food contexts, helping them better understand the cultural nuances and complexities at play. By offering a set of tools and guidelines for context exploration, analysis, and ideation tools, *Ritualia* equips designers with the necessary means to navigate and comprehend the various elements that shape food rituals in diverse cultural settings, ultimately empowering them to craft innovative and meaningful design solutions. Additionally, by providing guidelines for approaching culturally sensitive eating contexts, *Ritualia* encourages designers and food enthusiasts to be mindful of the social intricacies that may impact their design decisions.

In the broader academic landscape, this research seeks to contribute to the design field (Figure 0.1), particularly with an anthropological lens. Incorporating anthropological knowledge and insights into the toolkit's framework aims to bridge the gap between design and anthropology, enriching the design process with a deeper appreciation for cultural practices and values.

Through this interdisciplinary approach, *Ritualia* opens new avenues for designers to explore and engage with diverse cultural contexts, creating more contextually relevant and culturally meaningful design solutions.

Anthropology

Design Research

Embodiment
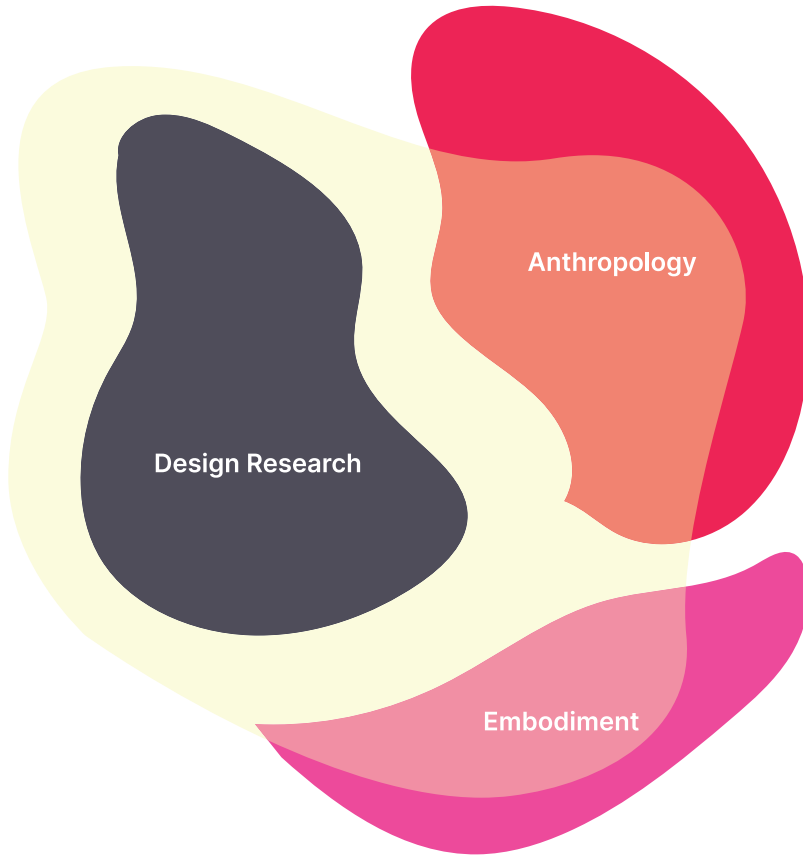
Figure 0.1 Visual representation of the contribution of this thesis to the research in food design.

0.1 Glossary

This glossary composes key terms and definitions relevant to the subject matter discussed. It serves as a reference tool, ensuring clarity and setting up the technical vocabulary used throughout this thesis.

Word	Definition	Source
Acculturation	The changes that occur due to continuous firsthand contact between individuals from different cultures.	Berry, J. W. (2005). Acculturation: Living successfully in two cultures. International Journal of Intercultural Relations, 29(6), 697-712.
Artifacts	The material objects that people create and use, which are shaped by and shape cultural practices, beliefs, and values.	Kopytoff, I. (1986). The cultural biography of things: Commoditization as process. In A. Appadurai (Ed.), The social life of things: Commodities in cultural perspective (pp. 64-91). Cambridge University Press.
Assimilation	The process by which individuals or groups from different cultures come to resemble one another.	Sam, D. L., & Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. Perspectives on Psychological Science, 5(4), 472-481.
Co-presence	The subjective feeling of 'being with' others in a shared physical space.	Lombard, M., & Ditton, T. (1997). At the heart of it all: The concept of presence. Journal of Computer-Mediated Communication, 3(2).
Commensality	The social activity of eating together.	Bell, D., & Valentine, G. (1997). Consuming geographies: We are where we eat. Psychology Press.
Connectedness	The subjective experience of being intimately linked to others.	Lee, R. M., & Robbins, S. B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. Journal of Counseling Psychology, 42(2), 232–241.

Cross-cultural	The comparison of cultural differences and similarities across different cultures.	Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations. Sage publications.
Cultural identity	The extent to which individuals identify with a particular culture or cultural group	Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. Journal of Personality and Social Psychology, 79(1), 49-65.
Culture	"A complex system of shared beliefs, values, norms, symbols, behaviors, and artifacts that are learned and transmitted within a particular group or society, shaping individuals' attitudes, perceptions, and actions. It is part of what we are today and will become tomorrow."	MacDonald, G. F. (1991). What Is Culture? The Journal of Museum Education, 16(1), 9–12. http://www.jstor.org/stable/40478873
Embodied interactions	How human bodies engage with each other and their physical and social environments.	(Streeck et al., 2011)
Embodiment	How the body is implicated in social and cultural processes.	(Shilling, 1993)
Food Ritual	The symbolic, cultural, and social meanings and practices associated with food.	Belasco, W., & Scranton, P. (2002). Food nations: Selling taste in consumer societies. Routledge.
Integration	The process by which individuals or groups from different cultural backgrounds come together to form a cohesive and inclusive society. This process involves adopting common values, norms, and practices that promote mutual understanding.	Berry, J. W. (2006). Mutual attitudes among immigrants and ethnocultural groups in Canada. International Journal of Intercultural Relations, 30(6), 719-734. https://doi.org/10.1016/j.ijintrel.2006.06.003
Intercultural contact	Direct or indirect communication between individuals or groups from different cultural backgrounds increases awareness, understanding, and appreciation of cultural differences (Pettigrew & Tropp, 2006).	Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. Journal of Personality and social psychology, 90(5), 751-783. doi: 10.1037/0022-3514.90.5.751

Language	Language is a system of symbols and rules for combining those symbols into meaningful messages, which serves as a primary means of communication and is fundamental to the construction and transmission of culture.	Sapir, E. (1921). Language: An introduction to the study of speech. Harcourt Brace Jovanovich.
Multiculturalism	A social, political, and philosophical stance that emphasizes the cultural diversity of communities within a society.	Kymlicka, W. (1995). Multicultural citizenship: A liberal theory of minority rights. Oxford University Press.
Presence	The subjective feeling of 'being there' in a mediated environment, as if one is physically present in a remote location.	Lombard, M., & Ditton, T. (1997). At the heart of it all: The concept of presence. Journal of Computer-Mediated Communication, 3(2).
Ritual	A patterned, repetitive behavior intentionally performed in a specific context and imbued with symbolic meaning and cultural significance. Rituals can be personal or communal and are often performed to mark important events, transitions, or life stages. They can also reinforce social bonds, express emotions, or bring about a sense of order and control.	Garcia-Sanchez, E., & Rhodes, C. (2014). An introduction to ritual and its study. Oxford Bibliographies.
Self-ethnography	Self-ethnography is a research method that involves one examining one's own experiences, beliefs, and practices to gain insight into a particular cultural or social phenomenon.	Jackson, A. Y., & Mazzei, L. A. (2012). Thinking with theory in qualitative research: Viewing data across multiple perspectives. Routledge.

Separation	The social process of maintaining distinct boundaries between different social groups, often along the lines of race, ethnicity, religion, or culture.	Waters, M. C. (1990). Ethnic options: Choosing identities in America. Univ of California Press.
Social cohesion	The extent to which members of a society feel connected and share a sense of belonging.	Putnam, R. D. (2000). Bowling alone: The collapse and revival of American community. Simon and Schuster.
Social constructivism	Is a theoretical perspective that emphasizes the role of social interaction and language in constructing knowledge and forming social reality.	Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.
Togetherness	The feeling of unity and closeness that arises from being in the company of others.	Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. Journal of Clinical Psychology, 55(10), 1243–1254.

0.2 Research Aim: An entangled dinner
Language, gestures and artifacts in shared eating contexts

The study of food rituals encompasses a diverse range of disciplines, highlighting the multidisciplinary nature of this field. The next chapters will delve into the entanglement of various disciplines investigating the triangulation of language, artifacts, and gestures and their relationship with design practice, particularly when approaching in-context. By exploring the interconnectedness of these disciplines, this graduation project aims to provide deeper insights into the complexities and dynamics of food rituals and their impact on cultural identity and values.

The triangulation of language, artifacts, and gestures (Figure 0.2) refers to the interdependent relationship between these three components within food rituals.
By proposing it as a framework to refer to, with single elements that mutually influence one another, this contributes to rituals' overall meaning, symbolism, and path of expression.
According to Hall (1976), **language** serves as a means of communication, allowing individuals to convey their thoughts, emotions, and intentions during food rituals. It encompasses spoken words, phrases, and verbal cues that shape interactions and guide the participants' behaviors. Language plays a crucial role in establishing cultural norms, expressing gratitude, sharing knowledge, and fostering social connections within the context of food rituals.

The term **artifact** refers to something created or designed by someone, indicating that it carries a particular intention or purpose.
An artifact is intentionally designed with a specific purpose or range of uses in mind, and its success is determined by how well it offers a perceived affordance similar to that of natural objects. (Hollnagel, 2012). Artifacts are part of the material culture and are physical objects intentionally designed and employed within food rituals. These artifacts include utensils, serving dishes, table decorations, and other items that hold

symbolic meaning and contribute to the sensory experience of the ritual. They embody cultural values, aesthetics, and functionality, influencing the users' behaviors and shaping the overall atmosphere and ambiance of the ritual (Prown, 1982).

Gestures encompass non-verbal communication, including body movements, postures, and facial expressions that convey meaning and intention. Gestures can be subtle or explicit, ranging from a simple nod of appreciation to complex hand movements that convey cultural rituals or rituals specific to particular food practices. Gestures facilitate social interactions, express emotions, and convey cultural norms within food rituals (Ekman, 1969).
Upon recognizing the significance of each element within this triangulation, the thesis investigation centered around two central research questions that served as guiding principles for further explorations.
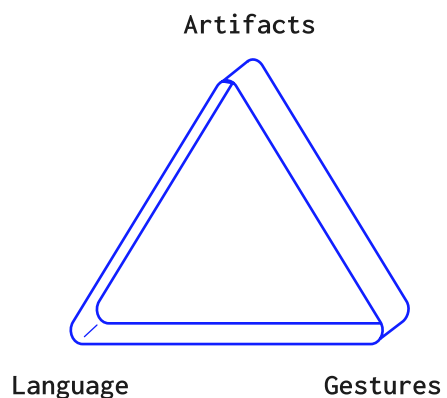

Figure 0.2 Triadic model for the focus of the food ritual research: *artifacts*, *language*, and *gestures* interplay.

The first question,

1 *How does the design of artifacts in the context of di ner time shape Dutch-ethnic embodied behaviors when participating in food rituals?*

forms the foundation for the two case studies that are further explained in the Case Studies chapter. By examining specific artifacts within the multicultural contexts of dinner time, this research seeks to understand how they influence and shape the behaviors and cultural practices of individuals within Dutch-ethnic, hence mixed, communities.
During the recruitment phase, the research encountered significant challenges in entering sensitive contexts, particularly private spaces such as participants' homes, due to concerns of intrusiveness. Additionally, the lack of familiarity with potential participants and language barriers further complicated the process. As a result, the research transitioned to a crucial phase, aiming to address and overcome these obstacles by providing suitable instruments and methodologies. This transition was guided by a second, refined research question that redirected the focus of the investigation, allowing for a more targeted and effective approach to exploring the complexities of food rituals in culturally sensitive contexts.

2 *How can designers be supported in approaching multi-cultural eating contexts in an explorative phase and subsequently in a ideation phase?*

After exploring various options by testing the users' responses to the elements of the *Ritualia* toolkit, this graduation project aims to provide insights and guidance for designers who are interested in engaging with eating practice contexts, enabling them to navigate the exploratory and ideation phases with a deeper understanding of cultural nuances and practices.
The research is built upon acknowledging the crucial role played by the triangulation of language, artifacts, and gestures in food rituals, complemented by existing cultural and value models. Supported by relevant literature, the framework acts as a lens through which the intricate interplay of these elements can be examined, revealing the underlying cultural nuances and values inherent in food rituals.

0.3 Reading guide

Project introduction **0** / **1** **The social function of food**

2 **Case studies**   **Research methodology** **3**

4 **Testing sessions & design iterations**

5 *Ritualia* **toolkit**   **Conclusions & future work** **6**
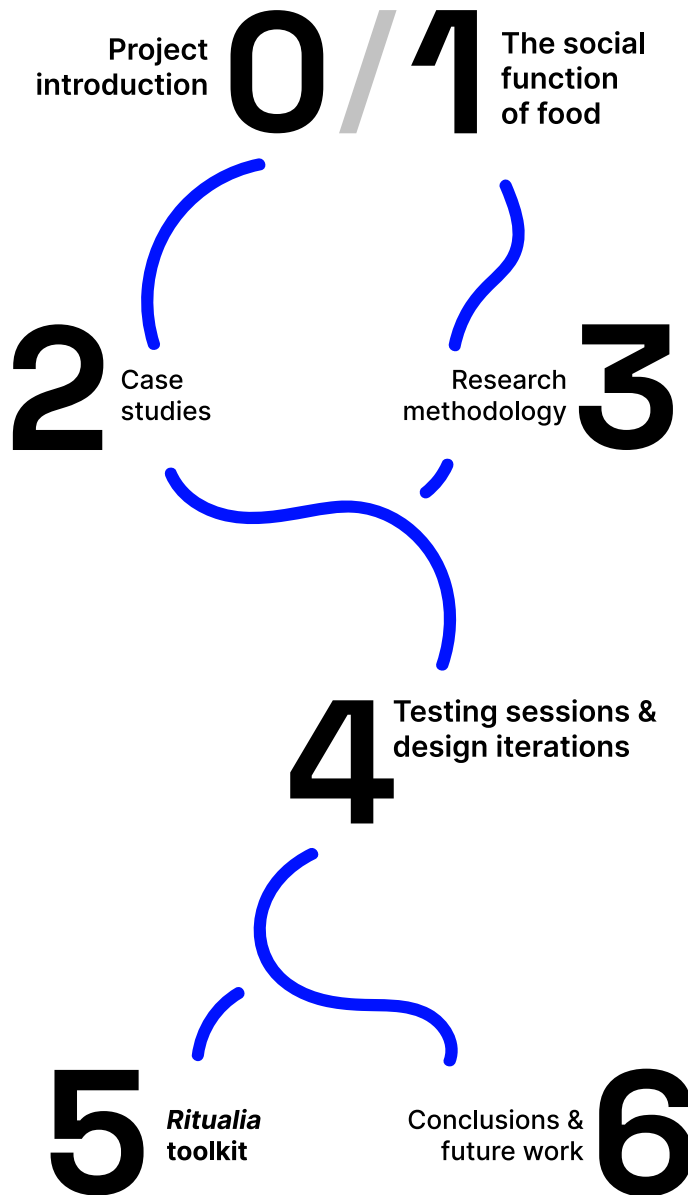
Figure 0.3 Reading guide of this thesis.

1

Chapter 1 provides an in-depth exploration of pertinent theories concerning the significance of food in various contexts. The chapter delves into the roles of food as a conduit for commensality, the ritualistic aspects of food consumption, the embodied connections facilitated through eating, and the concept of dietary acculturation.

1.0 The social function of food

Throughout history, humans have heavily depended on food consumption to fulfill both biological and social needs. Eating with others represents the most common practice among humans without limits of time and space. For evolutionary anthropologists, sharing a meal is conceived as fundamental for human evolution. The majority of commensality opportunities are represented through history by feasting moments. Nonetheless, feasting occurs among friends and family. The latter represents the nucleus, which is universal across cultures and is where the individual is nurtured, encouraged, and developed. Oliveira and Casqueiro (2008) describe commensality as **a ritual encompassing pleasure, sociability, and communication**.
Gathering around a meal and inviting friends and family members is a frequent social practice in most countries. Moreover, in an age where fast food reigns supreme throughout the day, sitting down with family and friends is still a vital means of getting to know people (Dunbar, 2017).

Commensality, intended as "the act of eating together" (Jönsson et al., 2021), is studied by many disciplines. Furthermore, as the act of sharing meals has long been recognized as a vital context for family bonding and social cohesion (Fiese et al., 2002).
Commensality has been conceptually defined in terms of commensal units and circles. These *units* refer to groups of individuals who gather at a specific time and place to share a meal. The family often serves as the primary commensal unit due to the frequency of eating together. Commensal *circles*, on the other hand, involve the inclusion

and exclusion of different commensal units, forming networks or relationships that define the range of people with whom individuals have the potential to share meals (Scagliusi et al., 2016; Sobal & Nelson, 2003). Despite its everyday use, the mentioned authors argue that starting from the term's etymology, many doubts still arise. It is unclear if this act relates to the front of explicitly sharing the food, the table, the moment in which food is shared, or the whole environment where it happens.

The notion of commensality is centered on the physical aspect of eating, highlighting the shared experience of dining together (Nawahdah and Inoue, 2013). Nevertheless, recent research has sought to explore methods of connecting diners who are physically separated but desire to share a meal. In these instances, technology assumes a vital role in enabling (or potentially disrupting) the practice of distant communal eating. This phenomenon is commonly referred to as "remote commensality" and, when facilitated by technology, as "digital commensality."
Some observed phenomea cited by Spence et al. (2019) is "skeating," refer to Skyping or video calling with a distant friend or loved one while eating together, as described by Spence (2017). Additionally, there are more advanced tele-dining setups that offer interactive experiences for diners connecting remotely with others, as explored by Wei et al. (2011).

1.1 A thousand ways to hold a fork: different dining styles

As food is served in various facilities, there are numerous styles in which commensal practices have developed. The styles depend on various factors, including cultural norms, historical influences, social dynamics, and individual preferences. According to Mennell (1996), the development of commensal styles is deeply rooted in cultural practices and historical contexts. Cultural norms, beliefs, and values shape how food is prepared, served, and consumed. As it is easy to understand, norms can differ significantly between societies and even within different regions of the same country.

Historical influences play a crucial role in shaping commensal styles. Changes in technology, migration patterns, colonization, and globalization have all impacted food practices and the development of commensal styles. For example, introducing new ingredients, cooking techniques, and cultural exchanges through trade routes and colonialism have contributed to the diversity of commensal styles (Sholl, 2008). Similarly, social dynamics influence the development of commensal styles. Factors such as social class, gender roles, and power dynamics within a society can shape how food is served and consumed. For instance, formal dining styles with elaborate meal presentations and strict etiquette often reflect social hierarchies and the desire to display wealth and status (Fischler, 2011). Besides these dynamics, it is recommended to acknowledge that individual preferences and personal experiences also shape eating styles. People's dietary preferences, food allergies, religious or cultural dietary restrictions, and personal tastes influence

how they engage with food and participate in communal dining experiences (Sobal & Nelson, 2003).

Some style differences can be classified according to a dining style's elements, actions, and structure. Some possible distinctions are gathered in Table 1. They are based on personal observation in a preliminary phase of this research project and on existing literature.

The table presented below provides examples of dining styles; however, it is important to note that this categorization is not exhaustive and is based on generalized knowledge obtained by the researcher in the limited time of this thesis. In fact, it is essential to acknowledge that observing different contexts at various times and locations could potentially yield alternative classifications and interpretations. Thus, this table serves as a preliminary framework for understanding dining styles and should be approached with the recognition of its limitations and the potential for further contextual variations.

Dining Style	Characterising Elements	Examples	Source
Formal	Structured and elaborate meal presentation.	Fine dining, formal events, and high-end restaurants.	Sholl, J. (2008). Meals to Come: A History of the Future of Food.
Informal	Relaxed and casual atmosphere.	Picnics, backyard barbecues, casual restaurants.	Gisslen, W. (2012). Professional Cooking Edisi 7th.
Family-style	Sharing food, communal eating experience.	Family gatherings, consuming home-cooked meals, going out at restaurants with the whole family.	Gilhus, I. S. (2015). Ritual meals and polemics in antiquity. *Commensality: from everyday food to feast*.
Buffet-style	Self-service set-up, a wide variety of food options.	Buffet restaurants, hotel breakfast buffets, banquet events.	Fischler, C. (2011). Commensality, society and culture. *Social science information, 50*(3-4), 528-548.
Fast Food	Quick service, a mix of limited, permanent, and temporary menu options.	Fast food chains, drive-through restaurants.	Schlosser, E. (2012). Fast food nation: *The dark side of the all-American meal*. Houghton Mifflin Harcourt.
Street Food	Outdoor vendors, local and regional specialties.	Street food markets, food festivals, street-side vendors, and food trucks.	On-field observations.
Cafeteria	Self-service system, pre-prepared food options.	School cafeterias, workplace cafeterias, institutional dining.	On-field observations.

Table 1. Variety of dining styles (in physicial environment), their characterizing elements and the source of the information.

1.1.1 Relationships among diners

Research on commensality has identified various roles commonly associated with commensal units: individuals involved in the shared eating ritual. Commensality often distinguishes between the host, who provides the food and the space for the meal, and the guest, who partakes in the meal as a recipient of the host's hospitality. Sociologists and anthropologists have explored this role of differentiation in commensality (Fischler, 2011; Lupton, 1996).

As anyone takes part daily to shared eating practices, many are the roles one can play during a food ritual.
The type of diners and their interpersonal relationship are illustrated in Table 2. The mentioned relationships are only some of the many variable ways humans can relate to each other. For the sake of this graduation project, they have been simplified and gathered as mentioned.

Nature of the relationship	Type of interaction	Source
Family members	Families play a central role in commensality, forming the core unit around which eating practices revolve. Within the family unit, different roles may emerge, such as parents, siblings, and children, each with their responsibilities and expectations related to the communal meal.	Beutler, I. F., & Lai, S. (1996). Home food production, meaning, and family cohesion/adaptability. *Journal of Consumer Studies & Home Economics, 20*(1), 31-42.
Friends	Often engage in commensality, sharing meals to strengthen social bonds and create a sense of belonging. Friendships can influence the dynamics and rituals of eating together, with specific roles evolving within the group.	Bisogni, C. A., Falk, L. W., Madore, E., Blake, C. E., Jastran, M., Sobal, J., & Devine, C. M. (2007). Dimensions of everyday eating and drinking episodes. *Appetite, 48*(2), 218-231.
Co-workers	Commensality in work settings, such as lunch breaks, involves colleagues coming together to share a meal. Within these contexts, roles may include team members, supervisors, and subordinates, and power dynamics and hierarchy can influence the interactions during the meal.	Mennell, S. (1996). *All manners of food: eating and taste in England and France from the Middle Ages to the present*. University of Illinois Press.
Neighbors	Neighbors can form commensal units, engaging in informal meal-sharing arrangements that promote social cohesion and neighborly relationships. These roles may involve individuals living nearby, coming together for shared meals, or casual interactions over food.	Chung, W. T., Gallo, W. T., Giunta, N., Canavan, M. E., Parikh, N. S., & Fahs, M. C. (2012). Linking neighborhood characteristics to food insecurity in older adults: The role of perceived safety, social cohesion, and walkability. *Journal of Urban Health, 89*, 407-418.

Table 2. Differences in the observed relationships among diners and how they interact with each other.

1.2 The rituality of food

Rituals are present in various consumption experiences, from everyday actions like preparing tea or coffee to collective events such as festive meals (Jones, 2007; Wallendorf & Arnould, 1991). These behaviors transcend time, culture, and societal domains. According to Bell (1997), rituals encompass symbolic actions or sequences of actions that adhere to a predetermined sequence or order and aim to achieve specific effects or outcomes. One could think of religious rituals because, traditionally, the study of rituals has been approached from mythological or sacred perspectives, exploring their significance and symbolism (Bell, 1992). Moreover, everyday rituals play a significant role in child-rearing, education, and social development. In contemporary discussions on social disintegration, loss of values, and the quest for cultural identity, the significance of rituals and ritualizations is increasingly recognized (Wulf et al., 2010).

Food and beverages transcend practical functions and carry symbolic meanings within different contexts, reflecting aspects of individual identity and social groupings. The significance of eating rituals extends beyond their relevance in daily life, providing valuable insights into the broader role of meaning within various rituals. These notions served as the starting point for the exploration conducted throughout this graduation project. To achieve a comprehensive understanding of the subject, an examination of diverse definitions of rituals becomes essential.

Belk et al. (1989) define ritual beyond religiosity, emphasizing its connection to the sacred and the rarefied. Rituals are distinguished from mere habit or routine by their fixed and formal constituent actions, artifacts, and symbolism and their ability to elicit higher levels of engagement and affective response (Neale et al., 2008). For example, in a classic Western meal, it is normal to have savory items before indulging in a sweet dessert. Deviating from this established pattern of behavior, such as eating dessert at the start of the meal, is regarded as strange and improper, even though it would be consumed later in the meal regardless (Ratcliffe et al., 2019).

Until here, a question might arise: What are the composing elements of a ritual?

Rook (1985) studied the elements of rituals and proposed that four components are essential for the production of a ritual: artifacts or objects, a script outlining the timing and sequence of actions (as generalized in Figure 1), roles assigned to participants, and an audience for the ritual. In the context of food and drink, artifacts and scripts play a significant role, as they can serve as symbols conveying the meaning embedded within the ritual.

Fiese et al. (2006) suggest three key components that characterize family mealtime rituals: communication, commitment, and continuity. *Communication* involves elements such as inside jokes, symbolism, and sharing. *Commitment* includes affective engagement with others and the fostering of a sense of belonging. *Continuity* encompasses intergenerational social connections, symbolic ties to the past and future, and planning.
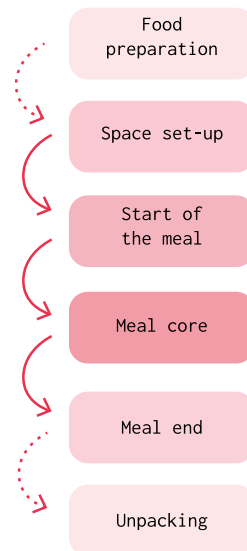

Figure 1. Observed flow of preparation and consumption of a meal together.

1.3 Enacting a ritual

Ritualized consumption affects not just the meaning of food but also cognition, especially in terms of encouraging mindful states when eating (Ratcliffe et al., 2019). Being fully present at the moment, with a heightened awareness of one's emotions, physical sensations, and surroundings, is what mindfulness entails. Mindful eating techniques seek to increase awareness of both environmental and internal cues connected to eating (Fung et al., 2016). These tactics rely on ritualized behaviors such as specialized food manipulation and consumption procedures, emphasizing certain sensations, like taste, and ideas, like the food preparation methods (Meier et al., 2017).

Transitioning from the role of cognition to the material world and the involvement of the body in the fruition of ritual elements, it is essential to acknowledge that while understanding the cognitive aspects provides insights into how rituals impact daily life, it is through the physicality of our bodies that individuals truly experience rituals. As van Boeijen and Zijlstra emphasize, the material culture comprises the "ingredients" of rituals, with humans possessing the agency to shape these elements while being shaped by them (van Boeijen & Zijlstra, 2020).

As active ritual participants, our bodies engage with the tangible aspects of artifacts, actions, and sensory experiences. Therefore, it seems valuable to introduce, in the next section, the concept of embodied interactions.

1.3.1 The body as a tool: concepts of embodiment and cognition.

Embodiment is the rather bold notion that the brain is not our primary cognitive resource for problem-solving. Our bodies and their perceptually directed motions through the environment accomplish much of the work necessary to attain our objectives, reducing the necessity for elaborate internal mental representations. (Wilson & Golonka, 2013). In embodiment, the body is seen as more than a physical entity; it encompasses our subjective experiences, emotions, and cultural perspectives (Johnson, 2007).

We gather information and make sense of our environment through our senses, such as touch, proprioception, and kinesthetic awareness (Dourish, 2004).

In this sense, the body is not merely a passive entity but an active sensing tool that enables individuals perceive, navigate, and interact with the world. Embodied interactions recognize the inseparable connection between the body, mind, and environment, highlighting the role of the body in shaping our experiences and understanding of the world.

Embodiment refers to how bodies are intimately connected to perceptions, thoughts, and actions, influencing our understanding of the world and our interactions with it (Varela et al., 1991). It highlights that cognition is not solely confined to the brain but emerges from the dynamic interplay between the body, mind, and environment.

To better understand the being of individuals in their living spaces, it is worth introducing the concept of cognition. **Cognition** is the dynamic interaction of components within a biological system, enabling adaptability and responsiveness to the environment (Smart et al., 2017).

It is an inherent characteristic of all living organisms, emerging alongside life rather than as a later development (Lyon et al., 2021).

While cognition originated from a simple form present in our common ancestor, it has evolved diversely across the tree of life, shaped by evolutionary trajectories, sensory capabilities, body structures, and specific needs of each lineage. Consequently, cognitive systems vary across organisms, from bacteria to plants to animals, all serving the fundamental purpose of ensuring their survival (Lyon et al., 2021).

Perception is crucial in constructing a meaningful understanding of the surrounding environment, creating a distinct and abstract representation. This representation is subsequently processed by cognitive mechanisms within the brain, shaping decision-making and guiding actions. This conceptual framework (Figure 2), often called the 'Classic Sandwich Model' (Burr, 2016), positions perception and action as outer layers, distinct from one another and separate from cognition.

Cognition is the intermediary between perception and action, bridging the gap and facilitating their integration.

Understanding perception, cognition, and embodiment is important when studying food rituals. Cognition, as stated, encompasses the mental processes involved in perception, memory, reasoning, and decision-making.
It plays a crucial role in shaping human experiences and food interactions. It involves how people perceive and interpret sensory information related to food and how beliefs, preferences, and attitudes toward certain foods and eating practices are formed over time.
On the other hand, embodiment highlights the intricate connection between our physical bodies and cognitive processes. It recognizes that our bodily experiences, sensations, and movements are deeply intertwined with our cognitive functioning and subjective understanding of the world.
In food rituals, embodiment becomes particularly relevant and interesting as it encloses the sensory experiences of taste, texture, and bodily movements involved in food preparation, collaboration during consumption, and communal eating.
Studying food rituals through the lens of cognition

and embodiment allows us to delve deeper into the intricate interplay between mind, body, and culture. It helps us understand how cognitive processes shape our perceptions, interpretations, and behaviors related to food while also recognizing the embodied nature of our experiences. By examining how cognition and embodiment intersect in the context of food rituals, we can gain insights into the cultural meanings, social dynamics, and personal experiences associated with these practices.

Overall, to develop an insightful toolkit for designers, exploring the cognitive and embodied aspects of food rituals can shed light on how these practices contribute to constructing and maintaining cultural identity, social cohesion, and interpersonal relationships.
It helps understand food's role in shaping cultural traditions, transmitting cultural values, and fostering a sense of belonging within a community. By studying cognition and embodiment in the context of food rituals, these practices' complex and dynamic nature could be uncovered, offering new insights for designing meaningful food-related products or services.
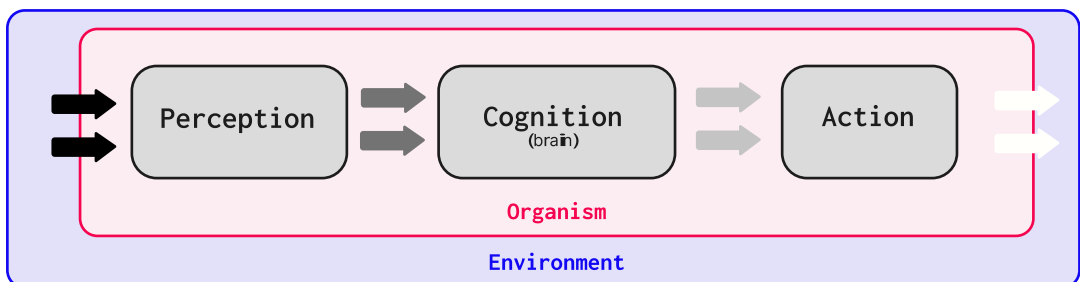

Figure 2. A cognitivist modular and linear view of cognition. Adapted from Burr (2016).

1.3.2 Presence and co-presence

Continuous social interactions have been a fundamental aspect of human life, and some scholars suggest that the need for social engagement could have been a crucial factor driving the significant expansion of the cranium around 3.5 million years ago (Donald, 1991).

As social beings, we constantly interact with others, seeking connections and a sense of belonging. This dynamic process of social engagement leads to the concept of presence, social presence, and co-presence.

The term **presence**, also referred to as "physical presence," is commonly used to describe an individual's perception of "being" in a specific environment (Sheridan, 1992). According to Slater (1999), three essential components constitute presence: the subjective and psychological sense of "being there", individuals' response to the perceived reality or presence of elements in the environment, and the memory of the environment as a "place" similar to real-life experiences. Additionally, according to Short et al. (1976), **social presence** is defined by the degree of prominence the other person holds in the interaction and the consequent significance of the interpersonal interactions within that context. Apart from the conventional understanding of presence as the feeling of "being there", scholars have also delved into the concept of co-presence. **Co-presence** entails a sense of being together and emphasizes a deeper "psychological connection of minds" (Nowak, 2001). The term was first introduced by Goffman (2008) and involves a sense of accessibility, availability, and mutual engagement among individuals in a shared space.

In the context of this research, the concepts of presence, social presence, and co-presence are valuable support for understanding the social dynamics in physical spaces where food is shared among diners. With such knowledge, researchers could gain insights into group interactions and cultural identity formation during communal eating experiences. Awareness of social dynamics should support and help designers observe and analyze, facilitate positive interactions, and foster a sense of community during shared dining.

Presence

Social presence

Co-presence
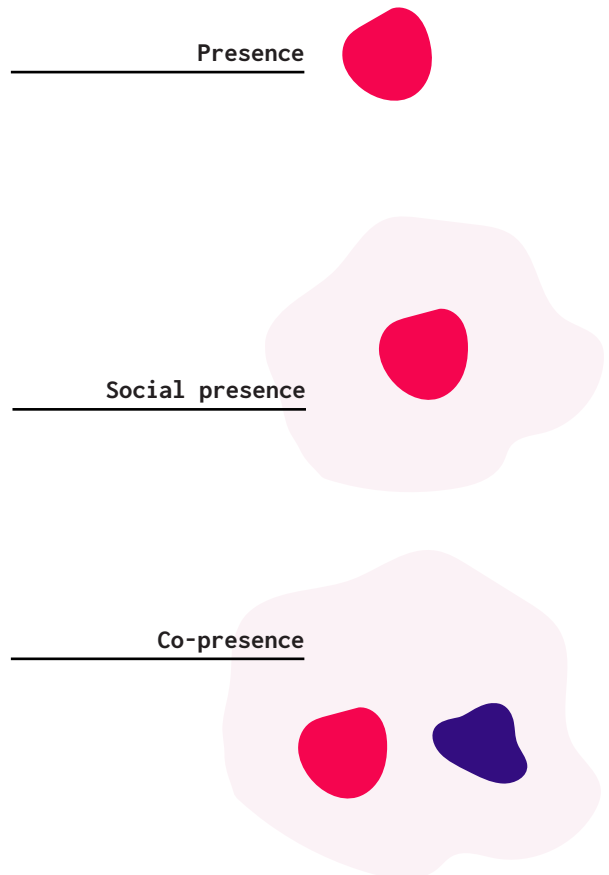
1.3.3 Social constructivism

Anthropology, among various other disciplines, extensively explores human relationships. One significant theoretical framework, social constructivism, emphasizes the impact of culture and context on societal occurrences and the construction of knowledge based on such understanding (McMahon, 1997).

Constructivism, as a theoretical concept, encompasses various "types" or perspectives. These types are broadly classified into three main genres: cognitive constructivism, social constructivism, and radical constructivism (Good, Wandersee & St. Julien, 1993; Moshman, 1982; Phillips, 1995). This thesis focuses on social constructivism, which highlights the social nature of knowledge and asserts that knowledge is created through social interaction, thus being a shared rather than an individual experience (Prawatt & Floden, 1994) (see Figure 3). This perspective aligns with Bakhtin's view (1984) that truth is not confined to an individual's mind but emerges through collective dialogic interactions among people in their search for truth.

In the context of social constructivism, Mead's contribution is particularly noteworthy. He is associated with the symbolic interactionist perspective, which emphasizes the role of symbols and language in shaping human interactions and constructing meaning. Mead's work centers on the concept of the "self" and how individuals develop a sense of self through social interactions with others. According to Mead (1934), the self is not something innate; rather, it emerges through the process of taking on the perspectives of others and internalizing social roles and expectations. This concept highlights the significance of social interaction and communication in developing human identity and understanding of the world.

In the context of food design research, taking into account the concept of social constructivism assumes importance in comprehending shared dining practices regardless of people's cultural backgrounds. Social constructivism underscores the significance of culture and context in understanding societal phenomena and constructing knowledge.
This perspective highlights that knowledge is co-constructed through interactions, dialogue, and social engagements. It is considered a good approach to carry within this thesis research as it emphasizes the collective nature of knowledge construction, revealing the collective negotiations and dialogues that transpire during shared meals.

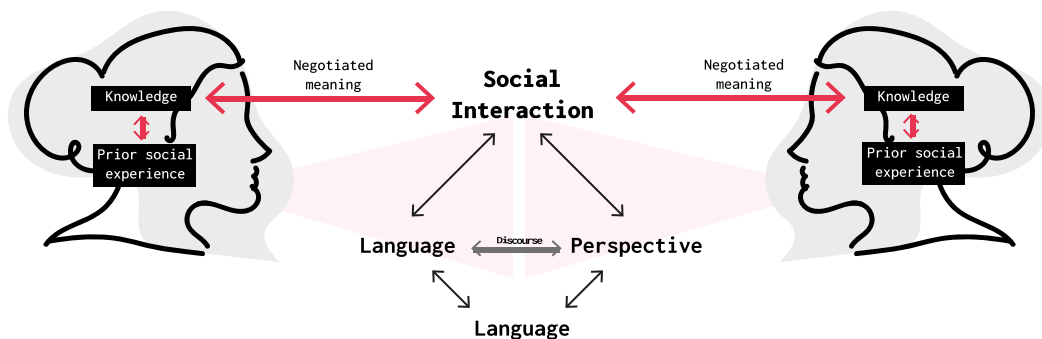**Figure 3.** A diagrammatic representation of social constructivism in which meaning is negotiated through the social transaction of prior social experiences and current discourse. Adapted from Doolittle (2001).

"Truth is not to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction."

Bakhtin (1984)

1.4 The acculturation process

When people move to a new country, they often seek better living conditions or economic opportunities (Acharya, 2017). This process of migration and settlement, which can be voluntary or involuntary, can lead to a range of challenges and adjustments as individuals and groups adapt to new cultural norms and expectations. The resulting cultural changes and psychological adjustments are the focus of the study of acculturation, which is an important area of research in anthropology, psychology, and other disciplines. At the heart of this process is intercultural contact, which involves the exchange of ideas, values, and behaviors between different cultural groups.

Since the present work focuses on shared eating practices and how many individuals come together in one context, this section will revolve around how a cultural negotiation takes place on a group level.

Nevertheless, there is a difference between how this happens on group and individual levels, the stress that being in such a process might cause, and how well the adaptation takes place both psychologically and socioculturally. Consequently, many strategies could be pursued: integration, assimilation, separation, and marginalization. Overall, those who pursue integration experience less stress and improve their adaptation skills than those pursuing marginalization. The outcomes for those who pursue assimilation and separation (→**check the Glossary for the definition**) experience intermediate stress levels.

Many disciplines, such as psychology and anthropology, have addressed how people of different countries and cultural backgrounds can encounter each other and seek avenues of mutual understanding while negotiating and compromising on their initial positions to achieve some degree of harmonious engagement.

Berry (2004) has primarily elaborated on two distinct, interrelated domains of psychological research that make up the field of group relations. The two domains can be named acculturation and ethnic relations when the involved groups are essentially cultural.
Diving into this field and its related definitions is crucial when understanding how, as the main goal of this graduation project, cultural groups engage with other communities, giving life to a multicultural society.

↘ **Defining Acculturation**
As anticipated, an acculturation process is "the dual process of cultural and psychological change that occurs due to contact between two or more cultural groups and their members" (Berry, 2005). At a group level, it involves changes in social structures, institutions, and cultural practices. While on an individual level, it causes changes in a person's behavioral repertoire.

The length of these cultural and psychological changes can vary, but they come about through a long-term process, sometimes taking years, generations, or even centuries. It happens because, as a process, acculturation involves various forms of mutual accommodation, leading to long-term sociocultural adaptations between the groups involved.

The contact, and hence the change, between these, happens for reasons related to colonization, military invasion, migration, or sojourning (as tourism, international studies, etc.).

The cultural groups that undergo an acculturation process in the Netherlands, the Surinamese, Antilleans, and Indonesians, in particular, are the result of the long-time colonization from the Netherlands in Suriname, the Antilles, and Indonesia (Euwals et al., 2010). These groups have faced unique challenges in adapting to Dutch society, as their experiences of colonization have left a lasting impact on their cultural identities and sense of belonging (Oostindie, 1988). The historical connection with the Netherlands through colonization has influenced their integration experiences.

The acculturation process for these groups is thus complex and multifaceted, involving the acquisition of Dutch cultural norms and values and the negotiation of their cultural heritage and history.

Understanding these cultural complexities is essential for designers who seek to create products and services that meet the needs and expectations of diverse cultural groups. For instance, research on Dutch culture suggests that punctuality, direct communication, and egalitarianism are highly valued (Hofstede et al., 2010), which may affect the design of products and services intended for Dutch users.

This changed path continues long after initial contact in culturally plural societies, where ethnocultural communities may maintain features of their heritage cultures.

A longer-time adaptation to living in culture-contact settings takes several forms, usually resulting in longer-term accommodation among the groups in contact.
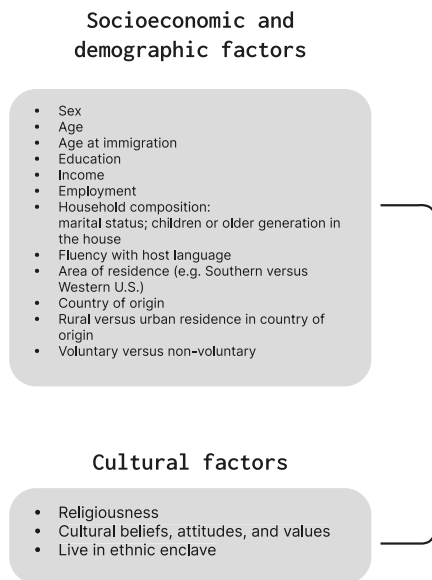
1.4.1 Dietary acculturation

If we relate to food, when people or groups move to new nations or cultural situations, they do not only undergo a general process of acculturation, but they frequently experience what is called dietary acculturation. The main literature of reference for understanding dietary acculturation in this section is Satia-Abouta (2002). Dietary acculturation refers to changes in food preferences, eating behaviors, and dietary patterns caused by cultural adaptation to a new environment. It is a complicated phenomenon impacted by various sociocultural, economic, and environmental variables.

This process could lead to the blending of different culinary cultures and the formation of novel food pairings. It substantially affects a person's health, well-being, and sense of cultural identity by affecting how they eat, feel about food, and feel like they belong in their new environment. To provide culturally sensitive treatments, encourage healthy food choices, and promote good health outcomes among immigrant groups, healthcare practitioners, policymakers, and researchers must thoroughly understand dietary acculturation.
Dietary acculturation may significantly affect a person's health, happiness, and cultural identity.

Through observing individuals' experiences with dietary acculturation, the project can uncover insights about the factors that shape and influence food preferences, behaviors, and rituals. By understanding which adaptations and cultural negotiations individuals undergo while being exposed to host culture (Figure 4), designers and researchers can better understand the needs, desires, and aspirations of diverse communities regarding food practices.

Socioeconomic and demographic factors

- Sex
- Age
- Age at immigration
- Education
- Income
- Employment
- Household composition: marital status; children or older generation in the house
- Fluency with host language
- Area of residence (e.g. Southern versus Western U.S.)
- Country of origin
- Rural versus urban residence in country of origin
- Voluntary versus non-voluntary

Cultural factors

- Religiousness
- Cultural beliefs, attitudes, and values
- Live in ethnic enclave

Changes in psychosocial
factors and taste preferences

- Diet and diseases-related knowledge, attitudes, beliefs
- Value ascribed to traditional eating patterns vs. assimilation
- Taste preferences

Exposure
to host
culture

Changes in environmental
factors, leading to changes in
food procurement and preparation

- Shopping: traditional foods available, accessible, and affordable
- Restaurants: traditional foods available, accessible and affordable
- Food purchasing and preparation: advertising, convenience, and time constraints result in use of packaged foods and patronage of fast food restaurants

Different patterns
of dietary intake

Food choices and food preparation techniques that result in:

- Maintenance of traditional eating patterns
- Adoption of host country eating patterns
- Bicultural eating patterns: maintenance of traditional eating patterns at certain meals or occasions with incorporation of host country eating patterns at other meals or occasions
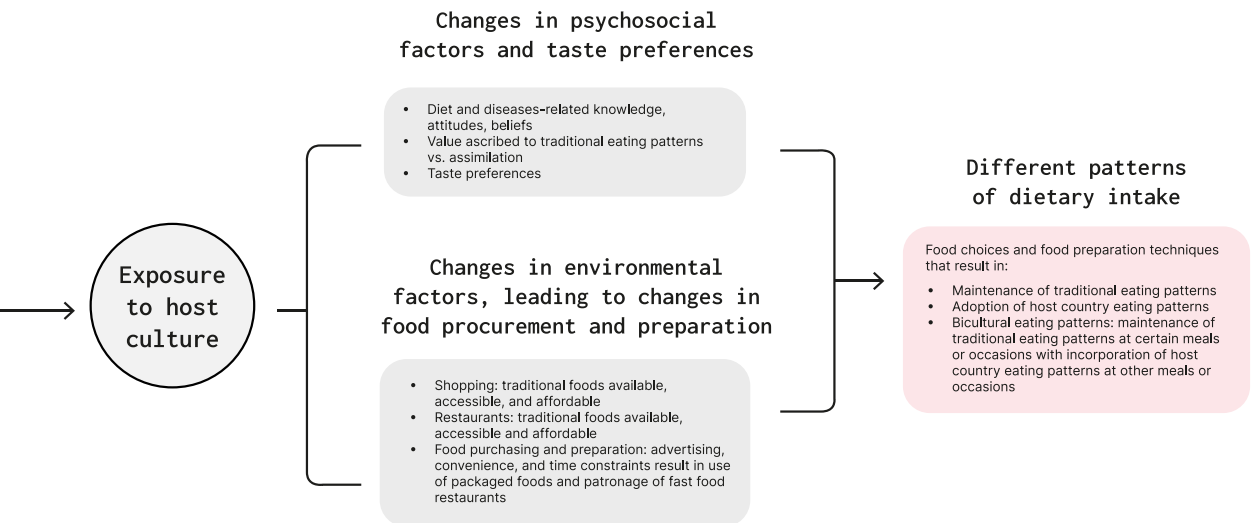
Figure 4. A Proposed model of dietary acculturation. The process by which racial/ethnic immigrant groups adopt the eating patterns of their host country. Adapted from Satia-Abouta et al. (2002).

2

2.0 Introducing the case studies:

Dutch-Turkish & Dutch-Surinamese households in the Netherlands

The selection of the Turkish and Dutch-Surinamese communities in the Netherlands for this research is driven by their substantial presence within the country. These communities hold a prominent position in modern Dutch society, making their cultural practices and rituals an integral part of the nation's diverse and dynamic social fabric. The study of their food rituals provides a unique perspective on the persistence of cultural traditions and their ongoing influence on the broader Dutch society, offering deeper insights into the complex interplay of cultures and traditions in contemporary Dutch life. The exploration of food rituals also sheds light on the significant role these practices play in shaping cultural identities and practices, thereby offering valuable insights into the cultural diversity and intercultural interactions present in the Netherlands. For instance, a study by Kranendonk and Vermeulen (2019) found that Turkish and Moroccan immigrants in the Netherlands have distinct food practices that have evolved due to their experiences in the country.

By narrowing the scope to these two groups, the research aims to delve deeper into their experiences and perspectives, shedding light on their cultural dynamics and interactions within the broader Dutch society.
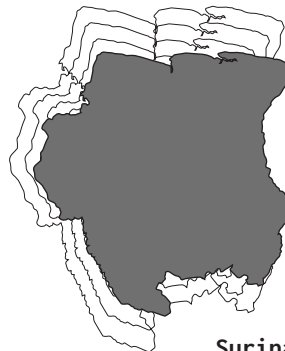
Turkey
Area: 783,356 km²
Population (Dec. 2022): 85,279,553
Capital: Ankara 39°55'N 32°51'E

The Netherlands
Area: 41,865 km²
Population (Aug. 2023): 17,890,400
Capital: Amsterdam 52°22'N 4°53'E

Suriname
Area: 163,821 km²
Population (2022): 632,638
Capital: Paramaribo 5°50'N 55°10'W

Data source: Wikipedia.

2.1 Foreign-born residents in the Netherlands

Looking at recent data from the *Centraal Bureau voor de Statistiek* it results that the Netherlands has a significant population of Surinamese and Turkish origin. According to the CBS in 2020, around 367,000 people of Surinamese descent lived in the Netherlands.

Additionally, there were approximately 423,000 people of Turkish descent in the country. In particular, Zuid-Holland is one of the most populous provinces in the Netherlands and includes cities such as The Hague and Rotterdam. It is known for its diverse population and multicultural communities.

The fact that the present thesis work took place at the TU Delft, strategically located in Zuid-Holland between The Hague and Rotterdam cities, made it convenient to research among these groups. The majority of non-native inhabitants originate from Turkey (205,000 individuals), Suriname (178,000 individuals), Morocco, and Poland (both with 173,000 individuals) (Figure 5). The Netherlands has a more extensive migration history with these three countries and Indonesia, where 106,000 residents were born.

2.1.1 Cultural entanglements between the Netherlands and its colonies.

Colonialism, trade, migration, and cultural exchange have significantly influenced the relationship between the Netherlands and its colonies, shaping their cultures, identities, and cuisines. These historical interactions have played a crucial role in establishing the diverse gastronomic landscape in the Netherlands today (Sholl, 2008). Suriname and the Netherlands have maintained significant positions in Caribbean literature and art despite their geographical separation. The colonial history of Dutch Guiana, now Suriname, is intertwined with Dutch colonization (Boxer, 1962; Craton, 2009).

Regarding the Dutch-Turkish relationship, it is essential to consider their connection within the broader framework of Dutch colonial history. While a direct historical link between Dutch colonies and Turkey may not exist, both regions were influenced by Dutch colonialism, contributing to the more extensive colonial system. The Dutch East Indies' interaction with the Ottoman Empire, which spans modern-day Turkey, is an example of such intersecting colonial dynamics (Ricklefs, 1991; Cribb, 1990).
Examining the Dutch colonies' connections with countries like Suriname and Turkey offers insights into the complex web of colonial history, enhancing our understanding of the enduring impact of colonialism on diverse societies and cultures (Stoler, 2006).

The colonial history and interactions between the Netherlands and its colonies have left a lasting impact on the food landscape in the country. While Turkish and Surinamese foods are not deeply ingrained in Dutch culinary traditions, their presence is notable through the presence of restaurants. On the contrary, the diverse spread of cuisines in the Netherlands owes much to the influence of various other nationalities. Some examples include:

↳ **Roti**
A traditional Indian flatbread known as "*roti*" has been incorporated into Dutch cuisine through the Surinamese community. The Dutch-Surinamese cuisine is known for its diverse range of flavors, and roti, often served with curries and vegetables, has become a popular dish.

↳ **Rijsttafel**
This Dutch-Indonesian dish showcases the influence of the Dutch colonial history in Indonesia. *Rijsttafel*, meaning "rice table", is a spread of various Indonesian dishes served with rice. It originated during the colonial era when the Dutch plantation owners wanted to sample a variety of Indonesian flavors in a single meal (Handoyo et al., 2018).

↳ **Spices and condiments**
The Dutch colonial trading ventures led to the introduction of various spices and condiments into the Netherlands. These include nutmeg, cloves, and cinnamon, which were highly sought-after commodities during the colonial period and have now become essential elements of Dutch cooking (Ellen, 1977).

↳ **Satay**
From Indonesia, satay has become a beloved street food in the Netherlands. These skewers of grilled meat served with peanut sauce reflect the historical ties between the two countries (Von Holzen & Arsana, 2015).

↳ **Bami and Nasi Goreng**
These Indonesian-inspired dishes, made with fried noodles or rice, respectively, have become common in Dutch homes and restaurants (Yusuf, 2016).

↳ **Pastries and Sweets**
Dutch patisseries have integrated influences from their colonies. For example, Dutch-Indonesian layer cakes like "spekkoek" are a fusion of Indonesian and Dutch baking traditions.

↳ **Coffee and Tea**
The colonial connections led to the introduction of coffee and tea to the Netherlands, which are now integral parts of Dutch culture.

These examples demonstrate how historical colonial interactions have contributed to the rich diversity of flavors and foods in the modern Netherlands' culinary scene.

2.1.2 Shared feasts of Turkish and Surinamese citizens in the Netherlands

Various cultural feasts and celebrations have been preserved in the Netherlands within specific communities. For instance, the Turkish community observes significant events such as Ramadan, Eid al-Fitr, and Eid al-Adha. On the other hand, the Surinamese community commemorates feasts such as Ramazan Bayrami and Keti Koti.

Keti Koti
Date: July 1st
Community: Afro-Surinamese, Dutch and Antillean

For the Surinamese community, the annual event occurring on the 1st of July is known as Keti Koti. It refers to a phrase derived from the Sranantongo, meaning "break the chains". This significant occasion commemorates the abolition of Dutch slavery. In Amsterdam and Rotterdam, the celebrations commence with the notable spikri (meaning 'big mirror') procession (Plaisier, 2018).
This event serves as a remembrance of the struggles and triumphs of the Surinamese community and is celebrated with various cultural activities and rituals (Stoutjesdijk, 2019).

Ramadan
Date: 10th of March – 9th of April, 2024
Community: Moroccan, Turkish

Ramadan is a month-long Islamic festival celebrated by Moroccan and Turkish communities in the Netherlands, involving fasting, prayer, and community gatherings. *Iftar*, the meal to break the fast, typically consists of dates, water, and traditional Moroccan or Turkish dishes like *harira* soup, lamb or chicken *tagine*, and *borek*. Moroccan and Turkish communities often gather in mosques or community centers to share the *Iftar* meal (Mughal, 2014).

Eid al-Fitr and Eid al-Adha
Date: 9th – 10th April, 2024
Community: Moroccan, Turkish

Eid al-Fitr and *Eid al-Adha* are prominent festivities observed by the Moroccan and Turkish communities in the Netherlands. *Eid al-Fitr*, denoting the culmination of Ramadan, is marked by communal gatherings with family and friends, the exchange of gifts, and the relishing of special meals encompassing traditional delicacies such as couscous, *tajine*, and *baklava*. Conversely, *Eid al-Adha* commemorates the narrative of Abraham's willingness to sacrifice his son and is observed by sacrificing animals. The meat is subsequently distributed among family members, friends, and those less fortunate (Bowen, 2012).
After Ramadan, Ramazan Bayrami is a festival celebrated by the Turkish community. It features traditional dishes such as *baklava* (a sweet pastry), *borek* (a savory pastry filled with meat or cheese), and *pilav* (a rice dish).

2.2 Focus of the Case Studies: Family Environment

The relevance of rituals and gestures becomes particularly pronounced when examining the context of family and communal dining.

Within the complex fabric of social relationships, various factors influence the manifestation and significance of these practices across different constellations. In family settings, as the most fundamental unit of commensality, rituals and gestures often hold immense cultural importance. The family's role as a primary social structure underscores the degree to which rituals and gestures are woven into the fabric of daily life. As Sobal (2000) points out, commensal circles are established through these units, with families forming the core of these networks.

Shared cultural histories and traditions deeply influence rituals and gestures within families, and their prominence is further intensified due to the limited opportunities for family meals during the workweek (Poulain, 2002; Cho et al., 2012). As a result, the dinner or evening meal often assumes paramount significance in family commensality research (Sharif et al., 2017). These constraints emphasize the role of rituals and gestures as integral components that forge connections, identity, and belonging within the family context. Anthropological studies suggest that gestures such as passing food, specific table manners, and communal serving practices become vehicles for both cultural continuity and the expression of familial bonds (Parker, 2004).

Beyond the family sphere, commensal relationships with co-workers, friends, and neighbors also provide intriguing landscapes for the study of rituals and gestures.

Shared meals in work groups, restaurant settings, or informal gatherings encompass a diversity of practices that reflect the evolving dynamics of these relationships. In the context of colleagues and co-workers, for instance, the incorporation of rituals and gestures can mirror social hierarchies, bonding mechanisms, and corporate cultures.

In alignment with these considerations, this thesis and its corresponding case study will primarily explore the intricate interplay of rituals and gestures within the context of family dining.

While the family's role in commensal circles is often central, these other constellations offer distinct insights into how rituals and gestures adapt and thrive in various social contexts. Analyzing these practices across different relational spheres enriches our understanding of the nuances and complexities embedded within these behaviors. In essence, these gestures and rituals serve as markers of identity, continuity, and social connection deeply embedded in the diverse fabric of human interactions (Sobal & Nelson, 2003; DeVault, 1991).

2.3 Participant recruitment and engagement

Reaching participants

The recruitment process for this study was achieved through personal networks and targeted email outreach. Families and couples willing to participate were engaged in documenting their typical in-week dinners, allowing for an insightful exploration of their shared dining practices.

Individuals within the researcher's connections were approached and invited to join the study, ensuring a comfortable and open environment for participation.

Additionally, email outreach was employed to connect with potential participants.

Detailed information about what the study is about and how it would have been carried out, its objectives, and requirements were communicated through email correspondence, visible in Appendix A (Figure A1 and A2).

The task

Participants were requested to document their in-week dinner rituals by capturing photographs at various stages of the dining experience – from meal preparation to the duration of the dinner and the subsequent unpacking. This comprehensive documentation aimed to provide a holistic view of the shared dining practices within their familial or couples setting, that would otherwise be hard to observe (Figure 6).

Despite the relatively modest response rate of three participating groups (out of the eight involved), the data collected from these engaged participants proved to be instrumental as a foundational resource. The captured photo material, thoughtfully compiled to maintain participants' privacy by avoiding recognizable individuals, offers an essential starting point for future participants. This material effectively served later in this thesis research as a means for observers to immerse themselves in the documented practices, facilitating a deeper understanding of the shared dining experiences within different cultural contexts.
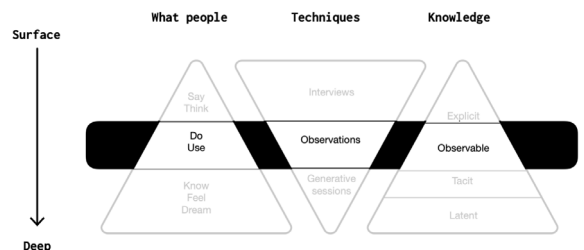

Figure 6. Range of knowledge investigated with the case studies. Referring to *Section 3.1*

Recruitment

The recruitment of Dutch-Surinamese and Dutch-Turkish individuals for this study was driven by two primary motivations.

Firstly, the **expertise of individuals within their own cultural backgrounds** was seen as invaluable in providing authentic and nuanced insights into the respective food rituals and practices.

Being members of (mixed) Turkish or Surinamese families, participants had an intimate understanding of their cultural heritage and were well-versed in the customs and traditions surrounding food consumption.

Secondly, the ample opportunities for shared experiences within these communities presented an ideal setting for studying the dynamics of shared eating practices, particularly during daily rituals such as dinners. By selecting individuals who regularly engaged in shared eating practices within their families, the research aimed to capture a rich array of experiences and insights related to the cultural significance of food within the family setting. Through such shared experiences, the study could uncover more about how food rituals affect the development of cultural identity and the dynamics that take place in these situations of community eating through such shared experiences.

The decision to recruit Dutch-Surinamese and Dutch-Turkish families was accompanied by the establishment of specific participation criteria. Fulfilling these criteria would enable participants to offer valuable and meaningful insights into the research topic.

↘ **Belonging to a cultural group**
Participants should come from a mixed family with either Turkish or Surinamese heritage. This criterion aims to include individuals who have a direct connection to these cultural backgrounds and have experienced the process of dietary acculturation within their family dynamics.

↘ **Share eating practice**
Participants were asked to be able to examine a specific shared eating practice, ideally one dinner during their working week, that represents their cultural heritage and reflects the interplay of food, culture, and social interactions among the couple/family.

↘ **Willingness to participate**
Participants be open to participating in the study and actively sharing their experiences, perspectives, and insights related to their dietary acculturation journey. Their willingness to engage in discussions and contribute to research was crucial for generating meaningful insights.

↘ **Openness to researcher's presence in sensitive context**
(If needed in further stages of collaboration)
Initially, participants were expected to welcome the researcher into their context during the study's second phase. This would have involved observing and documenting their shared eating practice firsthand. However, due to unforeseen circumstances or participant preferences, this phase may not have occurred as planned due to unforeseen circumstances or participant preferences.

2.4 Reflection on the photo safari:
opportunities and limitations

The photo safari conducted with Dutch-Turkish and Dutch-Surinamese mixed households proved to be a successful method in obtaining valuable insights into the context of their shared eating practices. One of the notable advantages of this approach was its ability to capture genuine moments without the intrusive presence of the researcher, allowing participants to engage in their routines naturally. The method facilitated the documentation of various stages of their dinner rituals, including preparation, duration, and unpacking (an example is shown in Figure 7), which contributed to a holistic understanding of their dining experiences.

However, it is essential to acknowledge the limitations of this method. While the photo safari offered visual documentation of the participants' interactions, it did not provide information about the conversations or the nuances of gestures and interactions. As a result, the research remained unaware of the exact details of what was being said or done at specific moments during the shared meals. Despite these limitations, the photo safari successfully captured the essence of the participants' shared eating practices and offered valuable insights into their cultural contexts.

Figure 7. Example of gathered data from the Photo Safari. Dinner time in a mixed Dutch-Turkish household.

3

In **Chapter 3**, the selected methodologies are discussed, with particular emphasis on the relevance of generative tools and techniques as the fundamental basis for creating a comprehensive designer's toolkit.

3.0 Research methodology

To facilitate the progression of this research project, a design thinking approach was embraced to steer both the process and the creation of the *Ritualia* toolkit.

Design thinking can be defined as a human-centered and iterative approach to problem-solving that emphasizes understanding users' needs, exploring creative solutions, and continuously refining design concepts. It involves empathizing with users, defining the problem, generating innovative ideas, prototyping, testing, and iterating in order to develop solutions that effectively address complex challenges. Design thinking encourages interdisciplinary collaboration, encourages a user-centric perspective, and aims to create practical and impactful solutions. Two prominent models have guided the advancement of each phase in this thesis.
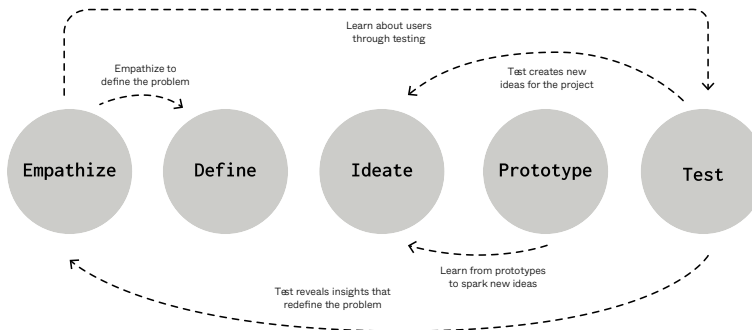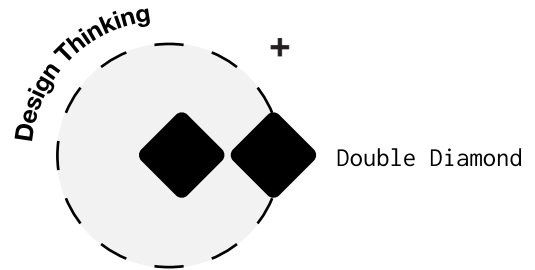
The first model is the **Design Thinking model**. It offers a systematic method to address challenges, explore potential solutions, and refine design concepts. This model originates from the design school at the Hasso-Plattner Institute in collaboration with Stanford University and IDEO. This model, encompassing six stages, is the core framework for the applied design thinking approach. Figure 8 illustrates that the six stages involve gaining empathy with users, problem definition, idea generation, prototyping, testing, and iterative enhancement. These stages operate in iterative cycles, facilitating continuous refinement and advancement of design concepts. By adopting this model, the research process remains rooted in a user-centric perspective and ensures that the *Ritualia* toolkit adeptly addresses the intricate dynamics of food rituals (Thoring & Müller, 2011).

Figure 8. The Design Thinking model of Hasso-Plattner-Institute.

Alongside the Design Thinking model, another essential framework considered throughout the project is the **Double Diamond model** by the design council. This model offers a structured process (shown in Figure 9) for design work, highlighting the significance of broad exploration and focused decision-making to delve into a problem and devise inventive solutions (Gustafsson, 2019).

The project commenced by extensively reviewing existing knowledge about food sharing and related matters and also by investigating various eating scenarios. Subsequently, the second phase provided an in-depth grasp of the context, identifying key gaps in research and aiding in setting clear research goals.

Through the utilization of the Double Diamond model, the project ensured an organized and comprehensive approach to research and design (Figure 10). This model established a clear roadmap for the project's progression, exploring multiple potential directions and guaranteeing a thorough exploration of the subject matter. The Double Diamond approach harmoniously combines exploration and decision-making, fostering the researcher to have a critical assessment in every phase of this thesis.
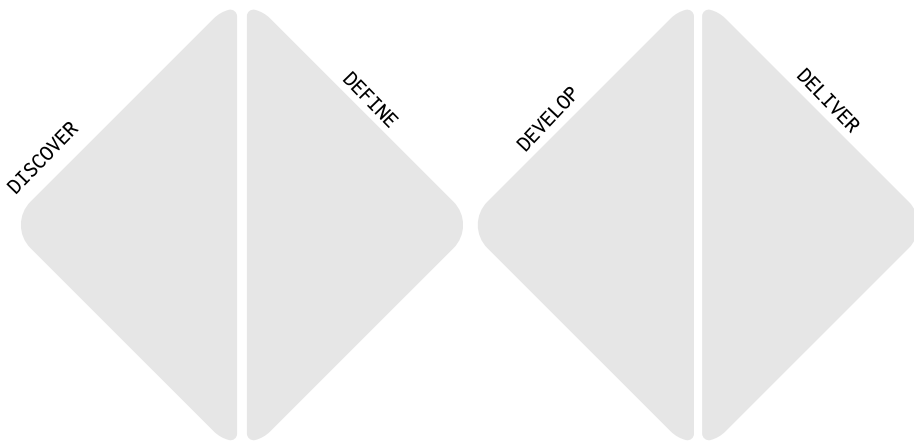
DISCOVER DEFINE DEVELOP DELIVER

Figure 9. The Double Diamond framework, its convergent and divergent areas.

DISCOVER

1

Exploration of theoretical concepts
Engaging with existing literature
on the cultural dimension of food.

Field observations
of existing ways and venues for
commensality.

Generative exercises
Conducting a focus group session and
exploring two case studies.

DEFINE

2

Framing the Design Goal
for the research project.

Setting a Design Direction

DEVELOP

3

Low-fidelity prototyping
of the toolkit components.

Ideation
of a toolkit ecosystem.

**Testing sessions
& iterative cycles**
Investigating users' responses to the
components.

DELIVER

4

Mapping of the toolkit use flow
for conclusions and guidelines.

Finalizing
the toolkit's elements.

Delivering

Figure 10. Research activities
according to the
Double Diamond model.

3.1 Generative techniques for research: contextmapping in culture-sensitive settings

Knowing and understanding the **contextmapping method** is particularly important for this thesis project. It has been extensively employed in design practice and education to understand better the intended users' context (Hao et al., 2017). The contextmapping approach encompasses a range of generative design techniques, emphasizing fostering individual and collective creativity among participants. It aims to elicit valuable insights by actively engaging participants and encouraging their creative contributions.

In this sense, designers increasingly understand the importance of contextual aspects of people's interactions.

the context map (Visser et al., 2005; Sanders & Stappers, 2012).

Despite this, the term "context" is still seen as one with a slippery notion. Context embeds several components besides time and space. Furthermore, it refers to "all factors that influence the experience of a product use". On the other hand, it is easy to assume that how a product is used or an experience is lived depends on its user and other environmental factors. To such sensitive contexts, many methodologies could be applied, and it is the role of a design researcher get a view of the chosen context. But this is always a guess, a personal view based on personal experiences. Research involving real users provides a richer view of situations in which products or services will be used.
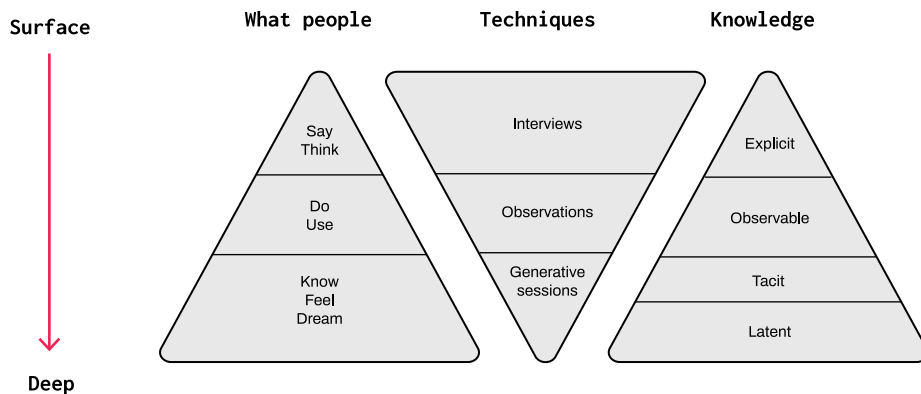

Figure 11. Different levels of knowledge are accessed by different techniques. Adapted from Visser et al. (2005)

This knowledge is essential for crafting designs that align with individuals' lifestyles and cater to their needs and preferences.

Studying the context in which a product is used can support designers in gaining empathy with users, avoiding fixation on assumptions about the user or the product, and creating innovative concepts on how a product could afford action or service can be experienced.

One could argue that it represents the information searched by researchers (context), how these are elicited (generative techniques), and the way it is helpful for the design team in the final creation of

Figure 11 shows the links between several sorts of data collection and their capacity to acquire various types of understanding of the user experience. The generative techniques are visible in the triangles' bottom sections.

For what concerns the approach to each context, without considering the depth of desired knowledge, engaging in the role of an observer proves to be an effective initial exploratory method for designers. Various observation techniques have been developed to reach this objective, and they are divided into categories: structured or

unstructured, disguised or undisguised, natural or contrived, personal or mechanical, and participant or non-participant (Collins, 2010).

Designers' selection and adaptation of observation tools depend on contextual factors such as the environment in which the observation occurs (natural or artificial), whether the observed individuals are aware of being observed, and the researcher's involvement in the investigated group.

Some examples might be found in the field of service design, and specific observation tools have been named, such as service safaris (exploring positive and negative service experiences) and shadowing (immersing in a customer's life) (Stickdorn & Schneider, 2012). Regardless of the type of observation employed, systematic registration of people's behaviors, objects, and situations is crucial for learning purposes, often done through visual, written, or auditory recording.

Context mapping in cultural research

Moving closer to culturally sensitive scenarios, it becomes clear that these inherently offer a fertile ground for using context mapping techniques in design research.

This is due to the **multifaceted nature of cultural contexts**, which encompass physical space and various socio-cultural and linguistic dimensions. Contextmapping's focus on understanding the totality of experiences aligns well with the need to navigate the complexities of different cultural perspectives, customs, and values.

The emphasis on avoiding assumptions and the fixation on one's viewpoints, as advocated by contextmapping, becomes especially vital when designing for cultures that may be vastly different from the designers' own.

In conclusion, the use of contextmapping as a structured pathway can bridge the gap in unfamiliar cultural territories, enabling designers to navigate the intricacies of culturally sensitive scenarios with a deeper and more informed understanding of the target culture.

3.1.1 Generative tools

Within the design context, the shift toward a people-centered environment, as Sanders (2000) advocates, underscores a departure from mere user-centered approaches. The evolution of generative tools to accommodate diverse individuals and design contexts, evident in settings like Delft University of Technology, has given rise to a multifaceted landscape of tool types.

This landscape ranges by presenting two-dimensional toolkits (e.g., paper shapes and color photographs), three-dimensional toolkits (Velcro-covered forms with Velcro-backed buttons, knobs, and panels) and toolkits meant to encourage the communication of stories and narratives over time.

Some tools in this environment are intended to elicit emotional responses and expression from individuals, while others are designed to reveal meaning and cognitive understanding.

Certain tools are designed to evoke emotional responses and encourage personal expression, while others are structured to unveil layers of meaning and cognitive comprehension. The complexity of this generative tool landscape brings forth a novel language, intertwining both verbal and nonverbal components (Figure 12). These components can be ingeniously combined, much akin to linguistic elements employed in human communication (Chomsky, 1965), albeit with a predominant visual inclination. Consequently, the synthesis of many components into toolkits reflects the dynamic nature of this creative paradigm.

A typical generative toolkit comprises a backdrop for working and multiple fundamental and versatile elements that can be mixed and matched differently. These elements span from concrete to conceptual forms of representation.

Designing and enhancing generative toolkits is an independent creative endeavor since a toolkit needs to be tailored to a specific purpose (Sanders, 2000).
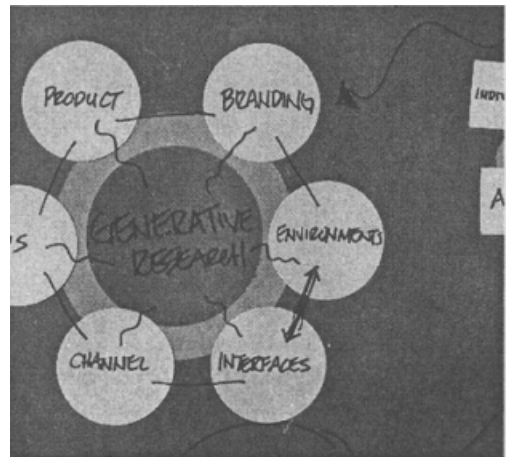

Figure 12. Example of a tools for thinking: "How do you expect your work to change in the future?"

3.2 Autoethnography in multicultural settings

Autoethnography is a research and writing approach aimed at comprehensively analyzing personal experiences to gain insights into cultural contexts. This method involves systematically describing and analyzing one's own experiences in order to understand broader cultural phenomena (Ellis, 2004). The term "autoethnography" was formally introduced in the 1970s.
Heider (1975) utilized "auto-ethnography" to depict the practice of cultural members offering an account of their own culture. Additionally, Hayano (1979) used the term to refer to researchers who create ethnographies focused on their "own people."

During the 1990s, autoethnography gained popularity as a method that utilizes personal experiences and reflexivity to explore cultural phenomena, particularly within the field of communication (Adams et al., 2017). When conducting ethnography, practitioners immerse themselves in a culture or cultural experience, actively observe and participate, and subsequently document their findings. This may involve extended time spent in the cultural "field", taking detailed "field notes", and conducting interviews with cultural insiders to capture their experiences, thoughts, and emotions. Ethnographers often approach cultural communities inductively, allowing their observations to guide their findings and written analyses.

Components and application
Self-ethnography involves the researcher actively participating in the study, often engaging in the practices or rituals under examination. This deep involvement facilitates the researcher's ability to capture nuanced experiences and emotions that might not be evident from an external perspective. The method usually consists of journaling, reflections, and open dialogues about the experiences.
Throughout the research process, the researcher plays a dual role: participant and an analyst. This multifaceted engagement enables the researcher to uncover hidden layers of meaning and cultural significance. The collected data might include personal narratives, observations, reflections, sketches, and visual representations of experiences.

Autoethnography in an eating scenario
This method holds considerable potential when individuals engage with food practices, transcending surface-level observations. By actively participating in food rituals, researchers can delve into the sensory, emotional, and cultural dimensions that define these experiences. For instance, using self-ethnography, researchers can uncover the unspoken rules of engagement during communal dining or even the emotions evoked by certain ingredients or aromas.
In a food design project such as the present research, autoethnography empowers one to empathize with the participants and gain personal insights that shape the design process. This methodology can help uncover patterns, preferences, and cultural norms that might otherwise remain superficial.

3.3 Reviewing tools for design practice

By now we know that design toolkits aim at facilitating the creative and iterative process of designers (Sanders, 2000). They provide a comprehensive set of tools, techniques, and resources that empower designers to explore ideas, iterate on concepts, and refine their designs. One key aspect of a design toolkit is enabling designers to quickly and effectively bring their ideas to life in the early stages of the design process. The elements and structure of a design toolkit can vary depending on the specific context and purpose, but several common components are often included.
For this reason, to start ideating one, it was crucial to observe the structure and the purpose of some existing toolkits.

The first to be taken into consideration was Deger Ozkaramanli's **dilemma-finding toolkit** (Figure 13) that utilizes a set of universal human goals as a foundation for generating dilemmas. These goals, derived from the research of psychology scholar Martin Ford, encompass aspects such as belonging, creativity, and entertainment. The toolkit transforms these goals into a design tool, enabling the exploration of meaningful starting points for design projects by facilitating discussions on goals and potential dilemmas.
It comprises 24 goal cards and an infographic overviewing all the goals. Additionally, the instructions booklet provides a step-by-step guide for formulating, discussing, and debating stakeholder goals and dilemmas.

The second toolkit is the **Cultura** method developed by Chen Hao (Figure 14). Cultura is a toolkit that uses nine cultural aspects based on cultural models to inform designers about user insights in a wide cultural context.
The Cultura toolkit encompasses a dual dataset framework, comprising two distinct categories: user data meticulously collected from the precise target audience relevant to the designated design subject, and cultural insights extracted from pertinent theoretical frameworks to contextualize the user-derived data. Hao's method serves as an approach for cultivating empathy within the context of multicultural research.

The third product analyzed is the **Ritual design**

toolkit developed by Baxter et al. (2020). It provides a guide to understanding and crafting rituals, in Figure 15. However, designing for eating practices would not be feasable with it, since these involve an added layer of complexity due to the multi-faceted nature of food consumption.

Figure 13. Deger Ozkaramanli's dilemma-finding toolkit.

Figure 14. Chen Hao's Cultura toolkit, *Value* circle.

Figure 15. Ritual Design toolkit, canvas example.

↳ **Elements of a toolkit**

By analyzing the tools mentioned in the previous page, it was possible to identify some key elements that are usually part of a toolkit:

① **Design methods and techniques**
Design toolkits provide a collection of methods and techniques that guide designers through the design process. These can include brainstorming techniques, user research methods, prototyping approaches, and evaluation methods (Sanders & Stappers, 2012).

② **Templates and worksheets**
Design toolkits often include templates and worksheets that help designers document and visualize their ideas. These can include persona templates, journey mapping sheets, sketching templates, and evaluation checklists (Brown, 2008).

③ **Visual and interactive resources**
Design toolkits, including visual and interactive resources, to inspire and stimulate creativity. These can include image libraries, icon sets, color palettes, and interactive prototyping tools.

④ **Case studies and examples**
Toolkits can provide examples of successful design projects to inspire and guide designers. These examples showcase best practices and real-world applications (Dorst, 2015).

⑤ **Design principles and guidelines**
Design toolkits may include a set of design principles and guidelines to help designers make informed decisions. These principles can cover various aspects such as usability, accessibility, visual aesthetics, and user-centered design (Norman & Nielsen, 2010).

⑥ **References and recommended readings**
Toolkits often include references or recommendations about readings that designers can explore for further learning. These can be books, articles, websites, or other resources relevant to design theory, methods, and practice.

Despite these criteria, the composition of a design toolkit may differ. However, it typically organizes all its elements in a logical and accessible manner, allowing its users to easily navigate and find the resources they need at different stages of the design process.

Chapter 4 thoroughly examines the structure, purpose, and outcomes of each research session, providing a comprehensive understanding of the development process of *Ritualia*.

4.0 Designing *Ritualia*:
concept development through iterative sessions

Because designers need support in dealing with the complexities of engaging in multifaceted eating rituals, the goal of *Ritualia* is to assist users in recognizing and comprehending practices they may encounter in diverse eating scenarios. Furthermore, the toolkit developed for this thesis research is meant to raise awareness of personal beliefs and values through engaging with different cultural contexts and experiences.

To do this, knowing the key elements of food rituals through interactions with participants is crucial. In fact, in this chapter we will take an in-depth look at the various generative and testing sessions that took place alongside this project to understand better the process through which the key values of eating context were determined, and, as a consequence, every part of the toolkit got life.

4.1 First group session: a focus group investigating the dietary acculturation process of expatriate students

↪ Focus group approach

The format of the planned focus group is a widely recognized qualitative research method that allows researchers to explore participants' perceptions, beliefs, and attitudes toward a particular topic of interest (Krueger & Casey, 2015).

For this reason, a focus group was conducted for the present study to collect data from three expatriate students at the TU Delft faculty in the Netherlands, each from a different country. During the session, the author of the thesis was present in the role of the researcher to facilitate the exercise. As for the used language, all the participants communicated in English, which is not their mother tongue.
The session aimed at collecting thoughts from participants to gain insights based on the macro topics composing Hofstede's Cultural Dimensions Theory (1980), including four out of the six layers: symbols, heroes, rituals, and values and replacing the beliefs, and assumptions with two other topics of interest for the research: language and gestures.

The underlying goal of this method was to uncover and analyze the values and often latent meanings associated with the food rituals of the participants (Figure 16). The exercises proposed to the participants were structured in such a way as to investigate their past interactions in a family setting and compare them to their current behavior in the Netherlands, their hosting country. This approach aligns with previous studies that have employed focus groups to explore cultural differences and identify commonalities in food rituals among diverse groups (Villegas et al., 2022).
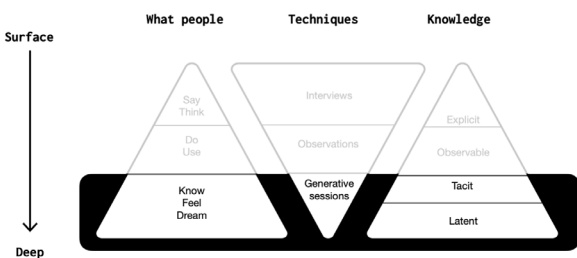

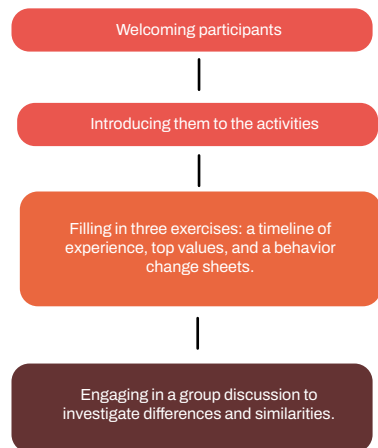**Figure 16.** Range of knowledge investigated with the focus group.

Figure 17. Focus group structure.

4.1.1 Structure of the focus group

The participants were introduced to three exercises. These consisted of completing a timeline of experience, top values, and a behavior change sheet, as shown in Figure 17.

The layout of the **first exercise** consisted of what will take the name of an *experience timeline* (Appendix B, see Figure B1), through which the participants could visualize their present and past experiences. This approach follows the theory behind the "Path of Expression" (see Figure 18), which was developed on psychological theory about memory and creativity. In design practice, it is mainly used to steer good and bad memories from the past and hopes for the upcoming future (Sanders & Stappers, 2014).

In the exercise, in correspondence with each phase of the meal, participants were asked to frame a specific saying or verbal expression that they recognized to be recurrent. And, alongside that, participants were asked to indicate verbally or visually the object used in each moment and the types of gestures performed by themselves and other diners.

The **second exercise** included compiling a *value sheet* (Appendix B, see Figure B3). The participants were given 13 values often related to a moment of commensality, which they would have placed in three concentric circles. In order of importance, the inner circle would represent their first choice, the second circle the second value, and the same for the third.

The **third exercise** asked the participants to actively reflect on how their eating behaviors changed after moving to a different country. During this task, they received a third sheet with some visual exercises (shown in Appendix B, Figure B3).

Within it, it has been requested to the participants to provide basic and non-intrusive information about the duration of their stay in the Netherlands, what they recognized as the most significant changes in their eating behavior and the possible causes, according to their own judgement, that triggered that change.
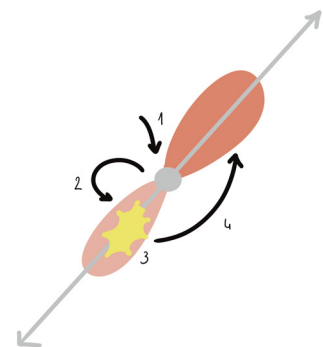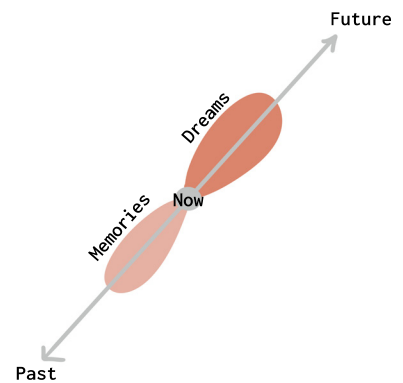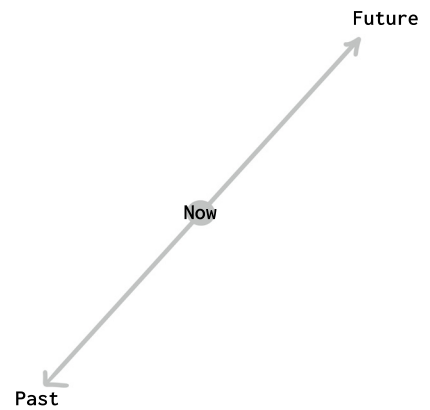

Figure 18. Path of Expression developed by Sanders & Stappers (2012).

4.1.2 Analysis

Once the session ended, its transcription and material were analyzed to draw some results through understanding the responses from participants.

The statement card method has been used as the primary analysis technique, as it is commonly used in design research to organize and analyze qualitative data.

After analyzing the session transcript, a salient quote is selected and reported in the bottom section of the card (Figure 19). After gathering one or more quotes, the researcher interprets the data and formulates an insight allocated in the card's middle section. In the context of this project, the analysis involves digital cards on which the researcher writes or types small units of information, such as quotes, observations, or critical concepts (Binder & Brandt, 2008).

These cards, then, were manipulated on a digital board (shown in Appendix B, see Figure B4), sorted, and grouped into clusters (Appendix B, Figure B5) to identify patterns, themes, or relationships within the data. By sorting and clustering similar themes, the statement card method enables the researchers to gain insights and generate new perspectives.

A broader set of insights gathered from the statement cards highlighted distinctions between the material world, behavioral elements, and interpersonal interactions among diners (illustrated in Figure 20). These aspects are further explored in the next section.
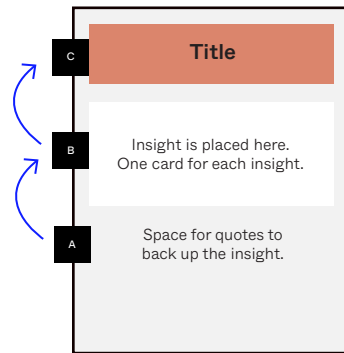

Figure 19. Statement card method.

Figure 20. Macro-topics of interest resulted from the focus group.

4.1.3 Insights

What arose from the semi-structured focus group is the importance that each participant associated with some particular parts of the exercises. The insights gained from this first group session shed light on the values shared in a familiar eating context. These allowed for framing some aspects to take into account when looking at a shared eating practice.

The group involved in the research responded by referring to **different personal scenarios** (see Table 3) During the session, it emerged that for each type of gesture performed, they denoted a corresponding effect on the diners (shown in Table 4).

These are the group involved (who is eating, how many people, which roles these people have); the timing of the action (when does it usually start, how long it lasts, how often it recurs, how many sequences of activities are there and what are they); the artifacts (what artifacts are part of the practice, description of their arrangement, how does the displacement of the object change throughout the meal).

Some elements can be found challenging to measure but could provide a good understanding of one's behavior and patterns: the gestures performed (what are the most frequent actions and from what are they triggered or what do they trigger); language (what are used expressions, sentences and what do they trigger among diners) and values (underlying values shared by participants according to their culture and context).

In order to do so, **measurable parameters** were established to be able to analyse contexts in a structured way and to ultimately get the best of the food ritual's nuances I through the use of the tool in context. Following the recognition of behavioral patterns, these parameters were defined. On one side, measurable factors such as the number of people involved in the group, the timing of the ritual, and the artifacts involved in the practice are proposed.

Each distinction inspired the questions that must be addressed to generate knowledge about the analyzed context.

Participant	Social group considered
P1	Family of four
P2	Family of three
P3	Family of four

Table 3. Scenarios considered by the participants.

↪ 1. Group Dynamics
- Number of people involved in the eating practice.
- Roles and responsibilities of each group member (e.g., host, cook, server, guest).
- Cultural or social norms dictating the behavior and interactions within the group.

↪ 2. Timing
- Start time and duration of the eating practice.
- Frequency of the eating practice (e.g., daily, weekly, special occasions).
- Sequences of activities involved in the eating practice (e.g., appetizers, main course, dessert).

↪ 3. Artifacts
- Description of artifacts involved in the eating practice (e.g., plates, utensils, tablecloth, decorations).
- Arrangement of artifacts on the table or eating area.
- Changes in the displacement or arrangement of artifacts during different phases of the meal.

A second group of parameters needed to be included for the contextual evaluation: the gestures performed by the diners along the whole ritual, the language used and common verbal expressions, and values shared by the diners.

↪ 4. Gestures
- Identification of the most frequent and significant gestures diners perform.
- Triggers or motivations behind these gestures (e.g., passing food, pouring drinks, expressing gratitude).
- Social or cultural significance of specific gestures within the eating practice.

↪ 5. Language
- Commonly used expressions and sentences during the eating practice (e.g., greetings, compliments, requests).
- Triggers or responses that specific language cues elicit among the diners (e.g., laughter, engagement in conversation).
- Cultural or contextual implications of specific language use within the eating practice.

↪ 6. Values
- Identification of underlying values shared by participants based on their culture and context (e.g., hospitality, togetherness, respect for food).
- Exploration of how these values manifest in the eating practice.

- Consider any rituals or traditions associated with the eating practice that reflect these values.

These represented the foundation for starting the development of the *Ritualia* toolkit. In fact, each part of the kit represents a tool that aims to capture and understand various dimensions of shared eating practice.

Participant	Type of gesture	Effect	Value for the toolkit
P1	Signaling the number of desidered pancakes to the maker (in the kitchen), by involving gestures with her hands and verbal reference.	Emphasis on **gesturality**.	Communication can happen verbally and non-verbally.
P1	Disposing food supervised by one member of the family.	Trust in the **group roles and dynamics**.	Establishing strong bonds according to each member's role.
P2	Passing in front of a diner to take the food.	**Moving in the space** taking others into account.	Influence of the spatial layout on the course of actions carried out.
P3	Placing an embroidered tablecloth as a sign of festivity.	Increased perception of a sense of **celebration**.	Importance of the use of specific objects for special circumstances.
P3	Sharing stories and catching up together.	More **cohesion** in the group.	Value of the amount of time spent together and the repetitiveness of actions.

Table 4. Type of gestures performed and their corresponding effects on the group and value for the toolkit.

4.2 Iterations on the design of the *Ritualia* toolkit

Starting from this set of necessary information mentioned in the previous section, these were taken into account to map an eating context. Hence, the first tool designed to allow gathering data in an eating context is the **researcher's *napkin***.

It was named like this because the *napkin* as an object represents a cleaning tool that diners approach from time to time, that stays on the table for most of the duration of a meal, and in a creative environment, it can be used as a support to write, sketch, or doodle.

The researcher's *napkin* aims to represent that same concept by providing eight areas to be filled by the designer, representing measurable criteria observed in the context that each fulfills research questions related to the context (Table 5), who are the diners, the artifacts used, the set-up, a space for triggering sentences or interesting gestures, a ritual timeline and space for extra notes. From these distinctions, a low-fidelity prototype was created digitally, with the idea of representing a printable tool further on.

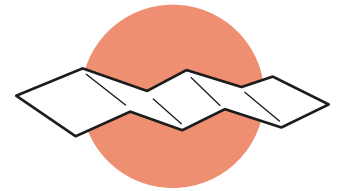| Page title	Research questions
Context	1. How does the context in which the food ritual takes place influence the overall dining experience? 2. How do cultural, social, and environmental factors shape the context of the food ritual?
Diners	1. Who are the participants in the food ritual, and what roles do they play? 2. How do the diners' backgrounds, relationships, and social dynamics impact the ritual?
Roles	1. What specific roles do the diners assume during the food ritual, and how do these roles interact? 2. How do hierarchies manifest in the assigned roles of the diners?
Artifacts	1. What key artifacts are used during the food ritual, and how do they contribute to the experience? 2. How do cultural and symbolic meanings associated with the artifacts influence the ritual?
Space set-up	1. How does the space setup change throughout the different phases of the meal? 2. What significance does the set-up hold regarding social interactions and symbolic gestures?
Language	1. What sentences or phrases are commonly used during the food ritual, and what do they signify? 2. How does language function as a pragmatic trigger, leading to specific actions or behaviors?
Ritual timeline	1. What is the sequence of actions and events that occur during the food ritual? 2. How does the timeline of the ritual reflect cultural norms, traditions, or symbolic moments?
Extra notes	1. What additional observations or insights emerge from fieldwork and participant interactions? 2. Are there any unexpected findings or noteworthy aspects that deserve further exploration?

Table 5. Research questions related to the pages of the *researcher's napkin*.
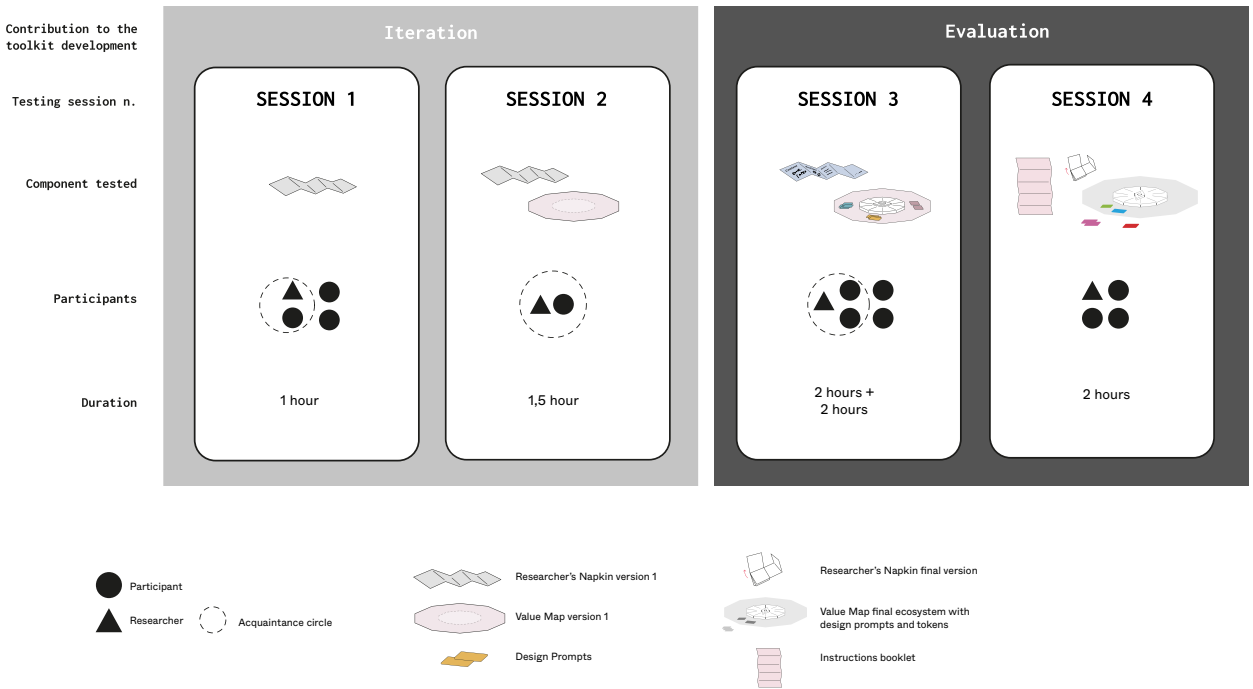
Figure 21. Sessions' overview.

4.2.1 Prototype testing sessions

After investigating the salient elements by engaging in a focus group, a **prototyping and testing phase** began. The first session aimed at testing the *napkin*, and the second, the *napkin* and the *value map* with the *value compass* (presented in section 4.4). According to the experiences reported from the Case Studies results, these two had both *napkin*s pre-filled.

On the other hand, the third and fourth sessions evaluated the whole toolkit ecosystem.

Figure 21 illustrates an overview of the testing sessions that have been carried during this thesis project, showing the element(s) tested, the participants - researchers and designers - involved, and the test duration.

4.2.2 First hand-on prototype testing

1 Structure

The **first testing session** involved presenting the *napkin* tool to two designers, allowing the collection of feedback on its functionality.

The session was designed with a systematic approach, consisting of various phases, to comprehensively explore multicultural food rituals and stimulate innovative design thinking.Participants were initially introduced to the session's objectives and structure. The "researcher *napkin*" (first version is shown in Appendix C, Figure C1) was introduced as a crucial tool for capturing vital information about multicultural food rituals.

The prototype linked to multicultural food rituals was presented, highlighting its significant features. This presentation was followed by a brief overview of the tool, detailing its contents, such as material aspects, spoken language, gestures, artifacts, and timeline. Designers were then randomly assigned one of three specific design goals (see Appendix C, Figure C4): restaurant design, web/app service, or advertisement design. This step aimed to align their design concepts with their assigned objectives.

During the individual ideation phase, designers utilized the *researcher's napkin* as a reference to create design concepts tied to their assigned goals. Freedom of expression and participants' creativity were encouraged, with an emphasis on incorporating cultural nuances. The ideation phase was then followed by a group discussion, where designers shared their design concepts (one example is provided in Figure C5 of Appendix C), fostering collaboration through feedback and idea exchange. Instances requiring additional guidance were noted.

The session concluded with a recap of key insights and observations from the discussion. Designers provided feedback on the usability and effectiveness of the "researcher *napkin*" as a tool for concept ideation. This structured session (the script is available in Appendix C, Figure C3) effectively harnessed designers' creativity, yielding valuable insights into utilizing the *researcher napkin* and highlighting areas where additional support is required during the ideation phase of multicultural food rituals.

Purpose

The first design session had the objective of testing a the first component linked to the ongoing research project centered on multicultural food rituals. To facilitate this user test, two pre-filled *napkin*s were employed (as shown in Figure 22), each illustrating a distinct food practice. The session involved two participants, and its primary aim was to **assess the *napkin*'s effectiveness** in capturing relevant information.

The purpose of this testing extended to observing how two designers, each drawing from a distinct goal, leveraged the tool to generate design concepts. This approach was adopted to evaluate how effectively the tool facilitated idea generation across various design contexts.

Figure 22. Material provided to participants for the first session.

4.2.3 Insights

During the session analysis, several noteworthy observations emerged:

1. The introduction of the *napkin* tool received positive feedback from participants, who particularly commended its concise layout and presentation of information on each page.

2. An intriguing insight that surfaced was the recognition of a **gap in understanding the value** components **that underlie specific choices** made during dining practices. This observation suggests a potential area for improvement in capturing and conveying the deeper cultural context of food rituals.

3. The incorporation of **design goals** into the session structure yielded encouraging results, as participants found this approach to be conducive in fostering the development of fresh design concepts. This aspect highlighted the effectiveness of guiding participants through explicit objectives during the creative process.

4.3 Components' development according to sessions' results

As the design process progressed, observing the results from the testing sessions, it became crucial to find a way to allow designers to delve deeper into the underlying **values** that drive users' eating choices.

As we have seen previously, values are a subjective aspect of a human set. Understanding them allows designers to create concepts that deeply resonate with users.
During the initial testing stage of the toolkit, designers expressed curiosity about how individuals or groups justify their eating choices based on a specific set of value priorities.
Since these priorities and preferences can be expressed in multidimensional ways, designers could not always rely on explicit verbalization of underlying motives. Therefore, in developing the first tool of the *Ritualia* kit, it was clear that additional nuances were necessary to capture the multifaceted levels through which personal values manifest in actions.

According to Fogg (2009), addressing users' values is essential for persuasive design, as it taps into the emotional and motivational aspects that shape users' behaviors and decision-making processes. By uncovering the values associated with food rituals, designers can align their concepts with users' aspirations, cultural identities, and personal beliefs. This alignment enhances the relevance and effectiveness of the design solutions, making them more likely to be embraced and adopted by the target audience (Norman, 2013).

By considering the values influencing users' eating choices, designers can create concepts that fulfill functional needs and resonate with users deeper, facilitating a more meaningful and culturally sensitive food experience. For this reason, incorporating value-driven design principles into the toolkit empowers designers to develop concepts that align with users' values and contribute to the overall success of the design process.

In the context of values influencing food choices and rituals, the literature identifies components of values that can be considered. These components help us understand the multidimensional nature of values and how they shape individuals' behaviors and decision-making processes.

One commonly referenced framework is Schwartz's theory of fundamental human values (Schwartz, 1992). This theory proposes ten broad values encompassing different human motivation and behavior aspects. These include self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism.
Each value represents a distinct motivational goal that individuals may prioritize differently (Figure 23).
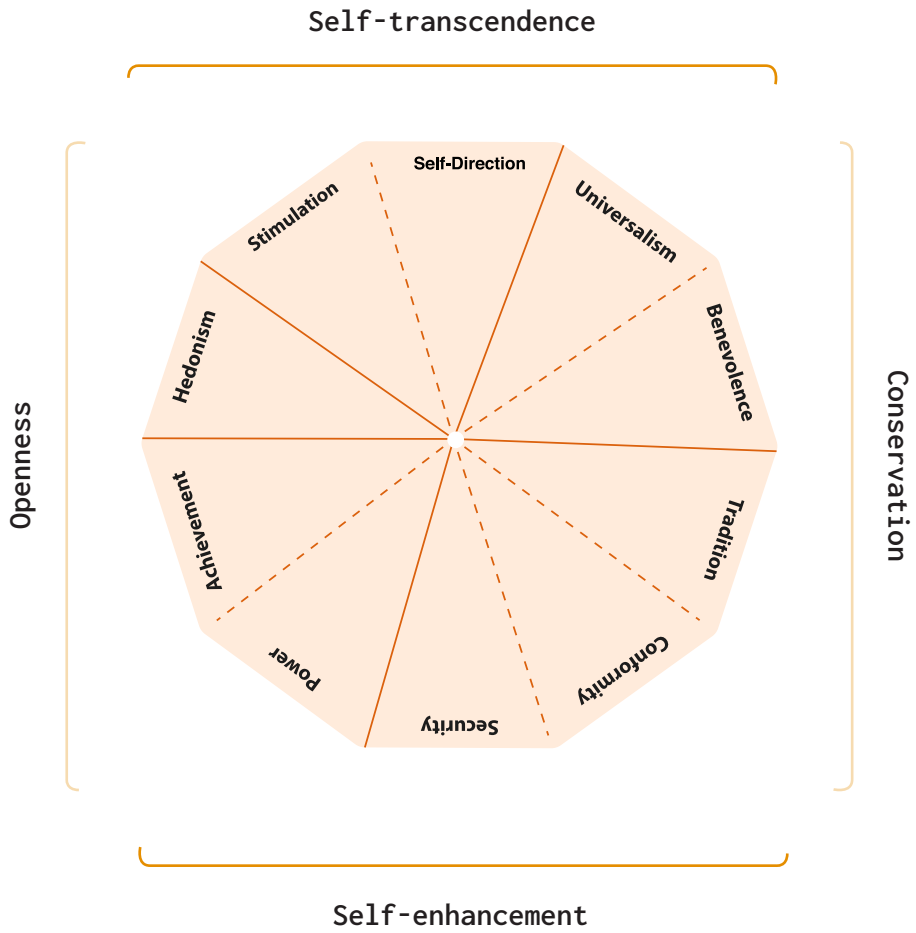
Self-transcendence

Openness

Conservation

Self-enhancement

Self-Direction

Stimulation

Hedonism

Universalism

Benevolence

Achievement

Tradition

Power

Conformity

Security

Figure 23. Schwartz's model
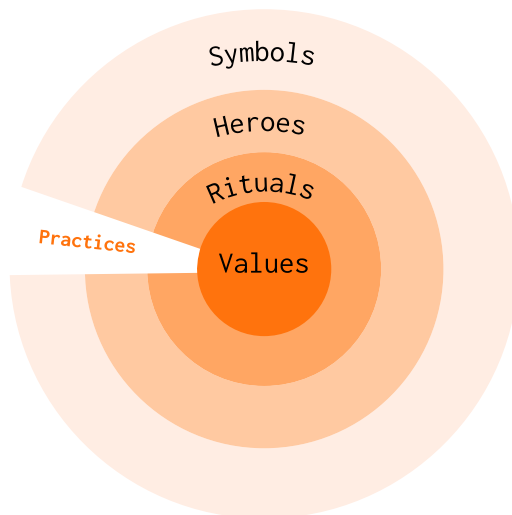of basic human values (1992).

Figure 24. Hoefstede's
Onion Model (2010).

To embed these components into an tool, one approach was to create a value assessment and mapping tool for values. With this, the aim was to allow designers to identify and prioritize users' values within different dimensions (the ones part of Schwartz's basic human values framework, 1992), as well as the personal versus collective purpose and inclusive versus exclusive behavior. As previously observed, individualism versus collectivism reflects the societal position on the value of loose ties among members or the integration of members with their groups (Hoefstede, 2001).

The other model taken into account is the Onion Model from Hoefstede.
Hofstede's OM (2010) in Figure 24 demonstrates that values represent the fundamental yet concealed essence of culture, materializing through cultural behaviors. It elucidates that when unveiling a culture's values, the initial step involves stripping away the external layers of rituals, heroes, and symbols.

The options considered were creating a **visual framework** and designing a **map** or grid representing the different values as distinct sections or quadrants. Based on the previous analysis of other existing tools, the following criteria were taken into account.
1. Using **colors** helps represent connections among these elements to connect each design element with its value visually.
2. Providing **descriptions**, including concise

explanations of the meaning or keywords that highlight the significance of each value in the context of multicultural food rituals, will avoid this.
3. Offer **guidance**: Provide designers with suggestions on incorporating these values into their design concepts, such as considering the cultural significance of certain rituals or promoting inclusivity and diversity in their designs.
4. Encourage **exploration**: fostering designers to think creatively and explore how they can make use of the identified values to enhance the experience of multicultural food rituals.

These findings marked the initial stage in crafting a cohesive narrative for each component of the toolkit. These elements, unified in style, encompass a research *napkin*, the *value compass*, and the *value map*. Together, they serve to streamline the exploration of rituals within their contexts, the analysis of rituals, and the process of ideation.

Creating the **value compass** was driven by embodying the multidimensional nature of values within the *Ritualia* toolkit. Designed in the form of a compass, with ten inscribed basis human values, studied by Schwarts (1992), designers can easily select the value they believe underlies specific choices while analyzing a food ritual. This addition features distinct sections representing various values or dimensions. With a base and two rotating needles, designers can indicate the relative emphasis or preference of values by adjusting the compass arrow towards the chosen value. Additionally, it is possible to rotate the "individual *versus* collective" and "inclusive *versus* exclusive" indicators based on the predominant attitude analyzed in the ritual.

By integrating a value assessment mechanism, the tool additions' aim is to fosters not only contextual understanding but also self-reflection on personal values and exploration of collective values' influence on decision-making.

The ideation of the **value map**, along with the *value compass*s, was a response to the insights gained from this process. This map was developed to cater to the needs of designers during the design session. At its center, where the compass should be placed, it visually represents each value. This extension of the *value compass* sides visually encourages designers to sketch, write, and add their insights to the observed rituals, fostering a holistic and creative design process.

At last, in the *Ritualia* toolkit, each of the fundamental human values represented in the *value compass* is accompanied by a diverse set of **design prompts**. Design prompts are thought-provoking statements or questions that stimulate creative thinking and guide designers in generating ideas and concepts. These were crafted to offer designers a range of perspectives and angles to explore when considering the value's influence on multicultural food rituals. For every value inscribed on the *value compass*, designers can choose from various prompts that delve into different aspects of the value's manifestation within food practices.

This way, the toolkit ensures designers'

Value Compass

Value Map
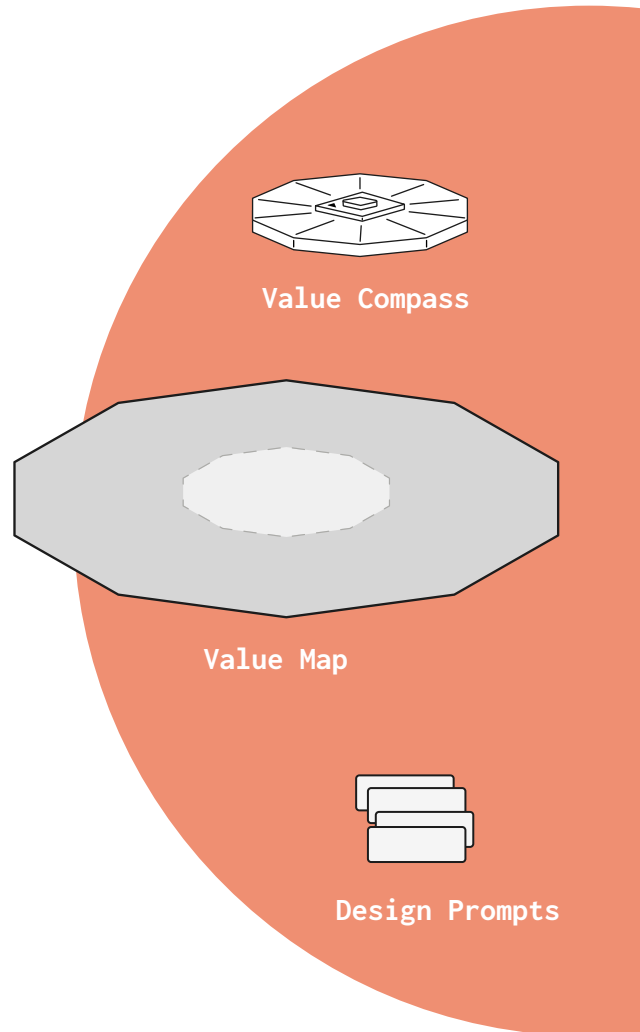
Design Prompts

4.4 Second testing session:
introducing a *value compas, value map and design prompts*

2
Structure

The second testing session was conducted with the presence of an experienced food designer. It commenced by systematically introducing the elements laid out on the table, as depicted in Figure 25.

The initial phase involved the designer selecting one out of two pre-filled *napkin* options and drawing a design goal at random from a predefined list (identical to the first experiment's options, as illustrated in Appendix C, Figure C4). The participant's task during this initial stage was to become acquainted with the chosen elements, as illustrated in Figure 26.

. Following this, the designer was prompted to select a context and a design goal. The chosen design goal was kept in mind to maintain a clear purpose throughout the session, providing the designer with a definitive objective to guide their process. After selecting the pre-filled *napkin* corresponding to the chosen context, the participant proceeded to familiarize themselves with all toolkit components, initiating the subsequent analysis and ideation phases. To conclude the session, the researcher and participant had a short discussion on the flow of the experiment.

Purpose

The main goal of the session was to tap into the knowledge of a competent designer in the field of food environments. The session aimed to explore the full potential that the newly built toolkit tools may unleash by bringing in this expert. The goal was to evaluate the toolkit ecosystem's overall fluidity and usefulness, including the *value map*, *value compass*, and *value guide*. This interaction aimed to determine whether the user, in this case, an experienced designer, could relate to and effectively use the toolkit components.

The involvement of a designer with a particular understanding of the food sector was critical in thoroughly analyzing the toolkit's potential. Their perspectives proved important in revealing the intricate interconnections between the toolkit's tools and the complex terrain of multicultural eating rituals. This joint investigation was aimed at shedding light on how the toolkit pieces may work together to aid the designer's creative process while learning and incorporating cultural values into their design concepts.

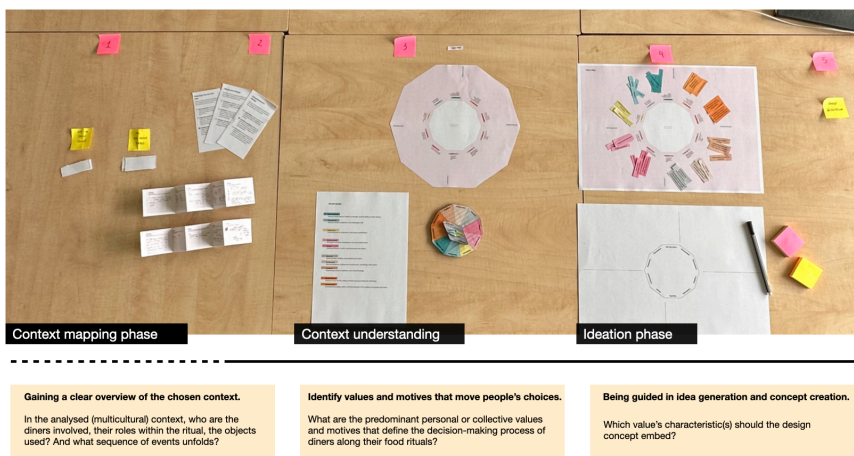However, it is important to acknowledge

Context mapping phase   **Context understanding**   **Ideation phase**

Need   Gaining a clear overview of the chosen context.   Identify values and motives that move people's choices.   Being guided in idea generation and concept creation.

R.Q.   In the analysed (multicultural) context, who are the diners involved, their roles within the ritual, the objects used? And what sequence of events unfolds?   What are the predominant personal or collective values and motives that define the decision-making process of diners along their food rituals?   Which value's characteristic(s) should the design concept embed?
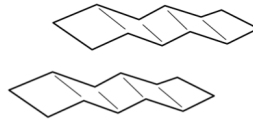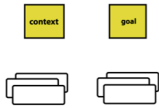
Figure 25. Overview of the researcher's need and associated research questions for each phase of the context.
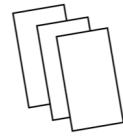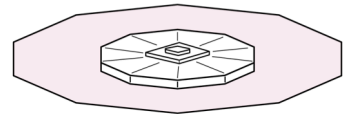
1   **Design Context + Goal**   **Researcher's Napkin**   **Design Prompts**

Picking a context
and a design goal.

Taking the r.n. associa-
ted with the context.

Familiarising with the
design prompts.
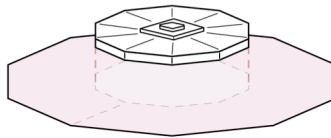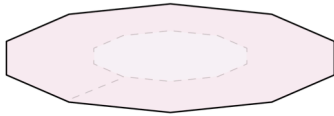
2   **Value Map**   **Value Compass + Value Map**   **Value Analysis**

Observing the
value map.

Placing the *value
comass* on the
value map.

Embarking in the
analysis of the ritual.
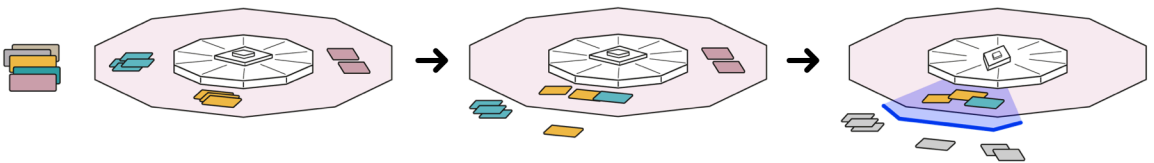
3   **Design criteria**   **Criteria placement**   **Value Analysis**

Observing the design
criteria available.

Placing them on the
value map.

Ending the analysis
and ideation.

Figure 26. Order of interaction
with the *Ritualia* toolkit elements.

that the presence of a single participant, even one with specialized expertise, might not provide a comprehensive assessment. Recognizing the need for a diverse range of perspectives, it is worth considering that the insights gathered from a singular participant might not be fully representative of the toolkit's potential impact and effectiveness across a broader spectrum of users and contexts.

" […] This almost feels already like a design solution."

D1 on the design prompts.

4.4.1 Insights

The session was critical in determining the efficacy of the newly integrated toolkit components. The framework was developed to include distinctive elements such as a *value map*, a *value compass*, and a *value guide*, such as the names and descriptions of specific values, building on the foundation built during the original session, which included the *napkin* in combination with design goals. The use of a *value map* and the integration of values received **positive feedback**. The participant's ability to generate a design concept in under 30 minutes demonstrated the toolkit's usefulness. This efficiency is especially encouraging for a new framework, demonstrating that the toolkit is easy to use even for individuals who are unfamiliar with it.

However, it is crucial to note that the use of the first set of **design prompts** encountered some challenges.
The participant (designing with them in Figure 27) judged them as "**guiding**", bordering on pre-existing design solutions. This insightful remark highlighted the **need to rephrase the instructions** to balance assistance and creative investigation. This cyclical feedback loop emphasizes the toolkit's flexibility and responsiveness to user input, which is essential in improving its usability and efficacy.

"I think it is a very low-key way to get people to be introduced to new food cultures, because maybe you've never eaten Surinamese before and you would like to try!"

D1 on the toolkit.

Figure 27. Designer at work during the second session, ideation phase.

4.5 Third testing session: toolkit evaluation

3 Structure

The third testing session commenced with an introduction, setting the tone for the forthcoming activities. Following this, participants were prompted to reflect on their experiences with the napkin in context, since they got it beforhande and had the possibility to try it with their own or other peoples' food practices. They were invited to share their initial thoughts on its practical application.

The group was then divided into two duos. This approach aimed to prioritize discussions on more intricate and diverse eating practices. In a span of 20 minutes, the participants thoroughly analyzed the chosen ritual, delving into its underlying values.

Subsequent to this analysis, the group transitioned into an interactive discourse, where each duo introduced the eating practices they had examined. This segment fostered knowledge exchange and sparked broader conversations around various multicultural rituals.

The session advanced to the stage of design direction selection. Participants were presented with the opportunity to randomly choose a design direction, which served as a starting point for their creative ideation process. They were then guided to revisit the *value map*, enabling them to select a value they wished (see Figure 28 and 29) to amplify within the context of their chosen ritual. Additionally, participants were encouraged to draw from design prompts (illustrated in Chapter 5, section 5.1.3across different categories/values, merging them into the chosen value framework.
The design directions encompassed three different

tasks. The first option involved crafting a sales campaign that effectively communicated the value and benefits of a product or service, focusing on persuasive and engaging interactions. The second option tasked participants with ideating a physical product that provided user experiences, considering user needs and usability. The third and final option required designers to conceptualize and design a user-centered app, emphasizing usability, intuitiveness, and engaging interactions.

For the final phase of the session, participants were provided with a post-task questionnaire based on the Technology Acceptance Model (TAM) available in Appendix C (Figure C7) and tailored to collect feedback from participants.
This survey aimed to gauge user satisfaction, tool efficiency, and perceived usefulness within the toolkit ecosystem. By incorporating this, the session concluded with an evaluation of the participants' experiences and insights.

Figure 28. Designer at work during the ideation phase.

Purpose

The purpose of this session was to focus on both the usability evaluation of the *napkin* within its context and the assessment of the toolkit's effectiveness within a collaborative design duo environment.

In the initial phase, participants engaged in evaluating the usability of the *napkin* in its intended context. This involved exploring the **acceptability of the *napkin*'s presence on the dining table**, considering aspects such as its shape, layout, and how it integrated into the overall dining experience. This evaluation aimed to understand how seamlessly the *napkin* could become a part of the dining ritual, contributing to its perceived permanence as a valuable tool during multicultural food rituals.

Subsequently, the session transitioned to a more collaborative setting, where participants were organized into design duos. This arrangement allowed for the evaluation of the **toolkit's usability** in a dynamic and **cooperative environment**. Designers could interact with the toolkit collectively, providing valuable insights into how its elements facilitated ideation, discussion, and design exploration.

By participating in a design duo, participants were able to experience firsthand how the toolkit's components, including the *napkin*, *value compass*, and *value map*, interacted to support and inspire their creative processes. This provided an opportunity to assess the toolkit's practicality and user-friendliness in a real-world design context.

Ultimately, the session's purpose was to evaluate the usability and effectiveness of both the *napkin* and the toolkit. This evaluation was based not only individual experiences but also on how the toolkit functioned within collaborative design dynamics.

4.5.1 Insights

The session's progression and the subsequent analysis of the questionnaire responses, as depicted in Graph 1, yielded valuable insights that both affirmed the utility of the researcher's *napkin*s in real-world contexts and illuminated areas for potential refinement and enhancement.

The insights gathered from this session served as a validating testament to the practicality of utilizing the researcher's *napkin*s within the context of multicultural food rituals. By hearing the participants' engagement with the *napkin*s during their actual dining experiences, the session shed light on the strengths and weaknesses of the tool's implementation. This approach allowed for a more nuanced understanding of how the *napkin*s functioned within the dynamics of real meals, informing decisions regarding modifications, additions, or exclusions to optimize their utility and impact. Upon analyzing the questionnaire responses a deeper layer of insights emerged. These responses reflected participants' perceptions and opinions about various aspects of the toolkit, such as its usability, relevance, and effectiveness.
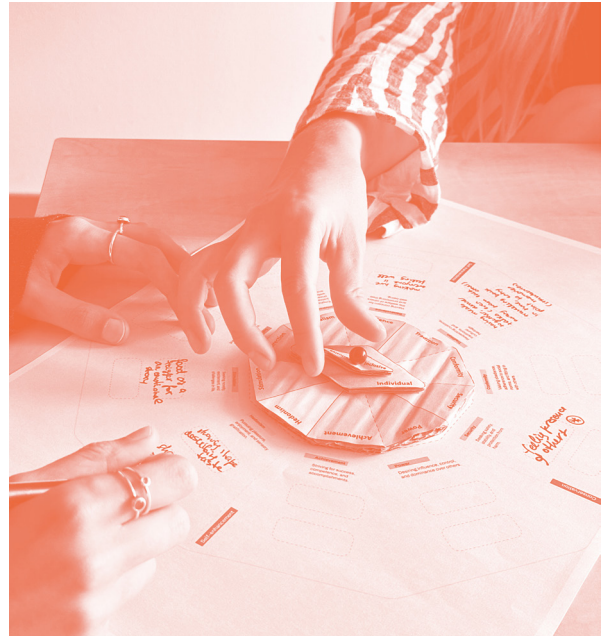

Figure 29. Designers at work on the analysis during the third session.

The two main takeaways from the session included the importance of **facilitation guidelines** and the **distinction between being an observer and an active participant** in a ritual. The feedback from participants underlined the potential utility of giving guidance for toolkit usage when a facilitator is not physically present. This highlights the necessity of guaranteeing user autonomy and comprehension even when direct support is absent.

Additionally, the contrasting perspectives and experiences of participants as observers versus participants within rituals emerged as a significant insight. This insight underscored the toolkit's potential to cater to both roles, requiring thoughtful consideration in its design to encompass and accommodate these different perspectives.
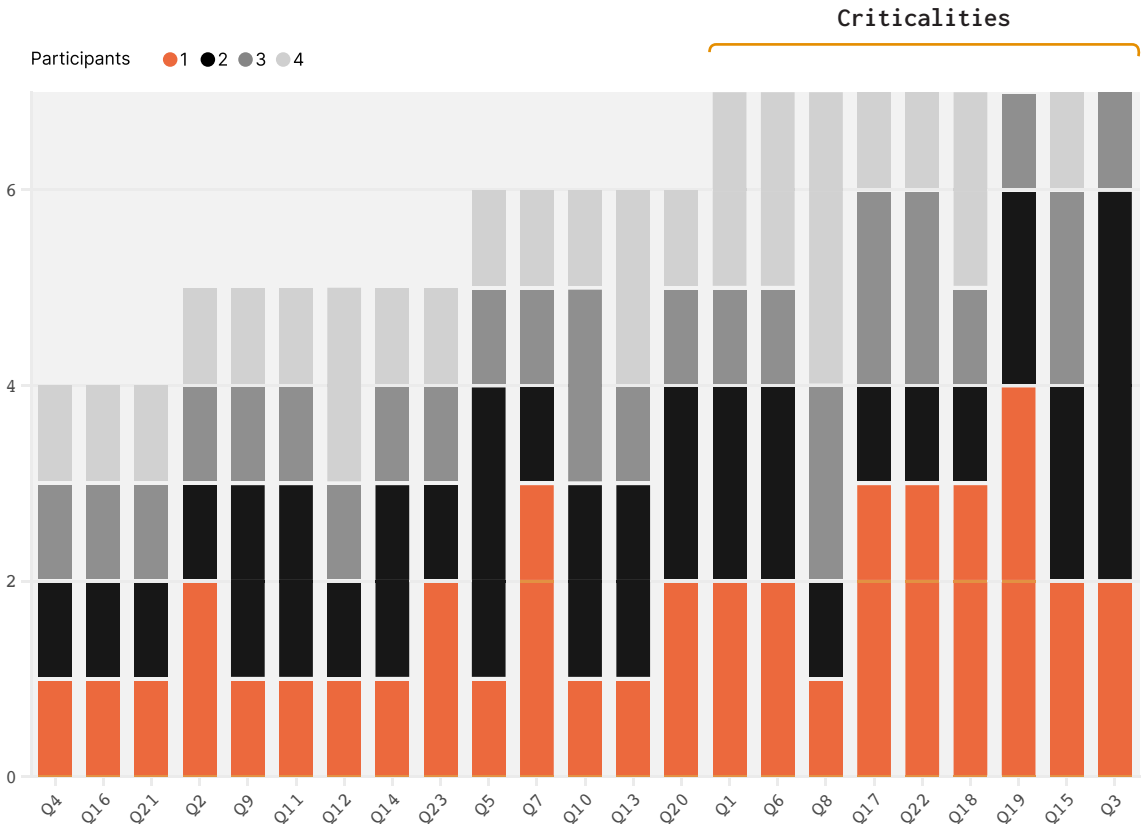
Graph 1. Results of the participants' responses gathered with the post-session TAM questionnaire.

4.6 Fourth testing session: design evaluation

4 **Structure**

The evaluation session with the four designers focused on assessing the usability of the toolkit. For this final evaluation session, a specific recruitment criterion was applied, requiring that the participating designers had no prior familiarity with the toolkit or the research project. This approach was chosen to ensure a realistic assessment of the designers' ability to comprehend the instructions and utilize the toolkit without the assistance of a facilitator.

The session commenced with a welcome and expressions of gratitude extended to the three participating designers. Subsequently, they were introduced to the toolkit and instructed to read the provided instructions for its use. During the 20-minute reading period, participants were provided with sheets of paper to take notes on any aspects that captured their interest or potential areas for improvement.

Following the reading phase, a group discussion was initiated to facilitate sharing and comparison of the designers' insights and impressions. During the discussion, common viewpoints and feedback regarding the toolkit's clarity, ease of understanding, and usability emerged. This feedback was supported by a questionnaire based on the SUS model (in Appendix C, Figure C8) and a word cloud live poll, whose results are shown in Appendix C (Figure C9 and C10).

Throughout the session, the role of the researcher was to carefully observe the designers' interactions with the toolkit and take note of their feedback. The objective was to gain valuable insights into how intuitively the designers were able to grasp the instructions and navigate through the toolkit's components without external guidance.

The session also provided a platform for open exchanges, allowing the designers to express their thoughts on any potential challenges or areas of improvement that could enhance the overall user experience. The feedback from the participants contributed to refining the toolkit and fine-tuning

the instructions, ensuring that it fulfills its purpose effectively in the context of cultural exploration and design ideation.

As the group discussion carried on, valuable insights were garnered regarding the designers' experience with the toolkit's various components, such as the researcher's *napkin*, *value compass*, *value map*, and design prompts. Participants shared their perspectives on how each part of the **instruction booklet** contributed to their understanding of the toolkit and of how to approach food rituals.

Throughout the session, the researcher observed the designers' interactions with the toolkit, took notes on their feedback, and listened to their thoughts and impressions. Valuable insights were gained into the toolkit's intuitiveness, user-friendliness, and ability to facilitate exploration and understanding of cultural values in designing for food rituals.
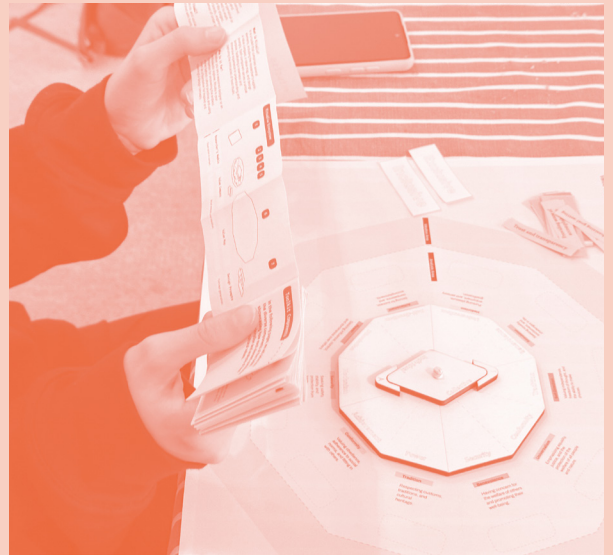

Figure 30. Designers at work during the third session, analysis phase.

Purpose

The fourth session of the study aimed to evaluate the overall understanding of the *Ritualia* instructions and components, as well as the participants' ability to effectively use the toolkit.

The evaluation session was a crucial moment for the development of the *Ritualia* toolkit, as it provided a realistic assessment of its instructions for use.

The feedback and insights gained from the participating designers helped refining the toolkit's design, ensuring that it meets the needs of designers and researchers engaged in exploring the rich cultural tapestry of food rituals. By fostering an open dialogue and a critical evaluation, the session proved instrumental in enhancing the overall toolkit's potential to support the design thinking process within diverse cultural contexts.

4.6.1 Insights

Following the evaluation session, the gathered feedback underwent thorough analysis, leading to the identification of potential enhancements and modifications to the toolkit aimed at optimizing its usability and effectiveness in supporting designers in their cultural context explorations. The insights obtained from the evaluation session were categorized into three main areas of improvement (Figure 31): **toolkit components, phrasing of the instructions, and visuals**.

With respect to toolkit **components**, valuable suggestions were put forward by participants. In fact, the inclusion of inclusive/exclusive and collective/individual as tokens instead of needles would differentiate behaviors better during the observation phase.

Additionally, participants perceived and hence highlighted the redundancy of the value description on the *value map*, and as a result, its removal was advised.

Language improvements were also identified as crucial for enhancing the user experience. Participants emphasized the significance of providing more context on when and where to use the toolkit, fostering clearer phrasing in the instructions, and incorporating numbered pages for ease of reference. Furthermore, clarifications were recommended to facilitate appropriate contextual and temporal usage of specific sections, fostering a more coherent and seamless user experience. Visual aspects of the toolkit were subject to valuable feedback as well. Participants expressed the need for **explicitly stating roles** for designers or users and integrating numbered visuals in connection with specific components. These visual enhancements were expected to enhance user comprehension and navigation within the toolkit.

Overall, participants acknowledged the toolkit's **approachability**, even in the absence of prior knowledge regarding rituals and food design. The toolkit's modular design was appreciated, allowing participants to comprehend each component individually, contributing to a user-friendly and efficient experience during the exploration of cultural values and food rituals.

The insights obtained from the evaluation session served as a basis for the final updates made to the toolkit. These updates were made with time constraints in mind, as, at this point, the project was approaching its conclusion.

Despite the limited timeframe, the feedback from the evaluation session allowed the refining and fine-tuning the toolkit to ensure its practicality and effectiveness.

COMPONENTS

Reusable materials for the creation of the *value map* would ensure greater versatility.

The **redundancy** of the value description on the *value map* was perceived as misleading.

Design prompts were perceived as valuable **criteria for assessment** during the ideation phase.

PHRASING OF THE INSTRUCTIONS

Deeper **context explanation** should be provided.

Improvements in giving indications of time and ways of involvement of each component of the tool.

VISUAL CUES

Stating roles and functions in a more explicit way by integrating numbered visuals would be beneficial.

Positive perception of the toolkit's modular design.

Figure 31.
Insights from the toolkit's
instructions evaluationsession.

Chapter 5 illustrates the final design, its components and intended use.

5.0 The design

The project's name *Ritualia* is derived from the Latin plural form of the word 'rituals'.

Rītuālia

1. nominative/accusative/vocative neuter plural of *rītuālis*

The final design of *Ritualia* represents the culmination of the journey through the exploration of multi-cultural eating contexts. This chapter holds the crafted elements that constitute the toolkit, delving into its intended application and features. This design is the response that has emerged from the journey undertaken in this thesis project, addressing the central research question: *"How can designers be supported in approaching multi-cultural eating contexts in an explorative phase and subsequently in an ideation phase?"*. The forthcoming exposition articulates how the *Ritualia* toolkit stands as a valuable resource, embodying a user-oriented approach to support designers in the navigation of the complex landscape of multicultural food rituals.
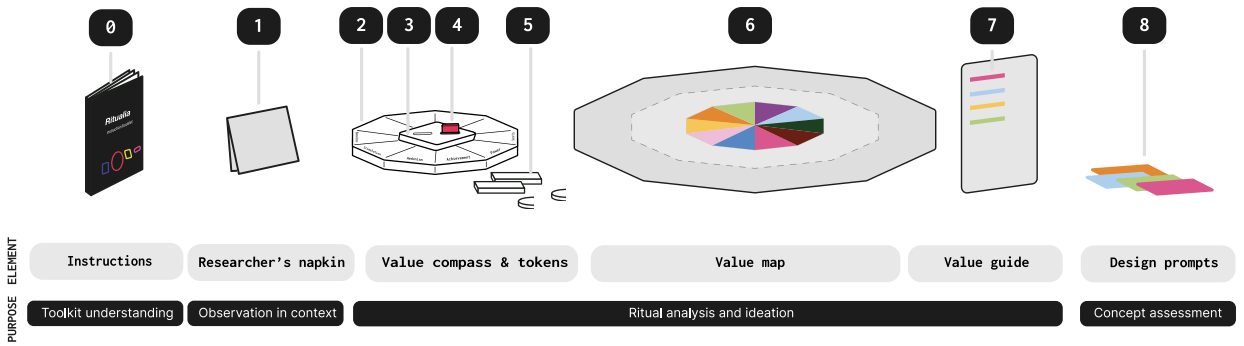
5.1 Elements of the toolkit

Figure 32. Ecosystem of the *Ritualia* toolkit.

The components of the *Ritualia* toolkit, iteratively refined, evolved in response to the discoveries and insights garnered from the theoretical knowledge acquired and the research sessions conducted. This toolkit encompasses many integral elements (Figure 32), each tailored to facilitate a comprehensive exploration of multi-cultural eating contexts and subsequently inspire creative ideation. The insctruction booklet (0) serves as a guide for the use of the toolkit (Figure 33). Central to this toolkit is the researcher's *napkin* (1), a tool that captures the essence of rituals through data collection in context. Complementing this is the *value compass* (2), featuring an analysis and ideation needle (3-4), which guides designers through the exploration and conceptualization phases. Additionally, two types of tokens — inclusive/exclusive and collective/individual — enhance the toolkit's versatility (5).

Another feature is the *value map* (6), designed to provide a visual framework for the exploration of fundamental values inherent in rituals. Augmenting this is the *value guide* (7), offering in-depth definitions of the ten core values. Lastly, the toolkit boasts a collection of design prompts (8), intended to ignite imaginative thinking and guide designers toward crafting culturally sensitive design concepts.

Each tool in the toolkit serves a distinct purpose within the research process, mirroring the stages of the Double Diamond framework (Figure 34): the *napkin* supports the defining phase, while the compass and map ecosystem facilitate the developing and stage.

The next sections of this chapter will provide a comprehensive analysis of each toolkit element, shedding light on their individual contributions to fostering understanding, ideation, and design in the realm of multi-cultural eating contexts.

Figure 33.
Instruction booklet, guide to the use of *Ritualia*.

5.1.1 Instructions booklet

The instruction booklet introduces the user to the use of the toolkit. It serves as a guidance through all the diverse components of the toolkit, their specific purposes, and how they can best be utilized. Detailed explanations and step-by-step instructions, along with a set of guidelines can be found in it.

Its aim is allowing the users to tailor the toolkit to their research objectives and personal preferences.
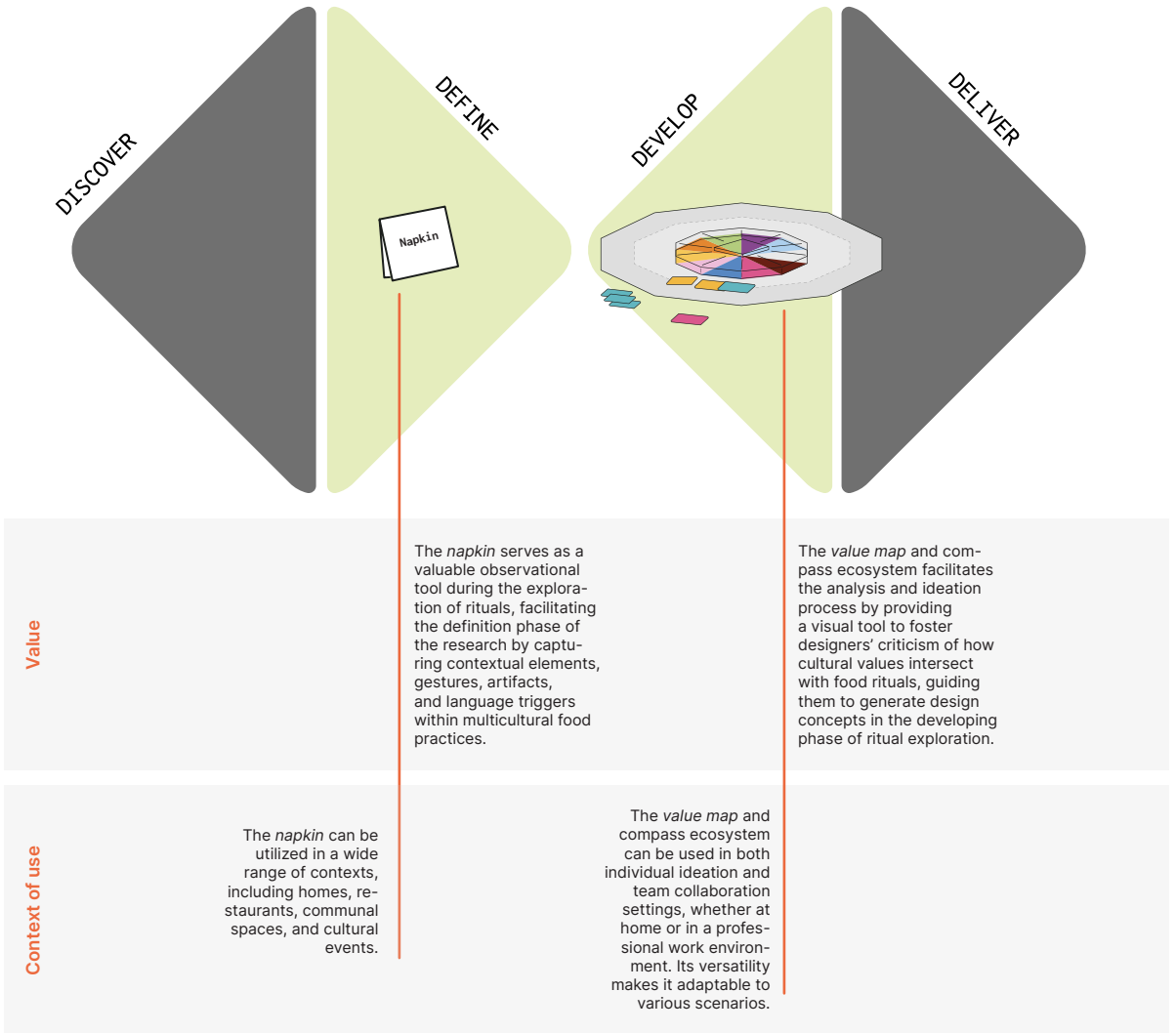
DISCOVER

DEFINE

DEVELOP

DELIVER

Napkin

Value

The *napkin* serves as a valuable observational tool during the exploration of rituals, facilitating the definition phase of the research by capturing contextual elements, gestures, artifacts, and language triggers within multicultural food practices.

The *value map* and compass ecosystem facilitates the analysis and ideation process by providing a visual tool to foster designers' criticism of how cultural values intersect with food rituals, guiding them to generate design concepts in the developing phase of ritual exploration.

Context of use

The *napkin* can be utilized in a wide range of contexts, including homes, restaurants, communal spaces, and cultural events.

The *value map* and compass ecosystem can be used in both individual ideation and team collaboration settings, whether at home or in a professional work environment. Its versatility makes it adaptable to various scenarios.

Figure 34.
Ritualia applied to design research as Double Diamond.
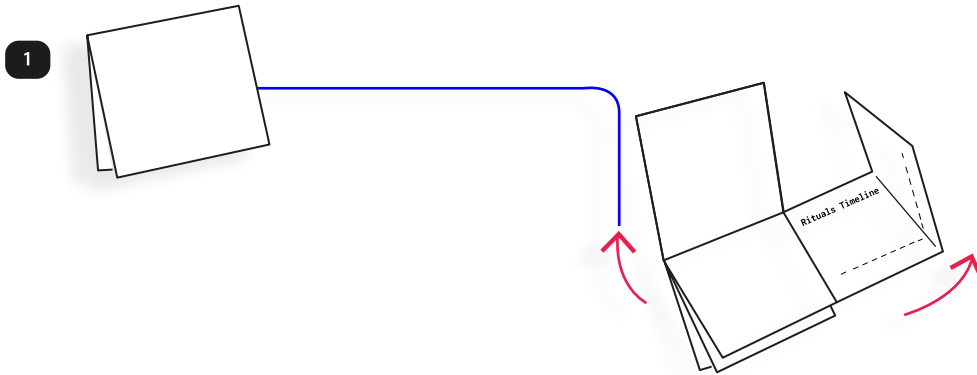
5.1.2 The researcher's *napkin*

Figure 35.
Researcher's napkin,
page orientation.

Format

The *researcher's napkin*, a crucial component of the *Ritualia* toolkit, is designed in its format and purpose. Its ideation started with the resemblance with a common object often found on tables during meals or used to clean surfaces. This square-shaped "napkin" measures 9 cm by 9 cm and is integrated into a compact block notes booklet format. Its ergonomic design ensures comfortable handling, fitting snugly into the hands or a pocket. However, it is important to note that despite its visual resemblance to everyday objects, paper is used for the researcher's *napkin*. The layout of the *napkin* is intentionally designed for **practicality and ease of use**. Its vertical orientation (Figure 35) facilitates the use on a table or any eating surface.

This design consideration ensures that researchers and designers can comfortably employ the *napkin* during observation sessions.

Material

The choice of material for the researcher's *napkin* was a thoughtful consideration based on several factors. While alternative materials like textiles with markers were options, they were not chosen due to specific advantages offered by paper.

Textiles represented an option, but also many challenges in terms of replicability and ease of use. Fabric materials might not have provided consistent replication, and their handling could

have been less practical during observation sessions. The focus was on creating a tool that could be easily distributed and used across various contexts, which textiles might have compromised. For many reasons, the ultimate choice of paper emerged as the ideal option.

First of all, paper enables **replicability**, allowing the tool to be quickly replicated for distribution to other researchers. Second, because paper is **lightweight and portable**, it is ideal for fieldwork, allowing researchers to carry and utilize the *napkin* during observation sessions easily.

Lastly, paper provides a versatile surface for writing, sketching, and noting down observations, ensuring that researchers can capture valuable data directly during the ritual.

Content

The *napkin*'s content is structured to accommodate essential measurable parameters related to the eating context. Each page within the *napkin* is dedicated to capturing specific data points crucial for comprehensive observation and analysis. These pages are organized to guide researchers in collecting pertinent information that contributes to a holistic understanding of the eating ritual.

The data collection pages within the *napkin* focus on several aspects of rituals (Figure 36). Each page, in fact, allows gathering key elements,

Pages

Ritual timeline

000000

including:

1. **Context** in which the exploration takes place: A designated space to record the contextual information surrounding the eating event. This may involve details about the location, occasion, or any relevant cultural factors.
2. **Roles of Diners**: An area to document the roles and relationships of individuals participating in the meal, shedding light on their interactions and dynamics.
3. **Artifacts**: A section to note down the objects, utensils, or items used during the eating ritual, elucidating their significance within the cultural context. In the page there is room for the most and less used object and the one with a higher symbolic significance.
4. **Language Triggers**: A field to capture verbal cues or triggers exchanged among diners during the meal, which can provide insights into communication dynamics.
5. **Ritual Timeline**: A timeline format to chronicle the sequence of events and actions throughout the dining experience.
6. **Extra Notes**: Additional space for researchers to track any relevant observations, thoughts, or insights that may not fit into the predefined categories.

This organization of the pages ensures that researchers can systematically collect pertinent data without missing crucial elements of the eating ritual. By providing a structured framework for data collection, the *napkin* empowers researchers to delve deep into the nuances of multi-cultural eating contexts and gain valuable insights that contribute to a holistic understanding of cultural practices and behaviors.
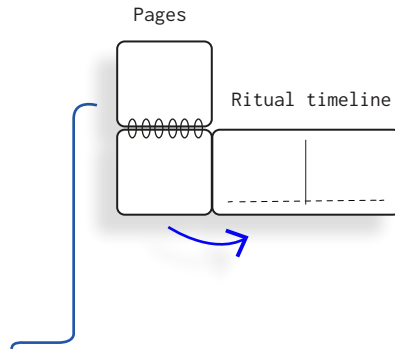
↳ **Features evaluation**
Functionally, the researcher's *napkin* serves as a discreet observational tool that empowers researchers and designers to glean profound insights into authentic behaviors and cultural practices. Its inconspicuous size and format allow for unobtrusive observations of participants' interactions and behaviors during eating rituals, enhancing the depth of exploration in multi-cultural contexts. This tool provides a lens enabling researchers to capture interactions.

Nevertheless, it is essential to recognize that introducing the researcher's *napkin* into the dining environment can **influence observed behaviors**. Despite its paper-based material resembling common objects, its introduction may inadvertently alter participants' natural behaviors or prompt self-awareness. Therefore consideration of its potential impact on the observed environment remains a crucial aspect of its application.

For this reason, particular attention was put into assessing of its positive aspects and potential drawbacks in the next page.

(↑) **Advantages of the *napkin***

Unobtrusiveness
The researcher's *napkin*, being a simple and unassuming object, allows participants to feel more at ease and natural during their food rituals, reducing the possibility of altering their behavior due to the presence of an external observation tool.

Familiarity
Since *napkin*s are commonly used during meals, the researcher's napkin blends seamlessly into the dining context, making participants less likely to be aware of its observational purpose, thus promoting more genuine behavior.

Ethnographic Immersion
By adopting a familiar element of the dining experience, the researcher's *napkin* facilitates an immersive ethnographic approach, allowing researchers to gain deeper insights into the participants' cultural practices and values.

(↓) **Cirticalities of the *napkin***

Attention-Grabbing
Despite its subtle design, the researcher's *napkin* on the dining table may draw diners' attention, making them conscious of its usage and potentially influencing their behavior or responses.

Perceived Intrusiveness
Some participants may still recognize the researcher's *napkin* as an external object and become more guarded in their actions or responses, leading to a potential shift in their natural behavior.

Self-Censorship
Participants might alter their behavior or presentation of cultural practices, knowing they are being observed, leading to potential self-censorship and limited access to authentic expressions of their cultural rituals.

Bias in Observations
The subtle presence of the researcher's *napkin* may not eliminate the observer's bias, as researchers may still interpret behaviors through their own cultural lens, impacting the study's objectivity.

Overall, the *napkin* presents both advantages and disadvantages as a subtle tool for the exploration of ethnography. Its familiarity and unobtrusiveness can encourage more authentic behavior during food rituals, yet it may still influence participants' awareness and responses in certain ways. Researchers should be mindful of these aspects while employing the *napkin* as part of their ethnographic approach and consider its potential impact on the study's outcomes.
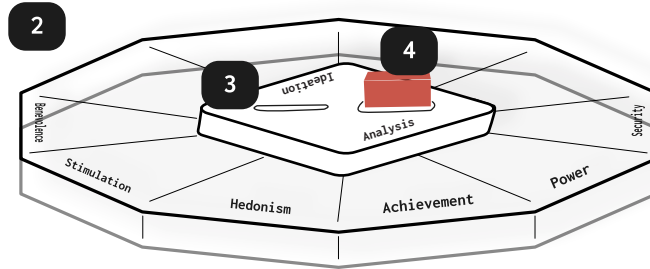
5.1.3 Value compass

Figure 37.
Elements of
the *Value compass*.

Format and content

The *value compass in Figure 37* serves as a pivotal element within the *Ritualia* toolkit, designed to facilitate the exploration and ideation phases of multicultural food rituals. Drawing inspiration from Schwartz's (1992) framework of the ten fundamental human values, the *compass* assumes the form of a decagon with each of the ten values inscribed onto its sides. This design ensures that the compass aligns with a recognized and established value system, providing a robust **framework for analysis** and creative conceptualization. Its compact design is both intentional and practical.

Measuring no more than 12 cm across, the compass offers a portable format that can be comfortably placed on various surfaces, such as a table along with the *value map* (illustrated in the next section of this chapter). These dimensions enables individual or group use. The *value compass*, however, goes beyond its aesthetic and ergonomic qualities; it embodies a structured tool to delve into the intricate interplay of cultural values within food practices.

+ **The *focus needle***

The focus needle is the uppermost component of the *value compass*, serving as a guide to indicate the current phase of work for designers or users. This pointer features two distinct holes, allowing users to position the needle to denote whether they are engaged in the analysis or ideation phase of the process (Figure 38). This visual indicator helps maintain clarity and alignment throughout the ritual exploration and design phases within the *Ritualia* toolkit.
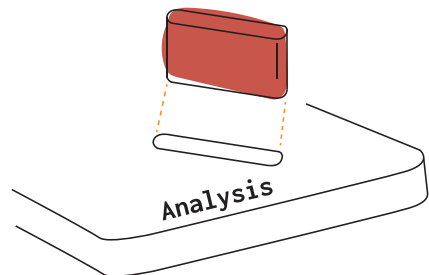

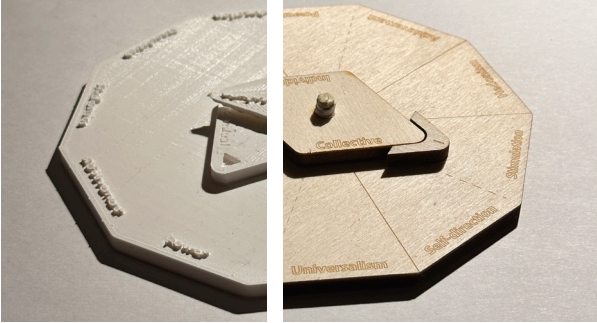**Figure 38.** Focus needle pointing system.
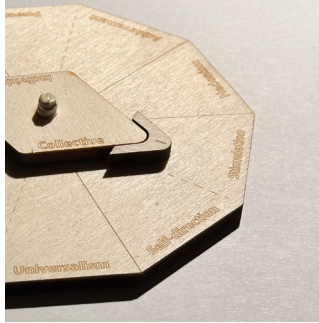
Figure 39.
3D printed prototype
of the *value map*.

Figure 40.
Laser cut wood
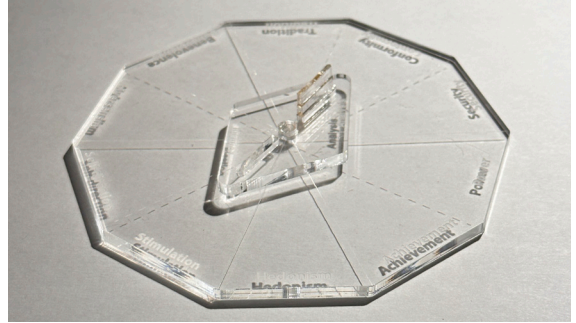prototype iteration
of the *value map*.

Figure 41.
Laser cut acrylic,
final version of
the *value map*.

Material
The *value compass* underwent a series of material
iterations to achieve its final design. For the
initial user testing, a prototype was crafted using
cardboard, featuring a printed colored decagon.
Subsequent iterations led to experimenting with
3D printing technology, but the precision fell short
of expectations. This prompted the exploration
of alternatives, resulting in the creation of a
prototype using a laser-cut wooden sheet. These
options are shown in Figure 39, 40 and 41.

However, the ultimate version of the *value
compass* was crafted with laser cutting on acrylic.
The decision to use acrylic was influenced by its
transparency, which aligns with the tool's purpose
of facilitating visual exploration and analysis. The
acrylic's clear surface complements the colored
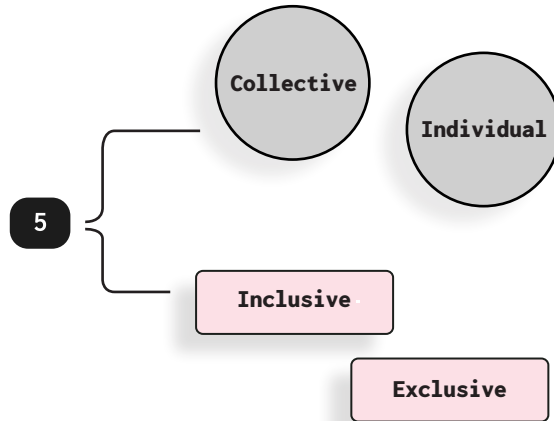base of the *value map* (illustrated in *section 5.1.4*).

5.1.4 Tokens

Figure 42. Tokens.

Format
The tokens in the *Ritualia* toolkit, split into two rectangular and two circular coins (Figure 42), are elements built upon the distinctions of *inclusive vs. exclusive* and *collective vs. individual*. They add depth by providing a more nuanced understanding of behaviors.

Material
These tokens are build using 3D printing, which ensured precision and consistency in their making.

Inclusive vs. Exclusive
In the context of food practice analysis, an **inclusive** attitude refers to behaviors and practices that foster a sense of openness, community, and togetherness during food rituals. It involves activities and gestures encouraging inclusivity, such as sharing food, engaging in communal dining experiences, and inviting others to participate in the meal.
On the other hand, an **exclusive** attitude pertains to behaviors and practices that create a sense of exclusivity or separation during food rituals. It involves actions or gestures that may restrict participation, exclude certain individuals, or create boundaries between groups. In a real setting, this could manifest as specific dining rules, exclusivity in sharing certain dishes, or limited access to the food ritual among certain members.
By including the token for inclusive versus exclusive behaviors in the toolkit, users can frame the dynamics of social interaction and

the underlying cultural values that shape the inclusivity or exclusivity of food practices within a given community or group.

Collective vs. Individual
On the other hand, the distinction between *collective* and *individual* coins in the toolkit regards the examination of participation patterns during food rituals. The **collective** aspect refers to behaviors that emphasize group engagement and shared experiences. This involves actions such as joint food preparation, communal eating, and synchronized activities, fostering a sense of togetherness. On the other hand, the **individual** aspect concerns behaviors that highlight personal engagement and autonomy during food rituals. These actions prioritize individual preferences, choices, and experiences. Examples include personalized food selection, self-directed eating practices, and actions that prioritize personal comfort.
With such additions to the tool, it is possible to study the balance between communal and individual engagement within food practices. This distinction can highlight how cultural values influence the extent to which rituals emphasize group cohesion or individual autonomy. In conclusion, it aids in comprehending the interplay between collective and individual dynamics during multicultural food rituals, contributing to a holistic understanding of these practices.

5.1.5 Value map and value guide
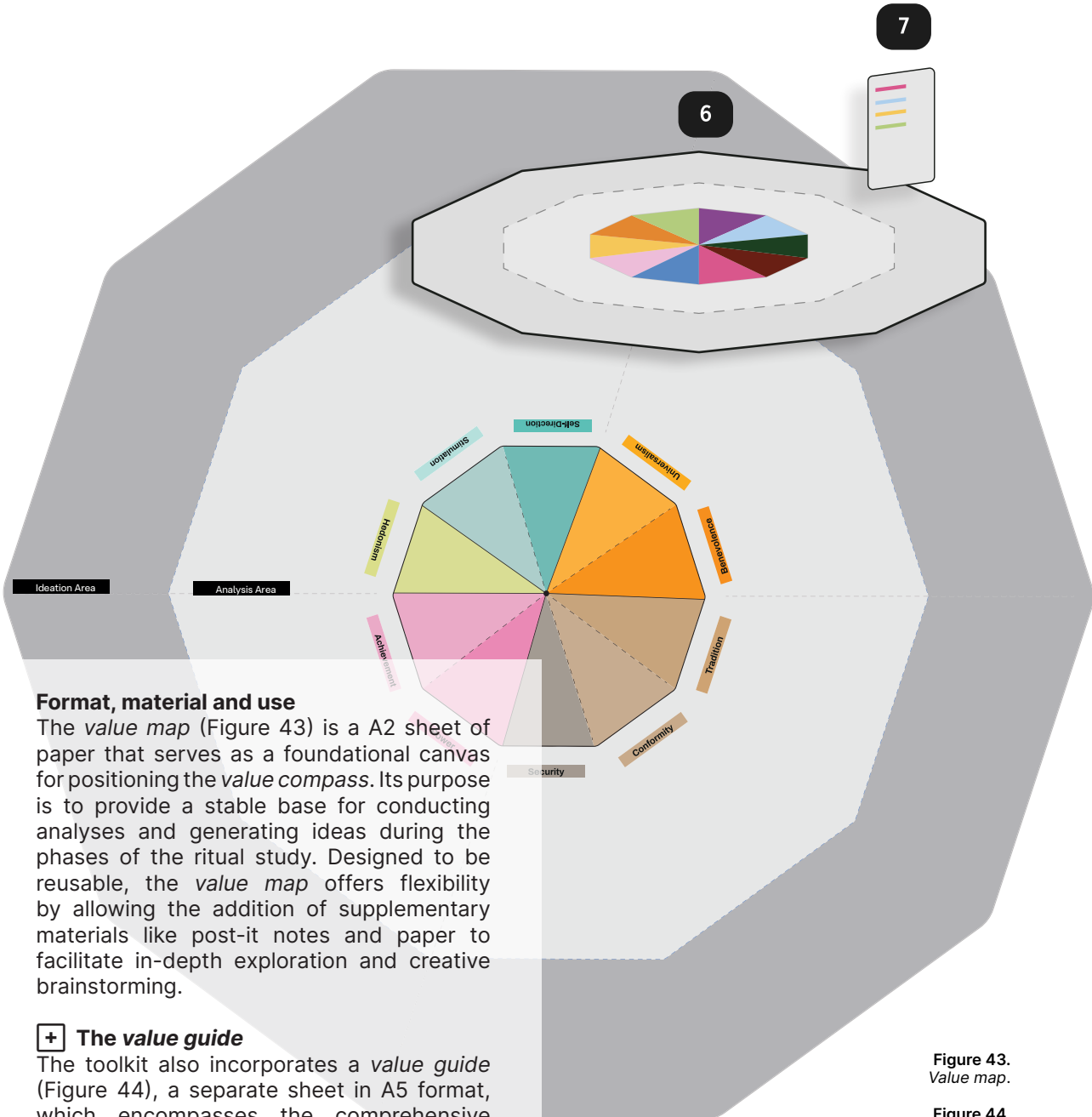
Format, material and use

The *value map* (Figure 43) is a A2 sheet of paper that serves as a foundational canvas for positioning the *value compass*. Its purpose is to provide a stable base for conducting analyses and generating ideas during the phases of the ritual study. Designed to be reusable, the *value map* offers flexibility by allowing the addition of supplementary materials like post-it notes and paper to facilitate in-depth exploration and creative brainstorming.

+ The *value guide*

The toolkit also incorporates a *value guide* (Figure 44), a separate sheet in A5 format, which encompasses the comprehensive definitions of each of the ten values. This guide serves as a quick reference for designers and researchers when picking a value from the map or the compass.

Figure 43.
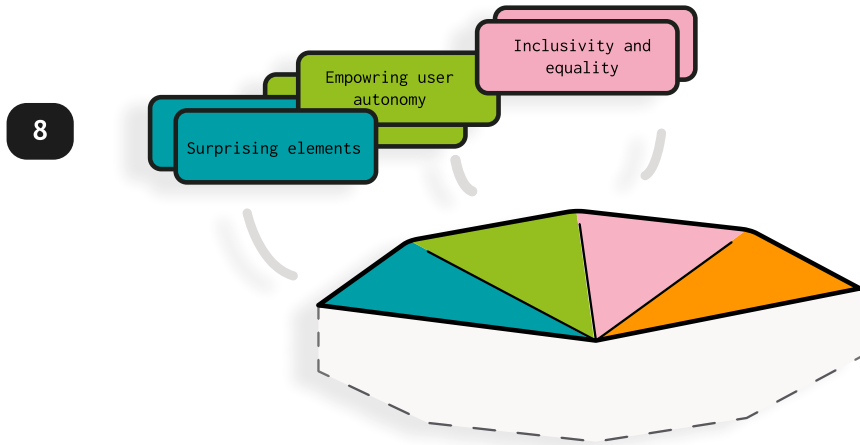*Value map.*

Figure 44.
Value guide.

5.1.6 Design prompts

Format and content
The design prompts (Figure 45) are part of the toolkit in the form of compact paper labels. These, developed and refined through iterative sessions during this thesis research, offer designers a pool of creative cues to stimulate their ideation process. Each value within the toolkit is associated with a variety of prompts (the final version is illustrated in Table 6), allowing designers the flexibility to choose those that resonate most with the context they are exploring.

Purpose
The design prompts are meant to be versatile, providing designers with adaptable tools for their creative journey. They can be utilized as sources of inspiration. Furthermore, the prompts can serve as a checkpoint for the end of the ideation process,

helping them ensure that their design concepts align with the core values and intentions of the ritual. By referring to these prompts, designers can assess if their ideas effectively encapsulate the cultural significance and authenticity of the ritual. During a single ideation session, it is entirely feasible to employ multiple design prompts, each associated with distinct values, with the aim of involving a wider range of inspiration sources.

The value of the design prompts lies in their flexibility as they can be integrated into the design process in a manner that best suits the designer's preference. Whether they are used as a starting point, a guiding tool, or a final assessment, these grant a certain level of freedom to harness creativity in a way that feels organic.

Value	Design Prompts
Self-Direction	• Flexibility and adaptability; • Empowering user autonomy; • Customization and personalization.
Stimulation	• Interactive and engaging experiences; • Surprising elements; • Discovering.
Hedonism	• Visual appeal and aesthetics; • Pleasurable and enjoyable experiences; • Sensory delight.
Achievement	• Goal-setting and progress tracking; • Recognition and rewards; • Sense of accomplishment.
Power	• User control and influence; • Self-expression and personalization; • Social influence and leadership.
Security	• Privacy; • Data protection; • Trust and transparency; • Clear information and feedback.
Conformity	• Sense of belonging and inclusivity; • Accommodation of social norms; • Shared experiences and rituals.
Tradition	• Preservation of cultural heritage; • Blending traditional and contemporary elements; • Bridging past and present.
Benevolence	• Empathy and compassion; • Contribution to the well-being of others; • Social responsibility.
Universalism	• Inclusivity and equality; • Sustainability and environmental responsibility; • Cross-cultural understanding and diversity acceptance.

Table 6. Design prompts and their corresponding value of the toolkit.

5.2 The toolkit in use

Until now, we have seen that the navigation through the complexities of cultural contexts during the research process requires a structured approach. This section outlines a series of distinct yet interconnected activities that guide researchers through the *Ritualia* toolkit. These activities, illustrated in Table 7, span from the initial framing of the research and context identification to the final phase of ideation. Each activity plays a crucial role in facilitating comprehensive understanding, analysis, and design exploration within multicultural food rituals.

Figure 46. Example of a titual exploration (Activity 1).

Figure 47. Example of a ideation with the toolkit (Activity 6).

Activity 1
Framing the Ritual and Context Identification
Before embarking on field research, a preparatory phase is crucial. This involves defining research objectives, formulating questions, planning logistics, recruiting participants, and crafting research techniques and tools. Given potential cultural nuances and social dynamics, especially in user sessions, meticulous preparation of tools and techniques is paramount. In this context, conducting preliminary literature research on local cultural values is highly advisable.

Activity 2
Observing and data collection
The core of the research involves immersion in the chosen context for direct observation and data collection with the *researcher's napkin* (as the example in Figure 46).

Activity 3
Translating insights to the *value map*
for the analysis
Following data collection, the next step is to translate gathered insights onto the *value map* for analysis. This phase can be undertaken individually or collaboratively, allowing diverse viewpoints in the latter case. The "analysis" side of the needle takes prominence, and choices are made between individual/collective and inclusive/exclusive aspects by signaling this using tokens on the map.

Activity 4
Reflection and discussion of analysis
This stage involves individual reflection (for solo work) or collaborative discussion (for group work) about the outcomes of the analysis with the use of the toolkit, as illustrated in Figure 47.

Activity 5
Transition to Ideation phase
The ideation phase commences immediately following the reflection or discussion — the focus needle pivots towards the "ideation" side, indicating the shift.

Activity 6
Ideation and concept generation
In the ideation phase, designers identify design opportunities and generate concepts for products and services. Designers reference insight, notes, and perhaps pictures that influenced their concepts during idea presentation. They articulate the cultural appropriateness of their ideas and engage in discussions about subsequent steps. In this stage, a design assessment can take place with the support from the design prompts.

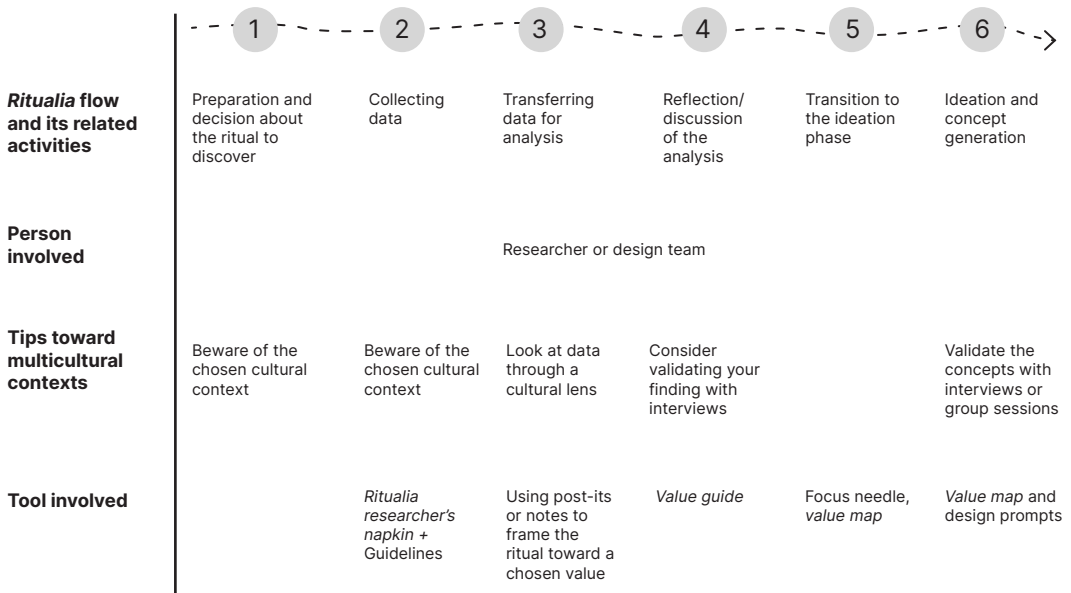|	1	2	3	4	5	6
Ritualia flow and its related activities	Preparation and decision about the ritual to discover	Collecting data	Transferring data for analysis	Reflection/ discussion of the analysis	Transition to the ideation phase	Ideation and concept generation
Person involved			Researcher or design team			
Tips toward multicultural contexts	Beware of the chosen cultural context	Beware of the chosen cultural context	Look at data through a cultural lens	Consider validating your finding with interviews		Validate the concepts with interviews or group sessions
Tool involved		*Ritualia researcher's napkin +* Guidelines	Using post-its or notes to frame the ritual toward a chosen value	*Value guide*	Focus needle, *value map*	*Value map* and design prompts

Table 7. The process of *Ritualia* and related tools needed for each activity.

Chapter 6 delves into the discussion of insights gleaned from the case studies, toolkit usage and iteration, while also outlining potential avenues for future research and refinement of the *Ritualia* toolkit.

6.0 Conclusions & future work

In this chapter, the significance of the research findings is explored, emphasizing their valuable contribution to design explorations and research practices. Additionally, a reflection is provided on the research approach and the evolution of the tools and methodologies employed during the study.

Finally, this comprehensive analysis sheds light on the broader implications of the study's outcomes and underscores its relevance for advancing knowledge in design and cultural exploration, along with recommendations for future research.

6.1 Contributions to user research

The research to accomplish the toolkit presented in this book contributes to user research by embracing a multidisciplinary approach that amalgamates design and anthropology. This synthesis offers a comprehensive framework that not only addresses the design needs but also incorporates cultural and anthropological dimensions. By converging these disciplines, *Ritualia* enhances the depth and breadth of user research, allowing designers to perceive food rituals in their entirety, beyond merely functional or aesthetic aspects.

Moreover, *Ritualia* stands as an effort to categorize and encapsulate the myriad elements that constitute a ritual. It identifies, defines, and organizes these elements through meticulous analysis, providing a structured lens through which researchers can understand and deconstruct complex rituals. This toolkit ensures that no crucial detail is overlooked, enabling a holistic comprehension of cultural practices and behaviors associated with food rituals. By offering such a comprehensive tool, *Ritualia* elevates the user research process, allowing designers to glean profound insights into the nuances of rituals, thus fostering the creation of more culturally sensitive design solutions.

6.2 Guidelines for contextual research in cross-cultural settings

The experience gained while navigating the vast seas of contextual user research, especially within different cultural environments, demonstrated that a delicate blend of empathy, cultural sensitivity, and methodological rigor is needed. As practitioners venture into these territories to decipher the complexities of global culinary rituals, clear guidelines become essential. The exploratory phase in the field, during which researchers immerse themselves in their food rituals or the daily lives of other individuals from various backgrounds, requires a systematic method that encourages deep knowledge and assures ethical research procedures. This section dives into the critical function of guidelines, providing insights into how they contribute to

successful research undertakings.

In essence, the following guidelines represent the bridge that connects the theoretical insights gained from earlier chapters to the practical application in the real world, ensuring that every encounter and observation is conducted with respect, integrity, and commitment to understanding and appreciating the richness of diverse cultural practices.

Context and consent

Contextual understanding
Familiarize with the food ritual's cultural context. Understand the historical, social, and religious factors influencing the participants' behavior and practices.

Respecting participant boundaries
Respect the participants' privacy and obtain informed consent before the observation. Do not record any personal information without explicit permission.

Ask for permission
Seek permission from the participants before photographing or recording audio or video during the observation.

Personal and spatial awareness

Identify personal biases
Periodically reflect on your biases and how they might influence your observations. Seek feedback from other team members to gain multiple perspectives on the data.

Stay objective
Try to maintain objectivity during the observation process. Be aware of any preconceived notions or assumptions that might influence the perception of the ritual.

Be keen to actively listen
Listen attentively to verbal and non-verbal cues from participants. Pay close attention to their comments, gestures, and expressions, as they can provide valuable insights into the cultural significance of the food ritual.

Beware of the body language
Pay attention to participants' body language, as it can reveal emotions and reactions that might not be explicitly expressed.

Build research ethic

Consider cultural sensitivity
Respect the cultural norms and practices of the participants. Be aware of potential cultural differences and avoid imposing cultural interpretations on their behavior.

Remain ethical
Be conscious of ethical considerations and avoid exploiting the participants or misusing the gathered information.

Non-interference
Refrain from interfering or influencing the food ritual in any way. Be a silent observer and avoid making any changes to the natural flow of the event.

Building a bond

Engage and build trust
If appropriate, engage in friendly conversations with participants to build rapport and trust. This can lead to more open and authentic responses during the observation.

Tracking

Record-keeping
For how much that is possible, take detailed notes and record observations promptly to ensure accuracy and capture all relevant information. Use the researcher's *napkin* or any other suitable method for recording observations. If this involves recording or photographing, always ask for consent first.

Data reliability

Data analysis
After the observation, analyze the data objectively and systematically. Look for patterns and themes that emerge from the observations.

Validation
Validate your observations with participants to ensure accuracy and clarify any ambiguous points.

Curiosity and support

Continuous learning
Embrace the observation process as a learning opportunity to deepen your understanding of different cultures and their food rituals. Continuously seek to improve your observational skills throughout the research journey.

Be available
In case participants would want to reach out for questions and support.

6.2 The role of the observer/researcher

In the realm of field research, a designer takes on multifaceted roles that encompass various responsibilities. The observer's role in understanding a context is pivotal, considering the myriad factors at play when venturing into unfamiliar terrains. It becomes imperative for the researcher to approach the environment with a meticulous and cautious attitude, considering the potential impact of their presence.

As the principal investigator of the study, the researcher's individual beliefs, values, and cultural encounters could subtly shape the lens through which the collected data was viewed.
This recognition of potential personal influence underscored the necessity for unwavering transparency at every stage of the research trajectory. This transparency protected against inadvertent bias, ensuring that the interpretation of insights and outcomes remained objective, minimizing the potential impact of any individual predispositions.

In the case of the *Ritualia* project, the author embodied diverse roles, each contributing distinct dimensions to the research process (Figure 48). As a design researcher, the focus lies on understanding the broader design landscape and framing the research goals. Simultaneously, adopting the mantle of a user researcher necessitated a deep dive into the participants' perspectives, uncovering their motivations, behaviors, and underlying values. Furthermore, as a tool designer, the author was tasked with creating a toolkit harmonizing with research and design requirements.

This multifaceted approach not only facilitated a nuanced exploration of the cultural nuances within food rituals but also enabled the adaptation to various unforeseen circumstances encountered during the study. By embracing these roles, the designer could immerse herself in the context, thus capturing a holistic representation of the participants' experiences and behaviors. This understanding ultimately contributed to the development of *Ritualia* as a versatile toolkit for designers, ensuring that the toolkit resonates with the dynamic intricacies of multicultural food rituals.
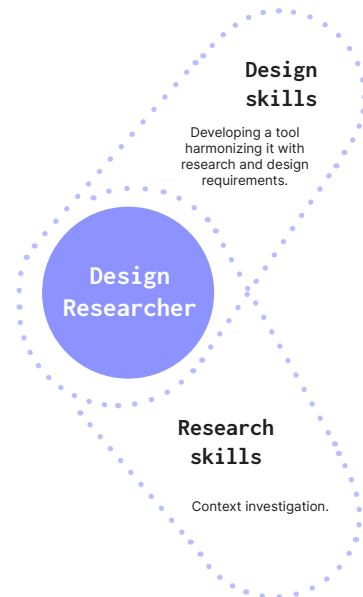
Design skills

Developing a tool harmonizing it with research and design requirements.

Design Researcher

Research skills

Context investigation.

Figure 48.
The multiple roles of a design researcher.

6.2.1 Being "two steps away"

Defining the **roles** of a researcher is an essential step, but it is equally important to consider the proximity they maintain to the observed context. This deliberation makes one wonder *"How close should the researcher be?"*.

From the insights of this research, three distinct approaches emerged: **active participation**, **subtle** and **external observation** (as illustrated in Figure 49). Each approach has advantages and limitations, influencing the depth and authenticity of the collected data.

Understanding these approaches empowers researchers to make well-informed decisions tailored to their specific research objectives, the cultural environment, and ethical considerations.

1. The researcher's **active participation** in studying food rituals offers several advantages. By immersing oneself in the ritual, the researcher can gain firsthand experience and a profound understanding of the participants' perspectives, feelings, and emotions. This level of engagement enables the researcher to develop empathetic insights and fosters rapport with the participants, leading to more candid and authentic responses. However, active participation also presents inherent limitations. The researcher's presence may introduce the *observer effect*, for which participants modify their behavior in response to being observed, leading to potential alterations in the natural flow of the ritual. Participants may act differently or self-censor to accommodate the presence of the researcher, which could result in biased or modified observations. Additionally, maintaining objectivity and non-disruptiveness while actively participating in the ritual can be challenging. Therefore, researchers should carefully consider the potential impact on the ritual and the validity of the data collected when opting for this approach in their explorative studies.

2. On the other hand, when approaching a **subtle observation** (perhaps adopting shadowing techniques), the researcher aims to be unobtrusive and discreet, closely observing participants without actively intervening. In this case, the impact on the ritual is likely to be minimized as participants may become less aware of the researcher's presence. Shadowing allows for a more natural and authentic representation of the ritual, as participants are less likely to alter their behavior due to the researcher's close proximity. It enables researchers to gain valuable insights into the genuine dynamics of the ritual, capturing nuances and subtleties that may not be evident in other observation methods. However, it is essential for the researcher to strike a balance between being present enough to capture meaningful data and remaining unobtrusive to avoid influencing the participants' behavior during the ritual.

3. The **external observation** of food practices - likely those in the street environments or shorter explorative moments - can offer a non-intrusive approach to studying cultural practices. Observing from a distance allows researchers to capture the natural dynamics of the ritual without directly influencing it, ensuring authenticity in the participants' behaviors. This method also provides a broader perspective, allowing for the observation of multiple individuals or groups engaging in the ritual simultaneously. However, external observation may have some downsides, such as the potential lack of detailed insights into the participants' motivations, emotions, or cultural meanings associated with specific actions. Researchers may miss subtle nuances and context-specific details that could be crucial for a comprehensive understanding of the ritual. Additionally, when observing in public spaces, gaining participants' informed consent or interacting with them in-depth may be challenging, leading to limited opportunities for follow-up questions or clarifications. Balancing the benefits of non-intrusiveness with the limitations of external observation is crucial to ensure a well-rounded and respectful approach to studying food rituals.
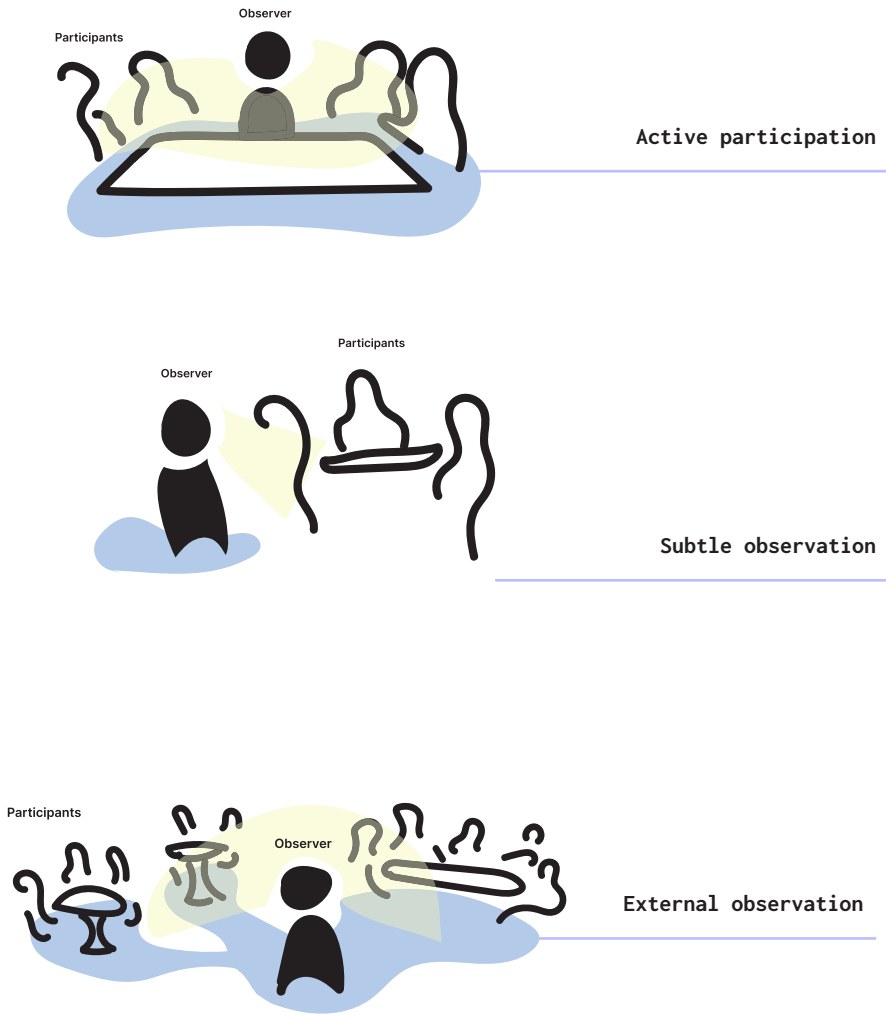
Observer

Participants

Active participation

Participants

Observer

Subtle observation

Participants

Observer

External observation

Figure 49.
Three levels of proximity from
researche to observed participants.

6.2.2 Matters of proximity

Whatever is the chosen method, whether it be active participation subtle or external observation, the important thing is to prioritize ethical considerations and participant well-being. Openly communicating with participants about the research, obtaining informed consent, and respecting their boundaries during the data collection is paramount to conducting responsible and respectful research. This approach ensures that the researcher's presence does not unduly influence the natural flow of the ritual or create discomfort for the participants, fostering a collaborative and ethical research environment.

In conclusion, it is essential to underscore that the categorization above is a generalization derived from the collective insights gathered from various contexts and research experiences. This classification is not intended to be exhaustive, as its applicability hinges on various factors, including the nature of the observed context, the researcher's preferred observation method, and more. These variables mean that the approach taken can be subject to adaptation and nuance, ensuring the research process remains adaptive and responsive to the unique complexity of each scenario.

The concept of proximity and involvement extends beyond the researcher's role in the field and encompasses the number of individuals observed and the arrangement of researchers' roles. This dynamic interplay influences the comprehensiveness and depth of data collection. Just as the researcher's proximity can vary from active participation to external observation, the number of participants being observed and the collaboration among researchers can also assume diverse forms. Whether researchers work individually or collaboratively in a team or whether the observed group involves a single individual or multiple participants, these configurations interact to shape the research process. In Table 8 , each of the possible configurations is accompanied by highlighted **advantages** and **challenges** that guide researchers in making informed decisions based on the nature of their study, the context, and the desired outcomes.

Observer(s)	Highlights	Challenges
Individual (one person is observing his/her own rituals related to food)	• The observation can take place anywhere (designer/observer's hours or workplace). • The observation has no time constraints since the researchers and the observed person coincide. • The individual is widely aware of his/her practice.	• There could be a limitation of information due to a bias of the person. • If not highly motivated, the designer/researcher could not pursue the activity with consistency.
Pair (one person is observing another)	• There is a one-to-one approach and more information might be revealed. Additional potential with a follow-up questionnaire.	• The flow of the shared meal could be blocked by the feeling of "having to take notes while eating". • The observed person might feel tested.
Individual (one person is observing many people while carrying out their ritual)	• Richness in the number of interactive gestures, objects used, and mix of single entities and habits. • A large amount of information is generated in one session. • A global view of the context involving many user experiences can be studied. • Possible forming of group behavioral patterns. • Diners will react to each other's experience and generate an informative discussion.	• The researcher might feel inhibited by the many people present (according to the degree of familiarity). • It is difficult, although impossible, to observe everything and obtain individual responses. • Which, post-ritual interviews could represent a solution.
Team (two or more researchers are observing a person)	• Researchers can grasp the contextual nuances of the ritual, enhancing comprehension from multiple points of view. • Unplanned actions or reactions can reveal unanticipated insights.	• The presence of researchers might alter the participant's natural behavior due to self-consciousness. • Deciphering certain cultural practices might be complex, leading to misinterpretations (even when in a team).

Table 8. Evaluation of possible scenarios (advantages and disadvantages) for the observation with the *napkin* in context.

6.3 Future work

Considering the time constraints of a Master's thesis, the outcomes of this project have been gratifying. However, in envisioning the future trajectory of this work, there are several avenues for further development.

A. Deepening the link bewteen artifacts, gestures, and language in food rituals

In future research, there is potential to delve into one specific aspect of the proposed triangulation framework (artifacts, gestures, or language) and its connection to food rituals. However, such a study would require more time and in-depth investigation to fully grasp how these elements interact with the cultural aspects of food consumption. This could offer new insights into how each component influences and is influenced by cultural practices, enhancing our understanding of the complex relationships between human behavior, traditions, and culinary experiences. Diving deeper into these areas would benefit from interdisciplinary collaboration, perhaps engaging experts from various disciplines to gain in-depth knowledge.

B. Introducing a digital extension

B1. For tools availability

Another aspect ripe for further development is enhancing the toolkit's usability and accessibility. Although time constraints limited the creation of a platform for download, a prototype demonstrates the potential for users to scan a QR code on the *Ritualia* box's side (as illustrated in Figure 50). This would then redirect them to the *Ritualia* web page, allowing them to access and download resources for individual and group work conveniently.

By enabling the downloads of *Ritualia* resources, this feature would promote flexibility in individual and group work scenarios. This way, users could retrieve the materials they need (e.g., other five copies of the researcher's *napkin*). For a collaborative use of the toolkit, the availability of downloadable resources could ensure that all team members have access to the same materials. Employing such a digital platform provides the advantage of scalability: updates, modifications, and new additions could be easily incorporated into the toolkit's resources without requiring physical replacements unless the change concerns the physical toolkit.

B2. For sharing knowledge and creating a network

Another potential direction is to transition from an analog to a digital platform, allowing users to gather and map data about their food rituals in an accessible way. This digital transformation could enable designers and food enthusiasts to create a vast database containing diverse cultural food rituals worldwide.

A digital database would allow users to share and explore various food rituals, transcending geographical and cultural boundaries.
The idea would be to foster a global community of individuals interested in learning about and appreciating the richness of food cultures worldwide. With this in mind, a suitable system would be one supported by artificial intelligence. AI algorithms could, in fact, be employed to analyze the data, identifying patterns and trends across different rituals and cultures.
Moreover, thanks to knowledge sharing, the digital platform could facilitate collaboration among researchers, designers, and individuals interested in food rituals and cultural exploration.
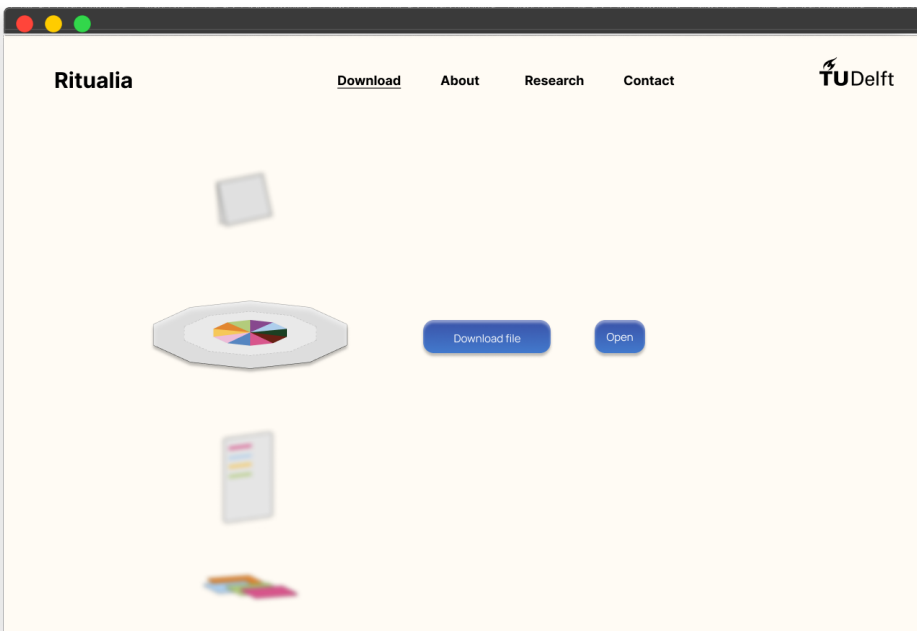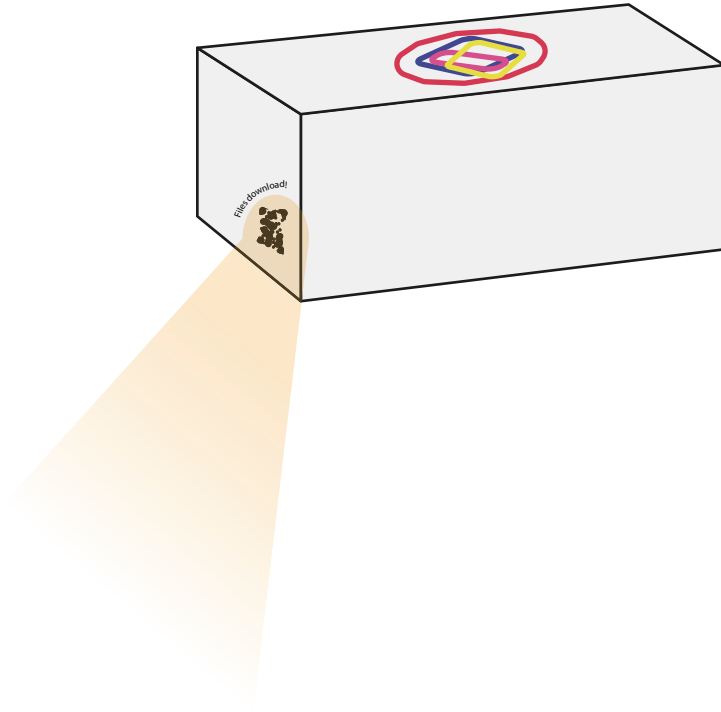
Figure 50.
QR code scanning and digital
prototype of the web page from which
users could download the files of the toolkit.

B3. A *Ritualia* application

When considering the potential for collaborative engagement, it is easy to imagine developing an application (Figure 51) based on the insights generated by this research.

This application could serve as a platform for creating an inclusive community. It would feature sections where users can contribute data based on their experiences and perspectives.

Various interfaces would be tailored to different forms for different data contributions. For instance, one interface could allow users to describe the ritual artifacts they use and their symbolic significance. Another could focus on collecting specific words or phrases, possibly even through audio recordings.

Another feature this application could incorporate is a visual map highlighting similarities between rituals in different regions , as illustrated in Figure 52. Such a feature would represent the shared aspects of various cultural practices, fostering a sense of global connection.

This potential application would use the information gained from this research to create a collaborative space where users can contribute with their unique insights. By creating multiple interfaces and incorporating a visual map, the application could encourage diverse participation by visualizing the universal threads that run through various cultural rituals.

Figure 51. Idea of a *Ritualia* application.

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Figure 52.
Digital prototype of ritual match around
Europe on the fictional *Ritualia* application.

Acknowledgements

This thesis marks the culmination of my academic journey. If I learned something from this research is that we as humans are temporary results -because always in evolution- of our encounters, spatial and social. For the same reason, despite my efforts in planning and executing this project, I believe I got half the strength to carry it out from the outside. This is why I feel that for the luck I had during these six months , I owe much to the individuals who have been part of this journey.
In this specific case, some deserve special thanks from my side.

I would like to thank the chair of the project, Gijs. I express my gratitude for showing me enthusiasm from our very first meeting, even without a clear picture of where the project would have gone. It is thanks to your unwavering support right from the start that I could shape the research into its best form.
Jeff, thank you for your mentorship throughout this project. It was marked by a continuous stream of insightful guidance, and stimulating discussions that helped me and the project progress. Along with numerous conversations about academia and life.

Working with both of you has felt like being guided without constraints, and I value the opportunity to conduct my research under your guidance. You have nurtured my perspectives, encouraging me to explore fresh viewpoints. The autonomy you have granted me in managing this research has been enlightening. For this, I am genuinely grateful. Along the process, I have felt supported yet unburdened, encouraged but never compelled. You both have broadened my outlook, empowering me to oversee this research with significant independence. This freedom is a gift which I am deeply thankful for. After all, we could chat about food for hours, and this have helped somehow!

Ringrazio la mia famiglia per il supporto costante e per essere esempi ben distinti di qualità uniche. Germano, sei il mio esempio di insaziabile curiosità, costanza e diligenza verso la conoscenza.
Papà, sempre fiducioso in me. Grazie del tuo sguardo unico sul mondo, sregolato e creativo.
Mamma, grazie per avermi tramandato la tua tenacia spesso mascherata da calma.

I would like to extend my gratitude to my support system, made by the amazing humans that I encountered along the way.
Le mie amiche, Nicole, Paola e Giulia, così diverse ma accomunate dall'essere dei punti saldi. Le nostre strade, i mille lavori e studi ci tengono lontane ma mi rassicura sempre l'idea di ristrovarci, raccontarci ed esserci.
Marina, amica e collega stimolante sempre all'ascolto, sei stata la mia fortuna casuale.
Rivolgo poi il mio affetto ad una persona il cui contributo umano ha fatto tanto per lo sviluppo e il nutrimento mio e dei miei progetti. Jasmine, grazie del continuo supporto, dei pranzi e racconti (infondo è tutto nato un po' manginado *dim sum*), delle passeggiate mattutine del giovedì che, infondo, sono il nostro food ritual.

My many friends, colleagues and participants who contributed directly and indirectly to this research. Thank you for all the inspirational chats, coffee breaks and shared fears and dinners.

With that being said, the most valuable companions are not distinguished by their assistance during challenging times, but by their ability to remind you that you have got the strength to navigate through difficulties. For this, with heartfelt gratitude for sharing so many moments together, I extend my thanks to Lenny. Sei casa lontano da casa.

A

The appendices of the thesis report encompass supplementary materials that provide further context and support to the research findings and methodologies discussed in the main body of the report.

TUDelft

IDE Master Graduation
Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

❗ **USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT**
Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME
Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 ! ⓘ

family name	Germanò
initials	GG given name Gaia
student number	5376912
street & no.	
zipcode & city	
country	
phone	
email	

Your master programme (only select the options that apply to you):

IDE master(s): (IPD) (★ DfI) (SPD)

2nd non-IDE master: _____

individual programme: ___ - ___ _____ (give date of approval)

honours programme: (Honours Programme Master)

specialisation / annotation: (Medisign)
(Tech. in Sustainable Design)
(Entrepeneurship)

SUPERVISORY TEAM **
Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	Gijs Huisman	dept. / section:	HCD
** mentor	Jeff Love	dept. / section:	SDE
2nd mentor	Fresco Sam-Sin		
	organisation:	Taalmuseum Leiden	
	city: Delft	country:	Netherlands

comments
(optional)

❗ Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..

❗ Second mentor only applies in case the assignment is hosted by an external organisation.

❗ Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

TUDelft

Procedural Checks - IDE Master Graduation

APPROVAL PROJECT BRIEF
To be filled in by the chair of the supervisory team.

chair Gijs Huisman   date 20 - 02 - 2023   signature _____

CHECK STUDY PROGRESS
To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair.
The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: _____ EC

Of which, taking the conditional requirements
into account, can be part of the exam programme _____ EC

List of electives obtained before the third
semester without approval of the BoE

( ) YES   all 1st year master courses passed

( ) NO   missing 1st year master courses are:

name _____   date __-__-____   signature _____

FORMAL APPROVAL GRADUATION PROJECT
To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **.
Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: ( ) APPROVED   ( ) NOT APPROVED

Procedure: ( ) APPROVED   ( ) NOT APPROVED

comments

name _____   date __-__-____   signature _____

Initials & Name GG   Germanò   Student number

Title of Project   Uncovering the role of artifacts and embodied gestures in food rituals

Personal Project Brief - IDE Master Graduation

TUDelft

 Uncovering the role of artifacts and embodied gestures in food rituals   project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date   21 - 02 - 2023   24 - 07 - 2023   end date

INTRODUCTION **
Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

For as long as we can remember, we have been eating and drinking. Food fulfils not only biological functions, but its importance is significant from a social, systemic and symbolic perspective [1]. In fact, through the medium of food, humanity, knowledge and culture are intertwined [2]. The way in which food is prepared and consumed is the representation of how a certain culture has developed dietary patterns [3].
Over the centuries, to regularize one's approach to food and how it should be eaten, humans have created complex rules commonly called manners. A strong link between what people eat, how others perceive them and how they characterize themselves is striking. In fact, food fosters humans in building their cultural identity [4].

As cultural heritage is strongly represented by the way in which one searches, prepares and consumes food, in literature a triangulation of fundamental dimensions was identified: legacy, people and place. Traditional food is mostly linked to the legacy and place dimensions. While ethnic food is related to the dimensions of people and legacy [5]. There are numerous situations in which more than two individuals meet together and perform a food ritual. When sharing such a moment in the context of family mealtime gatherings, three main crucial components characterise the ritual interaction. The first is communication, which incorporates inside jokes, symbolism, and sharing. Then comes the commitment, which consists in fostering the sense of belonging linked to that moment. Finally, the continuity and repetition of performing a food ritual represent social and symbolic connections [2]. It is when all these components are present that, through mutually interacting, more individuals come together to form a group. When interacting with other people, artifacts and the environment, the human body is not simply a vessel that processes sensory experiences but becomes a social object and subject through experiences. This is supported by the concept of embodiement. It refers to the way in which the object-body is actively experienced, produced, sustained, and transformed as a subject body [1]. This taken into consideration, if the satisfaction perceived while having a meal is not only influenced by the food itself but also by external factors, the social influence stands out as an important factor in determining the pleasure of eating [6].

The context in which the research project will take place is among ethnic groups living in the Netherlands. Millions of people relocate annually in pursuit of better economic prospects and living conditions. As a consequence of many immigration flows that the Netherlands has undergone over the centuries, the country is now populated by ethnic minorities of Indonesian, Turkish, Moroccan and Surinamese citizens [7,8]. Once a migrating group has settled in a new location, whether it be a different country or region, numerous aspects of its life, including its food habits, endure a transformation. The process by which people adopt the norms, values, beliefs and behaviours of a dominant or host group is defined as "acculturation"[9]. As this adaptation process goes on, food and eating practices involve not only the nutritional aspects but also the social elements associated with food [10]. In fact, while acculturation refers to the process of adapting to new cultural traits, "dietary acculturation" specifically pertains to the alteration of a migrant group's eating habits and food preferences in response to their new surroundings [11].

The Taalmuseum of Leiden represents a valuable addition to this research, since it explores the relationships between languages and gestures and what impact they have on culture. Researching ethnic and local groups during shared eating rituals at mealtime will involve the study of each culture's means of expression, of which spoken and nonverbal language is a crucial part. This study will provide a rich context for understanding the acculturation process and the role that food and embodied gestures play in shaping cultural identity.

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Initials & Name   GG   Germanò   Student number

Title of Project   Uncovering the role of artifacts and embodied gestures in food rituals

introduction (continued): space for images

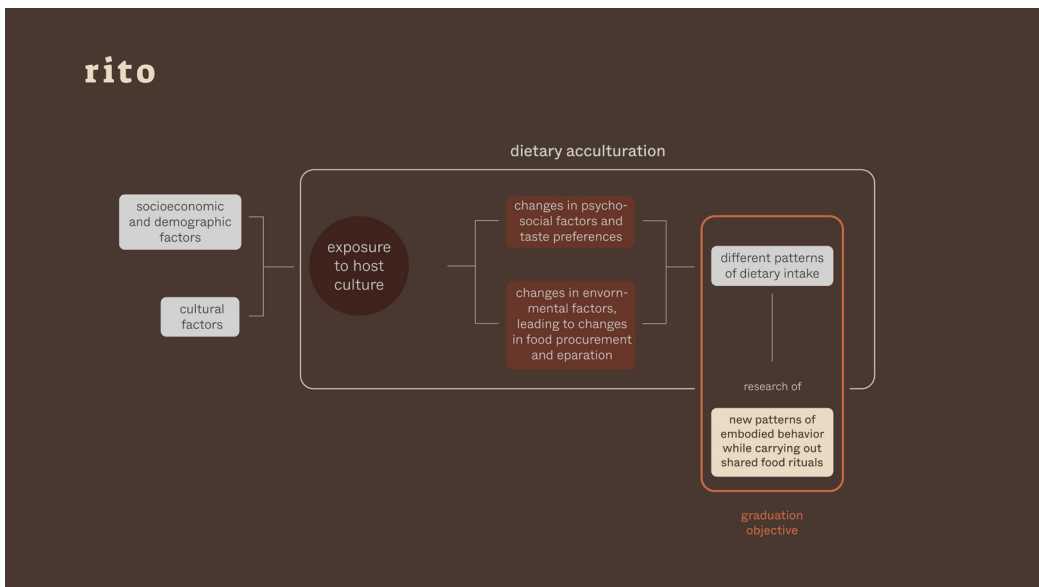image / figure 1:   Triangulation of elements that will guide the research.

image / figure 2:   Thesis objective framed within the existing research in dietary acculturation

TUDelft

Personal Project Brief - IDE Master Graduation

**PROBLEM DEFINITION **
Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

This graduation project will address the multiple ways in which the embodied interactions of ethnic groups living in the Netherlands have changed while being influenced by local eating practices. With this project, I am to investigate the cultural dynamics surrounding food rituals and the action of eating and how the embodied experience of eating influences cognitive sense-making [1] in the context of mixed ethnicity. With this concept as the starting point of the research, initially, a minor question would guide my project: how do the embodied interactions of ethnic groups in the Netherlands change as a result of their exposure and merging with local eating habits?

While the main research question that will guide this project is:
How does the design of artifacts in the context of dinner time shape Dutch-ethnic embodied behaviours when participating in food rituals?

The main aim of this graduation project will be to discover how everyday objects' design transforms into central features of food rituals, challenging the traditional distinction between ritual artifacts and everyday items [13].
Dinnertime represents an organized non-chaotic affair for most families. It takes place when everyone has finished a work shift and it is time to go back home (or to a restaurant) and have dinner at a restaurant [14].
Despite the insights that can be generated from such a research placed in this moment of the day, it is important to note that acculturation is a complex and dynamic process that can be experienced differently by individuals and groups within the same cultural context. My goal is to explore this complexity. The outcome of this graduation project will be defined by the nature of the learnings and results gained from the ethnographic research.
These can finally contribute to generating knowledge about the contemporary cultural and social dimensions of food and eating embodied gestures in the multi ethnic reality of the Netherlands.

**ASSIGNMENT **
State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

This research project aims to uncover the embodied food practices of Dutch-ethnic groups through the analysis of ritual artifacts associated with shared food rituals. The uncovering of patterns of behaviours will provide valuable insights into the acculturation process and ultimately lead to knowledge creation around the topic, enhancing inter cultural understanding, and serve as a tool for culture-sensitive designers.

To conduct this research, a structured plan is needed. First, some time will be devoted to the analysis of existing literature. Grounding the study in theoretical knowledge will be crucial to proceed. Thereafter, a plan for field research will be devised. It is, in fact, a designer's task to immerse themselves in the context of their research [15].
My approach includes a review of existing literature to build a solid theoretical foundation. The ethnographic methods will be used to gather data by immersing me as a researcher in the context of the research. This will take place after having recruited participants through the Taalmuseum network and following specific criteria — e.g. being a household and having residence in the Netherlands.

As cultural diversity represents an evolutionary necessity of naturally responding to changing circumstances [16] this research project aims at analysing it along with its relationship with material culture, rituals, and everyday life. By delivering such analysis, the aim is to revise existing design tools and refine design solutions in collaboration with the community to ensure cultural relevance and further sensitivity in design practices.
The final deliverable will include a literature review, research details and structure, data analysis, and conclusions, along with a design proposal within a written and illustrated report. The expected outcome is the generation of design solutions that respect cultural differences and take into account shared values and beliefs. Finally, a digital extension of the project will consist of a visual repertoire of pictures and videos. Sharing findings and design outcomes with the design community will be done to increase awareness and encourage cultural sensitivity in design practices.

Initials & Name __GG____ Germanò_____   Student number _____

Title of Project ___Uncovering the role of artifacts and embodied gestures in food rituals_____

Personal Project Brief - IDE Master Graduation

start date   21 - 2   - 2023   24 - 7 - 2023   end date

This graduation project will be carried out on on a five-days plan per week. It will unfold in four main phases: literature research, a research conducted in the chosen context, an ideation and at last a development phase.

The first phase will involve reviewing existing literature to gain a deeper understanding of the concepts of rituals, embodied behaviors, and the acculturation process of immigrant groups in foreign environments.
Subsequently, the second phase will consist of a qualitative research study [12], using a participatory [13] and ethnographic approach, to observe and understand the behaviors and rituals of ethnic groups living in the Netherlands during dinner time. This will involve participant observation, in-depth interviews, and the analysis of the design of artifacts in context.
The insights gathered from the research will inform the ideation phase, where new and imaginative concepts will be produced. Following, there will be a refining stage, in which the concepts will be assessed, experimented with, and refined.
Finally, the development phase will result in the creation of a final concept that incorporates the insights gained from the literature research and field study. This final concept will serve as available knowledge for designers and recommendation to support the acculturation process of immigrant groups in the Netherlands.

Initials & Name   GG   Germanò   Student number
Title of Project   Uncovering the role of artifacts and embodied gestures in food rituals

Personal Project Brief - IDE Master Graduation

MOTIVATION AND PERSONAL AMBITIONS
Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed.
Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, ... Stick to no more than five ambitions.

I believe that the two-year course of studies of a Master's program at the TU Delft, the thesis project represents a chance to take a look back. Along the path I trod, human behaviours, attitudes and interactions have always been my strongest interest. Step by step, I enjoyed seeking the underlying motives that trigger interactions. At the present moment, when I define the main topic of my graduation project, I am eager to explore rituals regarding food consumption and how embodied interactions play a role in those.
The program provides various opportunities to expand students' knowledge and spark their interests, including the option to choose among a set of elective courses during the second year. These courses allowed me to broaden my knowledge and interests in the field of food and eating design.
Attending these classes allowed me to enhance my theoretical understanding of food composition, preservation, and preparation methods. Despite the informative nature of these course, I wanted to explore the humanistic aspects of food. On the other hand, there have been limited opportunities for me to delve into the field of embodied interaction design. Nonetheless, I aim to acquire a thorough understanding of embodied interactions in my chosen context, incorporating the theoretical knowledge I have gained from previous classes.

It is my opinion that conducting ethnographic research on food consumption rituals and embodied interactions can be a valuable and motivating experience for several reasons. First of all, for understanding human behaviour. This type of research allows for an in-depth understanding of human behaviour and can provide valuable insights into cultural and social norms surrounding food. Secondly, focusing on the user-centre perspective, the research will provide a comprehensive understanding of the user's behaviours and motivations, and convey actionable insights into ways to categorise the food consumption experience. Furthermore, embodied interactions play a significant role in food consumption, and exploring them in context will support the discovering of how physical movements and gestures influence the eating behaviour.
Carrying out ethnographic research within a six-months plan, applying a hands-on approach, will certainly allow for a thorough understanding and observation of the environmental cues that influence behaviors.

The overall relevance of food, which is a fundamental aspect of daily life and the value of ethnographic research on the mix of food cultures and embodied interactions can be relevant to a wide range of fields, including psychology, sociology, and ultimately design.

In the course of this Master, I previously had many chances of approaching the clients of projects I worked on. Despite this, I think I can still benefit a lot from the involvement of a third mentor for reinforcing my communication skills. Carrying out this graduation project in collaboration with the Taalmuseum of Leiden offers a unique opportunity to explore how language is the expression of different cultures. With the museum's focus on means of interaction and its diverse collection of language-related items, the chosen context is ideal for studying the nuances and motives around language development and its role when part of the shared eating rituals.

I am sure that by combining all the factors mentioned, my goal to strengthen my skills from these different fields of expertise will get me closer to fulfilling my interaction designer potential.

FINAL COMMENTS
In case your project brief needs final comments, please add any information you think is relevant.

Initials & Name   GG   Germanò   Student number

Title of Project   Uncovering the role of artifacts and embodied gestures in food rituals

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Appendix A

The first appendix pertains to participant recruitment and exercise materials for the case studies.

Be part of my graduation research!
Food rituality among Turkish-Dutch households

Who am I
Ciao!

I am Gaia, an italian design student who moved to the Netherlands and is now approaching the end of her studies at the Design for Interaction Master course (TU Delft).
I am doing it while exploring what I appreciate the most:
how food makes (and has made) people connect worldwide with no limits of time and space or language.

What am I doing?

I am currently working on my graduation project, which focuses on designing for multicultural eating rituals. The project arose from my **curiosity about how cultures mix** and what kinds of things are important to people during meals. To make the research more manageable, I'm currently examining the dining habits of Turkish-Dutch and Surinamese-Dutch families.

How can you contribute?

Your involvement takes place in completing small tasks such as **taking photographs** of significant elements during a meal,like the arrangement of plates, some gestures related to it, food choice. Furthermore, in a more advanced phase of my research I am willing to **share a meal with you** if you will be happy to share with me some of your precious rituals.

What for!

The end goal of this project is to provide **design advice** and a working **tools** for individuals or groups interested in exploring mixed food traditions, including families, restaurateurs, and community groups.

TUDelft

Teşekkürler   Tank yu   Heel bedankt   Grazie   Thank you

Figure A1. E-mail sent to Dutch-Turkish and Dutch-Surinamese participants of the case study.

Dear _____,

Thank you for agreeing on participating and contribute to my food ritual
research. Here are the instructions for the first activity!

First of all, attached to this e-mail you will find a file is a consent form
that I kindly ask you to sign digitally and send back to me. Within it, I
extensively inform you about the data treatment for my research. I confirm to
you that everything that you will share with me will be strictly kept
confidential and any data will be destroyed after I will have made use of it.
Another file will tell you -again- more about my research.

Let's now go straight to the fun part: what we will call your food ritual
photo safari !

For this activity, I would like to ask you to prepare dinner as you normally
do during the week - it is important for me that you do not set up things on
purpose for the pictures. I will appreciate your authentic and truthful
experience as I approach this research with a non-judgemental and extremely
curious gaze.

Following are some questions you might have for me, so I'll try to address
every possible doubt in advance.

«Who should take the pictures?»
Anyone who feels comfortable doing it.
Remember, the purpose is to always have fun! Every once in a while you can
also alternate this role if you feel like it.

«What will I need?»
A device that allows you to take pictures: your phone is perfectly fine, but
any other device with which you are comfortable will work perfectly.

«What do I need to photograph?»
I am interested in the phases in which 1 typical weekly dinner with your
family or partner unfolds:
- The preparation and set-up
- Artifacts disposal (e.g. on the tabletop, if the dinner takes place on a
table)
- Movements of harm, hands in the course of the dinner
- Passing of objects between the diners
- Use of special tools/cutlery to bring food to the mouth
- Approaching the end of the meal
- Disposal of food
- Unpacking the table

«What if our faces appear in the pictures?»
No worries, if faces will be visible in the photos, I will obscure them with
post-production so that the people present are not recognizable.

«For when do we need to get it done?»
If you could do this exercise between the current week and the end of next
week that would be very appreciated.

I hope everything is clear. Once you will have taken the pictures, you can
upload them here (access to this folder is strictly limited to only me and
you).
At the end of the photo safari, there are some questions for you in this
questionnaire.
It will take less than 10 minutes and will help me investigate your food
rituals in depth (and anonymously).

I hope you have fun and I am looking forward to hearing back from you.

Best,
Gaia

Figure A2. E-mail sent to Dutch-Turkish and Dutch-Surinamese participants of the case study.

Appendix B

Appendix B contains the materials provided to or produced from participants and the details of the sesssion's analysis of the focus group conducted during this thesis.

Figure B1. *Experience timeline*, first exercise proposed during the focus group session.

Figure B2. *Top value* exercise.

Figure B3. *Habit change* exercise.

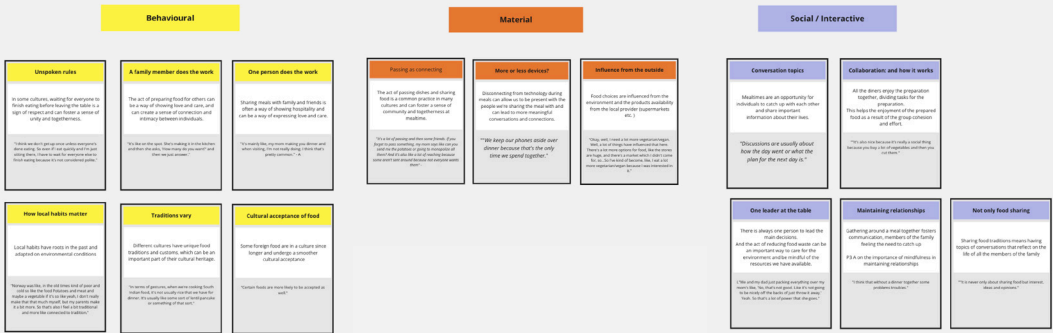**Figure B4.** Statement cards analysis.

Figure B5. Statement cards clustering.

Appendix C

In this section some elements that are part of the iterative process of the design development are illustrated.

Figure C1. The first version of the Ritualia researcher's *napkin*, front and backside.

"*Thanks to the extra notes I could see that most of the dinner is all about the kids, and this gave me a little more information.*"
- D1

Perceived positively   Room for improvement

"*I like that I can take track of their roles otherwise it is something that I could not remember if I will take pictures.*"
- D1

"*If there was a limit I would pay more attention to the important objects.*"
- D2

Figure C2. Responses to the pre-filled researcher's napkin.

SCRIPT First Testing Session - Napkin

Introduction (5 minutes)
Welcoming participants and providing an overview of the design session's objecti-
ves and structure.
Explaining the purpose of the "researcher napkin" and its role in capturing rele-
vant information about multicultural food rituals.

Prototype Presentation (10 minutes)

Presenting the prototype related to multicultural food rituals, emphasizing its
key features and functionalities.
Answering any initial questions or concerns from the designers.

Researcher Napkin Overview (5 minutes)

Providing a brief explanation of the elements included in the pre-filled "resear-
cher napkin," such as the material world, spoken language and gestures, artifacts
used, and timeline of events.
Clarifying the importance of considering these aspects during the explorative
phase of multicultural food rituals.

Goal Assignment (5 minutes)
Randomly assign each designer with one of the three goals: develop a restaurant
design, web/app service, or advertisement design.
Emphasizing that the goal is to ideate design concepts aligned with their assi-
gned objective.

Individual Ideation Phase (20 minutes)
Giving designers time to explore the "researcher napkin" and use it as a referen-
ce while ideating design concepts related to their assigned goal.
Encouraging them to think creatively and consider the unique cultural aspects and
requirements associated with their respective goals.

Group Discussion (20 minutes)
Facilitating a discussion where each designer shares their design concept with
the group.
Encouraging feedback, constructive criticism, and idea exchange among the desi-
gners.
Observing and taking note of moments when designers may require additional sup-
port or guidance during the concept/ideation phase.

Wrap-up and Feedback (5 minutes)
Concluding the design session by summarizing the key insights and observations
from the discussion.
Allowing designers to provide feedback on the usability and effectiveness of the
"researcher napkin" as a tool for concept ideation.
By following this structured script, I could gather valuable insights into the
designers' utilization of the "researcher napkin" tool and identify areas where
they may require additional support during the ideation phase of multicultural
food rituals.

Design Goal
1) Restaurant Design Goal
2) Web/App Service Design Goal
3) Advertisement Design

By assigning these prompts to each designer, their goals align with the inte-
raction theory design principles.

Figure C3. First testing session script.

Design Goal	1) Restaurant Design Goal	2) Web/App Service Design Goal	3) Advertisement Design
Task	"Design an immersive dining experience that fosters cultural exchange and enhances social interactions among diverse groups of customers".	"Create a digital platform that facilitates the sharing of multicultural recipes, promotes cultural understanding, and encourages users to engage in cross-cultural culinary experiences".	"Develop a visually compelling advertising campaign that celebrates the diversity of food cultures, communicates inclusivity, and encourages people to explore and embrace different culinary traditions".
Source	Verbeek, P. P. (2005). What things do: Philosophical reflections on technology, agency, and design. Penn State Press.	Bannon, L. J., & Ehn, P. (2013). Design Matters in Participatory Design. I: J. Simonsen, & T. Robertson.	Rogers, Y., Sharp, H., & Preece, J. (2011). Interaction design: Beyond human-computer interaction.

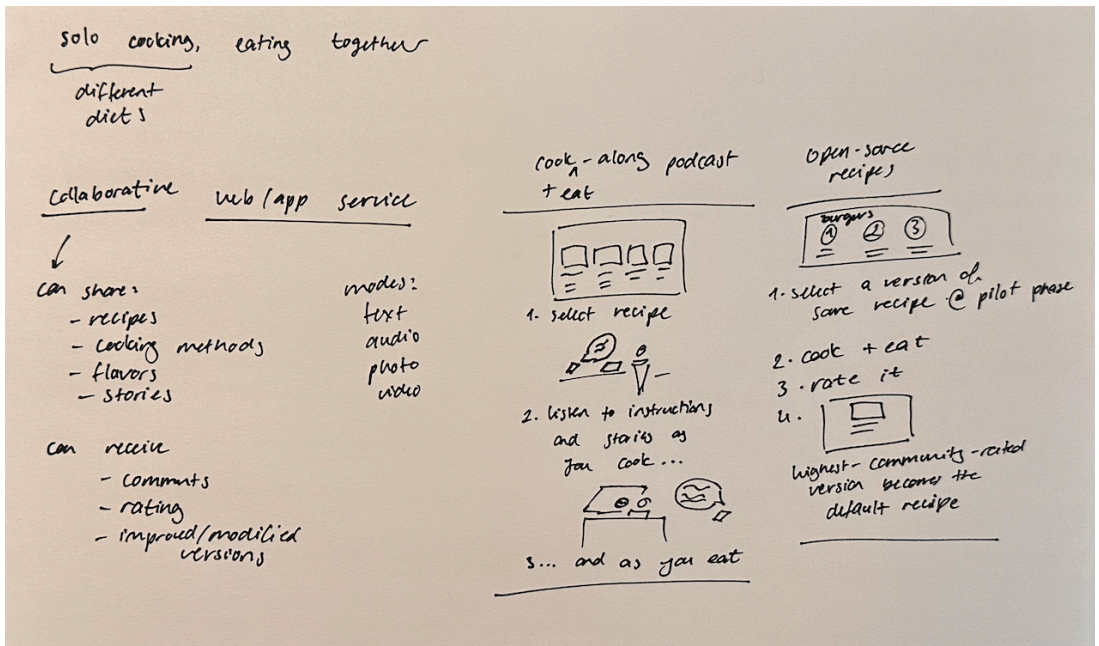**Figure C4.** Design Goals provided during the first session.

Figure C5. Ideas of Participant 1 generated after engaging with the napkin and design goals during the first session.

SCRIPT Third Testing Session - Napkin, Value map, Value compass and design prompts

Introduction to the session;
Asking how was the use of the napkin in context;
Dividing the group into two duos and picking the napkin as a reference (the one that involved more multicultural rituals will be prioritized);

(10 mins)
Letting the participants analyze the ritual and underlying values;

After the analysis, the group started discussing and introducing the explored eating practices that they analyzed.

Choosing a design direction:
Pick a random design direction;

Approach the value map again in order to select a value that they would like to enhance + they can include design prompts from other categories/values and place it in the frame of the chosen value.

After approaching the Vale Map to analyze the chosen ritual, the group was instructed to draw between random design directions disposed on the testing table.

The first available option was generating a sales campaign.
This first task aimed at Designing a sales campaign that effectively communicates the value and benefits of a product or service to the target audience, focusing on persuasive and engaging interactions.

The second option consisted in ideating a physical product.
The task involved generating innovative ideas for a physical product that provides meaningful and enjoyable user experiences, considering user needs, usability, aesthetics, and sustainability. (Normak, 2013).

The third and last option consisted in ideating a digital application.
In this third case, the exercise asked designers to conceptualize and design an app that delivers a user-centered experience by considering usability, intuitiveness, and engaging interactions in achieving the desired functionality (Lidwell et al. 2010).

Post Session: Questionnaire & group
The designers were asked to answer a Post-Task Questionnaire, developed based on the TAM model for technology acceptance This type of questionnaire aims at collecting feedback from users after completing specific tasks using all the elements that are part of the toolkit ecosystem, with a specific focus on their satisfaction, the efficiency of the tool, and its perceived usefulness.

Figure C6. Second testing session script.

Pre-Discussion Questionnaire / Designer ___

Perceived Usefulness

1. Overall, I found the napkin tool useful in understanding the context of food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

2. The value map and compass helped me identify and address user values in concept development.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

3. The toolkit provided valuable insights that enhanced my understanding of multicultural food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

4. The toolkit helped me improve my ability to develop design concepts for food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

Ease of Use

5. The napkin tool was easy to use and understand.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

6. The value map and compass were intuitive and straightforward to utilize.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

7. The toolkit instructions and prompts were clear and easy to follow.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

8. I easily integrated the toolkit into my design process and workflow.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

Attitude toward Use

9. I am positive about using the napkin tool in future design projects related to food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

10. I believe that the value map and compass are valuable tools for designing multicultural food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

11. I am willing to recommend the toolkit to other designers or researchers in the field.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

12. The toolkit positively influenced my perception of the importance of considering values in design.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

Behavioral Intention to Use

13. I intend to continue using the napkin tool for exploring and analyzing food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

14. I plan to incorporate the value map and compass into my future design ideation sessions.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

15. I see myself using the toolkit regularly in my design process.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

16. I am motivated to apply the insights gained from the toolkit to create meaningful design concepts.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

Perceived User Support

17. The toolkit provided adequate support for understanding and analyzing the elements of food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

18. I received sufficient guidance and information from the value map and compass in concept development.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

19. The toolkit helped me address any challenges or opportunities related to multicultural food rituals.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

20. I felt supported using the toolkit in my task and design process.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

Clarity & Toolkit Aesthetic

21. The text and visuals on the napkin were clear and easy to read.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

22. The design elements effectively convey the intended messages and instructions.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

23. The toolkit's aesthetics support the understanding and use of the value map and compass.

extremely agree ◯ ◯ ◯ ◯ ◯ ◯ ◯ extremely disagree

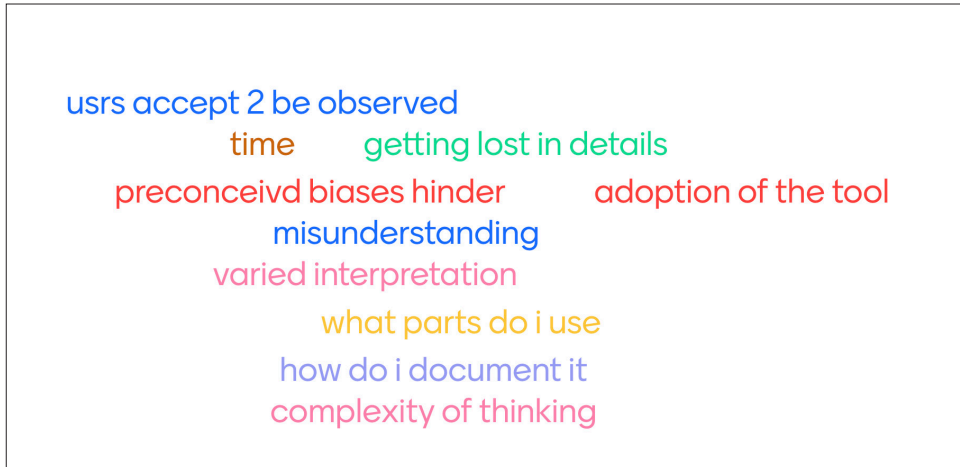**Figure C7.** Questionnaire based on the TAM model.

System Usability Scale

© Digital Equipment Corporation, 1986.

Strongly disagree — Strongly agree

1. I think that I would like to use this system frequently
   1 2 3 4 5

2. I found the system unnecessarily complex
   1 2 3 4 5

3. I thought the system was easy to use
   1 2 3 4 5

4. I think that I would need the support of a technical person to be able to use this system
   1 2 3 4 5

5. I found the various functions in this system were well integrated
   1 2 3 4 5

6. I thought there was too much inconsistency in this system
   1 2 3 4 5

7. I would imagine that most people would learn to use this system very quickly
   1 2 3 4 5

8. I found the system very cumbersome to use
   1 2 3 4 5

9. I felt very confident using the system
   1 2 3 4 5

10. I needed to learn a lot of things before I could get going with this system
    1 2 3 4 5

Figure C8. SUS questionnaire provided during the final evaluation session.

What would be the challenges of using the *Ritualia* toolkit?

usrs accept 2 be observed
time   getting lost in details
preconceivd biases hinder   adoption of the tool
misunderstanding
varied interpretation
what parts do i use
how do i document it
complexity of thinking

What value do you see in using the *Ritualia* toolkit?

respecting cultural value
separate design phases
community building
small gesturs r important
common ground in groups
discover values
inspiration for exploring
innovation rooted
food beyond food
learning varied habits
adapting accommodating

Figure C9 and C10. Word clouds answers from participants during the evaluation session.

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