

DESIGN GUIDELINES FOR LUNCH BOX
AS COMPACT HOME EXPERIENCE

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AS COMPACT HOME EXPERIENCE**

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ABSTRACT

DESIGN GUIDELINES FOR LUNCH BOX AS COMPACT HOME EXPERIENCE

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Turkish food culture, which is built upon a rich background, lunch boxes remain as an important product in the face of recent changes in eating habits. This study investigates the meaning and significance of lunch boxes for Turkish users and designers in the face of changing habits in food culture. The study aims to determine the major reasons for using lunch boxes today, and define the users' needs regarding lunch boxes in terms of design and functionality. The main research consists of three parts, which are a literature review and field research to determine the state of the art in the lunch box market; interviews conducted with 18 users and 4 designers (mostly white color workers); and a catalogue review of the projects that were submitted to the IMMIB Design Competitions between 2005 and 2014. The findings of the study shows that the two different perspectives (those of the users and designers). As a result, there are two main points that are deducted from the study. First, lunch box is a reinterpreted tradition that continues in the daily lives of users in the form of different products. Second, both users and designers interpret the tradition of lunch box as a mobile compact home experience, as users would like to reanimate the experience of eating at home by using lunch boxes. The thesis is concluded by suggesting design guidelines regarding design aspects such as accessories, overall form, volume etc. in order to strengthen this experience.

Keywords: lunch box, food culture, healthy eating, product design, sefer taşı

ÖZ

BİR KOMPAKT EV DENEYİMİ OLARAK SEFER TASI İÇİN TASARIM KRİTERLERİ

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Mutfak kültürü, ait olduğu toplumun tarihini, kültürünü, yaşam biçimini ve geleneklerini yansıtır. Zengin bir kültürel geçmişe sahip olan Türkiye toplumunda; kültürel değişimler ve yeme-içme kültüründeki değişen alışkanlıklara rağmen, sefer tası hala varlığını sürdürmekte olan önemli bir üründür. Bu çalışmada, yemek kültüründe değişen alışkanlıkların, mutfak kültürünün bir parçası olan sefer tasının tasarımlarını nasıl etkilediği incelenmiş, Türkiye’de kullanıcı ve tasarımcılar için sefer tasının anlamı ve önemi tarihlenmiştir. Önemli bir amaç, sefer tası kullanım nedenlerini belirleyerek, tasarım ve işlevsellik açısından sefer tası kullanıcısının ihtiyaçlarını tanımlamaktır. Bu amaca ulaşmak için üç aşamalı bir araştırma yapılmıştır. İlk kısımda piyasadaki sefer tasları incelenmiştir. Çalışmanın ikinci kısmında ise 14 kullanıcı ve 4 tasarımcı ile sefer tası kullanımı ve tasarımı üzerine görüşmeler yapılmıştır. Üçüncü aşamada ise IMMIB Tasarım Yarışmalarının 2005 ve 2014 arasında yayımlanan katalogları incelenerek, burada yer alan sefer tası tasarımları analiz edilmiştir.

Çalışmanın bulguları iki farklı tarafın (kullanıcılar ve tasarımcılar) bakış açılarını yansıtmaktadır. Bulgular kullanıcıların sefer tasının işlevsel niteliklerine daha çok önem verdiğini, tasarımcılarınsa ürünün görsel niteliklerine yoğunlaştığını göstermektedir. Çalışmanın iki ana bulgusu vardır. Birincisi, sefer tası, kullanıcıların günlük hayatlarında yeniden yorumlanmış bir gelenek olarak hayatını sürdürmekte,

farklı ürünler sefertası yerine kullanılmaktadır. İkincisi, mobil ev deneyimi haline gelen bu ürün, kullanıcıların günlük hayatlarında ev yemeđi deneyimini canlandırmak için kullanılmaktadır. Tasarımcılar da bu deneyimi geliştirici çözümler üretmeye çalışmaktadır. Bu süreçte tespit edilen form, aksesuar ihtiyacı, hacim gibi tasarım kriterlerinin, sefer tası ve mobil yemek konusunda çalışacak tasarımcılara ışık tutarak Türkiye pazarı için mutfak ürünleri tasarlayan tasarımcılara yeni bir bakış açısı getireceđi düşünölmektedir.

Anahtar Kelimeler: sefer tası, yemek kültürü, sađlıklı beslenme, ürün tasarımı, tasarım yarışmaları

To my dear family

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CHAPTER 1

INTRODUCTION

1.1 Background and Aim

Culture is a key concept, which is observed and studied by many disciplines, with different interpretations. In this study, culture is defined as the community goods, the principles that shape a community, its values, ideas, crafts, beliefs, traditions and everything that is created by it (Stajcic, 2013).

Kitchen culture of a society represents the history, identity and existence of the specific society. It conveys its culture, life styles, belief systems, values, ethics and all traditions related to all objects, methods and habits. Correspondingly, each society has own its kitchen culture (Arman, 2011). In this context, Turkey has a rich heritage of kitchen culture and food diversity due to its history. Mainstream histories of the Turkish culture start with Turkic communities in Central Asia. In the Central Asia, Turkic people were engaged in agriculture and stockbreeding which enriched their kitchen culture. Güler (2010) mentions that the Seljuk has established their unique kitchen culture with its own dishes, cooking and preservation techniques. They had their own traditions, eating habits and life styles in that period, such as mid-morning and evening meals. Many changes have taken place in the local kitchen culture after the acceptance of Islam in the Turkish region. The food and beverage types, and dining habits have changed with the influence of different kitchen cultures that were present. Turkish kitchen culture developed most extensively under the Ottoman Empire, as a result of the large geographic area it covered. Various influences brought different traditions, dining ethics and habits. Turkish kitchen culture began to be influenced from Europe culture with advances in relations in the 19th century. Table manners, habits and traditions began to change. For example, usage of personal fork, knife and water kits were accepted in the palace instead of eating together from the same pot. Kitchenware has changed and varied at the same rate as eating habits and traditions transformed. New viewpoints brought different habits, traditions and especially life

styles to Turkish society. Some traditions vanished while others preserved themselves, in addition new ones emerged.

Various elements in the Turkish kitchen culture have changed with the introduction of new or Western products. Turkish people have met pressure cooker, steel pots and ovens in the 1960s (Güler, 2010). Turkish kitchen culture has transformed with these changes and influences. According to Közleme (2012), restaurants' profile gained a cosmopolitan character with new lifestyles of Turkish people and they became areas of socialization. Yar (2008) states that table manners, rules and eating habits did not change, only many rules were extended with the addition of new rules because of the entrance of new kitchen cultures. According to Koz (2009) the extended new kitchen culture was affected by demographic changes, the changing roles of women, education, teaching, developments in the food industry and media, such as TV and radio. At the same time development of Turkish society in political, economic, social and intellectual areas has reached a certain level of complexity that the comprehension of Turkish society moved towards a lifestyle, in which people eat quickly while standing. In addition, Japanese, Italian, French and other cuisines and cultures were integrated to Turkish kitchen culture. With new technologies, local and traditional meal types became easier and cheaper to obtain, thus they became available to the fast living consumer.

These transformations in the Turkish kitchen culture have affected the eating habits, traditions and other traditional values. Kitchenware design has also been shaped in accordance with these changes. Some products vanished, others continued their existence in accordance with the needs of the consumer, and new products have emerged.

The lunch box has played a part in this transformation. Even though the exact production time of the first lunch box is unknown, it is assumed that it has been part of Turkish people's lives since the Anatolian Seljuk period, since there is an example that was produced in 14th century, which is exhibited in the Karaman Museum today. The tradition of using lunch boxes has continued in the Ottoman Empire. Ak (2007) argues that copper containers have always been part of the Ottoman palace kitchens, including lunch boxes. However the habits and lifestyles among Turkish people have changed from the 19th century onwards. When challenged by quick, clean and ready

meals offered in the market, home cooking gradually lost its dominance (Orkun, 2009). Even though the lunch box has lost its importance due to such changes, it continues to exist in daily life.

In the 21st century, “healthy eating” has gained importance and people today pay more attention to what they eat and how they eat it. Therefore, lunch box entered our lives once again with this new understanding, which is emphasized by the trend on healthy eating and the new lifestyles that accompany it. The “Lunch box Movement” is an example that supports our traditional cuisine, homemade food, family dinners and especially eating healthy food (Özkan, 2012). In accordance with the effects of popular culture and such movements, mobile phone users in Turkey have begun to share their own lunches and lunch boxes in social media with hashtags such as #sefertasihareketi #sağlıklıyaşam #healthy #evyemeği #katkısız #sağlıklı #hijyenik #sağlıklıyaşam. Lunch box designs and the way they are used are all affected in accordance with these new meaning and values. Therefore, it is necessary to analyze these changes to understand lunch box from the perspective of industrial design.

This study follows the transformations of lunch box design, which have arisen from the changes of eating habits and traditions that were caused by the transformations of the Turkish kitchen culture till today. The main interest of this study is to investigate how the changing habits in food culture affect lunch box design in Turkey. The study aims to find the reasons of using lunch box and define the needs of users in terms of design and functionality. In this manner, the study will contribute to the literature of design, while also leading to new perspectives for designers, who design lunch boxes for the Turkish market. In this thesis, the Turkish word, “*sefer tasi*”, is translated as “lunch box”, and used to cover all types of containers that are used to carry food from home to office and elsewhere. In field work and interviews, the Turkish term was supported by other related terms to prevent confusions (see Appendix B).

1.2 Research Questions

The main research question is defined as follows:

- What is the meaning and significance of a lunch box for Turkish users and designers?

The secondary questions are stated below:

- What are the changing habits that affect food culture? (Literature Review)
- What are the contemporary uses of lunch boxes in Turkey? (Interviews)
- What are the current views of designers regarding lunch box design today? (Interviews)

1.3 Research Design

This study uses a range of methods to find the answers of the aforementioned research questions. The research is divided in three parts (see Table 1.1). First part covers the preliminary study: research of the state of the art in the lunch box market and a field research. The second part consists of interviews conducted with both users and designers to investigate the habits, experiences and needs of Turkish users and designers regarding lunch boxes. The third part consists of a catalogue review of the IMMIB Industrial Design Competitions.

Table 1.1: Research methods of the study.

PRELIMINARY STUDY	INTERVIEWS	CATALOGUE REVIEW
-Market Research	-Pilot interview	
	-Interviews with users	
	-Interviews with designers	

1.4 Structure of the Thesis

The thesis consists of five chapters. First chapter is the introduction chapter, which briefly explains the problem and background by describing the aims and objectives.

The second chapter covers the literature review about culture, traditions and design. This part gives information about the definition of culture and tradition, and their relations with the design discipline. It continues with a review of fast food culture, portable food concept and eating habits and food culture in Turkey.

The third chapter gives detailed information about the research methodology. The research consists of three main parts, which are detailed in Chapter 3.1. It describes the research method for the study, data collection, sampling, coding and analysis processes.

The fourth chapter presents the findings. In the first part of the chapter, the overview of the market of lunch boxes is discussed by analyzing the data collected from the Internet and from the fieldwork. The second part of the findings chapter consists of a review of IMMIB Design Competition Projects, based on the data gathered from the IMMIB design catalogues. The third part of the chapter presents the analysis of the interviews that were done with users and designers of lunch boxes. Points regarding lunch box use experience and design have been analyzed from the perspective of users and designers in this section.

The conclusion chapter revisits the research questions to present the conclusions based on the literature review and the findings. Findings show that lunch box is part of the daily life of the Turkish people with new concepts. “Healthy eating” became a significant reason of using lunch box. Turkish users are continuing this tradition by using products that similar to stereotype lunch boxes. On the other hand; designers are in search of designing products that provide users an environment of the food experience at home. It discusses the implications of the study for design, as well as its limitations, and recommendations for further research.

CHAPTER 2

LITERATURE REVIEW

2.1 Culture

Culture is a complex concept that lies at the heart of and is researched by many disciplines such as social science, history and anthropology. In this section, the concept of culture is examined through literature and its several (or various) meanings are discussed.

This study examines the meanings of culture related to food culture and the objectives of the field study. Culture is a term with different meanings. It is a system that makes people's lives meaningful, regulates their beliefs and traditions. The term culture (*Das Kultur*) evolved from the field of anthropology. It has passed from the German language to other Western languages with the meaning used in anthropology (Bilge, 2009). However the origin of the word "culture" comes from the Latin word "*cultura*", which is derived from "*colere*" and carries the meaning of building, manipulating, and decorating (Koç, 2011). The word's initial meaning was to "cultivate" but later it was assigned the meaning, "a human community consist of talent, skill, art and lifestyle of people that includes community's traditions" (Bilge, 2009: 93). British anthropologist Taylor (1998, cited in Duverger 1995: 74) gives the concept of culture as follows: "Culture or civilization is a whole of knowledge, belief, art, law, morals, customs and any other capabilities and habits that man acquired as part of a community in the broadest sense of ethnography".

Honold (2000) states that culture forms an orientation system within a group of members and it maintains itself by using its own cultural models. According to Malinowski (1944/1992, cited in Oğuz 2011: 130), culture is a whole set of technology products created by a community, the consumer goods and principles that shape institutions, ideas, crafts, beliefs and traditions. This word was used in the singular tense from 1st century B.C. until the 18th century A.D. The word began to be used in

the plural tense towards the end of the 18th century. It is defined as intellectual, artistic, technical and philosophical production assets that are produced by a human community, a nation or a people (Oğuz, 2011). Kroeber and Kluckhohn (1952) explain culture as learned and transferred reactions and habits, techniques, ideas, values, and behaviors. To summarize, culture refers to the unique properties of each community or class. Culture contains all the values that are transferred to future generations and the symbols that identify that society. Williams (1958) indicates that people, communities and societies have their own culture, goals, boundaries and meanings. He defines culture as knowing the meanings, which have been transferred through the society, and experiencing new meanings and actions. It is ordinary, traditional, creative and common; “a whole way of life” (Williams, 1989). Güvenç (2002: 101) pointed out several aspects of culture:

- 1) Culture is information that can be learned and transferred, the formation of attitudes and habits.
- 2) Cultural teachings vary from society to society.
- 3) Individual attitudes and behaviors hold an important place in the structure of culture, because these behaviors shape cultural values.
- 4) Culture is a way of life for individuals and communities; a whole system of beliefs and a collection of traditions that shape society.

Culture has an important role in this study since the study focuses on the changes in the food culture brought by traditional requirements. The arguments show that culture is a dynamic system that evolves inside a community with the all intellectual, creative, technical and philosophical output that is generated by the interaction of all the members of these communities. Each society creates its own values, actions, habits, beliefs, traditions and behaviors that form its culture.

2.2 Traditions

“Tradition” is a part of the culture and societies traditions emerge from their cultural values. Each society establishes its own unique traditions (Shills, 1981). Traditions symbolize the accumulation of the past. They are the values that are transmitted from one generation to another throughout the historical events. Also traditions are rooted

habits that form the new generations' behavior patterns. As we can understand from its definition, tradition is a habit which is born from expression of action (Baltacıoğlu, 1966). In another point of view, tradition has deep relations with culture and habits because tradition can also be defined as the cultural heritage from generation to generation, habits, knowledge, skills, and behaviors (Örnek, 2000: 126).

Tradition is a historical process, therefore new developments and orientations can emerge from traditions. Since tradition is a part of culture, it has the capacity to reproduce itself even in the modern era. On the other hand, Shills (1981) argues that tradition is anything that is transferred or bequeathed from the past to the present. It includes material objects, beliefs, practices and institutions. Tradition continues from the past and the present to the future, and it is attached to routinized social practices, required for reasons of security and beliefs. However it is not only an empty sustained habit; it is a significant routine. Uğurlu (2010) states that tradition is a set of rules, which regulates mutual relations of individuals and society in the simplest terms. It is social inheritance that helps to convey the old values of the society, its mentality and structure to new ones. Tözlüyurt (2007) states that tradition refers to continuity. It installs itself in the collective memory of the society.

Sevinç (2008) defines different aspects of traditions as follows:

1. Traditions are norms and values that are real or imagined but they have continued from the past and they are widely adopted in symbolic rituals or other behaviors associated with a set of social practices.
2. Traditions are changing values that have a dynamic structure.
3. Traditions are things that are kept and transmitted from generation to generation in a society.

Traditions are a part of culture and they continue from the past, to the present and the future by attaching themselves in the social and daily practices of the users. This helps us understand the role of tradition in lunch box usage and design, but it is necessary to further study the relationship between cultures, traditions and design to understand the changes in a user experience and design of lunch boxes.

2.3 The Relationship between Design, Culture and Tradition

The traces of cultures and cultural characteristics of the societies can be seen in objects. Traditions are an important part of culture and they emerge in the users' daily lives through habits and cultural values.

The relationship between design and culture has changed throughout the centuries. Design practice is shaped by culture and it has also adapted itself in different styles by the shaping force of culture (Röse, 2004). That is why culture is an important determinant in the practice of design. Cultural beliefs and social practices, which define the needs of users relating to a product creates meaning. Thus, rituals related to how products are used and designed are created. It can be seen that cultural values are often reflected in the form and functions of products (Press and Cooper, 2003).

Designed products are mainly shaped by culture. Cultural meanings and values are materialized in designed objects. Du Gay et al. (1997) explain culture as production of social meanings and all social practices, which are produced by cultural values and processes. He examines the cultural process in five main categories; which are representation, identity, production, consumptions and regulation. All of these processes are connected to meanings created by society. Many practices, for instance photography, language, painting, writing or drawing, carry meanings in culture. Design is another practice that reflects cultural meanings. The authors give Walkman as an example of the relationship between a designed product and culture. They explain that Walkman is a cultural object, which is formed though meanings and practices. It is designed to fit into the users' way of life. Krippendorf (2006) explains culture as a process of continuous learning that produces new items, which will create meaning and become a part of the world. In this stage, design becomes an important practice that reflects culture and cultural meanings.

Users are sociocultural beings that bring their own understandings, values and practices to use. They are influenced and inspired by elements such as culture, feelings, knowledge, family, values and experiences (Spiers et al., 2014). Luna and Gupta (2001) argue that culture affects consumer behavior through its manifestations: values, heroes, rituals, and symbols. Ono (2006) refers to the concept of culture as a system of meanings created by humans. Peoples' values play an important role in products. She argues that the designer is the connector of values, meanings, thoughts, as well as

the satisfaction of individuals; therefore it is the designers' role to design products that can respond to cultural needs. Designers need to think of users as cultural beings and they should integrate cultural factors in their design and practice. Design is embedded in users' culture strongly because users are socio-cultural beings (Baxter 1999; De Souza and Dejean 1999).

Cultural values appear in products that people use and the ways people use these products. Diehl and Christiaans (2006) state that globalization has directed designers to take the cultural context into consideration since the products they design are often used in different cultural environments. The authors divide the influence of culture on product design into two topics: practical and theoretical (see Table 2.1). The practical group is also called the designer related group and includes "design process", "design education" (relaying design knowledge among other cultures), "strategic and designers" (cultural influence on the designer himself). The theoretical group is user related and consists of "aesthetics" (preference for design in different cultures), "semantics" (interpretation of design and function) and "human-product interaction" (the actual use of products in different cultures). Their study shows the impenitence of culture and cultural values in the process of design practice.

Table 2.1: The relationship between cultural diversity and design (Adapted from Diehl and Christiaans, 2006: 504).

1.Designer Related	2.User Related
-design process	-aesthetics
-design education	-semantics
-strategic	-human-product interaction
-designers	

Razzagi and Ramirez Jr. (2006) state that designers are not aware of either their own culture or the cultural needs of the users. Since users come from different cultures, it is hard to match their cultural needs, so they suggest designers to consider cultural meanings, since culture-related products create powerful connections with users. The employment of culture can satisfy users, reflect their identities and set trends. Moalosi et al. (2007) state that designers should be aware of people as cultural beings so they should take cultural factors into consideration in their practice. Therefore design practice is a significant factor that expresses the values of the cultural system. They

believe culture plays an important role in the effective design of products. In another study, the authors show that the relationship between culture and design can be examined in terms of the following: designers' activities, socio-cultural values on products and perception of products by users (Moalosi et al., 2005).

To summarize, products are tools for communication of cultural values. Design is a significant element of communication that shows cultural values and traditions of the system. In the 21st century, users are interpreters of both their own and other cultures since all cultures integrate or mutually affect each other (Moalosi et al., 2007). Therefore, designers need to integrate the users' needs, experiences and wants into product designs.

Another method by Shen et al. (2005) studies a novel culturally oriented approach to design, which is Culture-Centered Design. The authors believe that the designers should focus on the target user in the design process and reflect on the users' specific cultural conditions. Therefore they suggest two cultural filters in Culture-Centered Design, these are;

- The designer's filter,
- The end user's filter.

Using the designer's filter, designers reflect their own of personal experience, knowledge and ideas, which come from a particular socio-cultural background. They have to consider the user's culture and they need to be able to think through the user's cultural filter. Culture and design have a strong bond between them therefore Shen et al. (2005) stated that there should be a method that allows cultural identity, meaning, values and tradition to be truly integrated and conveyed in design.

Yang (2003) believes that cultural factors play a significant role in human life. Therefore culture needs to be integrated in products as cultural values. He refers to four cultural trends, which are;

1. Cultural Tastes: Designers should give importance to cultural tastes, interests and appreciation.
2. Cultural Functions: Practical and aesthetic functions of the product should reflect user cultural values and preferences.

3. Cultural Psychology: User's psychological factors also vary between cultures and should be taken into consideration in design.

4. Cultural Spirits: Products should reflect nation's culture

It is seen that there are different approaches to the relationship between culture and design from different researchers. All of them focus on the link between design and culture and believe that design -and design ideas- should contain a cultural connection to user experiences and needs. Designers should attribute more importance to this link and design products with higher cultural value. According to aforementioned researchers, product design should focus on culture and daily life practices and at the same time take aesthetics into consideration. Designers should give importance to cultural values and the needs of the user. How designers see users is also significant. This is a significant point because lunch box is a product that carries traditional values and users attach different meanings to it.

2.4 Food Culture and Portable Food

Jenkins (2011) states that the kitchen culture of every society is shaped by interaction with other communities, religious faith of the area, geographical, agricultural, and socio-economic characteristics. Culture itself is buried into the everyday life practices of society. Traditions, eating habits, belief systems and life styles come together and constitute food culture. In this context, food culture and its relationship with health and other subjects need to be examined to understand the effects of the food culture on lunch boxes.

2.4.1 Overview of Food Culture

Food and the practice of eating have always been the primal need of humans and each society has created its own eating habits and food culture. Nowadays, there are lots of societies around the world, who have different social, cultural, regional and economic backgrounds. All of them have their own eating habits and food culture. Kozleme (2012) states that each person eats something, however the important thing is why and how he/she is eating. Society's food choice, eating habits and beliefs create their cultural values and food culture.

The people's preferences related to what to eat, how to provide, where to cook, how to prepare depend entirely on the culture and habits of that society. Therefore, food culture varies from society to society. Levi-Strauss (1978), the French anthropologist, explains this as "Cooking is a language through which society unconsciously reveals its structure". Therefore, it is possible to understand the society through what they eat and how they cook, including geography, moral values, and more (Yurdigül, 2010). Nützenadel and Trentmann (2008) refers to eating as processes of sociability and communication. Food is a not just an object for satisfying peoples' needs; it is arranged, and displayed. It is a social phenomenon that forms family and communal relations through its own processes and practices.

There are a large number of food cultures in world with various qualities, eating habits, traditions, and differences that separate them from each other. Bouchet (1999) refers to these as physiological taste experiences, preparation stage, behaviors and social links.

Among the basic differences which the multiple cultures employ in the building of their food culture, some are physiological taste experiences (sweet, salt, sour, bitter, cold, warm, dry, spicy...). Some have to do with preparation (raw, boiled, fried...). Others refer to basic attitudes (ethos) concerning the relationship with nature and the universe (pure, unclean, holy, secular, genuine, healthy, necessary...). Yet others refer to the social ties (traditional, public, private, luxurious, festive, everyday-like, exotic...) (Bouchet, 1999, p. 211).

In the "Big Ideas" report by the Center for Ecoliteracy and National Geographic (2014), food and our eating habits are stated as being "the identifier of ourselves". Therefore preparation of food, eating habits and more are affected by culture, social customs, and economic factors.

To summarize, food and eating habits show differences according to cultural, ethnic, social, regional, seasonal and familial aspects. Food culture represents the history of the society and conveys its culture, life style and traditions, including all the objects, tools and methods that are used in the phases of preparation, consumption, and service of food and beverages.

2.4.1.1. Food Culture and Health

Health issues and their relation with food consumption is emphasized more in the 21st century. Various authors have studied the relationship between food culture and health. Sanford (2014) examines the fast food consumption of families and mentions that there is a relationship between the increase in the consumption of snack food and the decreased intake of vegetable-based food. Furthermore, fast food and unhealthy eating habits are replacing family meals. While Sanford describes the relationship between food and health in a negative way, some other authors approach this issue positively.

Askegaard (1995) studied food culture and categorized the concept into three main subjects, which are general food behaviors, product related food behaviors and health related food behaviors. General food behaviors are related to food style, trends and preferences.

Ene (2008) argues that health has a significant role in users' concerns regarding the food choice, and users tend to eat foods and consume beverages, which will help to improve their health, manage their weight and any related health problems. According to food trends cited by the author, there is an increase in ecofriendly foods. Users wish to know more about their food, where it came from, what it contains, and more. In addition, users give importance to food safety, and they are demanding to eat safe food.

Biltekoff (2010) studies food culture under three subject headings, which are pleasure/health, technology/health and innovation/nostalgia. The author believes that on the one hand users are search pleasure from their food; they want to eat food that tastes good but is bad for their health. He gives the example of a man, who tried eating muesli for healthy eating even though he hates the taste. On the other hand they prefer the opposite approach, which is food that is good for their health but has a bad taste. He argues that users also want to have technological innovation that will enhance their health, while at the same time they are in search of solutions to health problems through returning to basic, natural concepts from the past.

Health started to become a key issue in eating over the 20th century. Users are giving importance to health factors; they are monitoring their health with different applications. In the "Consumer Insight Forecast and Projections for Life in 2030" report by Which? (2013), it is argued that it will be easier to follow your personal

health data with new and less expensive technologies. This could be interpreted as health becoming an important feature in the users' future daily lives. There is another trend called "positive nutrition". According to the Center for Culinary Development's "Culinary Trend Mapping Report" (2007), this concept revolves around the users' idea that food should improve one's health in addition to having a good taste.

Ene (2008) argues that old traditions and eating habits of the 1980s have now changed in a way that adheres importance to both speed and health considerations. Consumers are more interested in less time-consuming, healthy eating habits, which direct the consumers to current trends in their daily eating patterns. Droms, Naylor and Haws (2009) claim that people tend to give more importance to the healthiness of food products and they pay attention to the unfamiliar ingredients in their food.

The understanding of health and food in the world has changed in past hundred years. Users tend to give more importance to their health and food relations. For many users, health has become more important than taste therefore they wish to consume safe food, over which they have full control.

Healthy eating is also popular in 21st century in Turkey. With the emerging media and social networks, health-related online and mobile services became a part of our daily lives in the 2000s. Expert advice related to these began to appear in different media channels, examples include how to be fit, healthy nutrition, different diet types (Sezgin, 2009). Each day; different approaches to healthy eating began to appear in our lives as healthy eating trends. Different institutions in Turkey are focusing on healthy eating concepts and they are offering recommendations for people to make their lives healthier (Öngören, 2015). The study by the Turkish Ministry of Health, titled "Türkiye Sağlıklı Beslenme ve Hareketli Hayat Programı (2014 – 2017)", and the Nutrition & Healthy Living Summits organized by Sabri Ülker Food Research foundation are examples that show the rising concern with regards to healthy eating in Turkey.

2.4.1.2. Fast Food

Culture is a system that combines the elements of food, eating and cooking together. The food consumption and food culture is a part of socio-economic hierarchy in everyday life. In this section, fast food subject is discussed from a historical

perspective. With the new flavors, new recipes for dishes and new techniques in the food culture, it has ceased to be a privilege only for kings and nobles, it has also become an accessible medium for all social classes. In 19th and 20th centuries, food culture has developed in parallel with the changes in societies. The most important reason of this change is the Industrial Revolution at the end of the 18th century. Changes in the economic and social structures during the Industrial Revolution, urbanization and technology have brought about significant changes also in food culture (Yurdigül, 2010).

Industrial society turned food into an industrial product that is produced and sold outside the home. Rapid and radical changes in food culture happened in the last century. Technology, transport and the development of communication and the range of products created a revolution in every kitchen (Özdemir, 2010). As a result of materials, cooking and serving techniques changed.

Cooking is traditionally the role of the woman, and it requires time and effort, so readymade food or eating food outside is considered to make everyday life easier (Dönmez & Bekar, 2016). This gradually causes changes in traditional food culture. Rapid urbanization and industrialization, with the participation of the woman in working life, including obligatory shortening of meal preparation time, an increasing number of people living alone in the community, and developments in food technology led the society to consumption of readily prepared and semi-prepared food.

Fast food system replaced the traditional role of preparing food at home for reasons such as intense work hours, new fast life styles etc. People began to prefer readymade, canned or frozen food over hot home food. Nützenadel and Trentmann (2008) state that eating out is a significant element of users' lives with the emergence of restaurants and changing life styles, and starting from the 18th century, the time spared for eating has decreased.

Most significant factors that promote fast food culture are undoubtedly the economic ones (Ritzer, 1998); since eating outside the home -especially buying food service at a restaurant- has always been very costly. People were always looking for a more economical alternative (Dönmez & Bekar, 2016). In addition, fast food culture not only provided the opportunity to continue uninterrupted work, but also it ensured save time and money for consumers (Beardsworth & Keil, 2012).

Fast food culture merged with the current lifestyle of people and brought a new way of living. People used to order fast food, when potential food sources were away from their home, yet now they order food to their homes even though they have opportunities to cook at home (Scholliers, 2008). With the entry of women into working life, people began to spare less time for preparing food at home, setting up tables and washing the dishes. So that users began to prefer to use this time in other ways such as eating outside or ordering food to their homes, therefore both women and other members of the family can have more time for other activities (Beardsworth & Keil, 2012).

Home cooking is one of the rituals of daily life and part of the lifestyle of common class. The importance of the idea of home cooking decreased with the development of the habit of eating out in the 20th century (Özdemir, 2010). This transformation has encouraged users to increase the ready-made and fast food consumption. The number of people socializing rose and more people began to eat outside and eating practice turned into pleasure instead of a need.

Featherstone (2005) draws attention to effects of transforming food culture with the “Americanization” of the world communities. Ritzer (1998) argues that many countries of the world are increasingly becoming part of McDonaldization.

Sanford (2014) explains that family meals ceased to exist because of time constraints and busy schedules therefore buying readymade food is much easier and practical. Prepared food has become a substitute for home-cooked meals, regardless of whether it is eaten at home or elsewhere (Counihan & Esterik, 2003). As a result, food prepared and consumed together with family has given its place to fast food.

2.4.1.3 Portable Food and Lunch box

Lunch box is a tool that is used to carry food, which has been used worldwide for centuries. Different food cultures use lunch boxes in their lives daily and they give them names in their languages. Japan, India and Turkey are major examples, wherein lunchbox use is common. In Japanese, the lunch box is called “*bento*”, in Indian “*dabbawala*”, and in Turkish it is “*sefertası*” (see Figure 2.1). While the bento takes the presentation of the food in the foreground, Indian and Turkish lunchboxes are more focused on functionality. However these products have their stackable and modularity

as common points. Another example for lunch boxes are children's lunchboxes, which are often influenced by popular culture.



Figure 2.1: Examples of lunch boxes around the world¹

2.4.1.4 Eating Habits, Food Culture and Lunch box in Turkey

Central Asian Turkic cultures had meals that relied on dairy products, cereals, pastries and meat. Turkic people, who migrated from Central Asia to Anatolia, combined food cultures from Central Asia, Mesopotamia, and fruits and vegetables of the Mediterranean environment (Baysal, 1993). In addition, collective eating was supported by feasting on special days and holidays. Such traditions and habits are also seen in the Ottoman Empire period. Güler (2010) explains that the palace was an important part of life of Ottoman food culture. Nobles were seen gathering around a table as a social activity, so the palace kitchens were always looking for new, tasty and rich recipes.

Food culture of Turkey was deeply affected from the European relations in the 19th century. The major impact on food culture was because of the increased globalization of the food industry in the years between 1950 and 1990 (Akbay, Tiryaki & Gül, 2007). (Dönmez & Bekar, 2016).

The TDK dictionary defines the word “*sefertası*” (lunch box) as a container or stackable containers that are joined together with a handle and a locking mechanism that is used to carry food. (TDK, 2016). Köşklü (2005) describes “*sefertası*” as oval containers that are stacked on top of one another, fixed with an adjustable rod, and carried by folding handles. A sample of this design consists of three consecutive bowls that are placed on the top of another. Karpuz (1996) defines the “*sefertası*” as

¹ Lunch box examples from America. , retrieved January 18, 2016, from <http://ancientpoint.com>, <http://www.smithsonianmag.com>, <http://kidcrave.com>)

containers that are used to transport food. Some sample products contain a place for putting spoon and fork. Lunch boxes were also called “*yolta*”. This design also served for use in the fields. It was generally used to transport the food of soldiers, workers and artisans. General form of the “*sefertası*” is either elliptic or circlic.

The lunchbox seem to have been used in Turkey since the Ottoman Empire period. Özlü (2006) states that lunch boxes were a part of the Ottoman daily life in Gaziantep in the second half of the 18th century. While there is not a specific article or reference regarding to lunch box history or origin, the oldest example of the product that was encountered during the field research was dated to 1321. There are related samples of lunch boxes in museums and antique shops, Erzurum and Gaziantep are prominent cities, in which lunch boxes were produced throughout history.



Figure 2.2: Example of historical lunch boxes in Turkey

(<https://serbeslerantik.wordpress.com>, <http://www.etnografyamuzesi.gov.tr>)

In this chapter, relationship between culture, traditions and design are investigated and it is seen that they are inseparable topics since they shape the design practice in different ways. Food culture and portable food concept were explored to analyze how changing habits in food culture have transformed the daily lives of the user. The developments in food culture has changed the users’ preferences regarding eating habits. Users started to eat outside instead of home. More recently, they have started to give importance to health issues. The review also points that eating practices have regained new meanings.

CHAPTER 3

CONDUCT OF THE STUDY

3.1 Research Design

In the previous chapters, culture, tradition and design concepts were reviewed. As Jenkins (2011) mentioned, food and kitchen culture have always been a part of our culture and our daily lives. Güler (2010) mentions that Turkish people established their own unique Turkish kitchen culture with its own dishes, cooking and preservation techniques. In this context, lunch box and portable food are important aspects of the Turkish kitchen. Lunch box has a significant cultural value in Turkey despite the changing habits and changes in Turkish food culture. This chapter will give information regarding the research study in detail.

The main interest of this study is to investigate how the changing habits in food culture, which were summarized in the literature review chapter, have affected the use and design of lunch boxes in Turkey. A study on the both users' and designers' perspectives is necessary in order to define the changing habits of Turkish user on the relationship of lunch box and design. This study aims to find reasons of using lunch box by defining the meaning and significance of lunch box for Turkish users and designers.

Table 3.1: Structure of the research

Research Design		
PRELIMINARY STUDY	INTERVIEWS	CATALOGUE REVIEW
- Market Research	- Pilot interview  + 	- 13 Projects
	- Interviews with users (14 )	
	- Interviews with designers (3 )	

To determine this, the research is divided into three main parts (see Table 3.1). The first part of the research covers the preliminary studies, which includes a detailed

research conducted on internet to determine what kinds of lunch boxes are offered to consumers, and a field research that was conducted in İzmir's Kemeraltı district with tableware sellers to understand the perspective of sellers and establish the basis of the interview questions. These studies also provided the researcher with a point of view to understand which kinds of lunch boxes are in the market, what Turkish people (users and sellers) are thinking about lunch boxes and whether they are still a part of the Turkish kitchen by examining the current market.

The second part of the study consists of interviews conducted with users and designers to learn about the changing habits and needs of Turkish users in relation to lunch box. This part regards two different perspectives; users and designers, thus it aids to understand the experiences and needs of the users regarding lunch box, so that later these will be used to construct basic design guidelines for lunch box design. In addition it helps us to understand the significance of the lunch box in the daily life of the Turkish people. From a designer's perspective, it is important to know the ideas of the designers while envisioning a lunch box.

The third part of the study consists of catalogue explorations of IMMIB Industrial Designers Competitions. IMMIB Industrial Designers Competitions are explored to find designers who have designed a product related to portable food concept and their designs are discussed in detail to help understanding the important points in the lunch box design.

3.2 Preliminary Study: Overview of the Market

3.2.1 Market Research

A research on the internet has been conducted to see what kind of lunch box designs are introduced to Turkish market. To achieve these answers, both Turkish shopping websites and international kitchenware shops are investigated briefly.

An interview with tableware stores was conducted in İzmir's historical bazaar "Leblebici Hanı" in Kemeraltı district with the intention of researching about lunch box in the industry.



Figure 3.1: Photos from the historical “Leblebici Hanı”

There are nearly 10 stores in this historical “Leblebici Hanı” inn. Employees from three of these stores were interviewed in the context of this research. The stores are Yusuf Pekmezci, Sırça Züccaciye and Yükselen Züccaciye. The research was conducted with 3 male participants between ages 30 and 40, who were selected according to

availability. Participants were asked to answer the questions after a brief introduction about the aim and content of the study.

The questions are as follows:

1. What kind of lunch boxes do you sell in your store? What are their dimensions, types and brands?
2. Are lunch boxes still being sold? What is the demand for lunch boxes?
3. Who are Turkish lunch box manufacturers? Where do you obtain these products?
4. Who buys this product? What is your customer profile?

To summarize, this field research centered on the general experiences of the participants on lunch box sales. The interviews took approximately 15 minutes. While some of the sellers refused to participate in the interviews, the participants were kind and interested in the interview. They were knowledgeable on lunchboxes because they were occasionally selling lunch boxes.

3.3 Pilot Study

The aim the pilot study is to test the questions of interview for users and designers. From the perspective of the user, the research aims to define the experiences and needs of users related to lunch box usage to find out;

1. What the meanings, values and uses of lunch boxes are in users' everyday life, and
2. Why lunch boxes are used.

From the perspective of the designers, this research aims to find the points, on which the designers focused while designing lunch boxes.

Semi-structured interviews were planned with two different sample groups to fulfill these two objectives. Semi-structured interview helps to gather information in detail and is often used when the researcher wants to explore a subject deeply (Harrel and Bradley, 2009). First group of the interviewees are with lunch box users; who have used lunch boxes before, or active lunch box users, or people who carry food from home to school or for various reasons as an everyday habit. Second group of the interviewees are with designers, who have designed a product with a portable food

concept. Interviewees were chosen by snowball sampling method. Pilot study is conducted with four users and one designer.

3.3.1 Interviews with Users

First group of interviewees consisted of three university graduates and one final year university student, each of whom studied a different field. All of the four participants were females between ages of 20 and 28 (see Table 3.2). Two of the interviews were conducted face to face while the other three (including the one with the designer) were conducted via social media (Facebook) and video communication (Skype). It was not possible meet some of the users face to face because they either resided outside of İzmir or their free time did not match mine. The interviews were –voice- recorded and each interview took around 10-15 minutes. Later they sent photos of the products they had experience with. Participants were interested in the subject and they were relaxed during the interview.

Participants were asked to answer six questions related to lunch box and lunch box usage. The questions are as follows:

1. When and how did you started to use lunch boxes?
 - 1.1. How long have you been using them?
 - 1.2. Can you tell us about the changing habits of your usage about lunch boxes? As an example, has there been a time period where you stopped using it?
 - 1.3. Do you know other people, who use a lunch box or who carry food from home to their school or workplace? What products do they use, how do they use it?
2. Why do you use a lunch box?
 - 2.1. For you, what are the advantages of using it?
3. Where did you buy the lunch box you currently use? Can you tell me about its features?
 - 3.1. Do you have specific features you are looking for in a lunch box?

- 3.2. What is the brand of the product you are currently using? What is its best feature?
- 3.3. Were there other products that you used earlier?
- 3.4. Why do you prefer this lunch box?
4. Have you ever stopped or thought of stopping to use a lunch box?
5. Has the changing habits in food culture ever changed your daily life habits regarding your usage of a lunch box? For example, fast food, easy access to food...
6. Can you tell me which type of lunch box you would prefer to use among the following pictures, and why? (See Figure 3.2)



Figure 3.2: From left to right; Duran Çelik lunch box triple set, Aladdin lunch boxes 0.95 liters, Xingguang lunch box, and lunch box thermos triple blue.

(<http://www.durancelik.com/>, <http://urun.gittigidiyor.com>,
<http://www.cetinkayaelektronik.com.tr>, <http://europe.aladdin-pmi.com>)

The first question covers users' past experiences regarding their lunch box usage. The second question aims to learn the main reason why the users use a lunch box in their daily life. The third and fourth questions aim to determine the current experiences of the users with their lunch boxes. The fifth question asks the participants to evaluate the effects of the changing eating habits on their lunch box usage. The sixth question was placed at the end of the interview on purpose, since it may lead the participant's expectations and effect their earlier responses. The images shown to users are chosen as different products to represent diverse options to users.

3.3.2 Interview with a Designer

Second part of the pilot interview was conducted with professional designers. The pilot study was conducted with the designer Ümit Karaca, who designed a lunch box with

his designer friend, who wishes to remain anonymous, in the 2014 IMMIB industrial design competition (see Chapter 3.4.2). The interview was voice recorded and the total interview took about 20-25 minutes. Participant was kind and helpful. He was asked to answer eight questions related to their lunch box design.

The questions are as follows:

1. How did you decide on your own design concept?
2. What are the points you have focused on while designing this product? Can you tell me your design process? Who was your target audience?
3. Can you tell me about the product you designed? What are the characteristics? How does your product interact with user?
4. Why did you choose to design a lunch box for the competition?
5. Did you design other products that you find similar to lunch box?
6. What do you think about lunch boxes and lunch box design? Can you tell me about your opinions of the products available on the market?
7. If you currently redesigned your lunch box, what kind of changes would you make?
8. What do you think are the changing user habits in food culture? How do you think users are guided about this subject?

First part of questions were asked to the designer to understand the design concept behind their lunch box design and their points of focus in exploring the design guidelines of a lunch box. Later questions investigated why the designer chose to design a lunch box and if they had other similar design experiences. In addition designers were expected the answer questions regarding their observations of the market and the changing habits to better understand their point of view.

3.3.3 Coding and Analysis

In this research, thematic analysis technique was used for the analysis of the interview data (Braun and Clarke, 2006). All data collected during the interviews are transcribed and stored in a Microsoft Word file. Each interviewee was given a letter code to preserve their anonymity.

Analysis sheets were created in order to organize and categorize the data. The answers given by the interviewees were examined multiple times to understand the opinions of the interviewees regarding lunch box design. After reviewing all of the quotes, eight codes were determined. These are explained in detail in the following section. Content codes have been formed through the similar statements out of the entire data of five interviewees. As an example, the quotes “the food is clean and healthy because you know how it’s prepared” and “I’m trying to use lunch box as much as possible because home cooking is healthier than outside cooking” were gathered under a content code called “health”. The content codes of the pilot study interview are given in Table 3.2.

Table 3.2: Codes used in the study

<u>Main Code:</u>	<u>Health</u>	<u>Flexibility</u>	<u>Conditions</u>	<u>Comparison</u>
Sub Codes	- Material - Oil/salt rate - Cleanliness - Diet - Healthy Design	-Not to be forced to eat at one time, - Able to eat in open public spaces - Food choice	- Necessity of eating outside	- Eating out - Eating packed food
<u>Main Code:</u>	<u>Material</u>	<u>Usage</u>	<u>Nostalgia</u>	<u>Design</u>
Sub Codes	- BPA - Non disposable plastic - Cutlery - Health and usability	Keeping warm - Cutlery usage - Multi-bowl - Security - Being comfortable - Being stackable - Tightness - Durability	- Meaning	- Innovation - Sustainability - Personalization

3.4 Main Study

After the conducting the pilot study, the main study was revised, and the questions were improved. In the main study, similar to the pilot interview, semi-structured interviews were conducted with two sample groups to answer the main research question, mainly focusing on the experiences of users and designers with lunch boxes. The first sample group of participants were users. They were people with different profiles, who has either used a lunch box before for various reasons or who currently carried their food from home to school/workplace or for other reasons as an everyday habit (see Table 3.4 for information on the sample). The second sample group of participants were design students and professional designers, who have had an experience at designing a product with the portable food concept, such as a lunch box.

In this study, finding people who carried their food daily was difficult unless participants recommended others. The main study was conducted with fourteen users and three designers and is detailed in the following section.

3.4.1 Interviews with Users

Participants of this part of the study consist of university graduates, final year students, and blue collar workers. Interviewees are chosen by snowball sampling method due to residence and time restriction.

Table 3.3: Profile of users, who participated in interviews

<u>Users</u>	<u>Gender</u>	<u>Age</u>	<u>Profession</u>	<u>Education Level</u>
1.User A	Female	20-25	Medical Student	Bachelor Degree
2.User B	Female	25-30	Landscape Architect	Bachelor Degree
3.User C	Female	25-30	Graphic Designer	Bachelor Degree
4.User D	Female	25-30	Landscape Architect	Bachelor Degree
5.User F	Female	20-25	Interior Designer	Bachelor Degree
6.User G	Female	40-50	Ceramic Designer	Master Degree
(Group Interview - 3 more female users age between 35-50)				
7.User H	Female	25-30	Industrial Designer	Bachelor Degree
8.User I	Male	30-40	Shoe Worker	High school
9.User J	Male	30-40	Shoe Worker	High school
10.User K	Female	20-25	Industrial Designer	Student
11.User L	Female	20-25	Industrial Designer	Student
12.User M	Female	30-35	Architect	PhD.
13.User N	Female	25-30	Industrial Designer	Bachelor Degree
14.User O	Female	25-30	Industrial Designer	Bachelor Degree
15.User P	Female	30-35	Architect	PhD.
16.User R	Female	30-35	Industrial Designer	PhD.
17.User S	Female	35-40	Industrial Designer	Master Degree
18.User T	Female	50-60	Doctor	Bachelor Degree

This technique has the advantage of reaching the hidden populations, which is hard for a researcher (Katz, 2006). Most of the participants are white collar workers, who carry food from home to work. Twelve of them are female and two of them are male from different age groups. Participant profiles are given in Table 3.4.

Most of the interviews are conducted face to face however six of them are done via social media, video communication and phone call because of residence and time restrictions. In this part, communication tools such as Skype and Viber helped to conduct interviews whenever there were such restrictions. Using these types of tools affected the interview negatively. Because the internet connection and video display was not stable, interviews were interrupted a few times. In one case, the interview unintentionally turned into a group interview. The interview was being conducted in the mosaic workshop of the participant and her students also wanted to contribute with their remarks and opinions to the interview questions. All but two of the interviews were voice recorded, due to technical conditions and communication tool failures. Each interview took between 10-30 minutes depending on the depth of information given by the participant. Participants were generally interested in the subject and they were relaxed during the interview. Participants were asked to answer six different questions related to lunch boxes and lunch box usage. The questions are as follows:

1. When and how did you start to use a lunch box?

1.1. How long have you been using it?

1.2. Can you tell us about your history of using a lunch box? For example, has there been a time you stopped using it?

1.3. Do you know of another person who uses a lunch box or who carries food from his/her home to school or workplace? What do they use as a product? How do they use it?

2. Why do you use a lunch box?

2.1. For you, what are the advantages of using it?

3. Where did you buy the lunch box you are currently using? Can you tell me about its features?

- 3.1. Is there a feature that you will say it should be on your lunch box for you?
 - 3.2. What is the brand of the product you use? What is its best feature?
 - 3.3. Is there another product that you have used earlier?
 - 3.4. Why did you choose this lunch box?
 - 3.5. Can you tell us how you use the lunch box daily?
4. Have you ever stopped or thought of stopping using a lunch box?
 5. What do you think are the changing user habits in food culture (fast food, easy access to food)?
 6. Could you look at these pictures and evaluate these lunch boxes by comparing them and their features?



Figure 3.3: Three lunch box examples shown during the interview
(<http://www.durancelik.com>, <http://www.stoktangelsin.com>,
<http://www.uncommongoods.com>)

After the pilot study was conducted, revisions were made to the interview questions. Question 3.5 was added to the interview, which requests the users to tell about their daily lunch box usage process, in order to determine their experiences and needs regarding lunch boxes. Question 6 was also changed. The images shown to users were changed and simplified to three lunch boxes, which can be referred to as “traditional”, “industrial” and a more “conceptual/modern” type for the user to discuss their needs over. These three examples are chosen purposefully to evaluate the ideas of the user about the lunch box and what kind of meanings they impose on it. The images of opened versions of introduced lunchboxes can be found in Appendix B.

In general, users talked about their daily experiences with lunch box usage and their hardships, problems and opinions about how to make the lunch box better, as well as the features they find missing while experiencing the lunch box as part of their life.

3.4.2 Interviews with Designers

Second part of the interviews was conducted with two professional designers, and one industrial design student. Designers were selected from industrial design competition participants. The limitation of the interview conditions was to get most designers' contact information. These three designers contributed important information to the study. First participant is Muharrem Şeyda, a professional designer who graduated from Bahçeşehir University, department of Industrial Design and was working as an industrial designer in Simfer Export at the time. His related project was from the IMMIB Industrial Design Competition 2011, Plastic Product Sets Student category. The interview was conducted via a recorded phone call, which took 20 minutes. Second participant was Metin Kaplan, a professional designer, who graduated from Istanbul Technical University, department of Industrial Design and was working in Sweden as an industrial product designer at the time of the interview. The interview was about his winning design "Nevale" in Electrolux Design Lab 2006 and was conducted via Skype. The interview was voice recorded and the total interview took almost three hours since he gave detailed information about his design process and experience. There were parts that were left off the record by his request. The third interview was conducted with Kardelen Cici, 3rd year industrial design student in Izmir University of Economics face to face about her product, which can be used not only as a cooker but also as a lunch box. The interview took 30 minutes and was voice recorded.

Eight questions were asked to the participants related to their lunch box design. The questions were the same as those in the pilot study. (See Chapter 3.3.2).

Table 3.4: Profile of designers and their lunch box designs

Designers	Gender	Age	Profession	Education Level
1.Designer A	Male	30-40	Industrial Designer	Bachelor Degree
2.Designer B	Male	25-30	Interior Designer	Bachelor Degree
3.Designer C	Male	30-35	Industrial Designer	Master Degree
4.Designer D	Female	20-25	Industrial Designer	Student

The questions were not revised, since the pilot study interview scheme proved effective. Professional designers were asked to talk about their lunch box design process and experiences, and to also mention similar designs and further potential design improvements.

3.4.3 A Review of IMMIB Industrial Design Competition Projects

IMMIB Industrial Design Competition is organized by IMMIB (Istanbul Minerals and Metals Exporters' Associations) with the goal of the development of high value-added products, and promoting the dissemination of industrial design activities.

The first competition was held in 2005 and mainly focused on kitchen appliances. IMMIB has received more than 3000 projects in 10 years during the process of the competitions and has awarded more than 300 projects (IMMIB Industrial Design Competition, 2016). IMMIB Industrial Design Competition projects are chosen because it made it possible to collect an extensive range of data. To understand and find Turkish designers who have experience with portable food concept, all of the IMMIB Industrial Design Competition catalogues that were published before the writing of this thesis (2005-2015), were scanned. It was seen that 12 different designers submitted projects with the concept of portable food, which will be discussed in detail in chapter 4. A review of these projects can be found in Table 3.5.

Table 3.5: Lunch box designs in IMMIB Design Competitions between 2005-2014

Project No.	Product Name	Designer	University	Year	Category	Status	Product Image
P1	Lunchbox	Ümit Karaca IMMIB-EKA GPR-20142405	Middle East Technical University	2014	Electrical Small Appliances "Sustainable Environment" Category	Professional	
P2	Cup Beslenme Çantası	Cansu Altıntaş	Istanbul Technical University	2011	Concept 2011: Plastic Product Sets Category	Student	
P3	Cooking Dewar	Esra Yıldız	Istanbul Technical University	2009	Metal Kitchenwares Category	Professional	
P4	Sefatası	Pınar Partanaz	Mimar Sinan University of Fine Arts	2009	Electric and Electronic Small Household Appliances Category	Professional	
P5	Sofra	Unknown (Confidential Information)	Unknown (Confidential Information)	2011	Concept 2011: Plastic Product Sets Category	Student	
P6	ABC Lunchbox	İsmail Berkel	Istanbul Technical University	2013	Plastic Products Category	Student	
P7	Papilla	Burçin Ceren Ölçüm	Izmir University Of Economics	2014	Electric-Electronic Small Products Category	Professional	
P8	Mama	Umut Sevinç Damla Manolya Yıldız	Istanbul Technical University Istanbul Technical University	2012	Plastic Products Category	Professional	
P9	Çıkm	Muharrem Şeyda	Bahçeşehir University	2011	Concept 2011: Plastic Product Sets Category	Student	
P10	Seferim	Hasan Salih Gündoğan Fuat Çakır	Selçuk University Selçuk University	2011	Concept 2011: Plastic Product Sets Category	Student	
P11	Hot and Cool	Unknown (Confidential Information)	Unknown (Confidential Information)	2010	Plastic Products Category	Student	
P12	Keyfeğel	Ayşegül Kasapoğlu B.Mehlike Kurt Fulya Certel Sencer Özdemir	Mimar Sinan University of Fine Arts	2010	Plastic Products Category	Student	
P13	Mesh	Burak Kocak	Mimar Sinan University of Fine Arts	20	Plastic Products Category	Student	

3.4.4 Coding and Analysis

In this part of the study; thematic analysis technique was applied to the interview data for analysis.

All of the interviews were listened several times, transcribed in Turkish word by word, and stored in a Microsoft Word file. Some parts contained confidential information or data that was asked by the participant to remain off-record, therefore these were not included in the analysis. Each interviewee has a letter code, such as “User F”, to represent their ideas. In the data collection stage, photos of the products that are used by participants, were either taken during the interview or were later sent by the participants.

Table 3.6: The products used by the participants at the time of the study

Users	Products	Users	Products	Users	Product
6.User F		7.User G		8.User H	 similar to this lunch box
9.User I		10.User J		11.User K	
12.User L	 similar to this lunch box	13.User M		14.User N	 similar to this lunch box
15.User O		16.User P	 similar to this lunch box	17.User R	
18.User S		19.User T	 similar to this lunch box		

Analysis sheets were created in order to organize and categorize the data. The quotes given by the interviewees were examined multiple times to understand the opinion of the interviewees regarding the lunch box design. After reviewing all of the quotes, all of the codes were gathered under three main themes (service needs, motives for using

lunch box and product properties) and nine sub-themes (for the themes and their brief descriptions, see Table 3.8).

Table 3.7: Thematic analysis of interview

MAIN THEME	Service	GLOSSARY
SUB THEMES	Three Dishes	More than one type of dish (soup, yogurt, dessert)
	Accessories	Cutlery(Fork, Spoon, Knife) , Napkin, Cleaning Tools(Toothbrush, soap, etc)
	Heat	Hot served food
	Sharing and <i>Ikram</i>	Sharing and offering food to friends or family
MAIN THEME	Motives	
SUB THEMES	Health	Healthy food, oil and salt free
	Economy and Time	Economic and timewise conditions
MAIN THEME	Product Details	
SUB THEME	Typology	Form of the product
	Mobility	Carrying the food to everywhere
	Flexibility	Ability to eat food when and wherever the user wanted
	Material	Production material of the lunchbox
MAIN THEME	Meaning	

As a summary, the research consists of three parts, which are the preliminary study, the main study and the catalogue review. In the preliminary study, a research over market was conducted to establish the method of the main study. The main study is conducted both with users and designers to see both groups' point of view regarding lunch box design and usage. IMMIB Design Competition projects are reviewed to understand the designers opinions regarding lunch box design. The findings of these studies will be discussed in following chapter.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Preliminary Overview of the Market

In this chapter, the findings from the study will be discussed in detail. Each step of the study will be explained separately. As mentioned above, this part includes an interview with tableware sellers. Kitchenware sellers offer from two-piece bowls up to four-piece bowls with different sizes. Most of the lunch boxes are steel, metal-coated or nickel-plated. One seller indicated that individual users mostly prefer two or three bowl lunch boxes while the larger ones (four bowls or more) are preferred by restaurants or institutions. There are many different brands by domestic producers of them, which can be referred as “industrial type of a lunch box”. Sellers procure lunch boxes directly from the manufacturers by wholesale.

The best-selling lunch boxes by kitchenware stores are small-sized, three-bowl lunch boxes. Kitchenware sellers mentioned that they sold around 200 small-sized lunch boxes a year and there is still a large number of people demanding lunch boxes. The sellers mentioned that three-bowl lunch boxes have two different kinds of locking mechanisms; screw and ringed, as it is seen in Figure 4.2. Screw mechanism is more preferred by lunch box users according to sellers as a result of the locking mechanism, which prevents leaking, and it is also easier to carry in daily life.



Figure 4.1: From left to right, screw mechanism, ring mechanism
(<http://www.durancelik.com>)

Additionally, food thermoses are commonly preferred as an alternative to lunch boxes, because users think thermos has better protection of food and longer heat retention (6-

8 hours). However, it is more preferred by white-collar office workers with higher salaries. Users who buy lunch boxes are blue collar workers, middle-class people who are dieting and people who do not like eating outside. Çakır Çelik, Yiğitsan, Vefalar, Oktaylar and Kapp are Turkish lunch box manufacturers, which were mentioned in the field research. A common food thermos firm, Penguin, is also preferred by users.

In his interview with kitchenware sellers for *Radikal*, a Turkish newspaper, Oğuz (2008) similarly mentioned that people have an increased interest in steel lunch boxes. He argued that because of the economic crisis, many workers and artisans have started bringing food from home to work. A few other newspaper articles report that municipalities distribute food in steel lunch boxes to people, who are in need, in Ramadan in various regions of Turkey (Hakimiyet, 2013).

From these preliminary observations, it was tentatively concluded that lunch boxes are still in use by Turkish users. However, lunch box preferences are changed according to user needs. They tend to use lunch box for different reasons like health, economic issues or just eating hot homemade food. Lunch box preferences, needs and experiences change according to differences in user profile, lunch box forms, colors, and main functions. On the one hand some of the users prefer the lunch box just for carrying food as a function, on the other hand, others use it to carry hot homemade food to their work places. So that it is necessary to look at lunch box users' experiences to find out these in detail.

4.2 Overview of IMMIB Design Competition Projects

As mentioned above, IMMIB industrial design competitions had various portable food concept designs entries. All of the designers reinterpreted the lunch box design according to their own experiences. Each project has its own focus points and important design differences that will be explained in detail.

The description of the “Lunch Box” project (Fig 4.3a) states that it is mainly based on healthy eating and it encourages its user to a healthier lifestyle. The main form resembles not only a food thermos but also the form of the traditional lunch boxes produced in Turkey. Three bowls are placed one on the top of the other as in traditional lunch boxes. However it has a more modern form and its cover logic similar to the closing system of a food thermos. The concept revolves around healthy eating. The

product gives user a chance to follow their daily eating data and assists them to live healthier. The designer planned a cover for holding the bowls and keeping them together. This cover also gives the idea of a compact, trendy lunch box set to user, which seems more preferable than old-fashioned traditional ones. This part of the design also helps to keep the food warm. Unlike the other designs, Lunch Box is a sustainable product that creates its own energy for daily activities such as reheating, calorie tracking etc.



Figure 4.2: Portable food concept designs from IMMIB design competition projects

“Cup Beslenme Çantası” is a design that becomes its own cover instead of another carrying tool like a plastic bag. The project is composed of modular parts which interlock with each other. This lunch box’s description leads to another view that

encourages the children to have a healthy eating habit by offering a playing area, such as alphabet games, on the product. Furthermore; this lunch box is a system that carries whole eating process and practices of children, which can preferably carry the experience of eating food at home to school. The designer considers the target user's habit of eating food at home and by designing a compact system tries to help the user experience the whole process outside home.

“Cooking Dewar” is similar to heat preserving food thermoses and it is designed especially for babies. The form is different from other designs, since it is the food will be reheated in the oven. That is why there is no system inside the lunch box to reheat the food.

“Sefatasi” has a concept that reinterprets the traditional lunch box. The form of the product resembles the traditional lunch box. The designer imitated the traditional form of the lunch by designing a cover similar the traditional form. The designer seems to have thought the product as a complete system and tried to reanimate the experience of eating home by reheating option, cutlery sets etc.

The product, which can be used anywhere in ordinary life, keeps the foods at the desired temperature, thanks to its chargeable handle. The product resembles the one on top of another arrangement of the traditional cups Sefatasi (Partanaz, 2009).

The concept of the project “Sofra” is the dinner table, based on the project title given by the designer. Users can use the lunch box like a table, so this design brings the advantage of providing an environment of the food experience like at home. The designer mentioned that eating can be performed wherever the user wants by transforming their desk into a dining table. Two other points that need to be mentioned are customization and healthy living. The designer encourages the user to adopt the habit of carrying food, which will help them to be aware of healthy eating as a consequence of homemade food. In addition the designer thought about customization of the lunch box by different cover designs, which give the user the chance to personalize their lunch box:

You can convert your study table or school desk into a dining table with Sofra (Designer, 2011)

“ABC Lunch Box” has the purpose to help children to have regular eating habits and is designed according to children’s needs. In this project, the designer presumably used the form of a child’s bag and revised it as lunch box. This can be the reason why this design deviates from the standard form of the traditional lunch box.

“Papilla”’s form and interpretation differs from the other projects. Instead of tiered storages, the designer created a single element, which can carry food in the size of one-portion. The concept of the project is an easy-to-carry and easy-to-wash lunch box, which is also reheat able. The motto of the product is “Eat your mom’s beautiful food whenever and wherever you like, just as newly cooked” (Olçum, 2014). The designer presumably had the idea of giving a home-cooked, hot meal and experience to the users.

“Mama” is a reinterpretation of the traditional lunch box form in a modern and colorful way, and its target audience is children: “Mama provides pleasure to feeding time of the children due to its colorful and elegant form” (Sevinç Yıldız).

This argument can be supported by two things. The form and of the usage of the lunch box is similar to traditional Turkish lunch boxes. The user can arrange the lunch box in accordance to their desires, it can be used in either a one-piece form or a three-bowl form like traditional lunch boxes.

The designer provided the user with a container which is hygienic and heat preserving, and it offers the opportunity to comfortably eat outdoors to both babies and their parents. Healthy eating and heat preservation are probably significant points in the designers’ idea. They tried to provide the users with an environment that users can maintain their heating habits outside, just like in their homes.

Parents can avoid the deterioration of food and keep the healthy fresh foods prepared at home hot by using the product. Mama Travel container aims to provide comfortable and enjoyable eating habits to babies and children starting school outside their homes, just like they find at their homes. (Sevinç Yıldız)

“Çıkmın” project is oriented towards healthy living. The designer aims to carry healthy, economical food within a heat preserver lunch box. He gives importance to healthy living and eating habits. He designed different bowls for different kind of food

preferences. These bowls can contain rice, pasta, liquids and also fruits. Their volume and shape can be adjusted according to the food types. Instead of using a plastic bag, designer designed its own carrier bag. Generally users carry their lunch boxes within plastic bag or they made a special bag for their lunch boxes themselves, which will be mentioned in the interview results below (see Section 4.5.2). However the designer created his own carrying bag and carrying alternatives to give the users flexibility while carrying.

“Seferim” consists of two bowls and its main aim is to preserve the heat like its designers mentioned in the description of the project. Designers thought about necessity for cutlery and carriage style.

“Hot and cool” is different from the other designs in terms of the used material. Instead of using plastic covers or electronic systems for reheating, this project offers another material, EVA foam, for heat preservation. Because of the material, this lunch box gives the option to the user to carry both hot and cold food. Also, different color and pattern options give the user the chance to customize the product. The transparent covers also help to see the food contained inside.

“Keyfegel” is a compact system that comprises of bowls, cutlery and a drinking unit. The concept aims to give flexibility to its user by its portable features. Target users are people; who do not have enough time to eat something, who work constantly, or who are on a regular diet.

“Mesh” is a modular design that reinterprets the traditional lunch box design. The designer mentioned that lunch box is something from the past, which was used for military purposes. So he tried give a modern form to it by preserving its traditional features like modularity and flexibility.

The overview provides a number of conclusions about the designers’ approach to lunch box design, and a few insights into the current role and significance of lunch boxes, which will be further discussed in the following chapters.

The analysis presented in this chapter can be summarized as a series of criteria that were considered by the designers. The projects have been analyzed according to design criteria and their relations to each other and are summarized in Table 4.1.

Table 4.1: Analysis of the designs from IMMIB design competition projects

Project	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Healthy Lifestyle	X		X		X		X	X	X			X	
Sustainability	X												
Overlapping Storage	X	X		X	X	X		X	X	X	X	X	X
Flexibility		X						X	X		X		
Cutlery	X				X			X		X		X	
Heat Preservation	X		X	X			X		X	X	X	X	X
Material									X		X	X	
Customization					X		X				X		
Target Audience	O	C	C	U	S	C	C	C	S,O	U	S,O	O	U

S: Student C: Baby and Preschool Children O: Officer U: User

The reviews of the projects related to design criteria are given below:

1. Healthy life style: More than half of the designers gave importance to a healthy lifestyle. They have seen that designs that encouraged users to a healthier living were insufficient and they offered their own solutions to this problem.
2. Sustainability: There is one product that gave importance to sustainability. P1-“Lunch Box” is sustainable since it produces its own energy.
3. Overlapping storage: Nearly all of the designers have a product that has an overlapping storage form, which is also a feature of the traditional Turkish lunch box.
4. Flexibility: 30% percent of the projects give the user flexibility to choose whenever or wherever to eat their lunch with its modular structure.
5. Cutlery: Nearly half of the designers thought about the necessity to store cutlery with their lunchbox.
6. Heat preservation: It is the second most essential criteria that designers gave importance to after health. Nearly all of the designs have a different suggestion for keeping the food warm, such as material choice, the closing system, etc.
7. Material: Designers chose glass and BPA-free plastics for health, steel for durability, or EVA foam for heat preservation.

8. Customization: Some of the designers gave the user a chance to personalize their products by individualizing the cover of the bag according their preferences.
9. Target audience: Designers chose different target users from babies or preschool children, students or officers. (On Table 4.1, whenever there is no specific audience mentioned in project description, it is stated as “User”.)

To summarize, four main forms were worked on. These are; (1) rectangular overlapping box forms, (2) circular overlapping box forms, (3) rectangular, one level box form and (4) rectangular bag-like form (Figure 4.4).

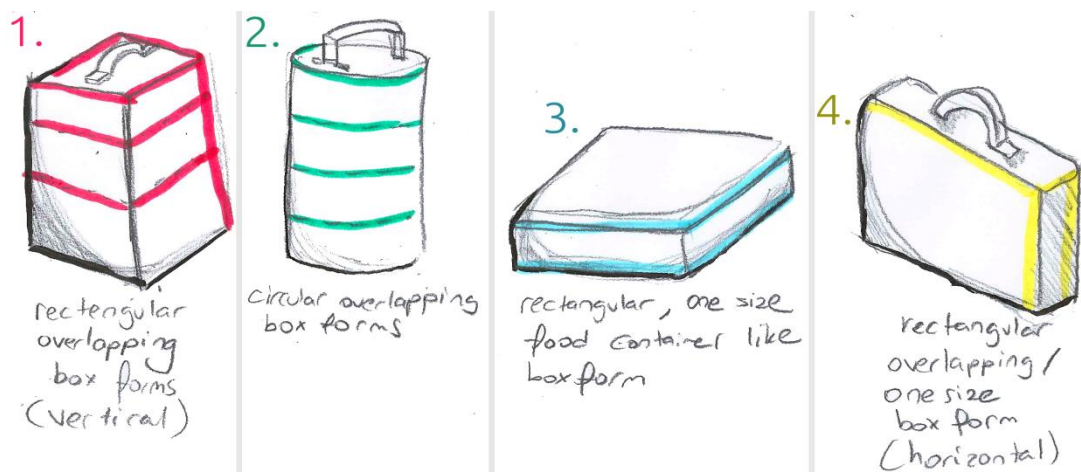


Figure 4.3: Sketches of general forms of the lunch box projects.

It follows that designers are focused on modular systems which can preserve more than one type of food. This can be related to the fact that in Turkey, people tend to eat more than one dish at a time. Participants of the interviews have often mentioned this point, which will be discussed in following section (see Section 4.3.1). Most of the designs interpreted the form of the traditional Turkish lunch box, with 2-3 bowls placed one over another. However there are different designs, like “Papilla” and “Sofra”, which are modular systems that are solved horizontally instead of vertically.

Another common point of the designs is that most of the lunch box designs are for preserving the temperature of the food, either benefiting from material properties or reheating the food by using electronic systems. There are a few projects, such as “Lunch Box” and “Çıkın” that base their design on the concept of a healthy lifestyle. Some projects added cutlery sets into their designs, since eating at home or outside

creates the need of carrying your own cutlery. Some other designs created the opportunity to customize the product according to user needs and preferences.

To summarize, in the first place, all of the projects in this competition are a reinterpretation of the traditional lunch box in a modern way. Designers tend to preserve the traditional form of the lunch box by keeping up the contemporary habits and lifestyles. They encourage the users to continue their traditional habits and carry food from home in a more modernized, trendy and elegant way. Firstly, designers modernized the form in terms of material and visual aspects and they have focused on missing points they have determined, including the top-locking system and heat protection. Secondly, these designs aimed to make the users continue their eating habits outside as if they were at home in their daily lives. The cutlery sets and cleaning tools (soap, tooth brush place, etc.) that accompany the product, and the concern for providing hot meal can be shown as examples of the way designers try to provide a homely eating environment and not only a food container.

The following part of the study is the analysis of the interviews with users and designers. It can enlighten issues regarding lunch box usage experience and design points from perspective of users and designers. These points are categorized under three main themes; which are service, motives and product details.

4.3 Interview Results: Service

As mentioned above; three main themes arose during the analysis stage; these are service, motives and product details. Food serving requirements, problems related to food serving and accessories used during eating have been gathered under the theme of “service”. All of the subjects and codes related to serving and using of the lunch box are included in theme called “service”.

4.3.1 Three dishes

Thirteen of the nineteen interviewed users preferred single compartment containers to carry food. However some the interviewees used lunch boxes with two or three compartments. Users, who carry single compartment containers generally carry only one type of dish, such as salad or pasta, which is a suitable portion for the user. Regardless of their choices, some of the participants mentioned the importance of the three dishes and what they signified to Turkish people. According to these users, it

represents the people's eating habits and their culture since Turkish people generally eat more than one type of dish in a standard lunch or meal for example soup, main dish, dessert, bread and yogurt.

Old kind of classic products are keeping the food warm and these properties are reflected on the material. It represents the people's culture, eating style like soup, dessert, main dish etc. (User F)

4.3.2 Accessories

During interviewing, the users touched upon the significance of the need of accessories like cutlery, glasses and a special place to put inside lunch box which can be considered an important need for user in terms of design. User A mentions that the products have need of cutlery in itself however both her products in use do not have cutlery or a place to put cutlery so that she needs to transport separately everyday which is a huge problem for her.

I usually bring my cutlery in a separate package. In general, I bring reusable cutlery in a plastic box. I do not use single use cutlery. I use soup and hot meal thermos. Both the products do not have place to put cutlery and transportation becomes a challenge for me because the inclusion place for cutlery. (User A)

According to users, carrying their cutlery is a huge problem because they either bring disposable plastic cutlery which is not healthy (even antipathetic) in eyes of users or they need to carry their own metal ones by wrapping to handkerchief. Another user mentioned that it is very important to have its own cutlery set inside the lunch box and she stated that her lunch box has this feature which makes her happy. In that lunch box, the designers even thought of a special place to put the cutlery which made her to prefer using that lunch box. There were users who suggested using part of the lunch box as a cup for consuming liquid food. From users' perspective, it is important have a design that has its cutlery or a special place for it. Another point is that the users need a specially designed accessories for carrying liquid food and beverages.

Also designers thought about adding a special place for cutlery or products' own cutlery set in their designs. Designer A already designed cutlery for their product. On the other hand, Designer C mentioned it is necessary to design a place inside the product for user to carry their own metal or plastic cutlery. As mentioned above by

looking at IMMIB projects, some of the other designers also noticed this design need and created solutions for this problem in their products.

4.3.3 Heat

Heat or hot meal is a significant choice for nearly all the participants. They prefer hot meal or they wish to eat food for several reasons. Firstly they like to eat hot meal; secondly the hot meal gives the user the experience of home like eating at home; newly cooked and more. Most of the users preferred the lunch boxes that helped to keep the food hot and mentioned this during the interviews. Because of the conditions in their daily life, some of them do not have chance to reheat food so they choose the products that help to preserve the heat of the food.

On the other hand, one of the users mentioned that she hates eating cold food but it is very hard to carry a lunch box, move the food from it to reheat it at work. Another participant mentioned that in the past, the workers used industrial type metal lunch boxes because they do not have the chance to reheat food in their working areas (factory, etc.). So nowadays the result is different because of microwaves and current conditions. Some of the participants still used the industrial type lunch boxes and they reheat the food on oven without putting it in another bowl. However, thirteen of the users told that the biggest advantage of their current lunch box is that they can reheat the food without putting it in another bowl in microwave and they chose it specifically.

I don't want to eat cold food; I want to eat it hot. I put my food in lunch box and after 3-4 hours, it gets cold and it's a problem for me. (User G)

Like User G mentioned; eating hot, homemade food is an important need of all users who use lunch box. In designers' perspective, they tried to respond to this need by adding some functions like USB reheating. One of the designers I interviewed said that it is important keep food hot.

I thought about the features, electricity supply, keeping warm, giving power to the display and USB connectivity. We designed internal interface, serves to keep the food warm by not using battery but solar power and it provides energy for the display. It's a product that can interact with the user. I designed these products based on how we personalize and customize this process and our

eating habits in my life. I already had lunch box before designing this product. I thought how I could customize this product. (Designer A)

Designer A thinks his design should have a heating part but also a cooler part. This is because while keeping the food warm is important, keeping cool is important, too. Designer tried solving the problem of warm food by using solar power.

Designer B has thought about heating problem and he designed a system that each bowl of this product has can reheat or cool down themselves 30 minutes before the service time.

4.3.4 Sharing and *Ikram*

“*Ikram*” is a Turkish word used for giving something as a present without waiting something in return (TDK, 2016). Sharing your food with friends, family and even strangers and *ikram*, that is offering something when they visit you, is considered a general custom of the Turkish people. According to users, sharing the food they have brought in their lunch box is a common habit that they often do. One of the users stated that she loved to share anything she brought in her lunch box. Or another user said that if everyone had their own lunch box and they eat it together, it would be more fun, like a ritual (“*ritüel*”). This event shows that lunch box brings the habits of home, eating together with your loved ones which is a common experience of Turkish people, basically a way of continuing your own traditions. It contains a tradition, you just share something you bring, and it has its own notion of sharing, own solidarity.

People individually consume all the things they bought from outside, they eat it themselves. However the food they bring from home, they share it with their community friends, basically offering it. Lunch box is a way to continue your traditions. (User N).

As summary, there are four topics discussed under the theme of service. It is seen that people in Turkey have a lunch menu that contains more than one type of dish and that is why they are in need of carrying more than one type of food. At this stage, cutlery becomes a huge problem because they want to continue their daily eating habits and experience outside of home. Designers have noted this problem and offered solutions like special cutlery sets designed for products or cutlery placing locations in the products. Also, hot meal is a significant need for the participants. The hot meal reminds

the user of the experience of eating at home. Designers have taken notice of this need and they have created solutions like using materials that help to keep the food warm/cold or designing electronic reheating systems. It is seen that designers in IMMIB projects also gave importance this issue. As an example, “Hot and Cool” project preserves the food temperature by using a material called EVA foam, which is not used in food industry. Another point is that lunch box brings the habit of sharing the food they have brought in their lunch box, which can be considered as a part Turkish people’s traditions.

4.4 Interview Results: Motives

In this section, two main motives are discussed, which are the reasons using lunch box.

4.4.1 Health

Health is the one the most important things that all of the users but also designers mentioned. That is why it has relationships with all the other themes and codes. According to users there are three main points:

1. The food that the user made, and food items whose making process she/he is aware of are considered healthy. It can be assumed that users believe that home-made food is healthy food.
2. Users are turning towards healthy eating and they believe they should eat more healthy food instead of packaged goods, fast food or etc.
3. Material is an important choice when it comes to food. The lunch boxes that do not spoil the food are considered healthier, such as the idea that a glass food container is healthier than plastic one, which will be discussed in further section (see Section 4.5.4).

According to User A, eating healthy food is an important issue in her daily life. She believes that cooking one herself or homemade meals is healthier and safer than readymade or packaged foods. Her own cooked meals are also fat- and salt-free or use healthy fats, which gives her the chance to eat healthy food. The food outside is not healthy but also it is different from the usual eating habits of the users.

I'm cooking my meals myself. Usually I do not eat all of the meal in lunch. I eat the rest of meal in the afternoon instead of snack so I will be still away from packaged foods for eating. I use lunch box to avoid eating the food that has high fat and salt. Purpose of the use of these products is to be away from food that contains too much fat and salt. That's why quick and easy access to food have not changed my thermos usage habit. You can eat the food according to your taste, the food is clean because you know yourself since you made it. I can eat whenever and wherever I want. (User A)

Most of the users started to use lunch box because of their health problems. Once they started to make eating healthy food as a habit, they did not give up this habit and continued. Users stated that healthy eating is eating the things that you picked, chose and had known the making of it. User J told me that it was like carrying health and home to your work, or other places. While I was in England, eating out was very expensive but also eating healthy food was an important concern for me. When food comes from home, it's healthier; at least it has less preservatives. (User J)

All of the users have a common opinion, which is that the food you have brought from home (self or homemade) is healthier, safer and fat-free. Consuming this kind of food makes them healthier and they are using lunch box as tool for providing themselves with a healthy life. Users compare their food with readymade food and bringing food from home is an advantage because it is more comfortable and the consumer can avoid unhealthy packaged foods.

Designer A mentions that lunch box has been used either as a kitchen ware or a food carrying tool or it is used as a kitchenware in religious holidays to give food to people in need. So it suggests that our life styles and trends are changing towards a healthy life and healthy nutrition. It is seen that lunch box is started to be used as a healthy food tool instead of kitchen ware. Users are in search of healthy life and they are paying attention to what they eat. They make diets, track their daily calories. So, in some way lunch box has entered our daily lives. He suggests that it can even become a trend if lunch box is well designed and provide for the user's needs. Designer D aimed to break the habit of eating outside or fast food with her design and direct the users to healthier

life style. It is seen that designers tried to offer our homemade food in economical and healthy way and encourage the user to eat healthily. Healthy Design.

We know that healthy life has become a part of our everyday life. We know the calories we gain. I believe if it becomes a trend, I'm sure that everyone will use a beautifully designed lunch box. According to my observation, lunch box is used either as kitchen ware or food carrying tool. Let's get out of this perspective and, it should be used as eating a healthy food tool. (Designer A)

4.4.2 Economy and Time

Users believe that their working conditions force them to bring food from home since they do not have a better choice so that carrying a lunch box is reasonable. Another point is that since eating out is expensive, they have less food choices, so that bringing your homemade food is much cheaper and healthier. As mentioned above, Oğuz (2008) states that people tend to buy more steel lunch boxes and carry food from because of the economic crisis and reasons.

I would give up using a lunch box if my work place gives regular and fine dining. But in the present circumstances, bringing food from is a reasonable choice. (User C)

Users mention that using a lunch box actually helps them to preserve and manage their time in a more efficient way. They think that eating outside, just giving the order and waiting is a loss of time for them. So, bringing food with lunch box gives them opportunity to be more efficient:

Eating outside is waste of time and money. On the other hand, carrying lunch box is saving time and increase your efficiency in the day. (User G)

4.5 Interview Results: Product Details

4.5.1 Typology

In previous section, typology of the lunch boxes has been discussed by focusing on the form of the lunch boxes. Thirteen projects were analyzed from the catalogues. In this part, the form and other typology needs will be discussed in more details by referring to interview data. According to users, the form of the lunch box and its overlapping

storage solutions are the two main needs that arise from their daily experiences. A third main need related to this problem is the volume of the lunch they have used. The common points that users mentioned are as follows:

1. Form: Users have mentioned that the lunch boxes that they prefer should be rectangular or cubic forms because it is easier to carry; the other forms have problem to fit the ladies hand bags. One user said that “when the shape of the lunch box is elliptic or circular, there are lots of dead spaces so that it should have cubic form” (User G). Another said, because my lunch box has a rectangular form, I cover it with a plastic bag and put it inside the bottom of the bag in horizontal position. (User E)
2. Overlapping/modular storage: Users give importance to stackable, easily carried lunch boxes and nearly all of the users mentioned “overlapping bowls”. As an example, User C thinks that stackable, durable lunch box is very useful because it covers less space; she can carry more than one type of dish: “Lunch box fills a very little space; it is good because bowls can be stacked by placing on top of the other.” (User C)
3. Volume: In this subject there are two different points that lunch box should have: to cover less space and the container volume according to the type of the food (liquid food, main dish, fruits, desserts etc.). When the lunch box fits everywhere (hand bag, computer case, etc.), carrying is no longer a problem. Users suggest that the bowls’ volume can be adjustable, or bigger bowls can be made by fixing two bowls together, so that they can carry food in a more effective way.
4. Separator: Some of the users, such as User B, mentioned that bowls should have a separator part or division option to prevent the food mixing when they want to carry more than one type of dish. Partitioned system should be in the bowls and it must prevent the mixing of food. It would be good if two layers of bowl are united to put bigger things like fruits. (User B)

From the perspective of designers, they have focused on different points. While Designer B was designing the product, he gave importance to form and color. He mentioned that he tried to design a more organic form instead of mechanic one. Also

color was chosen to encourage people to use the lunch box. Grey green was a color which is friendlier, more environmental, which reminds one of vegetables and slow food. Designer C designed 6 bowls with different volumes for different types food (main dish, soup, fruit, liquids). These bowls can be added together to increase the volume of a single bowl. Designer D thought that traditional lunch boxes have a more conical form, which makes carrying difficult, so she decided to flatten the volume horizontally, instead of vertically. She focused on an organic form and also she used green as a color to evoke the idea of healthy eating and vegetables. Form is a subject that is argued about by both users and designers. Both parties gave importance to the form of the lunch box. However they had different approaches to this subject. While users want to carry rectangular or cubic forms because it is easier to carry (a more functional approach), designers have focused on designing organic forms (a more visual approach). Regarding volume, designers and users share the same opinion. The lunch box should cover small space and container volume should be adjustable according to food type. On the other hand, designers missed the two points that users dwelled on: overlapping storage and separator parts.

4.5.2 Mobility

One of the reasons that users tend to use lunch boxes is the mobility it gives the user, enabling carrying any kind of food wherever you are.

1. Carrying: Carrying a lunch box is the one of the most important problems that users encountered during their daily life experiences. There are several points needed to be mentioned like carrying liquid food, carrying styles, having its own cover and handle. Users want to have a lunch box that can be easily carried. They do not wish to try different carrying methods or wrapping it in a plastic bag. They wanted their lunch boxes to have their own covers (some users even sewed or bought covers for their current lunch boxes). Another point they expect from a lunchbox is to carry it in their normal bag, so that they do not need to choose their accessories or bags according to a lunch box. It is mentioned that the volume of the lunch box is an important determinant while choosing a lunch box, because users tend to carry lunch boxes with small volumes that easily fit in their bags.

2. Leaking: Users want durable and leak-proof lunch boxes while carrying liquid food. So, a well-thought sealing mechanism gains importance. Because of that, users have developed some methods like covering the lunchboxes with plastic bags or cling wrap. As an example, User D complained about the leaking problem as follows: I'm carrying my food in a plastic box, but this time I'm taking bringing liquid heat able food to my workplace. I use my glass jars if I will carry something like a soup. I need to wrap the container up with plastic bags because of the possibility of leaking when I bring liquid food with me. Accessibility to microwave encouraged me to carry liquid food but it has created a need for a tightly sealed lunch box bowls. (User D)
3. Scent: Scent of the food is a problem that users indicated. The food smells not only after you have eaten the food, but also when you open the lunch box, heat the food and share with you friends.

The seller in Kemeraltı also mentioned that users give importance to closing mechanism of lunch boxes while they are choosing. Screw mechanism is more preferred by lunch box users according to sellers.

Designers created different solutions for carrying, leaking and scent problems. Designer B wanted to design an easy-to-carry lunch box which can be carried without using any bag. That is why he focused on the topic of carrying. He wished to design a lunch box that does not have to be hidden inside a bag. User should not be ashamed of carrying it with him/herself; they should announce the world that they are eating healthy food. It should be a healthy food icon, a product on which users can reflect themselves.

In perspective of users, it should be tool for carrying healthy food and something they are proud to carry with them, which will be discussed later (see Section 4.6). Designers believe that carrying a lunch box is actually something that users express themselves with. From the previous findings, it is seen that designers projected lunch boxes which give users the chance to customize the product by changing different qualities like cover, carrying styles etc. It can be assumed that it is way to help users to represent their individuality. To avoid leaking and scattering of the bowls, Designer B designed a special closing mechanism User needs to push a button (left and right) at the same time to open the lunch box. This solution helps to avoid scattering the food by accident.

Designer C was focused on redesigning the traditional design in a way that the user will not be ashamed of carrying it. He designed a modern, customizable bag for carrying the system, which enables different carrying positions. Customization is another issue that Designer C has pointed out. Since he was a lunch box user before designing this product, he thought that users wanted to customize their own lunch boxes for use.

4.5.3 Flexibility

Flexibility is the theme that arises from the concept of carrying food. Lunch box is a flexible product that gives the user opportunity to eat when and whenever they want in her/his desired conditions. Product's design can enhance the flexibility presented to user.

User B thinks that she has the flexibility to eat when and wherever she wants by using lunch box. According to User D, using a lunch box gives her the flexibility to choose what to eat. She is not limited to one dish or unwanted dish. She said, "you can put and carry different kinds of dishes like; soups, rice and more", while User B said "I eat in cafeteria environment or our own doctor's room if the food comes to room, so I eat where anyone eats." It can be summarized as the idea of using lunch box gives that the opportunity and flexibility to eat when they want, what they want and where they want.

Designer B offered a system in which the user can adjust the number of the bowls (between 2-8 pieces) and can set up their reheating time so that he can give the user to flexibility for food choice, time and lunch box size. There are similar projects like "Mama" which has mentioned the flexibility that design offered in previous section. (See Section 4.2)

4.5.4 Material

Material is an important factor while choosing a lunch box because it is connected to two main points, which are health and weight. Users wish to have their lunch box from healthy material and they wish to carry lightweight lunch box, and also state that they generally have only three choices, which is glass, plastic and metal. Glass is healthy but heavy and fragile. Plastic ones are not healthy and have leaking problems. When users put hot meal inside the box, they feel uneasy because of the possibly of the

interaction of the food with plastic. As an example, User B has concerns about her lunch box because she needs to reheat her food or put hot meal to her lunch box, she believes that it should be BPA-free plastic because of health reasons.

First product I use is food thermos, and the other a salad box, which I bought from Migros, a BPA-free plastic box. I reheat my food in the microwave or I put hot meal in lunch box sometimes so BPA free plastic containers are healthier (User B).

Metal is considered the better choice; it is healthier than plastic, lighter than glass and it is durable.

When you try to use other containers, you have to choose either glass or plastic, you don't have a lot of options. Glass can break, it will cause problems when carrying, and it is heavy. On the other hand, plastic containers are not healthy and leaking too much, all the liquid in the meal just pours in the plastic bag you put the container in. Lunch box avoids mixing of the food and it has no breakage problem, because it is produced from steel. It can hit, fall and you will have no problem. As long as it's not broken, I'm not giving up my lunch box. Sometimes there could be a corruption in the form. If the metal is distorted, it can start to leak. (User D)

All of the interviewees think that plastic containers are not healthy and they have leaking problems. Their lunch boxes should be produced from healthy and lightweight material, it should be durable and avoid leaking while carrying liquid food. Designers focused on using healthy materials like glass or BFA-free plastics.

4.6 Interview Results: Meaning

This part of the findings reveals the meaning of the lunch box and what is the idea that it represents in the cultural way and relation to traditions. During the interview, users and designers have given different answers. Finding shows that people tend to use lunch box in daily lives for healthy living and nutrition, but they have some doubts about using it and different interpretations of it. These interpretations are as follows:

Some users think that carrying a lunch box is something that one is ashamed of because no one carries a lunch box to their school or work, and when they see you, they oppress

you or think that you have no money to afford eating from outside. No one carries food with lunch box to university.

No one will deal with it, it is something for losers. You carry it with you like you cannot eat another thing. (User H)

Second approach is that it should be a practice or experience that you should do together with friends or people. If it is done together, it is a more normal thing, a part of a daily life and habits. So, some of the participants already encourage their friends and colleagues to bring food from home or they are eating together their home made food that they have carried. They believe that it is the way it should be.

If somebody, one or two people eat with you together, it will be like a ritual and seem more normal. What will happen if all of you sit in canteen and open your lunch boxes? (User H)

Thirdly lunch box can be something that is nostalgic, classic or traditional, which means that it has a nostalgic meaning, because it reminds of the past, Turkish people's old traditions and habits. Even though the lunch box is a part of the user's daily life, using old-looking lunch boxes make them remember their ancestors, and gives the feeling of nostalgia. It is something that our ancestors left us to put in our showcases at home.

It is nostalgic for me, because in past, our grandparents used steel lunch boxes in the military, or later on the way to work. I am using the same type of lunch box with them, it is not a new model, that's why it is nostalgic for me. (User D)

When the user thinks about lunch box, the first thing that come to their minds is the traditional form. The metal, overlapping bowls are known by everyone, it is the first stereotype that comes to mind. User G said that "it is nostalgic, its traditional form are the first things that come to my mind, when somebody asks about lunch box"

According to designers, users are in search of healthy life and they are paying attention to what they eat. They make diets, track their daily calories. So, in some way lunch box has entered our daily lives. To users, it is can be something that is to be avoided, but as a designer, it should be something that is turned into desirable with its own

design. They suggest that it can even become a trend if the lunch box is well designed and provide for the user's needs.

4.7 Discussion

In the main study; an overview of the field and IMMIB Design competition projects were made. The analysis consisted of 12 sub-themes categorized under three major subjects that have been mentioned by 18 users and 4 designers in the interviews. All of the sub-themes were gathered under three different subjects, which are service needs of user, motives to use the lunch box and needs aroused from the product properties.

From the perspective of the user; findings show that using lunch box is actually part of people's daily life, traditions and food culture even though the form is not the classical metal lunch box. It is, in a way, part of continuing the traditions and their eating habits. They are carrying the experience of the eating at home to their school life, work life or the communities of which they are active members. They bring the habits in their homes or daily lives with lunch boxes and like to share this experience with other people even though some users have doubts about sharing this experience. The examples of this argument can be shown as;

1. Users like to eat and are in need of hot meal because it reminds them of their home (mom made food, newly cooked etc.)
2. Users carry accessories like fork, spoon, table napkins, toothbrush and more, which are part of the experience in their homes.
3. Some of the users wish to eat more than one type dish, like hot soup, main dish and fruits, in their own timetable and eating order, which is like regular Turkish meal in their homes.

It is seen that the meaning and significance of the lunch box has a huge part in the daily life of the Turkish users. They are in search of continuing their daily eating habits by being in need of hot meal, since they feel like experiencing eating at home; newly cooked and in a welcoming environment. Designers offered different suggestions to enhance the users' experience by using heat preserving material or reheating systems. Users are in need of cutlery or specially designed place in the lunch box because they do not want to use disposable cutlery or wrapping their cutlery to napkin. Designers

need to add cutlery sets or placed especially designed for the cutlery to sustain users' experience. This can be summarized in the argument that users wish to eat their home made food outside instead of packaged goods or fast food by experiencing the daily eating habits in home with carrying all objects belong to their homes.

Turkish users still use lunch box and encourages their friends, family to use lunch box for different reasons like health, economic issues or just eating for hot homemade food. According to users, there are three main reasons that they are using lunch boxes which can be lined up according to its importance;

1. Healthy eating
2. Hot home-cooked food
3. Economic reasons and conditions

According to Turkish users, the main reason they carry lunch box and food ~~for~~ is healthy eating. The food they have to eat or buy from outside is not healthy because they do not know how and which ingredients they have been made of. So whatever the food they carry, it should be the food that the user made or knows. Users' perception can be summarized in the formula that home-made food is healthy food. Healthy food means safe food because they know what they eat. Also there is the tendency of turning towards healthy eating and nutrition. They believe they should eat more healthy food instead of packaged goods, fast food, etc.

Users' lunch box preferences, needs and experiences alter according to user profile differences but there are common needs that all of the users have mentioned thought the study. The discussed themes and needs aroused from the lunch box using experience of the users can be lined up according to its importance;

1. 1st place: Carrying, leaking and volume
2. 2nd place: Overlapping storage, form and scent
3. 3rd place: Material, separator and flexibility

These findings are categorized by the number of mentions. All of the user participants mentioned the problem of carrying. According to findings, users want to have a lunch box that is easily carried, has its own fashionable cover and easily fits in their daily

hand bags or accessories without problem. It should cover less space and volume of the lunch box should be adjustable according to food type. They also wish to have durable and leak-proof lunch boxes while carrying liquid food with a good sealing mechanism. The design should be stackable and its form should be either rectangular or cubic because there is less dead space in these forms and the other forms often do not fit the ladies' hand bags. Another point is that the users suggested a separator part that prevents the food from mixing when they want to carry more than one type of dish. The material of their lunch box must be healthy but also lightweight. Lunch box idea gives them the opportunity and flexibility to eat when they want, what they want and where they want.

Another interrelation revealed by the findings is lunch box's meaning in Turkish society. Turkish people have different approaches about lunch box subject. They believe that carrying food from home to school or work places with lunch box can be something they are ashamed of. Because people in their community judge and negatively comment on them. However if this practice and experience are shared in their community, it is more normal thing, a part of a daily life and habits like a ritual. On the other hand, lunch box can have the meaning of nostalgic, which can be explained as something from the past, Turkish people's old traditions and habits, and it should be used as a decoration. Also when a question is asked for getting an opinion about lunch box, the first product which comes to users mind is the two- or three-bowl metal lunch box, which is transcribed as traditional.

From the findings of the overview of IMMIB design projects and designer interviews, there are several important points. It is shown that all of the designs have tried to reinterpret the traditional lunch box in a modern way and enhanced its properties to encourage the user to have a healthy eating habit. Designers thought that users are in search of healthy life and they are in need of products to improve their habits. Designers modernized the form with needs of the user like more rectangular forms, organic forms and preferable colors and they have focused on the missing points like sustaining hot/cold food, healthy materials, wiping of the scent, locking mechanisms, special carrier bags, cutlery sets, customization and flexibility.

The findings show that two different perspectives (users and designers) have major common points which are healthy eating, heat preservation, carrying styles and

problems and form of the lunch box. It is seen that there are mutual opinions on some of the design points. On the other hand, there are different points that are disregarded by different parties.

Table 4.2: Design points from perspectives of users and designers

	Health	Overlapping Storage	Flexibility	Cutlery	Heat Preservation	Material
Users	X	X	X	X	X	X
Designers	X		X	X	X	X
	Form	Customization	Color	Leaking	Meaning	Scent
Users	X			X	X	X
Designers	X	X	X	X	X	X

These design points are deduced from the previous sections. Findings show that while users are more interested in the functional qualities of the lunch box, designers are more focused on visual aspects of the lunch box. Designers have thought about the color aspect and customization of the lunch box with the difference of the user. They have designed more colorful designs to make the lunch boxes attractive to the users. In addition, they chose specific colors to remind the user of vegetables and healthy food and encourage them to eat healthy food. During the interviews, the users did not mention anything regarding customizing their product, however designers have the goal of designing products by which the user can customize their own product and eating experience.

It is seen that the designers have focused on modular systems that can preserve more than one type of food by keeping them warm. They aimed to modernize and reinterpret the form of the traditional Turkish lunch box since they saw it as a part of the daily life of the user.

They motivate the users to continue their traditional habits and carrying food from home in a more modernized, trendy and elegant way, but also encourage them to eat healthy food. Designers try to provide designs that give the feeling of a homely eating environment, a healthy eating tool and not only a food container. In this stage, it is significant that industrial designers are eager to respond to these needs and problems of Turkish users with well analyzed design solutions.

CHAPTER 5

CONCLUSION

This chapter reviews the study by answering the research questions. It examines the findings that reflect the users' and designers' ideas regarding lunch box design and usage. Also the limitations of the study and future research recommendations are discussed.

5.1 Summary

The aim of the study is to understand the significance and meaning of the lunch box for Turkish users and designers by analyzing the effects of changing eating habits, food culture and new life styles. A literature review on culture, food culture and lunch box have been made to understand the users' and designers' experience of lunch boxes. Three interconnected studies are conducted to reach the answers of the research questions, which are an overview research of the lunch box market, the interviews with users and designers, and a study of IMMIB competition catalogues.

5.2. Discussion

5.2.1 Mobile food as compact home experience

Eating practice and food are inseparable parts of people's daily lives and their homes. It is a social practice that connects the family and communal relations through its own processes and practices (Nützenadel & Trentmann, 2008). Reflecting this, mobile food becomes a compact home experience. Users are in search of continuing their home-eating habits outside of home. Mobile food concept is used as tool to reanimate this experience which directs users to carry the lunch boxes in their daily lives. They are in search eating safe, home-cooked food with their home style. Therefore they wish to carry more than one type of dish, often hot homemade food, share their food with loved ones, and combine home experience with desired accessories. Designers, in the overall, are aware of this desire for a compact home experience. They designed

products that offer an environment of the food experience at home by designing a compact system. Their designs generally focused on keeping food warm or combining eating accessories with their lunch boxes.

5.2.2 Lunch box as reinterpreted tradition

Lunch box usage changes in traditional food culture over time. It has been used by Turkish soldiers to carry food to war. It is a tradition that continued throughout the history by changing its form, material and sizes. Ak (2007) mentioned that metal lunch boxes are containers are widely used in Ottoman palace kitchens. However, the lifestyles of Turkish consumers changed during the 19th, 20th and 21st centuries. Home cooking lost its importance to ready, quick, foods (Orkun, 2009). Turkish users began to consume prepared and semi-prepared food due to rapid urbanization and industrialization, obligatory shortening of meal preparation time, food technology developments and more. Now, lunch box tradition continues to exist in the daily life of the Turkish people with new concepts. “Healthy eating” became an indicator of using lunch box as a part of the tradition. Users tend to use lunch box for healthy eating and safe homemade food. It is seen that the tradition of using lunch box is strongly continued. Only thing changed is the form and the material of the lunch box. When user thinks about lunch box, the first thing come to their minds is the traditional form; the metal, overlapping bowls. Turkish users are now using products equal to stereotype lunch boxes in their lives produced from different materials with different designs. Also the meaning of the lunch box represents a relation to traditions. Users define lunch box as a nostalgic, classic or traditional object that reminds the past of Turkish people’s old traditions.

In the case of designers, they tried to transform the stereotypical form and characteristics into modern lunch boxes by keeping the traditional and cultural needs. While they have tried give modern form by preserving its traditional features like modularity, flexibility, the main point in their designs is to reinterpret of the traditional lunch box in a modern and efficient way. Designers tend to preserve the traditional form of the lunch box by keeping up with the today’s habits and lifestyles. They encourage the users to continue their traditional habits and carrying food from home in a more modernized, trendy and elegant way. Designers have modernized the form

in terms of material and visual aspects and they have focused on the missing points that they have determined, which are the top-locking system and heat protection.

5.3 Design guidelines

This study summarizes the opinions of users and designers regarding lunch box design, and provides a chance to see various points that will enlighten designers about future design processes. Findings from field research and interview analyses represent important design elements that can be considered as guidelines in the design process for designing a lunch box for Turkish users.

It was observed that these are different and common needs or missing points in the lunch box designs which are evaluated by users and designers. These missing elements can be referred to as design guidelines that should be taken in consideration while designing a lunch box. The points are as follows:

1. Design guidelines related to service of lunch box:
 - Designs may have either its own cutlery or a specially designed cutlery place inside the lunch box since users are in need of carrying their cutlery because of conditions and health reasons (See Section 4.3.2).
2. Design guidelines for improving the conditions for motives of using of lunch box:
 - It can be a system and design that can offer more suitable eating conditions so that the product itself will encourage the user to integrate it to his/her daily life.
3. Design guidelines related to product details and properties of lunch box:
 - The form of the lunch box could be rectangular form for user to carry easily and they can easily fit inside the hand bag of the user (See Section 4.5.1).
 - It should be a compact system and design which gives user the flexibility to eat whatever he/she wants and help user experience their daily eating habits. It must have a modular design that user can adjust the amount of the food he/she wants to carry by selecting the boxes/bowls inside the product user (See Section 4.5) .
 - Designs should be produced from a healthy material, which does not contain BPA plastic or materials that do not integrate well with food

when food encounters temperature change. This is an important point for users because most of the participants have explained that material is an indicator while they are choosing lunch box for different reasons (See Section 4.5.4).

- Lunch box can be designed for both keeping food warm or cold. Designers can solve this problem by either designing an electronic system to reheat or cool the food item, or suggesting materials for keeping food temperature at desired level.
 - Designs should be light-weight and cover less space and easily carried since users are in need of easily carrying lunch boxes. Designs must avoid the leaking of food, which can be solved with well-thought-out sealing mechanisms. Volume of the bowls in the lunch box should be adjustable according to food choice (fruit, soup, etc.). A specially designed separator part can be inside of bowls to avoid the food mixing. Also scent of food should be eliminated with a clever design solution, since users do not like smelling scent of food while carrying a lunch box (See Section 4.5).
4. Design guidelines related to meaning and significance of lunch box:
 - Designer should design trendy, elegant covers or bags to carry the lunch box, so that user can carry their lunch box proudly (See Section 4.6).
 5. Customizing the design is an optional choice that can be considered by designers.

5.4 Limitations and Recommendations for Further Study

There were several limitations in this study. The number of the designers who have had experience with designing a lunch box was very low. It was not possible to reach all of the designers and make an interview with them. Another limitation was the communication restriction, since some of the designers that were interviewed are living outside İzmir and Antalya, even abroad. Also; the analyzed designs are conceptual competition projects are not manufactured or user tested. To ensure wider participation, a recommendation could be organizing a special study/workshop that focuses on designing new lunch boxes by taking in consideration the needs of users and cultural values and testing them with users.

Another limitation was; the user group was highly homogeneous, with large number of women, mostly white-collar young adults. Neither marginal user groups such as children, older adults and persons with disabilities, nor people in other working environments than white-collar offices, such as factories, and public spaces were included in the study. The field study only contained the data gathered from designers, users and sellers who have experience with lunch box. The study is not involved with ideas of suppliers or lunch box manufacturers. Turkish lunch box manufacturers' opinions are an area of research that can be focused on in future research.

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APPENDICES

APPENDIX A

INTERVIEW CONSENT FORM

Katılımcı Bilgilendirme ve İzin Formu

Bu araştırma Orta Doğu Teknik Üniversitesi, Mimarlık Fakültesi, Endüstri Ürünleri Tasarımı Bölümü'nde Yardımcı Doçent Dr. Harun Kaygan'ın tez danışmanı olduğu "Yemek Kültüründe Değişen Alışkanlıkların Türkiye Örneğinde Sefertası Tasarımına Etkileri" başlıklı Yüksek Lisans Tezi kapsamında Yüksek Lisans Öğrencisi Ceren Köktürk tarafından yürütülmektedir. Araştırmanın amacı, Türkiye'de sefertasının kullanılma nedenlerini bulmak ve kullanıcıların bu konuda ihtiyaçlarını tespit ederek tasarımcılar için bilgi toplamaktır.

Süreç: Yaklaşık otuz dakika sürecek olan araştırmada sizden iş yerine vs. ürün götürme işlemi ve bu süreçte kullandığınız ürünler ile ilgili sorular sorulacaktır. Araştırmanın herhangi bir yerinde hiçbir açıklama yapmadan salondan ayrılabilir, söylediklerinizin ve yaptıklarınızın tamamının ya da bir kısmının kayıt dışı kalmasını isteyebilir, süreç sonrasında araştırma yürütücülerıyla iletişime geçerek bilgi talep edebilirsiniz.

Ses ve görüntü kaydı: Araştırma esnasında, kayıt tutma ve tahlile yönelik malzeme oluşturma amaçlı olarak ses ve görüntü kaydı yapılacaktır. Araştırmaya katılmayı kabul etmekle, ses ve görüntü kaydı alınmasını kabul etmiş bulunuyorsunuz. Bununla birlikte, araştırmanın herhangi bir yerinde ya da sonrasında söylediklerinizin ve yaptıklarınızın tamamının ya da bir kısmının kayıt dışı kalmasını isteyebilirsiniz.

Aşağıda araştırma esnasında toplanan verilerin kullanımına dair açıklamalar bulunmaktadır:

Ses ve görüntü kayıtlarının ham hali, yalnızca araştırmacılar tarafından, tahlil amaçlı olarak dinlenecek ve izlenecek, üçüncü kişi ve kurumlarla paylaşılmayacaktır.

Siz katılımcıların söyledikleri, araştırmadan çıkan yayınlarda kullanıldığı takdirde mutlaka anonimleştirilecektir.

Seçilen görseller, süreci anlatma amacıyla araştırmadan çıkan yayınlarda olduğu gibi kullanılacaktır.

Yukarıdaki bilgilendirmeleri okudum. Araştırmaya katılmayı kabul ediyorum.

Katılımcı ismi: _____

Arařtırmacı:
Ceren Kktrk
e-posta: ckokturk@hotmail.com
tel: 5304642636

Yksek Lisans Tez Danıřmanı:
Yrd. Doç. Dr. Harun Kaygan
e-posta: hkaygan@metu.edu.tr
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APPENDIX B

INTERVIEW TEMPLATE

Time/Date:
Place/Communication:
Interviewee:.....
Consent Form: Yes/no :

A) Kemeraltı Field Interview Questions:

1. Ne tür sefer tası satmaktasınız? Sattığınız ürünlerin ölçüleri çeşitleri ve markaları nelerdir?
2. Sefer tası ürünü hala satın alınıyor mu? Evet, ise ürüne karşı olan talep hakkında bilgi verebilir misiniz?
3. Kimler bu ürünü alıyor? Kullanıcı profiliniz hakkında bilgi verebilir misiniz?
4. Tüketici tarafından yemek termosu nasıl/neden sefer tası yerine tercih edilmektedir?

B) User Interview Questions

- 1) Sefer tası/Yemek Termosu/Saklama kabı kullanmaya nasıl ve ne zaman başladın?
 - 1a) Ne kadar süredir kullanıyorsun?

1b) Bu süre içinde deęişen kullanım alışkanlıklarından bahseder misin? Mesela bıraktığın zamanlar oldu mu? (ör: Kullanırken şöyle bir alışkanlığım var ama artık o şekilde kullanmıyorum vs.)

1c) Bildiğin, sefer tası kullanan, işe yemek götüren kimseler varsa bahseder misin? Bu işlemi; ürün olarak ne kullanarak yapıyorlar?

2) Neden sefertası/yemek termosu/saklama kabı kullanıyorsun?

2a) Sence avantajları neler?

3) Kullandığın sefertası/yemek termosu/saklama kabını nereden aldın, özelliklerin bahsedebilir misin?

3a) Şöyle olsa dediğin bir özellik var mı?

3b) Kullandığın ürünün markası, en iyi özelliği nelerdir?

3c) Daha önce kullandığın başka bir ürün var mı?

3d) Neden bu sefertası/yemek termosu/saklama kabını seçtin?

3e) Sefertası/yemek termosu/saklama kabının gün içerisinde kullanım sürecini anlatabilir misin?

4) Neden sefertası/yemek termosu/saklama kabı kullanmaktan vazgeçtin ve ya vazgeçer miydin?

5) Yemek kültüründe deęişen alışkanlıklar senin gündelik hayatındaki sefertası/yemek termosu/saklama kabı kullanımını ve alışkanlıklarını deęiştirdi mi? (fast food, yiyeceęe kolay erişim)

6) Aşağıdaki sefer taslarını değerlendirir misiniz/karşılaştırır mısınız?

("birini seçseniz hangisini seçerdiniz" diye, ya da "tarz açısından/kullanışlılık açısından değerlendirir misiz?")



C) Designer Interview Questions

- 1) Bu tasarımın konseptine nasıl karar verdiniz?
- 2) Tasarım sürecinizden bahsederek ürünü tasarlarken hangi konuları temel olarak yola çıktığınızı?-hedef kitlenizin kim olduğunu belirtebilir misiniz?
- 3) Tasarladığınız sefer tası ürününden bahsedebilir misiniz, ürünün özellikleri nelerdir, kullanıcıyla nasıl bir ilişki kurmaktadır?
- 4) Neden ürün olarak bir sefer tası tasarlamayı seçtiniz?
- 5) Benzer bulduğunuz başka ürün başka ürün tasarladınız mı?
- 6) Sefer tası ve sefer tası tasarımı hakkında ne düşünmektesiniz, piyasadaki mevcut ürünler hakkında fikrinizi söyleyebilir misiniz?

7) Őu an yeniden bir sefer tası tasarımı yaparsanız, hangi konulara dikkat eder, nasıl bir tasarım yaparsınız?

8) Sizce yemek kltrnde deęiŐen alışkanlıklar neler ve kullanıcılar bu konuda nasıl yönlendiriliyor?

APPENDIX C

INTERVIEW FINDING PHOTOS

1) Kemeraltı Field Study Photos



INTERVIEW FINDING PHOTOS (continued)

User Lunch Box Photos:

1.USER C:



2.USER D:



3.USER F:



INTERVIEW FINDING PHOTOS (continued)

4.USER G:



5.USER I:



6.USER K:



7.USER L:



8.USER O:



9.USER S:

