



**EFFECTS ON TURKISH AND LIBYAN KITCHEN DESIGN WITH
REFERENCE TO CULTURAL FOOD PREPARATION HABITS**

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**EFFECTS ON TURKISH AND LIBYAN KITCHEN DESIGN WITH
REFERENCE TO CULTURAL FOOD PREPARATION HABITS**

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ABSTRACT

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The kitchen has undergone a dramatic evolution of social change in human history, evolving from enclave to a symbol of isolation; from the original fireplace as the only space for living activity to the modern, rational kitchen where women were isolated. However, today's kitchens have evolved to fit the needs of each family member and thus include a variety of functions. However, today's kitchens have evolved to the point where they accommodate every family member and therefore include multiple functions. This thesis aims to understand the dynamics beneath the evolution of kitchen; referring to cultural in two different countries (Turkey, Libya), in order to find out the problems found in using the kitchens so that better designs may be suggested. The literature shows that a kitchen is an important part in a home, which is a busy area, thus demanding a lot of attention in order to be able to get the needed design requirements. While the findings of the thesis are based on the contemporary urban life, it is not known what the future will hold; so suggestions are made to benefit contemporary needs. The case is the interaction between the household, the kitchen design, and the activities in the kitchen. Interviews have been conducted with household members in the studied cases, as well as with key informants. The main areas of study have been the way food is prepared, cooked and stored in the kitchen, and how these activities take place in a mixed situation of tradition and modernity. People have to negotiate and reinterpret spaces in their kitchens and around them in order to meet their needs. Some of the most important outcomes from this research is not to let modernity be disruptive but rather to allow the change from tradition be gradual. The thesis endeavors to blend the two phenomena of tradition and modernity so as to create a balance in design and end with better functioning kitchens.

Keywords: tradition, modernity, culture, identity, kitchen design

ÖZ

KÜLTÜREL GIDA HAZIRLIĞI ALIŞKANLIKLARINA İLİŞKİN TÜRK VE LİBYAN MUTFAK TASARIMINA ETKİ

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Mutfak, insanlık tarihindeki toplumsal değişim dönemleri boyunca büyük bir evrim geçirdi; toplama noktasından ayırımın sembolüne dönüştü; hayatla ilgili her faaliyetin yegane alanı olan ilkel ocaktan kadınların içinde yalıtılmış olan Modern rasyonel mutfağa. Bununla birlikte, bugünün mutfağı, ailenin her üyesini barındıran ve böylece çok işlevli olmak üzere ilkel statüsüne dönmüştür. Bu tez, mutfağın evrimi altındaki dinamikleri anlamayı; daha iyi tasarımlar önerilebilecek şekilde mutfakların kullanılması ile ilgili sorunları bulmak için farklı ülkelerde (Türkiye, Libya) kültürel anlamda atıf yapıldı. Literatür, bir mutfağın yoğun bir alandaki bir evde önemli bir parçası olduğunu göstermektedir; bu nedenle, ihtiyaç duyulan tasarım gereksinimlerini elde edebilmek için çok fazla dikkat istemektedir. Tezin bulguları çağdaş kent yaşamına dayansa da, geleceğin ne olacağı bilinmiyor; dolayısıyla çağdaş ihtiyaçlardan yararlanmak için önerilerde bulunur. Durum, hanehalkı, mutfak tasarımı ve mutfaktaki faaliyetler arasındaki etkileşimdir. İncelenen vakalarda hane halkı üyelerinin yanı sıra önemli bilgilendiricilerle görüşmeler yapıldı. Ana çalışma alanları, mutfağın gıdaların hazırlanma, pişme ve saklanma biçimidir ve bu faaliyetlerin gelenek ve modernliğin karışık bir şekilde nasıl gerçekleştiğini anlatmaktadır. İnsanlar kendi ihtiyaçlarını karşılamak için mutfaklarındaki ve çevrelerindeki alanları görüşmeye ve yeniden yorumlamalıdır. Bu araştırmadan elde edilen en önemli sonuçlardan bazıları, modernliğin yıkıcı olmasına değil, gelenek değişiminin kademeli olmasına izin vermektir. Tez, geleneğin ve modernliğin iki olgusunu harmanlayarak tasarımda bir denge kurmayı ve daha iyi işleyen mutfaklarla son bulmaya çalışmaktadır.

Anahtar Kelimeler: gelenek, modernlik, kültür, kimlik, mutfak tasarımı

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CHAPTER ONE

INTRODUCTION

Human's urge to survive shaped certain spaces in nowadays-modern residential architecture. Chapter one will explain the reasoning behind researching a topic of functionality of kitchen design worldwide regarding cultural food preparing habits; cultural and social impact of on kitchen design with a focus on comparison between Libyan and Turkish kitchen design style. From the time man discovered fire 1.6 million years ago by our ancestor Homo Erectus (Atkinson, 2015), man also started using fire to cook meat and vegetables. Modern day kitchen is little older than invention of commercial electricity in the early 1900s by Serbian scientist Nikola Tesla (Reagan, A Brief History of the Kitchen, 2015).

Introduction chapter tends to familiarize with the important questions, key issues of old, and contemporary kitchen design in Turkish and Libyan interior design. Researcher will explore different related aspects that might influence a possible shift in that field of interior design. Social changes and geographical position; materials available and type of food consumed will most likely significantly contribute to the kitchen design and tools used for food preparation. Different objectives that researcher seeks during this research are the indicated below and analyzed as a separate, but at the end they all make a well-rounded introduction and methodology of how to approach this interesting topic.

1.1 Background and Importance of the Study

Through history, the kitchen was an important and essential part of every house although not very pleasant. It was a place where food was prepared, and one of the places to avoid because of its smoke and smells. Upper class liked kitchens to be situated as far away as possible from the social or private rooms in a home (Christensen, 2011). Advances made in the kitchen design often referred to the upper class and were not available to peasants.

The importance of this study lies in the idea of comparison of how far design went with modern kitchen and how far they stepped out the traditional cooking manners. Cooking in the traditional clay pot makes the food tastes differently than cooking it modern steel pots (Gray, 2015), because of the clay ability to interact with food acidity. Analyzing the technological, social and cultural advances, will show what impact it has to nowadays cooking and kitchen design. Nearly all known food cuisines were based on the availability of the food sources in the certain period of the season; the design and tools were directly impacted by type of the food prepared.

The aim of this research will show how much the globalization, invention of Internet, and cheap kitchen appliances influenced kitchen design globally, in Libya and Turkey.

1.2 Kitchen in the past and in the future

When talking about history of the kitchen as the space or place where the food was prepared, then it is important to refer to the first time in history when humans started controlling the fire and preparing the food as the early idea of what is today known as “kitchen”. The biggest advantage that cooking gave to the early humans was to make their food safe and more bacteria-free.

“Homo erectus first began controlling the fire around 400,000 years ago, although some anthropologist believe early humans may have been using fire up to 1.9 million years ago” (Goodwin, 2012).



Figure 1. 1: First humanoids gathered around controlled fire (Village News, n.d.)

When researching design advances of old and contemporary kitchen design, the focus is always on the design what existed in the upper class society, and rarely ever in the middle class household. Peasants and servants had no access to the kitchen design advances as they considered low class (Butler, n.d.). They did not have kitchen, but rather a room with a fire in the middle where they cooked food, slept and lived (Butler, n.d.).



Figure 1. 2: Peasant cooking in his home (Monserrate, 2016)

The peasant's houses had a hole in the roof that supposes to draw smoke outside of the cottage (Butler, n.d.). The invention of chimney in 14th century (Concept Kitchen 2025, n.d.) and stew stove in 1771 (Concept Kitchen 2025, n.d.) made a lot easier and convenient to have a fire in enclosed space, and in the same time started reshaping kitchen design.

Water and electricity came to the kitchen design in the last 200 years and are relatively new features, looking from the historical perspective but also something that became an integrate kitchen component in modern society. Concept of the kitchen of the future is already developing and there are some interesting projects between Lund University in Sweden and Eindhoven University of Technology in the Netherlands. The future kitchen will be ecologically friendly and will produce less waste and consume less energy (Miller, 2015).



Figure 1. 3: Futuristic and compact kitchen design (InfoPlease, 2016)

1.3 Purpose of the Research

The focus of this research is to explore differences and similarities in interior design styles in kitchen design influenced by the use of kitchen utensils. The geographical areas compared are Turkey (Europe/Asia) and Libya (Africa). Known that kitchen today is not a privilege but rather a necessity in residential and commercial interior, it is interesting to compare the sizes of the kitchen in these two areas, colors, materials and orientations on the floor plans, international building codes etc. This research is not only focused on the aesthetical part of the kitchen design, but rather to everything that had happened in the past that caused for kitchen design to change to what it is nowadays (Social changes, wars, political situation) in Turkey and Libya. Traditional food preparation is in many parts of the world changed, due to globalization and modern ways of cooking. The different regions of Turkey and Libya are highly interesting because both countries had a turbulent past, but they have some cultural similarities, such as being Muslim countries; Libya Muslim (official; virtually all Sunni) 96.6% (InfoPlease, 2016) and Turkey Islam (mostly Sunni) 99.8% (Freesandworldmaps, 2016).

Current economic situation and availability of materials and resources highly affected interior design styles in these countries.



Figure 1. 4: World map showing position of Turkey and Libya in the world (**James Beard Foundation, 2016**)

1.4 Research Question Methodology and Sources

The Main Questions:

1. To what extent food; preparation habits can impact functionality old and contemporary kitchen design in Libya and Turkey?
2. What interior design styles are present in Libya and Turkey today?
3. How the geographical location does continue to affect interior design styles and materials used?
4. Does the type of food consumed affect the design style and kitchen layout?

Based on the above questions, the following hypotheses are developed:

Hypothesis 1: Food preparation habits impact the functionality and design of kitchen in Turkey and Libya.

Hypothesis 2: The geographic location affects the interior design style and material used in kitchen design.

Hypothesis 3: The type of food cooked in the kitchen impact the design and layout of the kitchen.

a) Assumptions and Limitations

Whenever researching a problem or cause, some limitations should not be left aside but rather acknowledged. For this particular research the limitations are:

- not enough resources about kitchen design in Libya and Turkey
- globalization as a result of cheap man-made materials
- size of the countries and multiple geographical regions (desert, seaside, and forests)
- different foods in different regions and availability of food resources
- availability of exotic foods in the places where it was not been available before
- historical impact of different occupations in Libya
- no similar case studies
- current political situations in Libya and Turkey

Carefully analyzing the limitations, it is possible to find alternative way when approaching a problem. For this research, the alternative approach to a research problem would be a visual analysis of different kitchen designs in both countries, taking into consideration when it was built and what interior design it belongs to, and what cuisine is consumed. In the same time, it is important to know does the design belong to the wealthy person home or middle class. In that sense, research can be divided to upper, middle, and low class interior design.

Other way is to analyze the colors, materials and food, because the combination of these three will affect the kitchen design. The kitchen design is unique because it is a room where the ones culture and food habits are being practiced, and not everybody likes the same food. The variety of tastes that are formed over the years along with globalization will contribute to limitations related to the research question.

Understanding the limitations of this project, research methods are divided in few specific sections. The most important part of the research is comparative research. When doing a comparative research, it is not like analyzing the case study but rather applying collected knowledge about interior design and other factors impacting the kitchen design in these two countries. The main assumption is that climate will dictate the materials used in certain areas and water resources. The water resources are import factor as for desert areas in Libya.

Beside comparative approach, there is a qualitative and quantitative research methods involved in this research. The qualitative method represents the quality and functionality, design satisfaction and can be done by using different tools such as interviews case studies and observation. As a case study is one of the limitations, other case studies that directly impact this problem can be studies such as the role of women in the past and now; their presence in political life and employment and how that reflected the kitchen design.

Design questionnaire can be used to claim the satisfaction rate among kitchen users and suggest possible changes of materials in the past versus now.

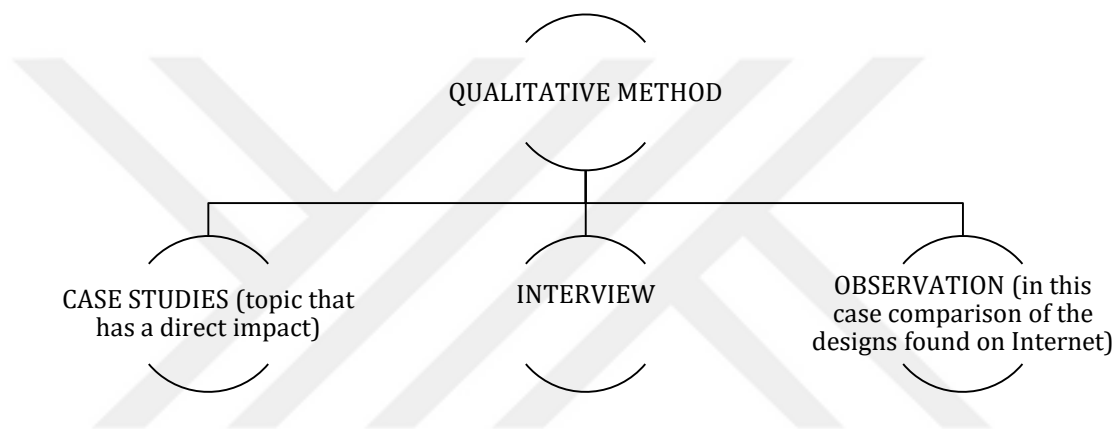


Figure 1. 5: Chart qualitative method used

Other method is a questionnaire that could be used to measure as:

- what percentage of the people happy with their kitchen design?
- how functional is their kitchen?
- How their culture is expressed through kitchen design?
- do they believe that the culture have any impact on kitchen design?

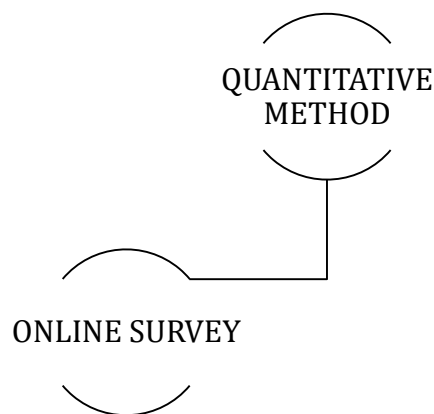


Figure 1. 6: Quantitative strategies used today

1.5 Structure of the Thesis

The research organizes in five chapters with alternative approach to fourth chapter, where the researcher will explore facts about Libya and Turkey. The second chapter will deal with cultural and social impact, history and floor plan layouts; interior design styles and how they impact kitchen design, modern kitchen appliances and kitchen standardization, caused by globalization. Chapter three will be based on facts regarding geographical position of Libya and Turkey; cultural and religious aspect; history and its relevance to the subject and finally how all of that contributed to the formation of the specific cuisines and kitchen design styles over time.

Fourth chapter will be focused on understanding collected data and combining it with research methodology, including analysis of qualitative and quantitative methods, observational methods and documentaries related to the issue.

Finally, chapter five will find an answer to the problem question stated in chapter one and give some alternative solutions and suggestions. Hopefully the results of this research will help other researchers investigating similar topics in the future. Below is the visual representation of how this research will be organized.

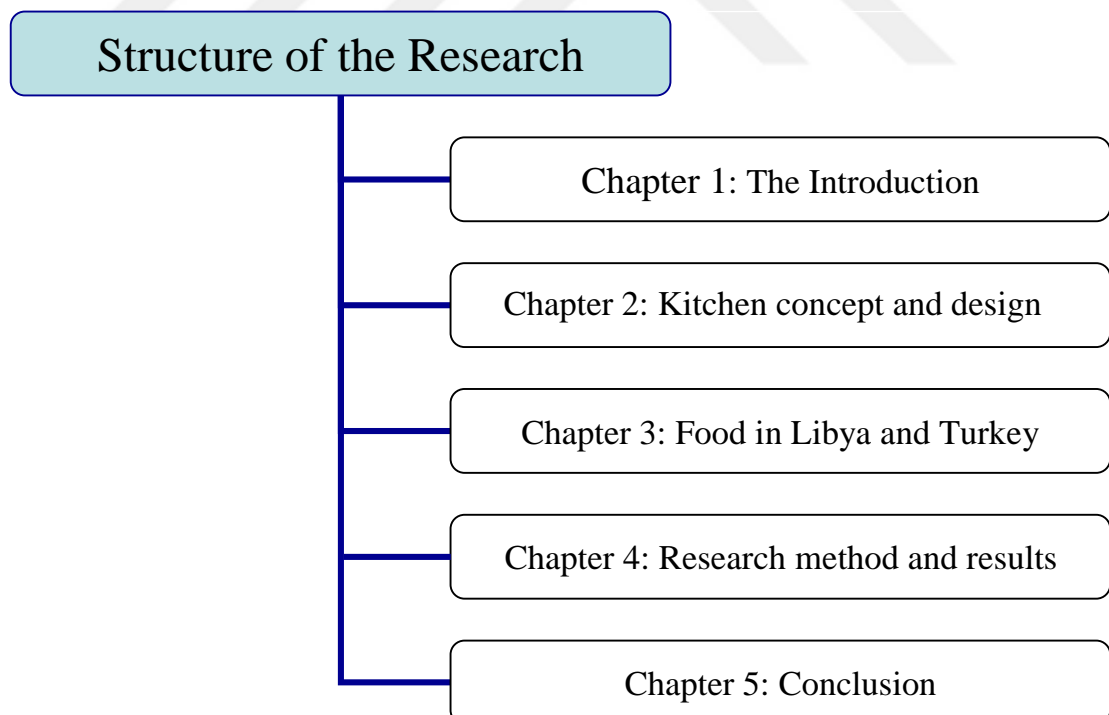


Figure 1. 7: Thesis structure and plan

1.6 Summary

Main purpose of this chapter is to familiarize the reader with the topic, and to present a general overview of the problem. Important research questions are tackled as well as possible limitations to the research. The overall research structure is presented and some basic historical facts about kitchen. It is important to consider a social change when researching a topic of this kind, because the kitchen was for a long associated with a women role and related to feminism. On one hand, researching about kitchen interior design and style can have a significant political and social background. The main task of this research is to prove the similarities and certain standardization of these two countries, although being on different continents and to what extent did the use of utensils influence kitchen design and functionality. The culture of Libya and Turkey is very diverse as well as their cuisines. Both countries have a significant geographical position and lots of natural resources, which made them attractive to colonialists for decades. This research will bring evidences from interviews, historical facts and observations to prove impact of utensils use to functionality, cultural, and social changes and its impact to functionality of kitchens which formed the old and contemporary kitchen design.

CHAPTER TWO

LITERATURE: KITCHEN CONCEPT AND DESIGN

2.1 Introduction and history of the kitchen

As living organisms, in order to survive, we need to consume food. Man named James Beard known as *the “Dean of American cookery”* (Mintz, 1996) said a famous quote *“Food is our common ground, a universal experience”*. Thinking about cuisine as a representation of culture, tradition, and national identity, it is possible to make a correlation between culture and cultural influence on kitchen design in different parts of the world. Many famous anthropologists such as Sidney Wilfred Mintz, and Wenying Xu researched the concept of culture and its reflection and correlation with food. The topic of ethnic and cultural food symbolism is highly important when researching the cultural impact on kitchen design. In order to understand why kitchens, look the way it does, firstly it is important to understand what food is consumed within that society and how big impact it has on the population. Mintz had a good statement of looking into the idea of globalization and cuisines and he said *“My own work on food, which grew out of a book I wrote on sugar, has aimed at understanding how world food habits are changing, how the causes of such change work; how the food of the West and Asia are interoperating’ what “cuisine” is, and how cuisines evolve over time; and what the future may hold for the food systems of human beings everywhere”* (Fischler, 1988).

Work by Claude Fischler has a very interesting approach to culture, food, and identity and founds that *“Food and cuisines are a quire central component of the sense of collective belonging. In some situations of migrations or of a minority cultures, it has been observed that certain features of cuisine are sometimes retained even when the language itself has been forgotten”* (Little, 2015). As this being said, it is evident how important can be the kitchen room or area in a residential interior, for food preparation and as a cultural reflection.

The early kitchen was not such a popular space to spend time in it. The purpose of early kitchen was to prepare food, and such activities were done by servants

(Reagan, A Brief History of the Kitchen, 2015). Although kitchen rooms were included into house for centuries, the actual revolution of kitchen came altogether with *invention of gas, electricity, and running water* (Noe, 2016). The running water was among first kitchen advancement that has happened in 19th century (Noe, 2016).



Figure 2. 1: Kitchen design with invention of gas and running water (Noe, 2016)

The post-war era (World War I) was the time when many of kitchen appliances were invented (26). Care for kitchen aesthetics came much later (Noe, 2016) and was a result of kitchen standardization. When researching kitchen standardization, it is inevitable to mention the famous *Frankfurt Kitchen from 1926* (Hoffman, 2012). The kitchen standardization came as a solution on the housing problem after World War I (Hoffman, 2012). Architect named *Schütte-Lihotzky*(1987-2000) after *being inspired* by “*Taylorism*” and *his idea of efficiency* (Hoffman, 2012) wanted to apply that concept to residential design and the product of that was The Frankfurt Kitchen. Frederick Winslow Taylor (1856-1915) was inspiration to many; *his influence can be seen in factories, schools, offices, hospitals, libraries, even kitchen design*” (Kanigel, n.d.). Taylor is known as a *father of scientific management* (Taylor, n.d.) and his famous work was observing the way workers worked in a factory and trying to

maximize their productivity by analyzing time-and-motion studies (Taylor, n.d.). All of his findings were inspiration to Schütte-Lihotzky to make efficient kitchen design. Schütte-Lihotzky was architecture student at “*the Kunstgewerbeschule (the Vienna School for Applied Arts) under Josef Hoffman and Heinrich Tessenow*” (Schütte-Lihotzky, n.d.) and one of the first Austrian female architects.

The role of the women changed significantly after the war and women needed a better way to be more efficient since they were filling out the roles of mother and father, while being the only source of income to their families (Schütte-Lihotzky, n.d.). The challenge Schütte-Lihotzky had when designing The Frankfurt Kitchen was of economic nature as well. Women at the time had poor wages and could not afford bigger apartments, but yet something smaller including smaller kitchen to be built-in (Schütte-Lihotzky, n.d.). When designing a kitchen, Schütte-Lihotzky took into consideration that everything need to be easily reachable; cooking vapor needs to come out through ventilation pipe; kitchen needs to have daylight provided and artificial light; the women could do the cooking while keeping eye on the children (Schütte-Lihotzky, n.d.).

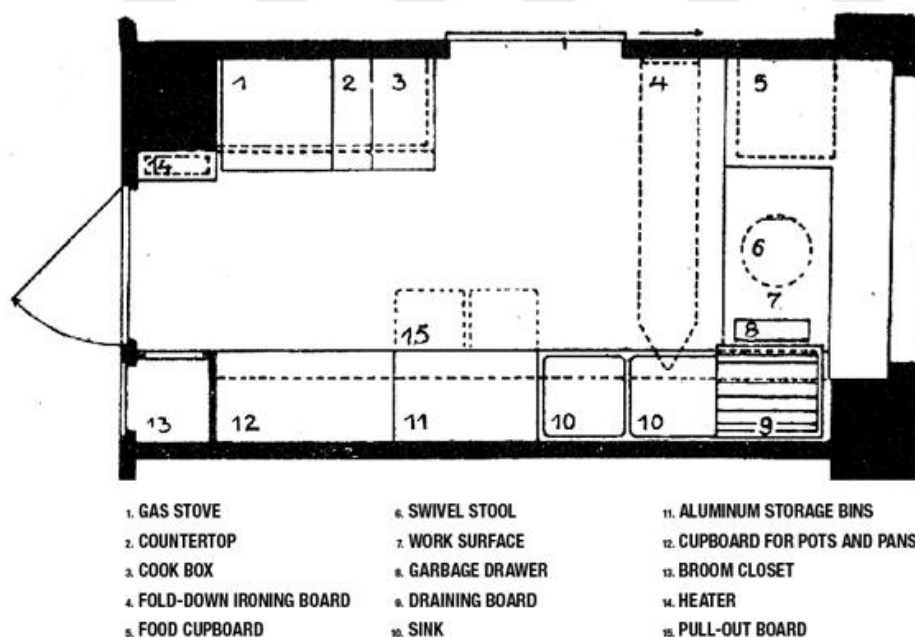


Figure 2. 2: Frankfurt Kitchen on Floor Plan image by Victoria and Albert Museum (Filler, n.d.)

It is not surprise that Frankfurt Kitchen lacked decoration, because Schütte-Lihotzky was recruited by Frankfurt master planner Ernst May altogether with Adolf Loos (Schütte-Lihotzky, n.d.). Adolf Loos was famous by essay *Ornament and Crime* in which he stated “The urge to ornament oneself and everything within reach is the ancestor of pictorial art. It is the baby talk of painting...the evolution of culture marches with the elimination of ornament from useful objects.” (Loos, 2015).



Figure 2. 3: Frankfurt Kitchen Perspective; abundance of natural and artificial light; no decoration, utilized space and efficiency image by Wikimedia Commons (**Filler, n.d.**)

Generally, the Frankfurt kitchen was the most important because it was designed from women by women, while in the past that was not the case. It was designed by the user from the user and was designed based on observing and evidence based design. The evolution of kitchen progresses as the social changes occurred. Many books were written about shift of kitchen room from being only a room for food preparation to a room where other social activities took place. A good example is a

book by Gestalten & Michelle Galindo called *Kitchen Culture*. The book talks about social changes and how kitchen elevated as from being detached room to being a social hub of the home, place for gathering, dining, and collaborative cooking. It is also investigating the most recent interior design trends. Nowadays kitchen can have many definitions, due to the different activities that take place in the kitchen space. Today kitchen is not only for cooking food but for dining and socialization; receiving guests and entertainment. By definition kitchen refers to “a room in which food is cooked” (Merriam-Webster, n.d.). In the past it was a certain place where the tools were available, while in some cultures (African culture) cooking outside is still very common.



Figure 2. 4: Women cooking outside in Accra, Ghana, 's Capital (**Department, n.d.**)

Stephen Crafti is discussing in his book *21st Century Kitchens* the challenge architects have when designing a kitchen and all the additions that kitchen got overtime. “*One of the most significant influences on modern kitchens is a shift towards alfresco dining*” (Bellis, 2010). Although, by definition kitchen is the room in which the food is cooked, in 21st century it is becoming a dining place as well.

2.2 Activities took place in kitchen of various cultures

It is inevitable to write about cultural impact on interior design. Since this research is focused on kitchen interior design and the impact of utensils use, the start point is understanding the variety of food consumed in different parts of the world, and how the taste, texture and self-identity reflects through kitchen design in modern day interior. Designers perceive a kitchen as a separate entity, very often forgetting that objects that kitchen contained in the past and now highly impacted design style, size, and materials from which kitchens were and are made of. Many designers in the past wanted to solve the problem by creating an idea where “one size fits all”. When speaking of cultural impact on kitchen design, it is known there will be some design details, which are very often combined with modern technology. Place we call home should have some design elements that reflect our cultural background, beliefs, religion. *“Decorating with culture in mind is a way to express those beliefs and lifestyle factors that make you who you are. The statement that culture makes in your home has the ability to create a domino effect that can be extremely positive”* (Wein, 2016).

In the article *East Meets West: How to Merge Two Kitchen Design Cultures* author talks about bringing the idea of Asian simplicity into existing interior and organizing the tools in certain way would already give the space and order to the space, which is one of the basic concepts of Asian design (Asian Minimalist Kitchen Design, n.d.).



Figure 2. 5: Asian minimalist kitchen and dining; Photo by Peter Wintersteller (**The Changing Nature of the Kitchen, n.d.**)

Designers such as Mark Elmore, who is a head of industrial Design at Fisher & Paykel Appliances is researching the social and cultural impact that caused kitchen to change in the last few decades. The company Fisher & Paykel is especially interested in breaking the stereotypes and understanding how modern families and people use and spend time in the kitchen. Different trends that happen, such as eating healthier and cooking, shapes the mind of the designers; make them think people will need more space when creating meals from scratch (Reagan, *A Brief History of the Kitchen*, 2015). In many parts of the world, kitchen became a heart of the house, a completely opposite to what it was in the Middle Ages (Merriam-Webster, n.d.). The kitchen shifted its position from being detached from the floor plan to being centrally positioned, due to the technological advancements.

2.2.1 Kitchen Components in the past and today

Modern day kitchen has several essential parts or components that will be researched independently.

Kitchen Components

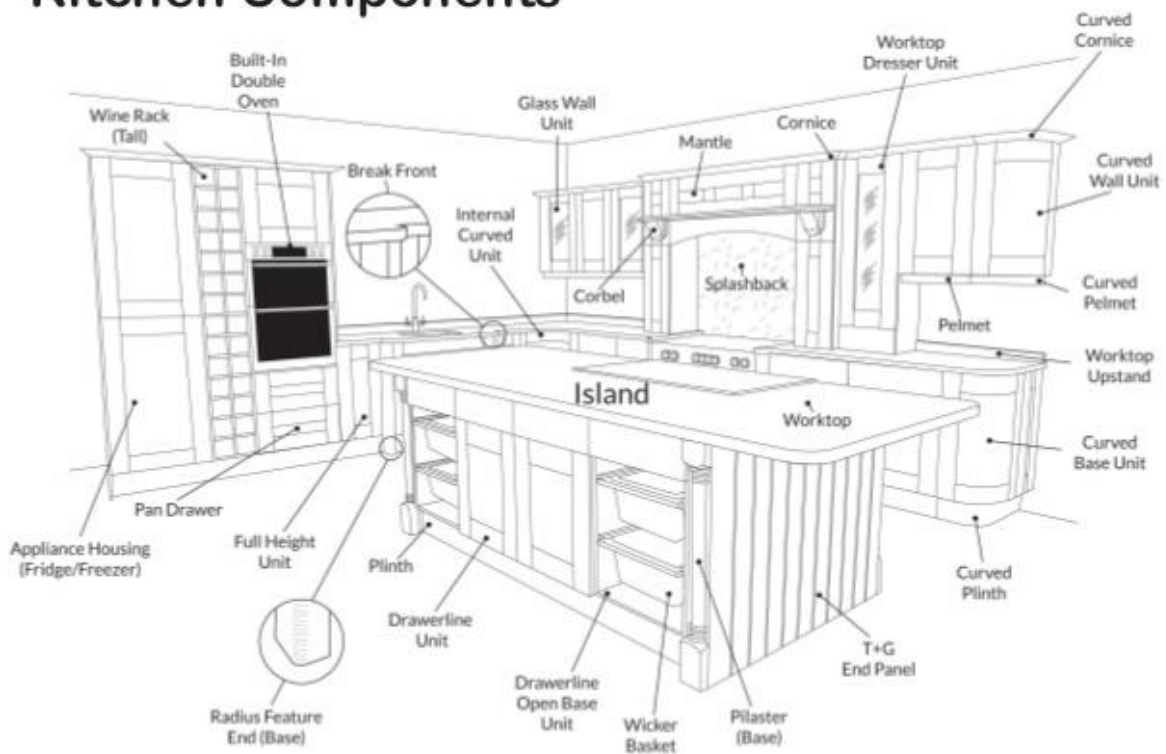


Figure 2. 6: Modern international kitchen components (**Showroom Frequently Asked Questions - DIY Kitchens - Advice, 2014**)

On the picture above is a complex visual representation of kitchen components. Contemporary kitchen may or may not contain all these amenities. However, every contemporary kitchen needs to have the following:

1. sink and running water (hot & cold)
2. countertop for food preparation
3. splash back (for easy cleaning and to prevent water being trapped in between wall and cabinetry)
4. hood or ventilation (to take out food smells)
5. garbage bin for disposal
6. worktop
7. refrigerator (with freezer)
8. stove

9. oven
10. microwave
11. kettle
12. cabinetry for dishes storage
13. dishwasher
14. refrigerator

2.2.1.1 Refrigerator

Some kitchen appliances became constituent part of a room called kitchen. One of those objects is a refrigerator. Iceboxes were early forms of refrigerators (Chapman, 2010). Invention of modern food storage came with invention of electric refrigerator in Great Britain in 1784 by William Cullen (Corre, 2013).



Figure 2. 7: Ice Box (Corre, 2013)

Nowadays, it is very easy to preserve the food due to the technology advancement and invention of kitchen appliances such as refrigerator and freezer. Today, we still have a pantry but more as a storage option for dry and canned food, kitchen supplies, cleaning supplies etc. Refrigerator in today's kitchen is necessary have appliance.



Figure 2. 8: Modern Refrigerator by Home Depot

2.2.1.2 Oven and stove

Oven is a must-have appliance in the modern kitchen and it has been a modern kitchen component for decades. The truth is, oven has long history starting from the time people discovered fire but the first noted documents about oven comes from Ancient, Egyptians, Jews and Romans (Chef, 2016). “Ancient Egyptians, Jews and Romans (and probably other civilizations) all employed some form of stone or brick oven fired with wood to bake bread.” (Chef, 2016) In 1728, Germans were the first to design oven made of cast-iron also known as *Five-plate* or *Jumb stoves* (Hurwood, 2016). Architect named “François de Cuvilliers invented the first recorded enclosed oven, called the Castrol stove, also known as stew stove” (Native Trails, n.d.). In the end of 1700s, “Benjamin Thompson aka Count Rumford invented an iron stove that allowed the used to adjust temperature of the individual stovetops” (Native Trails, n.d.). Being able to adjust temperature of the different stovetops in the same time, was a big thing back then. In the 18th century gas oven was invented and end of 19th century brought the invention of electric ovens (Chef, 2016). Electric ovens became rapidly popular due the introduction of electricity to households. Today we use electric and gas ovens, and we are able to control the temperature of the oven and stoves independently; to cook on timer and numerous designs to choose from.



Figure 2.9: Old oven Hearth (Chef, 2016)



Figure 2. 10: Modern oven (Home Depot)

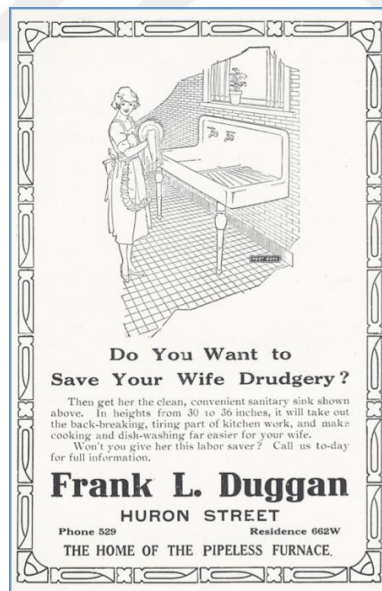


Figure 2. 9: Being built from there materials

2.2.1.3 Sink

Long time ago when sinks did not exist, people have to go to the rivers or lakes to haul water from there (Lucas, 2012). The idea of a sink existed but in a dry version. Plumbing system did not exist and sinks were not connected to the running water or water exhaust (Lucas, 2012). Industrial period made sink size standardized and now those could be made of harder materials than wood. “It was possible, by the 1880s, to replace the dry or wet trough of stone, steel, or slate trough with cock-taps for running water.” (Hilpern, 2010)

Being built from these materials, sinks were more hygienic and became a kitchen component. In the same time, it took less but certainly had to have its place in kitchen room design. In the 19th century, plumbed-in sinks became a prominent interior feature of the house (Lucas, 2012). Having a hot and cold water option was a status symbol (Lucas, 2012) at the beginning of century. In many cultures worldwide, kitchen history is similar and kitchen design followed the sink development and its progress. Plumbed-in sinks are implied in modern kitchen designs worldwide today.

2.2.1.4 Dishwasher

Modern kitchens, besides having a built-in oven and stove have another important appliance built in – a dishwasher. Dishwasher, although considered a luxury, is a typical part of a modern kitchen interior. Dishwasher was invented long time ago, around the same time when plumbed-in sinks were invented, in 1886 (Hilpern, 2010). Lady named Josephine Cochrane invented automatic dishwasher and presented it at the 1893 World's Chicago Fair (Hilpern, 2010). In 1929 “Europe’s first electric top-loading dishwasher ready for series production” was launched (Hilpern, 2010). In today’s busy world, people just don’t have time to wash dishes by hand and therefore built-in dishwasher is necessity. Besides that, washing dishes in a dishwasher, saves water consumed in comparison of washing it by hands. Statistics suggest that “in 2012, 75 % of American household own a dishwasher” (Parkinson, 2014).

Some kitchens are bigger and they can contain more kitchen appliances such as blenders, slow cooks, toasters, sandwich-makers, manual and electric peelers, juice makers etc. The number of kitchen appliances, whether manual or electronic depends on the type of cuisine people prepare. All these kitchen appliances are not built into

the kitchen and can be used and storage at any time. The good thing about removable kitchen appliances is that it helps with cooking, makes the process goes faster.

Beside of term kitchen, there is also wide used term “kitchenette”. The differences between kitchen and kitchenette are that kitchenette is a miniature of a big kitchen, takes up less space, and therefore has a less room for appliances (OHMYAPT, 2010). The kitchenette can be even without a sink and it usually “*microwave, toaster oven, small dorm-size fridge and freezer, and a hot plate*” (OHMYAPT, 2010).

The kitchenette idea is especially interesting because of the popularity of micro apartments.



Figure 2. 10: Dishwasher invented by a lady named Josephine Cochrane

2.2.2 Main aspects to be considered for kitchen design

Among different kitchen components and appliances, preparation space and utensils used in different kitchens will be discussed in this part of the chapter two. In order to understand the average utensils use, different kitchens need to be researched and compared. Beside of that, color predominant in different cultures and materials available will certainly have impact on kitchen designs, whether speaking about kitchen as a room or an object containing appliances, utensils and preparation space. Table 17a shows the different functions in the kitchen and the equipment needed according to functionality.



Figure 2. 11: Kitchenette design example (H, Top 5 Very Small Kitchen Designs Ideas, 2016)

Table 17a: Equipment used in the kitchen according to functionality

Functions	Types of Equipment and Utensils
Storing fresh/ uncooked food	Refrigerator, freezer, vegetable baskets
Storing kitchen utensils	Cupboards, drawers, shelves
Food preparation	Countertop, Table
Cleaning	Sink
Mixing	Pots, Bowls, wire mixers (automated and manual)
Cutting and food preparation	Cut board, knives, peeler
Cooking	Pots, pans, fryers, oven, microwave
Serving	Serving plates, plates, cutlery
Cleaning serving equipment	Dishwasher, soap dispenser
Storing cooked food	Refrigerator
Hygienic control	Disinfectant, cleaning cloth
Health control	Fire control, stove hood
Safety	Smoke and heat detectors, fire extinguisher, non-slip floor
Garbage	Sink crusher, garbage bin

2.2.2.1 Cooking

Cooking is a verb that is mostly related to the kitchen space and represents a “the practice or skill of preparing food by combining, mixing and heating ingredients” (English Oxford Dictionary, n.d.). Through history a final product of cooking, which is food was used to bring people together and eating food represented a way of social gathering. Cooking has drawn its roots from a primitive use of fire, when the very first people started to “cook”. First humans found that meat thrown in the fire was “more palatable and easier to chew and digest than the customary raw meat” (Alter, 2013).

2.2.2.2 Storage – food equipment, accessories, utensils, services

Every kitchen needs to have a place to store tools and food. In the past storing items, especially foods were a big challenge. In order to cook, humans needed to store foods. The earliest ways of storing food “*can be found at least as early 2000 years ago in Chinese tombs*” (Alexandrou, 2013). In the past, people adapted to the climate zone and preserved foods according to the climate and temperature. “*In frozen climates, they froze meat on the ice; in tropical climates, they dried foods in the sun*” (Huyck, 2012). In the past, kitchen was always adjacent to the space called “pantry” where the food was stored. The word “pantry” comes from French word “pain” which means bread (Reagan, *The Kitchen Pantry: A Brief History*, 2010). In the past, only bread was stored in the pantry while other foods such as meat and alcohol were stored in different places.

2.2.2.3 Ventilation

Kitchen ventilation represents a big spatial and health issue. Ventilation is one of the reasons why, in the past, kitchens were built as detached buildings and usually on the ground floor. In the past, people used natural ventilation that came in hole in a wall form such as windows, doors and chimneys. “Frying, grilling or toasting foods with gas and electric appliances creates particulate matter, nitrogen dioxide, carbon monoxide and carbon dioxide, and volatile organic compounds. Emissions of nitrogen dioxide in homes with gas stoves exceed the Environmental Protection Agency’s definition of clean air in an estimated 55 percent to 70 percent of those homes, according to one model: a quarter of them have air quality worse than the worst recorded smog (nitrogen dioxide) event in London” (Alter, 2013).

2.2.2.4 Hood

Design of modern kitchen is impossible without specifying a range hood. The purpose of range hood is to extract the food smells and all the odors produced during that process. When individual things of the food smells, they usually think of something that happens and goes away but in fact the consequences can be much bigger. “Whenever the food is heated in a pan, particles of grease, water, smoke and food are sent into the air, and they land everywhere, which remains the grime that accumulates on furniture, fabrics, floors, damaging finishes and surfaces” (Cohen, 2010).

2.2.2.5 Fire control

All kitchen types, residential or commercial are prone to fire because of the equipment's involved in food making process. Whether it is a electric or gas stove, a fire can happen. People nowadays are more prepared for such events and there are numerous of fire suppression systems available for kitchens. Fire suppression systems function in a way that it detects the smoke and starts pouring water either from sprinklers or in some other ways, depending on a system type (Fire protection for restaurants and commercial kitchens, n.d.). Other options are possible to, when a house directly linked to city fire department (in urban areas). Fire control is especially important in commercial places to protect people and properties.

2.4 Kitchen design and style giving an interior design style to a home

Over the last century, kitchen became a very important place of the house. When comparing to the past, when kitchen was very often detached from the house, the last century changes the position and importance of the kitchen completely. Taking into consideration how much technology progressed just from the chimney invention to modern day electronic refrigerators and kitchen appliances, it is possible to say that kitchen became the most important room in the house. *"...the kitchen, more than any other room in the modern dwelling, has been radically altered by the technological, social and aesthetic revolutions of the twentieth century. The modern kitchen epitomizes and embodies its owner's lifestyle and relationship to consumers culture; it also retains its archetypal significance as the symbolic core of the home, the center around which the modern family revolves"* (Kinchin & O'Connor, 2011).

Not only technological advances helped kitchen to move to the core of the house, but the social changes and position of the women changed. Being more equal, women and men, both started doing so called kitchen work and the kitchen design changed as well. The architecture had an impact too, when the open house plan became popular and dining and kitchen became one.

According to the book *Feng Shui Your Life* by Yayne Barnett, John Coolidge, and kitchen plays a very important role in family life and energy flow. *"The magical presence of food brings people together for nourishment, connection, and celebration.*

For many families, the kitchen is the heart of the home. Gathering morning and evening to share the events of the day and to plan the day to come creates a special environment in the kitchen” (Tovia, 2015).



Figure 2. 12: Kitchen islands, design ideas (**Sociable Kitchen Islands Designed to Bring People Together, 2015**)

Some components of the kitchen changed overtime, to bring people together. One such example is introduction of kitchen islands. Kitchen islands did not exist in the past but are must-have feature in modern day kitchens. The kitchen island allows people to chat and to be face-to-face when somebody is cooking and other person is either helping or making a companion. There are many design ideas of how Kitchen Island can be incorporate into the kitchen and still retain its function, bring people together before moving to the dining table (Fulkerson, et al., 2006).

Other reason why kitchen brings people together is food and conversation. There is an entire psychology why families for example should eat together. “Researchers also found that the frequency of family dinner increases characteristics such as having a positive view of one’s future, being motivated and engaged in school, being committed to learning, and having positive values and positive identity” (Sociable Kitchen Islands Designed to Bring People Together, 2015).

While researching gastronomy museum, it is evident that Turkish family gathered around table, and that kitchen and food had a great impact on Turkish social and family life.



Figure 2. 13: Traditional Turkish way of eating, Gaziantep Museum

2.4.1 Kitchen design styles

After kitchen became a must-have feature of the home, several design styles developed through decades. Some styles were more and others less fashionable, but initially were formed to satisfy different design tastes. Basic kitchen design styles are: traditional, country, transitional, contemporary, rustic, arts & crafts and old world (Design Styles, n.d.).

1. Traditional kitchen design is described as classic, classy or richness (Steuer, n.d.). The traditional style resembles the “golden age of Europe” and has a rich molding, can have ornate moldings; can have patterns and rich darker wood colors (Kitchen Design Styles, n.d.). Traditional kitchen style is divided into subcategories depending on the details level: Victorian, Italianate, Georgian other traditional styles (Edwardian, Colonial, Farmhouse, Plantation, Regency, Cottage, Cape Cod, Estate, Bungalow, Federal, Queen Anne, Neoclassical, Early American, Manor and Shaker) (Traditional, n.d.).



Figure 2. 14: Traditional Kitchen style (Zadran, 2015)

2. Country design style is characterized by light and welcoming colors, flamboyant and has several different subcategories such as: French, English, Farmhouse, Cottage, Tuscan, Country, Swedish, and Garden country (Traditional, n.d.).



Figure 2. 15: Country Kitchen style (Phillips & Phillips, 2016)

3. Contemporary kitchen design style is very often mixed up with modern. Contemporary design is characterized by “*minimalist cabinetry, neutral color palettes, and metallic accents*” (Wiggins, 2016).



Figure 2. 16: Contemporary Kitchen style (Wiggins, 2016)

4. Transitional style is a mix between traditional, modern and contemporary. It is a style that borrows the elements from other styles to create something original and fresh (Williams, 2013).



Figure 2. 17: Transitional Kitchen style (Williams, 2013)

5. Rustic style is defined by cozy, relaxed appearance and inviting and welcoming atmosphere. The rustic style combines the honest materials with woods, stone and metals.



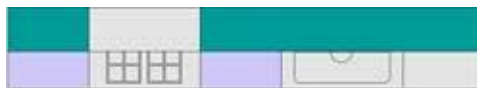
Figure 2. 18: Rustic Kitchen Style

There are several most common kitchen layouts, used today. Layout modifications are possible and wanted when the size of the kitchen needs to be adapted to the users and size of the space (U-Shaped Kitchen with Island, n.d.). The below different designs of the contemporary kitchen are listed in order to show the variety of the layouts that are used for the kitchen space, which apply to Turkey and Libya.

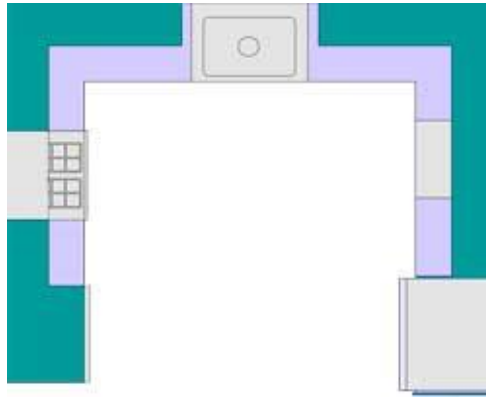
1. One-Wall Kitchen



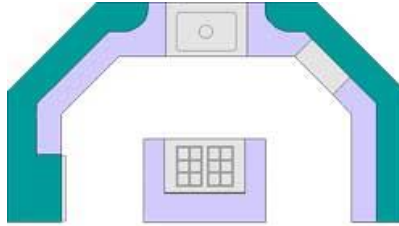
2. Gallery



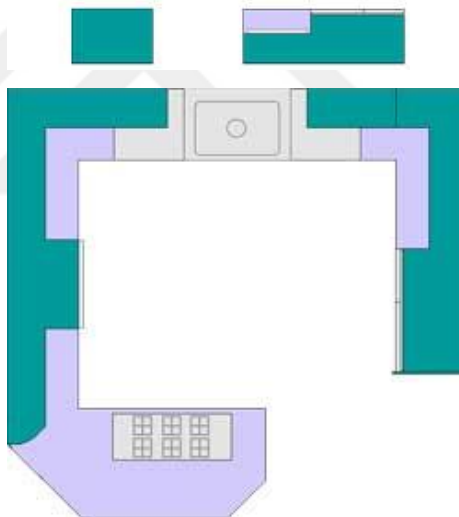
3. U-shape



4. U-Shape and Island



5. G-shape



6. L-Shape



7. L-Shape and Island

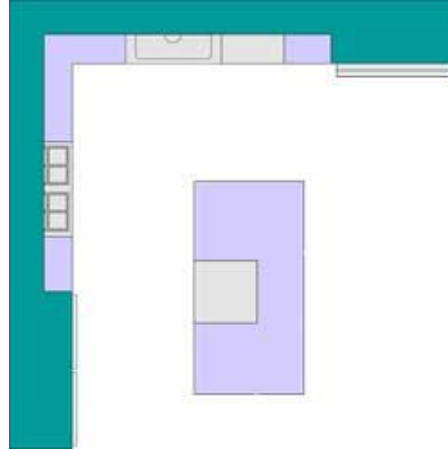


Figure 2. 19: Position of Libya and Turkey within the Cultural Effects

2.5 What is food?

By general definition “food is edible substance (usually of animal or plant origin), consisting of nourishing and nutritive components such as carbohydrates, fats, proteins, essential mineral and vitamins” (What is food? definition and meaning, n.d.). Every living organism needs to consume food in order to stay alive, grow, heal, and reproduce. Since the beginning of time, humans have more preferences food regarding its nutritive values and tastes. In recent human history, food became a science around which many philosophies revolve. After people started travelling and exchanging knowledge’s, they understood tat certain types of food grow in some areas while not in other which brings geography and climate as one of the very important figures when defining type of food consumed by one nation or group of people. Culture and religion are also important and have influence in defining worldwide cuisines. Over time food consummation became a social act and status symbol and not only a way to survive and maintain alive. This chapter will research how geographical position; climate change, religion, culture and lifestyle affect the food preparation in Turkey in Libya, with reference to the past, present and possible future.

2.6 Effect of nature and geography on food types and cooking

Geography and climate affects human life in all aspects such as the way we built our houses, dress, express, behave and eat (Mondal, 2014).

When talking about food and different cuisine, the very first thing to start is geography and climate, because that directly influences food people consume. There are other important aspects such as religion, culture, acquired habits but that will be discussed further in this chapter.

“While terrain, climate, flora, fauna and religion influenced traditional cuisines, individual cultures also develop unique preferences and aversions within these confines” (Fleming, 2013). Geography and climates influences cuisines by providing raw resources for making foods, such as types of meats, fruits, and vegetables. Certain cuisines revolve only around available resources and do not have access to other foods that grow in other climates. That was the practice before the rise of modern age. “As a geographical factor, climate significantly affects our eating habits. This is because climate determine the period through which food grows and also affects the planting seasons every year” (Factors that Influence food Habits and Culture, 2015). Certain geographical areas have more than one season per year (365 days) and that dictates food supply. Depends where on planet Earth the region is located it can have up to 4 different seasons “marked by specific weather conditions, temperatures, or length of the days” (Defining Seasons, tarih yok).



Figure 2. 22: Four seasons’ cycle example, credit to Shelli Jensen (Jensen, 2016)
(What is climate change?, tarih yok)

2.6.1 Climate change and food supply

Climate defined as “average weather” in a place or region and includes predictable seasonal temperatures and precipitation (What is climate change?, n.d.). Humans started scientifically monitor and compare temperatures and changes that occur in our ecosystems directly impacted by climate not so long ago. “Rising levels of carbon dioxide and other heat-trapping gases in the atmosphere have warmed the Earth and are causing wide-ranging impacts, including rising sea levels; melting snow and ice; more extreme heat events, fires and droughts; and more extreme storms, rainfall and floods“ (What is climate change?, n.d.). Rising the sea level causes humans to move further to the inner areas and makes seafood as a food source to change its natural inhabitant and way of breeding. Rising temperatures and frequent droughts destroy fruit and plants vegetables, directly impacting production of livestock and dairy products. On the other hand, extreme storms and rainfalls do the same thing and in the end reduce the food production.



Figure 2. 23: The Enterprise Bridge passes over a section of Lake Oroville in 2011 (left) and 2014 (right) in Oroville, California, which is experiencing “exceptional” drought.” (Sevett, 2015)

2.6.2 Effect of lifestyle on food types and cooking in Libya and Turkey

Turkey and Libya, although being located on different continents, share some ground customs and traditions regarding food preparation and consumption. As already explained in chapter two, both countries have several climates, and therefore different food resources available. Different food resources available dictate local cuisines, recipes and ways of cooking. Turkish cuisine is described as “being at the cross-roads of the Far-East and the Mediterranean, which mirrors the long and complex history of Turkish migration from the steppes of Central Asia (where they

mingled with Chinese) to Europe (where they exerted influence all the way to Vienna).” (THE STORY OF TURKISH FOOD: A PROLOGUE, n.d.)

2.7 Summary

Chapter two researched all technological and social changes that contributed to the kitchen design and style of Turkish and Libyan kitchen. Understanding the background of the problem, will help complete this research and suggest possible solution(s). Social changes within Turkish and Libyan societies are equally important as technological advancements. Without social changes, technological advancements would not have sense and vice versa. Living in a global society as it is, it is important to preserve and maintain culture and tradition of the kitchen design, as we preserve traditional receipts and food. Kitchen as a heart of the modern home, should represent its owner’s identity and cultural heritage aesthetically as it brings food.

CHAPTER 3

FOODS OF LIBYA AND TURKEY

3.1 Libya and its position

“It is located in North Africa and bounded the position of kitchen in Libyan architecture varied because of the geographical location and climate. Libyan architecture of certain cities, for example Old city of Tripoli and Ghadames is a specific because of the way the houses are attached to each other. Libya, similar to Turkey has a variety of climates and has a big coastline.

On the north by 1,770 km. of Mediterranean coastline and surrounded by Egypt, Sudan, Chad, Niger, Algeria and Tunisia (Azzuz, 2000).

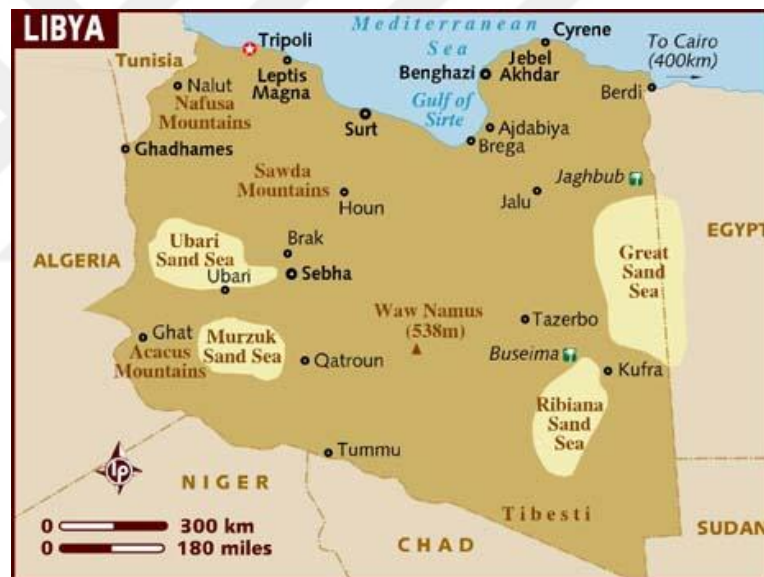


Figure 3.1: Map of Libya (Planet, n.d.)

3.1.1 Characteristic of geography and fauna and flora of Libya as a background of local foods, and imported foods

In the city of Ghadames as example, kitchen is mainly located on the roof. The reason for that is air circulation and heat gain would not be beneficial when living in the desert, therefore positioning kitchen on the roof would help cooling the house.

3.1.2 Social-Cultural Values in Libya.

Libya's traditional houses were developed over the centuries that the country was occupied by the Phoenicians, Greeks, Garlangans, Romans, and Muslims. Despite the different occupations, the main design is traditional dwellings and only some structural changes make it more suitable. The Italians built a new European residential style that was completely different from traditional houses. In addition, the type of house after independence also changed. The houses built during this period are similar to traditional houses, especially in terms of design and construction systems. These types of new homes are adapted from European style. As a result, they have had a huge impact on Libya's social culture, the built environment and traditional architecture. Libya's traditional individuals are responsible for families and families responsible for tribal or community life. In this society, the elderly has the highest influence and respect and it is totally acceptable that they personally take charge of their relatives and friends. Grandparents, parents and children often live in the same dwelling unit. It is even more interesting because they share happiness and sadness together and experience life-like incidents and accidents. Compared with the cultural life of modern society, Libyan society is the most conservative. Separation of gender, privacy and social security remains the most important feature of Libya's housing. The design of this home is that visitors at the entrance must pass the guard and have an angle at the entrance to prevent outsiders from looking at the house. A locked door in the inner courtyard allowed the female of the house to enter occasionally. People use the living environment as a means of social control, especially in the area of personal interaction or privacy. This gives them an affinity with nature and the surrounding environment. (Bukamur, S. M. (1985).

However, the women of Libya are free to study work and practice the social life but with limitation and know days' Libyan women are more free then before. The existence of feminine and masculine space was stronger in the past but it still exists today, even with a rise of feminism and a different social status women have. In the past, feminist was associated with “*domestic space, reproductive unpaid housework, body and emotions, and masculinity with public spaces, productive paid work outside of the home, mind and rationality*” (Gorman-Murray, 2013).

Today situation is better in developed countries and urban communities, while in other parts of the world is not changed that much.

3.1.3 Libyan Kitchen- main impact, food type and position in the space

“The roof floor consists mainly of the kitchen and fuel storage room” (Ahmed, 1985). The reasons for the kitchen position are the following: *discharge of extra heat and smoke caused by cooking, safety against fire, and in case fire happens other houses will not be affected as much and people are less likely to get injured, insulation of the other rooms and making those cooler; the roof terrace is a female territory for household work as well as interacting with neighbors*” (Shateh, Al-Hassani, Saoud, & Salem, 2002).

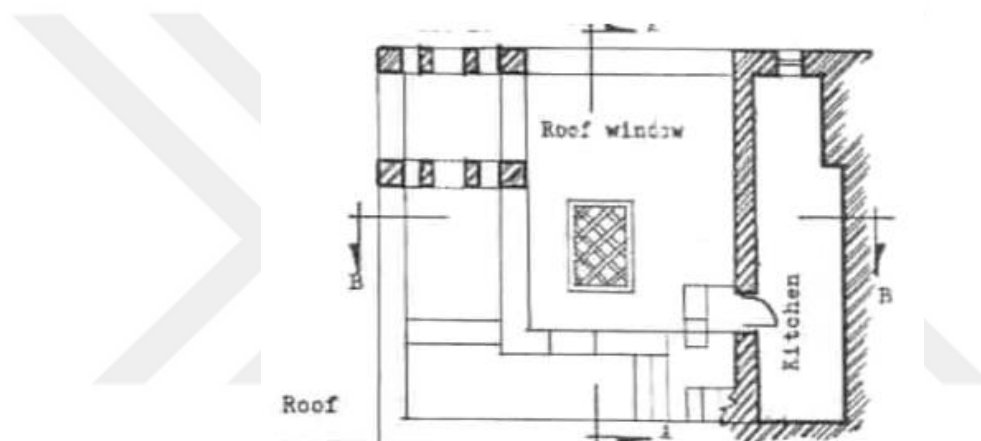


Figure 3.2: Upper floor shows position of kitchen in Libyan house, city of Gadames (Ahmed, 1985)

Interior space is divided to private, semi-public and public and is highly impacted by the role of women in Libyan society.

“The concept of family privacy and the role of women in the family and the society is reflected in the use of public, semi-private and private spaces. Men and women did not socialize together outside the immediate family environment. Environments dedicated to women only or to the entire inner family are the private spaces in the house” (Ahmed, 1985).

When speaking about typical interior space elements of Turkish and Libyan houses, it is important to mention similarities and differences.



Figure 3.3: Traditional Libyan house interior in Ghadames (T, n.d.) and (right) Traditional Turkish interior in Boutique Hotel in Safranbolu (Freire, 2010)

It is evident that both styles are very ornate and rich with decoration and use of patterns. Because of its geographical position, Libyan houses are mostly white and with painted decorations. There are not many windows as it helps to keep the house cool during the hot days. Libyan houses use lighter colors than Turkish houses, due to the geographical position. Turkish houses tend to use lots of wood because of the available resources of the area. Libyan houses, as it can be seen on the image do not have doors. That helps the air to flow and create passive ventilation through house. Turkish houses have doors due to the climate. A red color is important for both interior design styles, as the same colors are found on their country flags. Both styles are impacted by Islamic religion and the rich ornamentation and decoration comes from there.

3.2 Socio-Cultural Changes in Traditional Turkish House

Position of women in Turkish society directly impact Socio-cultural changes in the Turkish house. Changing the social status of women, it had a direct impact on men's role in the family.

3.2.1 Woman in the traditional Turkish and Libyan society

In Turkey were equal in law, long before any Western country. Since the Turkish Republic was established in 1920s women have the equal status with men in Turkish society (Brosnahan, Travel Info Exchange, Inc., n.d.). Women gained the right

to vote long before Switzerland (Brosnahan, Travel Info Exchange, Inc., n.d.). All of these changes influenced the change in gender-defined space.

3.2.2 Use and purpose of kitchen and Mediterranean Turkish Kitchen

Turkey with its size of 770, 452 square kilometers and population of 79,5 million people (Society, n.d.) have several cuisines. The Mediterranean region of Turkey includes Antalya, Hatay and Isparta (Ergenekon, n.d.). The cuisines in all the regions fell under Mediterranean but are different.



Figure 3.4: Map showing the Mediterranean coast of Turkey

3.3 Characteristic of Geography and fauna and flora of Turkey as a background of local, and imported foods

Different culinary museum in Turkey can provide more information of the kitchen design and the tools used in food preparation. The characteristic of Mediterranean coast is that it basically has only three seasons: spring, summer and fall. The food consumed during those months is mostly locally grown.

3.3.1 Cultural effects on Turkish Cuisine and foods

“As for culinary culture, which serves as a template in forming societal norms in every period of time and also as a communication means on an intra-societal and inter-societal basis, it shows up as one of the sub-headings of the term „culture“ and varies from region to region all over the world” (Orkun, 2009).

It is evident that kitchen and food played a tremendous role in Turkish history and tradition. The existence of culinary museums shows how important was the traditional food to Turkish people. Turkey has a big area and it is easy to be in Turkey but to experience different weather conditions and different food traditions.

3.3.2 History of Turkish Kitchen past until today

Culinary museums around different regions of Turkey provide the forgotten history of old recipients and how people used to live and socialize (Turkey's culinary museums shed light on traditional food culture, n.d.). The most famous museums are Gaziantep Culinary Museum (Emine Göğüş Culinary Museum), Şanlıurfa Culinary Museum, Hatay Culinary Museum, and MSA Gastronomy Museum. All of these museums feature local food and tradition of the region. The Gaziantep Culinary Museum has displays of:

1. old dishes
2. components of Gaziantep cuisine
3. reserving and storing,
4. drinks culture,
5. kitchen tool, equipment and tableware
6. hosting the guests
7. Gaziantep-Style Picnic Culture
8. Meals for special occasions (Sayin & H, 2016)



Figure 3.5: Old Gaziantep kitchen and kitchen tools used (Sayin & H, 2016)

The Gaziantep Museum is first Turkey's culinary museum and Turkey's first tourism minister (Turkey's culinary museums shed light on traditional food culture, n.d.) established it and it opened its doors in 2008. The minister bought the house where he was born and gave it to the city, naming it after his mother (Turkey's culinary museums shed light on traditional food culture, n.d.).

Hatay Culinary Museum being built and is supposed to be the second largest culinary museum in Turkey (A, 2013). The character of this museum will be variety of cuisine *mixtures of Arabs, French and Turkish* (A, 2013). The museum will display different kitchen accessories that have been used in the area since the Roman times (A, 2013).

Şanlıurfa Culinary Museum is opened in 2011 and has displays of kitchen equipment, the highlights of social and cultural life of the city (H, Şanlıurfa has two new museums, 2011).

MSA Gastronomy Museum is located in Istanbul and run by its founder Mehmet Aksel. The museum features displays of food, related kitchen and cooking (bakery) equipment, old frying pans and many other old products. It has a collection of final stages of Ottoman Empire to early republican period (MSA Gastronomy Museum, n.d.).

3.4 Kitchen bringing people together

According to the book *Feng Shui Your Life* by Yayne Barnett, John Coolidge, kitchen plays a very important role in family life and energy flow. *“The magical presence of food brings people together for nourishment, connection, and celebration.*

For many families, the kitchen is the heart of the home. Gathering morning and evening to share the events of the day and to plan the day to come creates a special environment in the kitchen” (Tovia, 2015).



Figure 3.6: Kitchen islands, design ideas (Sociable Kitchen Islands Designed to Bring People Together, 2015)

Some components of the kitchen changed overtime, to bring people together. One such example is introduction of kitchen islands. Kitchen islands did not exist in the past but are must-have feature in modern day kitchens. The kitchen island allows people to chat and to be face-to-face when somebody is cooking and other person is either helping or making a companion. There are many design ideas of how Kitchen Island can be incorporate into the kitchen and still retain its function, bring people together before moving to the dining table (Fulkerson, et al., 2006).

Other reason why kitchen brings people together is food and conversation.

There is an entire psychology why families for example should eat together. “Researchers also found that the frequency of family dinner increases characteristics such as having a positive view of one’s future, being motivated and engaged in school, being committed to learning, and having positive values and positive identity” (Sociable Kitchen Islands Designed to Bring People Together, 2015) (Toker & Toker, n.d.).

While researching gastronomy museum, it is evident that Turkish family gathered around table, and that kitchen and food had a great impact on Turkish social and family life.



Figure 3.7: Traditional Turkish way of eating, Gaziantep Museum

3.5 Kitchen design styles

3.5.1 Position of the Turkish and Libyan kitchens in the house through time

Similar to Libyan situation, the role of women in the society and structure of the family impacted the interior of the house. The Turkey's case is specific because the history of kitchen position is related to pre and post Ottoman period and the time when women got the equal status with men.

“It has been argued that since the early twentieth, the household composition, women's access to education, their property and legal rights, and participation in the paid labor force have changed, resulting in more equal gender roles in Turkish society” (Toker & Toker, n.d.). The typical Turkish house of the late 19th century was a two-story house (Toker & Toker, n.d.) with kitchen located on the mezzanine. The spatial planning, looked similar to Libyan in a sense that one main room like a larger hall connected to all other rooms on the floor.

“The kitchen, in which women are expected to cook, was mostly located on a mezzanine level in between the main story and the entrance level” (Toker & Toker, n.d.).

Lady's place in typical Turkish house was upstairs and ladies were often hidden behind great stone fence and private garden, quite similar to the Libyan case. (Gokce, 2014)

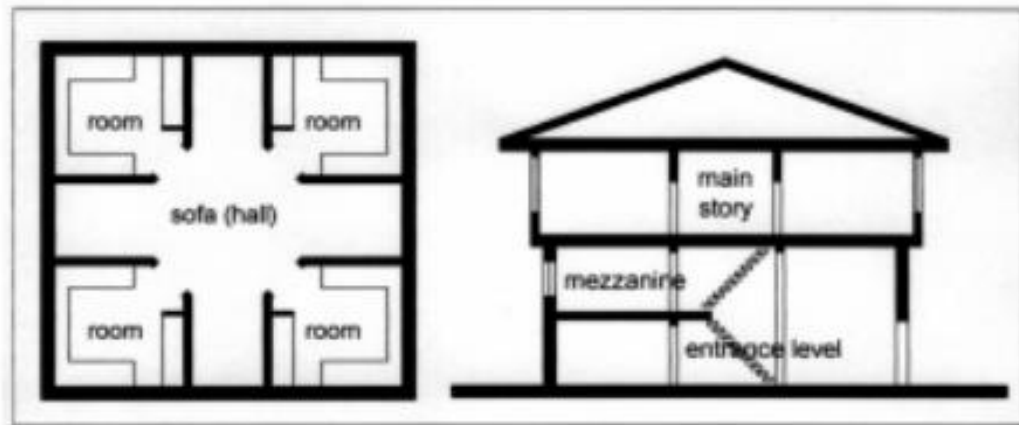


Figure 3.8: Plan and section cut of Typical Turkish house of the late 19th century (Asatekin, 1994)

3.5.2 Example representing the transitional Turkish kitchen interior

To prevent some style and national identity become forgotten, transitional design is there as alternative to remind the citizens, of not such long past, and all the technological and social advancement that happened in the past. Using transitional design is beneficial because people can identify themselves with history, tradition and most important -food. Kitchen as the heart of the modern home should represent the national identity and culture. Below are some examples of transitional Turkish and Libyan kitchen design.

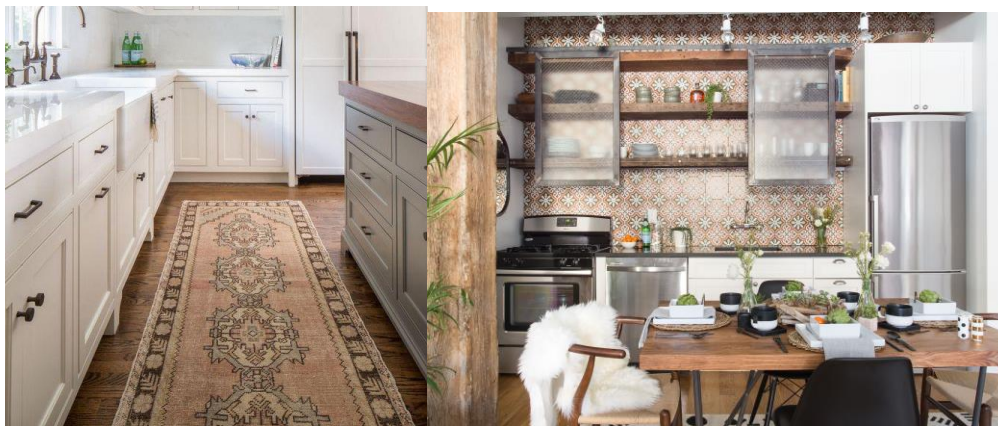


Figure 3.9: (left) Turkish rug as a detail to transitional kitchen (Keskin, n.d.) and (right) Turkish pattern tiles as a focal wall (Homepolish: Online and In-Home Interior Design by the Hour, n.d.)

3.5.3 Dining room as a part of the kitchen; past vs. future

Dining room in the past was a necessity and a place for people to get together and for family to spend a quality time together. Worldwide, dining rooms were a thing and were rooms of upper class. *“From the mid-19th century onward, the dining room was used as a place to cultivate a sense of family”* (Mackensie, 2016).

Today things are changes and eating is more relaxed. Dining room is combined either with kitchen or with living room, as the formal dining is not so important anymore (Lonsdale, 2008). The interesting thing n Turkish and Libyan culture is their way of dinning that included “sofra” and people would sit on the floor on pillows.









Figure 3.10: Turkish Sofra (**The Cellar at Sofra: Underground Turkish Delights, 2016**)

In Libyan culture, the same traditional idea is used. Women and men eat separately and from sofa and communal bowl (Elmusrati, 2016).

3.6. Food types in Libyan and Turkish cuisines

There are different food types that prepared in the Libyan and Turkish cuisines. The different types of these dishes are categorized and illustrated in Table 3.1. The presented dishes in the table are shown as examples, and are not an exhaustive list of the food types in Turkey and Libya.

Table 3.1: Foods of the Libyan and Turkish Cuisines

Food Categories	Libya	Turkey
Description	Libyan cuisine is very rich in a sense it many of its receipts derive from Mediterranean region, North Africa (Tunis), and the Middle East (Egypt).	Turkish cuisine has taste impact from central Asia and Europe, therefore is very rich in variety of tastes. Turkish cuisine built its fame of the simplicity and quality of the ingredients (Sansal, n.d.)
Hot Dishes	 <p>Sharba Libiya</p>  <p>Bureek</p>  <p>Hassaa</p>	 <p>Pilaf</p>  <p>Borek</p>  <p>Kofte</p>  <p>Dolma</p>

Sweets



Zemmeetah



Magrood



Ghreyba



Ka'k Hilu



Lokma



Kaymaklı Ekmek Kadayıfı



Küme- Cevizli Sucuk and Pestil



Şekerpare



Lokum "Turkish Delight"





Basboosa



Mhalbiya

Helva



Keşkül



İrmik helvası



Revani



Ayya Tatlısı



Kabak tatlısı



Fırın Sütlaç



Aşure



Tavuk Göğsü



Kazandibi



Künefe

		 <p>Baklava</p>
<p>Beverages</p>	<p>Libyan tea is one of the important beverages because it is more a social ritual than a beverage itself. It is served with thick layer of foam, with roasted peanuts (118). The Libyan tea ceremony consists of serving 3 cups of tea (118). Maghrebi Mint tea is also popular beverage. It is made with green tea, sugar and mint leaves (119). The same tea ceremony (three glasses) is applied. Turkish coffee is served also.</p> <p>Alcohol is not permitted in Libya due to Sharia law but can be found on black market.</p>  <p>Libyan tea with roasted peanuts</p>  <p>Maghrebi Mint tea</p>	<ol style="list-style-type: none"> 1. Ayran (salty yoghurt) 2. Boza (crushed millet, water, slightly alcoholic) 3. Raki (national alcoholic beverage) 4. Tea (black tea, offered everywhere and anytime) 5. Turkish Coffee (not only a drink but a ritual) 6. Sahlep (made from dried powdered roots of a mountain orchid) 7. Şalgam Suyu (Turnip Juice) (crimson drink, made by boiling carrots in water and adding vinegar)  <p>Turkish Coffee</p>

3.7 Meal complexity and cooking tools analyzed by food type

Turkish foods

Table 3.2: Tools needed for making some of the famous Turkish and Libyan national salty and sweet dishes, how it was made in the past and today.

Turkish foods	Cooking tools	Old fashion tools	Modern cooking tools
Dolma	4-5 different plates, cutting board, cooking pot, hot plate or stove (electrical)	Chopping board, hand making dolma Manual stove	Blender “The Ultimate Dolma Machine” hot plate or stove (electrical)
Borek	Pot, stove and oven, bowl, preparation counter, oven and stove	Making yufka from scratch Chopping board Manual oven and stove	Premade yufka Electrical choppers, electrical stove and oven
Baklava	Stove and oven; blender, counter for assembling, premade yufka, cooking dish, pot for sweet topping	Manual oven and stove Manual way of crushing nuts Making yufka from scratch	Premade yufka Blender or chopper for crushing nuts Electrical stove and oven
Asura	Pot for cooking, larger skillet, hot plate or stove	Manual oven or stove	Refrigerator, electrical hot plate or stove
Kaymaklı Ekmek Kadayifi	Large tray, kitchen towel, saucepan, stove and oven	Manual stove or oven	Refrigerator, electrical stove and oven
Libyan foods	Cooking tools	Old fashion tools	Modern cooking tools
Sharba Libiya	Pot, stove or hot plate, chopping board hot water	Manual stove or hot plate Chopping board	Electrical stove or hot plate Electrical chopper or blender, slow cooker

Bureek	Rolling pin, counter space, trays, stove or hot plate, baking dish, brush	Manual stove and oven Old version of brush or using hands	Premade dough Electrical stove and oven Electrical chipper or blender
Hassa	Pot, hot plate or stove, large stirring spoon, chopper, chopping boards	Manual stove Manual chopping method	Electrical stove or hot plate Electrical chopper or blender, slow cooker
Margood	Tray, and serving tray		Still made traditional way
Mhalbiya	Sauce pan, stove or hot plate, stirring spoon	Manual stove	Electrical stove Refrigerator
Basboosa	Bowl, baking pan, stove and oven, pot for syrup, stirring spoon	Manual stove	Electrical stove and oven Refrigerator

Table above classifies some Turkish and Libyan food receipts by tools needed to make certain meal in the past and now with modern technology and kitchen appliances. Some dishes are more complex, while others are less and demand few number of tools used. Tools usage when making a certain dish can help a researcher in further investigation of this topic in a sense to calculate how much space is needed in the kitchen depending on the meal complexity and what have changed between the old traditional cooking manners and modern times.

3.8 Conclusion

Chapter three examines in depth the issue related to size and ergonomics of the kitchen in Turkish and Libyan cuisine, based on the complexity and variety of the meals prepared. Geographical position, religion, culture and foods available are dictating people's diets around the world but in the same time complexity of the meals and tools used directly impacts the size of the kitchen spaces in certain cultures. Research based on the qualitative and quantitative analysis altogether. The information presented will help the researcher understand how much time people spend in the kitchen on average (with comparison to the past times and now) to understand how big or small Turkish and Libyan kitchen can be. Ergonomics of the kitchen are directly impacted by food preparation methods and should be fully adjusted to it.



CHAPTER 4

RESEARCH METHODOLOGY AND RESULTS

As already stated, this interesting research topic will have a unique research methodology. Different aspects related to kitchen interior and its relevance to food preparation methods. Psychology that goes behind interior design and kitchen decoration will be used as one of the methods for examining how important are the traditional and food preparation habits to the people of Turkey and Libya. That model will be useful and could implement (with relevance to geographical position and culture) on a global level. Chapter three informed and meet the reader with most popular receipts from Turkish and Libyan kitchen; traditional food preparing; modern appliances designer for creating traditional foods; kitchen design and food preparation; time consumed to cook traditional meals and modern shift in food preparation and its impact to interior design.

To make a good quality research, different methods of qualitative and quantitative research methods have to be used.

Methodology consists of several different approaches. Six different research areas and approaches are chosen, explained below:

- 1) It will start by collecting 5 most famous dishes from above mentioned cuisines and detailed traditional and modern way of preparing. Ingredients needed and consumed will be taken into consideration. That means if some meal was prepared only in certain season in the past due to the lack of resources, the research will show did the globalization change that practice of the native people stayed true to their culture and traditional ways of preparing. That will impact the size of storage room (if any). Time consumed for cooking and number of ingredients will dictate how many Tools or modern day kitchen appliances that cuisine requires. In some cuisines, it will be more, in some less due to the complexity of food prepared. That will directly impact the size of kitchen and kitchen storage.
- 2) Long term preservation of food like jams and pickles would affect the preparation and storage area. Thus, this would affect the kitchen design and planning.

- 3) Way of dining in the past and present will impact the size of the kitchen as well as use of cutlery. Number of cutlery and variety of cutlery will impact size of kitchen storage.
- 4) Spices are very important in both Turkish and Libyan cuisine. Fresh market and bargaining is also important thing in both cultures. That will influence the size and storage (depending do they use of fresh or store it in fridge, freezer, cold room etc.).
- 5) The above (4) leads to ecological thinking and garbage disposal. How does the people in Turkey and Libya dispose their food and how much food is thrown away? Ecological thinking is more how much people are true to buy local goods, to consume foods regarding season, which in economical chain means better local income and spending the money in your own country, and less gas spent to deliver the items. On fresh food market, food displayed raw and without packaging, which means less plastic to the environment and less pesticides, used to make it “look” fresh.
- 6) The last one is a typical online survey to non-target group of people asking about their cooking habits and importance of their national foods in their culture and eating habits; how much time they spend cooking on average and what appliances or tools they use (if any); how much they like western or international food or they stay true to their own traditional food and their gender. This is related to the quote about food as universal experience and human psychology regarding native and international food habits.

4.1 Aim of the Research

Different research methods require different approaches, which in the end respond onto simple question and that is the research problem. Aim of this research is to show how does the traditional food and cooking methods impact kitchen interior design in Turkey in Libya in terms of size, ergonomics, position in the floor plan, and materials used. The aim of any research is to answer the research question or to prove some hypothesis. Even if a research wants to be innovative and try new techniques in order to finds the research question answer, that process will always be followed by systematic approach.

4.2 Research Methods

Next to the basic research approach methods qualitative and quantitative (90), other research methods such as experimental methods will be used in this research.

A. Qualitative research approach

This research approach focused on getting the information that are not written in numbers (90) and care about quality of living; more focused on feelings and thoughts. Qualitative research method uses case studies and individual interviews as research methods (90).

- a) case studies
- b) Individual interviews

B. Case Study Definition

Case study method falls under qualitative research method but by itself is not a research method (McLeod, 1970), and “studies in depth investigations of a single person group, event or activity” (McLeod, 1970). Case studies are used in variety of disciplines and provide “detailed contextual analysis of a limited number of events or conditions and their relationships” (Soy, 2006). When using case study as a part of a research it is important to know that case studies are complex, contain different and multiple sources of data (Soy, 2006), which in the end makes it hard for analysis. This research topic is specific because there is not typical case study for this research problem. Therefore, the alternative but equally useful will be studying traditional and contemporary cooking videos from YouTube channels in order to observe documented real life situations along with case studies related to the food preparation habits and kitchen design change. The videos content will help the researcher observe the cooking methods, time consumed for preparation certain dishes, and tools and appliances used specificity in Turkish and Libyan cuisine.

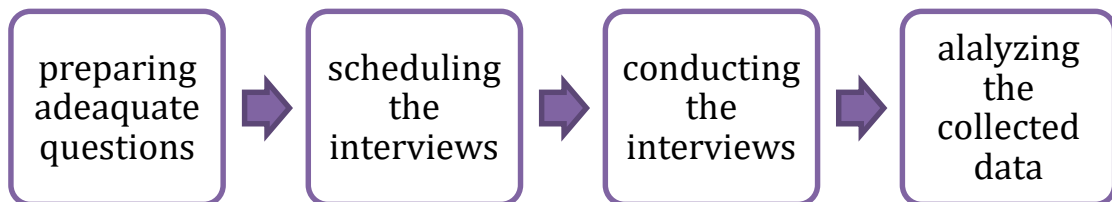
C. Individual interview Approach

Individual interview represents a type of a qualitative research method. By definition interviews are “systematic way of talking and listening to people” (Kajornboon, n.d.). Interviews can be structured, semi-structured and unstructured (Dudovskiy, n.d.). Structured research follows the same pattern of questions and allows the researcher to analyze different answers in the end. The most difficult and biased approach is unstructured interview (Dudovskiy, n.d.) because in that case questions are not prepared and the conversation is more informal. Unstructured interviews are hard to analyze due

the fact a researcher could not compare different interview answers to each other, or may not have the same interview questions at all. The semi-structured interview has elements of both (Dudovskiy, n.d.), and in this case questions are prepared but could also be followed by sub questions to further explain and clarify some ideas and thoughts (Dudovskiy, n.d.) (Interviews in Qualitative Research, 2015). In the interior design profession and design in general, interviews play an important role because the design is created for people by people and it is important to know how it functions properly and if there is anything that needs to be changed or upgraded. This research will rely on individual interview research method as one of the qualitative research methods, in aspect of understanding how important is cultural and traditional design aspect in kitchen interior and how does the culture shape the kitchen design in terms of size and ergonomics. Interview will be done on 10 adult people; five males and 5 females and their cooking habits. The interviewing is also related to the general question regarding human psychology rather than specific research question and it will be as a support to the written questionnaire that will be done on the same issue.

D. Interview phases

Depending of what kinds of interview has been done; interview consists of a four different interview phases.



E. Types of questions for the interviews

Interview can be composed of a several types of questions:

- a) Knowledge
- b) Experience
- c) Opinion
- d) Feeling
- e) Sensory questions (Interviews in Qualitative Research, 2015)

F. Conducting interviews

Interview can be done in person and over the phone, Skype. In person interview is valuable from various ways; to conduct the information and to read body language. Reading a body language a facial expressions is impossible when doing phone interview (Purchasing Association - Become a Member of the NLPA Today, n.d.).

4.3 Questionnaire content

Questionnaire will be made of five different sections that will ask questions regarding food habits that could be useful for data analysis and experimental research approach.

- 1) First section will cover demographic information about age, type of job individual performs, working hours, and gender, level of education, number of children and does the individual lives in urban or rural setting, type of living facility (apartment or house).
- 2) Ideally, equal number of males and females will be surveyed. Does the individual poses a kitchen and how much time on average individual spends in the kitchen; how many meals does the individual eats at home and how much time on average individual spends cooking.
- 3) Third section is dedicated to traditional food and ask a what kinds of food individual prepares and is it that individual eats part of his/her traditional cuisine. Section there is composed of some open-ended question where individual could write three favorite meal and number how many meals comes from the traditional cuisine. The last question will be about the individuals favorite meal and where did he/he learned to cook that meal and does the individual cooks Part of the section four will be question regarding individual's opinion about cooking habits and its influence to kitchen interior design style regarding cooking habits and food consumed.
- 4) Fourth section will be about ways of dining and if the dinning incorporated into the kitchen or it is a separate space. There will be also a question regarding waste disposal and ways of buying food (supermarkets, frozen, canned, and fresh). Ways of buying food ingredients will help the researcher understand does the individuals kitchen needs more or less storage. Waste disposal will explain cultural and traditional care for the environment that is most likely inherited practice from their parents and families.

4.4 Subjects

In order to conduct versatile and large amount of data for analysis regarding human psychology and universal food habits and its impact to kitchen interior design, several subjects are taken into consideration. The target groups were divided to neutral, Turkish, and Libyan.

- a) The neutral target group is people 25-60 age, composed males and females; with middle class income and they can be of any nationality. This target group is meant for studying human psychology and relationship to native and traditional cuisine and cooking habits. The neutral group of people counts 60 people.
- b) Turkish group of people aged 25-60 with same sex ratio is composed of 30 people.
- c) Libyan group of people aged 25-60 with same ratio and composed of 30 people.

4.5 Potential Sample Bias

Current economy or economy of that country can affect data collected from this research. That directly can affect the interior design style and ways of cooking. In some parts of the world, eating unhealthy and consuming lots of carbohydrates and sugars is way cheaper than to have balanced diet. Current economy means that the places people live (and since the target audience is middle class) is most likely renting the space and kitchens are usually built in. Therefore, space occupants don't have much flexibility but rather to adapt to the given situation. Other factor that can directly impact this research is the level of globalization within society. Some cultures are more prone adapting to and accepting the Westernized concepts than others. In a longer run, that can mean changing the food habits and consuming "popular" food more often than traditional and native food to that culture.

4.6 Data analysis technique

There are two approaches to the data analysis. First one is analyzing questionnaire, which is easiest. The semi-structured part of the questionnaires will be placed into spreadsheets and analyzed by percentage compared by the answer given.

Other data analysis approach is to compare the open-ended questions and divide those by ideas/thought expressed. The open-ended questionnaire part can be interesting and give a deeper understanding of an issue. Data that will be put aside, is the language body that will be monitored during recorded video and in person interview.

4.7 Questions

Questions asked in the questioner were divided to 4 main sections. First section covered background information of the interviewers. Other two sections were specifically focused on the kitchen and food making; ergonomics, kitchen appliances, storage space and personal preferences.

4.8 Questionnaire Results

Questionnaire results will be represented in the chart form. After section, overall comment will be given. Table 4.1 shows the results of all the questions along with notes and comments about the results. Additionally, charts are provided in the appendix for illustration.



Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
1. Gender	Female	23	76.6	Female	21	70.0	More females than males were surveyed
	Male	7	23.4	Male	8	30.0	
2. Age group	18-25	4	13.3	18-25	6	20.0	Turkish population surveyed is little bit older than Libyan population surveyed
	25-45	16	53.3	25-45	23	76.6	
	45-55	6	20.0	45-55	1	3.4	
	55 and more	4	13.4	55 and more	0	0.0	
3. Education	Uneducated	1	3.4	Uneducated	1	3.3	According to the answers, Libyan population is more educated than Turkish
	Primary	2	6.9	Primary	0	0.0	
	High School	10	34.5	High School	5	16.7	
	B. Sc.	8	27.6	B. Sc.	12	40.0	
	Master	7	24.1	Master	10	33.3	
	PhD	1	3.5	PhD	2	6.7	
4. Employment Status	Student	3	10.0	Student	5	16.7	The employment trend between the participants from both groups looks similar. The majority of the participants are employed (full and part time).
	Self employed	1	3.3	Self employed	2	6.7	
	Not Working	2	6.7	Not Working	6	20.0	
	Full time employed	10	33.3	Full time employed	5	16.7	
	Part time employed	8	26.7	Part time employed	11	36.6	
	Retired	6	20.0	Retired	1	3.3	
5. Experience in Interior Architecture	No experience	23	76.7	No experience	17	56.7	Both groups show that the majority of the participants have no experience in architecture. However, the Libyan participants have more architectural experience than the Turkish participants.
	1 – 10 years	6	20.0	1 – 10 years	12	40.0	
	10 or more	1	3.3	10 or more	1	3.3	
6. What age did you start cooking?	12-18	21	70.0	12-18	20	66.7	Both groups show similar cooking experiences.
	18-25	9	30.0	18-25	8	26.6	
	25-35	0	0.0	25-35	2	6.7	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
7. How often you cook food different than your national cuisine?	Very often	4	13.3	Very often	11	36.7	The Libyan participants show more openness towards cuisines from different cultures, more than the Turkish participants.
	Never	9	30.0	Never	3	10.0	
	Sometimes	17	56.7	Sometimes	16	53.3	
8. How big is your kitchen?	6-10m ²	12	40.0	6-10m ²	2	6.7	The Turkish group show more variety in kitchen layouts, more than the Libyan group. However, in closed kitchen layouts, the Libyan participants indicated bigger areas than the Turkish participants.
	10-15 m ²	4	13.4	10-15 m ²	10	33.3	
	15-20 m ²	2	6.7	15-20 m ²	11	36.7	
	20-25 m ²	4	13.3	20-25 m ²	3	10.0	
	25 m ² and more	1	3.3	25 m ² and more	0	0.0	
	Confine kitchen	4	13.3	Confine kitchen	0	0.0	
	Open kitchen	1	3.3	Open kitchen	0	0.0	
9. How many hours on average day you spend in kitchen per day?	Kitchen with dining room	2	6.7	Kitchen with dining room	4	13.3	The results show that the Libyan participants spend more time in the kitchen than the Turkish participants.
	Less than 1 hour	4	13.3	Less than 1 hour	1	3.3	
	1 hr	7	23.3	1 hr	4	13.3	
	2 hrs	14	46.7	2 hrs	8	26.7	
	3 hrs	5	16.7	3 hrs	12	40.0	
10. Do you cook all three (3) meals a day?	All day	0	0.0	All day	5	16.7	Both groups show similar cooking habits.
	Yes	9	30.0	Yes	9	30.0	
	No	9	30.0	No	8	26.7	
11. Do you have anybody else to help you with cooking?	Sometimes	12	40.0	Sometimes	13	43.3	Results show that the Libyan group tend to involve more individuals in the cooking process more than the Turkish group.
	Yes	10	33.3	Yes	15	50.0	
	Only if I have guests	4	13.3	Only if I have guests	7	23.3	
12. Do you have any disabilities?	No	16	53.4	No	8	26.7	Similar results for both groups
	Yes	8	26.7	Yes	9	30.0	
	No	22	73.3	No	21	70.0	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
13. Do you have a separate storage room (where you store dry foods)?	Yes	20	66.7	Yes	15	50.0	Turkish group show that storage rooms for dry items are more often than the Libyan group.
	No	10	33.3	No	15	50.0	
14. Is your storage room close to the kitchen or remote?	Yes, next to the kitchen	15	50.0	Yes, next to the kitchen	12	40.0	Storage areas are mainly located near the kitchen
	No, very far	11	36.7	No, very far	10	33.3	
	Remote	4	13.3	Remote	8	26.7	
15. Do you have enough drawers to store spices?	Yes	27	90.0	Yes	21	70.0	Most of the participants believe that they have enough drawers to store spices
	Yes and no	0	0.0	Yes and no	4	13.3	
	No	3	10.0	No	5	16.7	
16. How big is your storage?	2 Square meters	13	43.3	2 Square meters	9	30.0	Majority of storage areas for spices for both groups are 2 square meters and less
	3 Square meters	4	13.3	3 Square meters	5	16.7	
	4 Square meters	2	6.7	4 Square meters	5	16.7	
	More than 4 square meters	0	0.0	More than 4 square meters	1	3.3	
	Less than 2 square meters	11	36.7	Less than 2 square meters	10	33.3	
17. Is your tap water drinkable?	Yes	20	66.7	Yes	18	60.0	Majority of both groups stated that their tap water is drinkable
	No	10	33.3	No	12	40.0	
18. Do you have a dishwasher located in the kitchen?	Yes	27	90.0	Yes	10	33.3	Majority of Turkish group have dishwashers, on the contrary of the Libyan group
	No	3	10.0	No	20	66.7	
19. Do you have summer kitchen (detached kitchen used only during summer months and for preparing winter stores)?	Yes	18	60.0	Yes	3	10.0	Summer kitchens (detached) are more common in Turkey, more than Libya
	No	12	40.0	No	27	90.0	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
20. Describe me your perfect kitchen?	Narrative answers (Appendix A)						
21. Do you think it is important to have access to natural daylight to the kitchen?	Yes	26	86.7	Yes	28	93.3	Both groups indicated the importance of daylight access to the kitchen
	I don't mind	4	13.3	I don't mind	2	6.7	
22. On which floor is your kitchen now and on where should be your ideal kitchen located? (ground, 1st, 2nd if you live in the house)	1st	6	25.0	1st	17	58.7	Kitchens for the Libyan group are located in the first floor and Turkish group mainly kitchens are located within apartments
	2nd	2	8.3	2nd	1	3.4	
	Apartment	16	66.7	Apartment	11	37.9	
23. Do you dine in your kitchen?	Yes	27	90.0	Yes	17	56.7	The Turkish group showed that they dine in their kitchen more than the Libyan group
	No	3	10.0	No	13	43.3	
24. If yes, which meal?	Breakfast	18	60.0	Breakfast	6	35.3	Majority of the Turkish group have breakfast in their kitchen, while the majority of the Libyan group have all their meals in the kitchen
	Lunch	0	0.0	Lunch	1	5.9	
	Dinner	0	0.0	Dinner	1	5.9	
	All above	12	40.0	All above	9	52.9	
25. Do you have separate dining room?	Yes	21	70.0	Yes	20	66.7	Majority of both groups have separate dining rooms
	No	9	30.0	No	10	33.3	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
26. How many kitchen appliances you have and are you dependable on those when cooking?	1+			1+			
	2+			2+			
	3+			3+			
	Few and more			Few and more			
27. What kind of appliances do you need for that kind of foods? Example: mixer, blender, toaster, juice maker, slicer, cutter	mixer, blender, toaster, cutter			mixer, blender, toaster, cutter			Many people repeated blender and mixer along with others, so there is assumption both nations widely use blender and mixer because of the variety of the usage it has.
28. What do you think how cooking habits influence kitchen space over the years? (think about African and Japanese cuisine for example).	<p>very much yes probably but idk</p> <p>yes very much never thought about it yes maybe, idk yes idk very muck likely</p> <p>yes most likely</p>			<p>very much never thought about it but most certainly yes most likely it did</p> <p>Yes Yes Yes by technology and modernization</p> <p>Kitchen space depends on cooking habits, for example, in Africa, we need a large kitchen</p> <p>think about Italian cuisine yes, i think with the globalization and the opening to the new cultures, spaces that fit different dishes around the world will be necessary in the new kitchen designs</p>			It is evident that cooking habits did impact kitchen space to some extent and both nations agree on that.

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
	<p>probably</p> <p>yes</p> <p>yes</p> <p>not sure</p> <p>yes</p> <p>yes</p>			<p>people now looking for the appearance of the kitchen not the eating taste. so the size now very important much big much bitter.</p> <p>I suppose it is in our traditions that we need</p> <p>a large kitchen small one is not really suitable to work in, especially in the occasions.</p> <p>Food diverse over the year and new types of food became familiar to all kind of kitchens that's why a big and wide space kitchen is important now.</p> <p>I don't know</p> <p>I think family members is the one that Differs</p> <p>they are different, every kitchen space depend on the habits of these culture</p> <p>it strongly affect, especially on appliances</p> <p>No doubt that cooking habits strongly influence the space needed in the kitchen, and that differ from one culture to another</p> <p>African</p> <p>not affect</p>			<p>مطبخ ترمي</p>

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
29. Are you satisfied with the size of your kitchen?	Yes	23	76.7	Yes	19	63.3	Design satisfaction related question.
	No	7	23.3	No	11	36.7	
30. If no, why?	Both nations rather complained about having to small kitchen that would not allow them enough cooking space.						
31. Are you satisfied with the organization of your kitchen?	Yes	4	13.3	Yes	4	13.3	This is a more design related question and is impacted by cooking habits and cooking workflow.
	No	26	86.7	No	26	86.7	
32. If no, why?	Many people did not fil out this question because there were very few negative answers to the previous question.						
33. Are you satisfied with cabinets of your kitchen?	Yes	22	84.6	Yes	22	73.3	Design satisfaction related question.
	No	4	15.4	No	8	26.7	
34. If no, why?	Many people did not fil out this question because there were very few negative answers to the previous question.						
35. Which kinds of food do you prepare very often?	Meat	1	3.3	Meat	1	4.3	Personal habits and preferences.
	Pilavs	2	6.7	Pilavs	0	0.0	
	Salads	1	3.3	Salads	0	0.0	
	Pasta	1	3.3	Pasta	8	34.8	
	Sweets	1	3.3	Sweets	1	4.3	
	Pastry	1	3.3	Pastry	1	4.3	
	All above	23	76.8	All above	12	52.3	
36. Are there any foods that you want to cook but because of your kitchen's incapacities you cannot cook?	Yes	11	36.7	Yes	3	10.0	Design satisfaction and cultural preference. Certain traditional foods are being made in shops nowadays because of its preparing complexity.
	No	19	63.3	No	27	90.0	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
37. If yes, what are they?	Most complain was about making pastry (burkes and doughs) which require big table for drying. Many kitchens don't have that.						
38. How often do you cook meat?	Once a week	2	6.7	Once a week	2	6.7	Personal habits and preferences.
	Twice a week	3	10.0	Twice a week	3	10.0	
	More than 3 times a week	25	83.3	More than 3 times a week	25	83.3	
39. How often do you cook pasta and rice?	Once a week	5	16.7	Once a week	2	6.7	Personal habits and preferences.
	Twice a week	16	53.3	Twice a week	3	10.0	
	More than 3 times a week	9	30.0	More than 3 times a week	25	83.3	
40. How often do you cook pastry and doughs?	Once a week	4	13.3	Once a week	17	56.7	Personal habits and preferences.
	Twice a week	16	53.3	Twice a week	5	16.7	
	More than 3 times a week	9	30.0	More than 3 times a week	6	20.0	
	Never	1	3.4	Never	2	6.6	
41. How often do you cooks sweet foods (cakes, puddings etc.)?	Once a week	3	10.0	Once a week	10	33.4	Personal habits and preferences.
	Twice a week	19	63.3	Twice a week	6	20.0	
	More than 3 times a week	6	20.0	More than 3 times a week	7	23.3	
	Never	2	6.7	Never	7	23.3	
42. How important are the sweets in your cuisine?	Important	21	70.0	Important	8	26.7	Personal habits and preferences.
	Very important	6	20.0	Very important	16	53.3	
	Not important	3	10.0	Not important	6	20.0	
43. Do you have any vegetarians in the family?	Yes	5	25.0	Yes	3	10.0	Cultural and health-related questions that could impact type of food cooked in individual family circle.
	No	15	75.0	No	27	90.0	
44. Do you prepare jams, pickles and similar food to reserve long time?	Yes	15	50.0	Yes	4	13.3	These answers were directly influenced by number of family members and are not constant. Some answers are general such as "for my family" which does not give exact number of the quantity.
	No	15	50.0	No	26	86.7	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
45. If yes, what amount?							
46. Do you have favorite utensils?	Yes	25	83.3	Yes	19	63.3	Personal habits and preferences.
	No	5	16.7	No	11	36.7	
47. How many utensils you use on average when you cook?	1-2	27	90.0	1-2	4	13.3	Personal habits and preferences.
	2-5	3	10.0	2-5	24	80.0	
	More than 7	0	0.0	More than 7	2	6.7	
48. Do you agree that smaller kitchen eliminates the time spent moving from one side to the other?	Yes	25	83.3	Yes	21	70.0	Personal opinion and preference.
	No	5	16.7	No	9	30.0	
49. How many times per month you have guests to have lunch/dinner with you?	1-2	14	50.0	1-2	12	44.4	Family/ friends size and social life impact question.
	2-4	8	28.6	2-4	9	33.3	
	More than 5	1	3.5	More than 5	4	14.9	
	I don't have guests	5	17.9	I don't have guests	2	7.4	
50. What is the maximum number of guests you have for lunch/dinner?	1-2	19	76.0	1-2	7	23.3	Family/ friends size and social life impact question.
	2-4	3	12.0	2-4	10	33.3	
	More than 5	3	12.0	More than 5	13	43.4	
51. Do you have separate dining spaces for different genders of your guests?	Yes	7	23.3	Yes	22	73.3	Cultural related question.
	No	23	76.7	No	8	26.7	

Table 4.1: Results summary and comments

Questions	Turkish (N=30)			Libyan (N=30)			Comparison Remarks
	Answers	N	%	Answers	N	%	
52. What would be the maximum number of each group of genders? Including children?	1-2	18	85.7	1-2	7	23.3	Family and background related question.
	2-4	2	9.5	2-4	11	36.7	
	More than 5	1	4.8	More than 5	12	40.0	
53. Do you store your utensils after using it or it is displayed on/in the kitchen?	Store	15	75.0	Store	19	63.3	This question is directly impacted by the size of kitchen and cooking frequency of certain foods.
	Display	5	25.0	Display	11	36.7	

4.11 Conclusion of the research

According to the research, national cuisine of Turkey and Libya did have influence to the kitchen design but those facts are not the most crucial. What impacted kitchen styles in 21st century of Turkey and Libya is to a big extent education and employment status, gender roles and age. Through the research it is evident that employed people spend less time in the kitchen due to their other obligations. Size and design of the kitchen are more often defined by interior design standards and rarely people get to choose design and size but they rather adapt. Space saving moved lots of dining spaces into kitchen space, so kitchen did become a central point of family gathering and family social life, as this research earlier suggested. Use of utensils and appliances made cooking much easier and many traditional ways are left out. Space saving had more pleasure on the kitchen design than type of traditional cuisine. One thing is for sure-kitchen space will keep evolving and it is up to users of the space how much their culture and individual preferences will impact kitchen interior design and style.

In comparison of the two study groups, the results show that the Libyan group is more open towards new cuisines than the Turkish group as a Q7. Moreover, the Turkish group indicated more types of kitchen layouts than the Libyan group, while the areas were found bigger for the Libyan group as the answers of Q8 show 65% of the total needs a big kitchen are Libyan. Both Study groups showed similar cooking habits in terms of times of cooking per week and the help in the kitchen as a Q9-10 and 11. Storage spaces for dry items are found more often in the Turkish kitchen, and spices are stored in less than 2 square meters as a Q16. The Turkish group confirmed that they use the kitchen for dining more often than the Libyan group as a Q 23 shows is 56 % of the people who are dining in their kitchens are Turkish; however, both groups indicated that they have a dining area beside the kitchen due the Q25. However, in closed kitchen layouts, the Libyan participants indicated bigger areas than the Turkish participants both groups indicated that they have a dining area beside the kitchen. The interview results show that cooking habits influence kitchen designs and layouts in both study groups. finally, both groups show similar satisfaction level from their kitchen designs and layouts, beside similar cooking and kitchen usage habits.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

The comparison of Libyan and Turkish kitchen design style with the reference of the cultural preparation habits was researched in this thesis through the four different chapters. In order to understand and achieve the main purpose of this research, historical and geographical positions of these two countries were examined as well as main factors that could contribute to the final outcome. This thesis can later on be observed as a separate two parts- first part deals with the background information, historical information while second one deals with observational studies, historical data and questionnaire and interview carried during the research. Important and unique way of approaching this thesis was collect famous/everyday national Libyan and Turkish receipts, analyzing ingredients required and ways of making it today and in the past. That helped the researcher to understand which cuisine needs bigger storage based on the number of ingredients needed and which cuisine needs bigger space for cooking. Some dishes are more complex than the others, therefore require more time and space to be prepared.

5.1 Research Questions and objectives; its direct implementation in the study

At the beginning of the study, there are several questions that were asked, to which proper answer could help the researcher to come up with certain findings. Those questions can divide into 3 categories: geographical location and cuisine impact; personal and habitual impact and social and cultural impact questions. Giving an answer to all of these research questions was not easy task at all.

The first question and hypothesis test the impact of the food preparation habits on the kitchen design and functionality. Through the performed questionnaire and interviews, results shown in Table 4.1, the cooking habits is evident to have an impact the kitchen space design. The second research question targets the different layouts that are used for both study groups. Through the layouts reviewed in the third chapter and the additional kitchen design examples presented in Appendix B, it can be seen that different kitchen layouts are present in both groups. The third research question and

the second hypothesis test the impact of the geographic location on the kitchen design, in comparison between the Turkish and Libyan groups. As shown in Table 4.1, the two groups had different preferences for kitchen designs, which indicates that there is an impact of the geographic location on the preferred design for the kitchen. Since the two groups had different cooking habits and food types, the answer to the fourth research question and the third hypothesis about the impact of the food type on the kitchen design can be answered with confirmation. Both study groups had different food types that impact the kitchen layout and functionality.

5.2 Findings

Both nationalities had similar answers when it comes to social life, gatherings and cooking. All of the interviewees were using kitchen appliances although the age sample suggests that the groups were mainly younger ladies in between 25-45 years old. Few gentlemen were also interviewed and their responses are similar to the responded of the ladies similar age and employment status. Most of them were satisfied with the kitchen size and organization but significant number of them wanted bigger kitchen. All interviewees expressed positive attitude about natural light in the kitchen space and 64.4 percent had a dishwasher located in the kitchen. Existence of the dishwasher in the kitchen can significantly increase or decrease time spent in the kitchen per day, especially if the individual has a family. Interviewees were not so concerned about kitchen design style as they were about functionality and size. At the end of this research, it could be said that average people in Libya and Turkey don't care much about interior design kitchen styles as they care about proper kitchen sizes, adjacencies to different rooms and usability of the space.

As shown in Table 4.1, further results are concluded from the case study for the Turkish and Libyan groups:

- Individuals habits, lifestyle and cuisine type can impact but not necessary kitchen design style
- Individuals habits, lifestyle and cuisine type more influence size, and ergonomic of the kitchen space
- Kitchens design is slowly leaning to the international style, taking functionality as priority over design
- National cuisine is very much combined with other famous cuisines, due to the global recipient spread and ingredients availability (Internet).

5.3 Recommendations for designers

Interior designers in Libya and Turkey should take urban versus suburban lifestyle in count when designing a kitchen space. It is more likely that people living in the city will have a standard size kitchen and will prepare their meals in the smallest time amount. Traditional cooking methods changes in the urban areas too, while in suburban areas it is completely different.

The designers are advised to use the international building code (IBC) guidelines for minimum dimensions and recommended layouts for the kitchens. For instance, the IBC code has the following recommendations (Parrott, Beamish, Emmel, & Peterson, 2013):

- 32-inch minimum entrance width to the kitchen, with minimum 42-inch passage between the kitchen counters for single person occupancy and 48-inch for double occupancy. Since both Turkish and Libyan groups are known for social cooking, as shown from the study results, it is recommended to implement the 48-inch minimum passage.
- 36-inch counter standard height.
- Accounting for 30-inch body span area, the food preparation counter shall have a 48-inch for single occupancy. Additional food preparation area, reaching to 90-inch shall be provided for the Turkish and Libyan kitchen to account for social cooking habits.

5.3.1 Strategies for individuals

An individual should know that belonging to certain nationality and bringing their own national cuisine to the kitchen space, its already giving a unique feel of the space. Certain ingredients, spices smell, tableware and other details customize the kitchen in a way that it already represents the cuisine and culture in the same way.

5.4 Summary

In order to survive-people will eat, therefore people will spend time in the kitchen space. Some people will spend more time, others less but the certain thing is that they will spent a decent amount of their lives in the kitchen spaces, either consuming or preparing foods. Interior kitchen design style changes along with all the other design trends in the world. The only difference between three or four decades ago is that today we have millions of design ideas just one click away. Kitchen design styles are not tied to the nationality as much as its used to be, but is rather progressing altogether with culture, social changes and design globally.

Fifth chapter of this research wraps up entire idea of habitual and lifestyle, Libyan and Turkish cuisines and its impact on the kitchen interior design space. The researcher used variety of research tools (questionnaire, case studies, and interviews) to get the whole idea of the issue and to answer the research question in the best possible way. This thesis is very rich in historical information of the Libyan and Turkish kitchen and position of kitchen space in the Libyan and Turkish architecture overtime. It also examined historical facts that made kitchen space develop the way it developed by today. One this is true; human lifestyles, way people cook and availability of the technological advancements will greatly impact all interior spaces, with special emphasis on the kitchen space. At the beginning of this research, futuristic kitchen case study was discussed and that is the future of all urban kitchen spaces.

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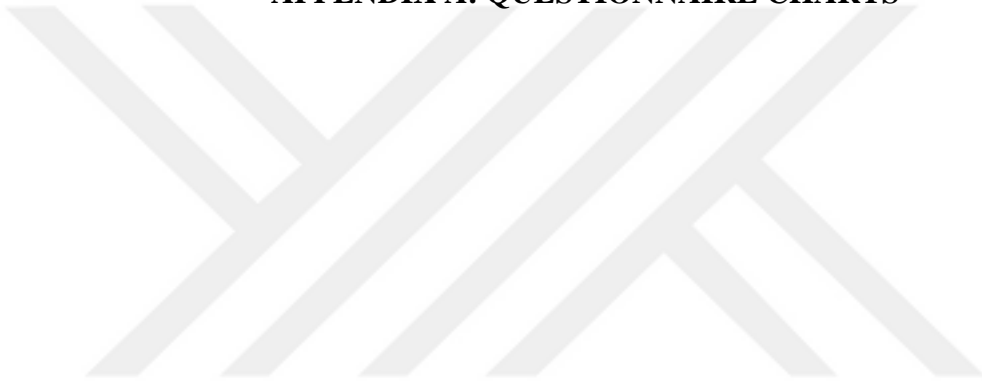
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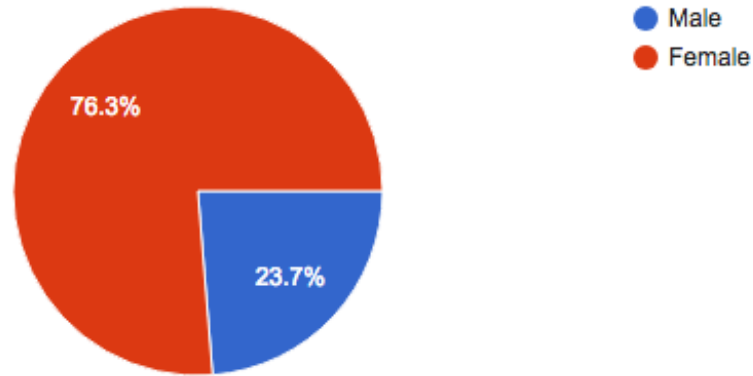


APPENDIX A: QUESTIONNAIRE CHARTS

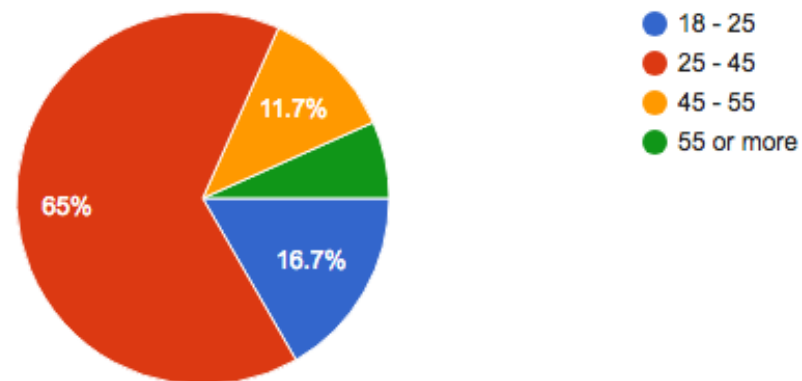


Questions-section 1

1. Gender

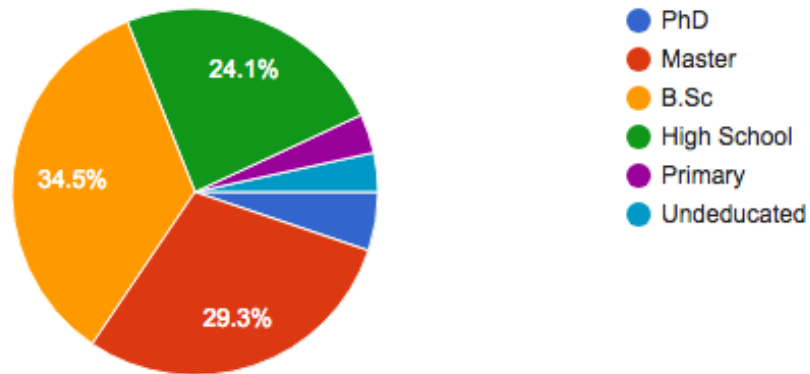


2. Age group

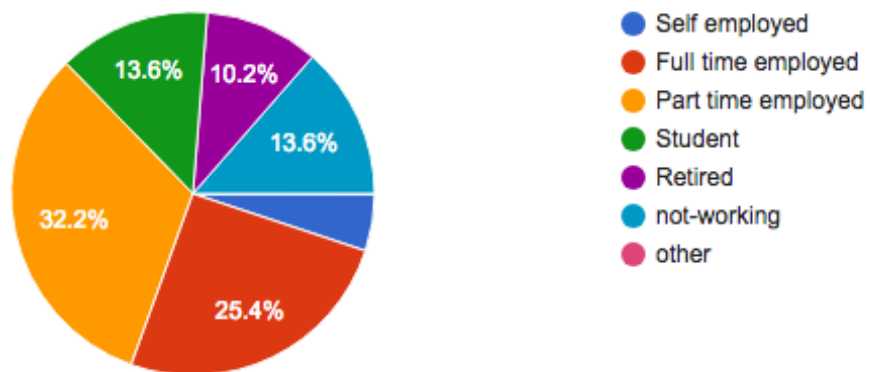


Gender and age group suggest that this group of people was relatively young, and based on the education level- very educated as well.

3. Education

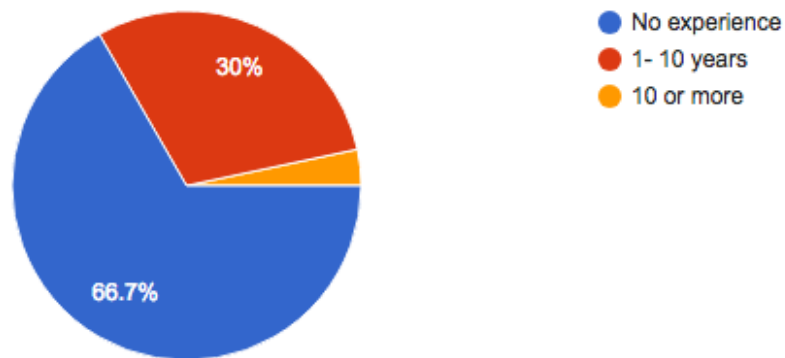


4. Employment status



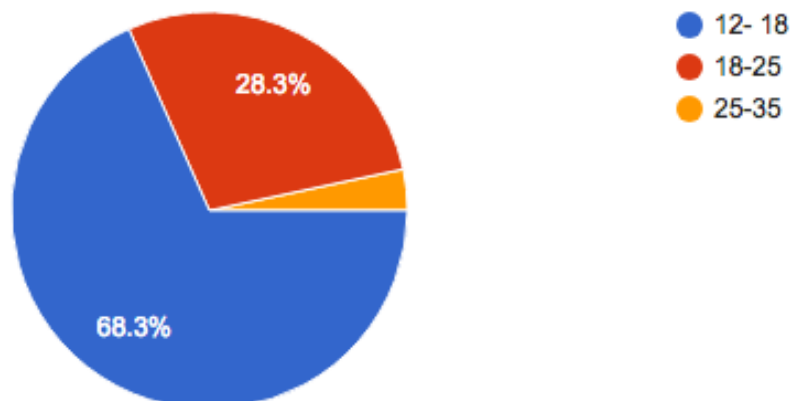
Their employment statuses vary although 25.4 percent of them was full time employed while 32.2 percent was part time employed.

5. Experience in interior architecture



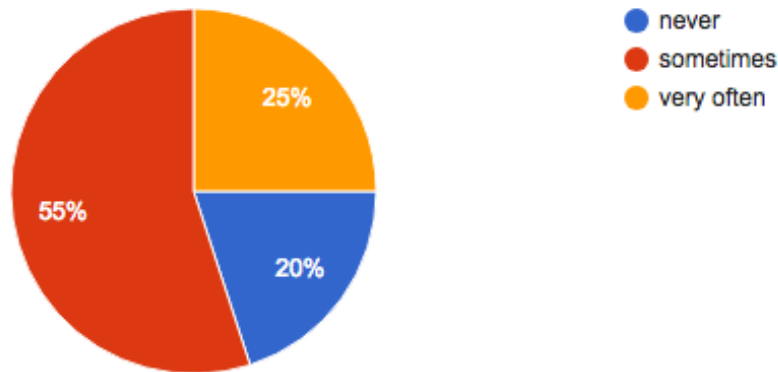
Experience in interior architecture was important to understand how many people understand EBD (Evidence Based Design) and this research in general.

6. What age did you start cooking?



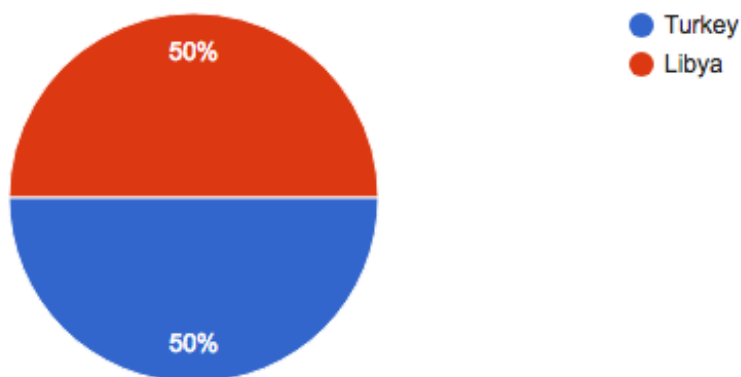
The question about the relevant years of experience in cooking can directly impact the kitchen size and ergonomics. People with less experience need more space and more appliances, therefore they require bigger space.

7. How often you cook food different than your national cuisine?



Cooking food different than your national cuisine is related to the number of appliances used and type of ingredients used. This can help researcher understand how much the idea of cooking national food is popular among people and do people, with globalization of Internet try cooking different foods from different cuisines.

8. Your nationality

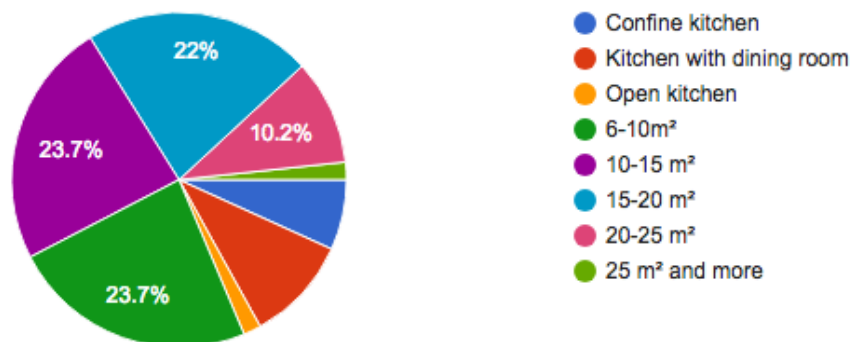


As it can be seen from the example, section one help the researcher to familiarize with the interviewr, to understand the basic background of each person surch as age,

education level and gender. Among all of these eight questions, those three were the crucial and would help the researcher to understand why a certain person responded the way they did in the next two sections. Gender plays an important role as modern world is on a crossroad with feminism popularity and giving up traditional gender role. In this questionnaire, more women were interviewed than a man and that is because the traditional women role in Libya and Turkey is still popular. Surprising thing is that most of these women were highly educated and young too. Nationality segment of this questionnaire helped us to understand the similarities between both countries, as well as differences.

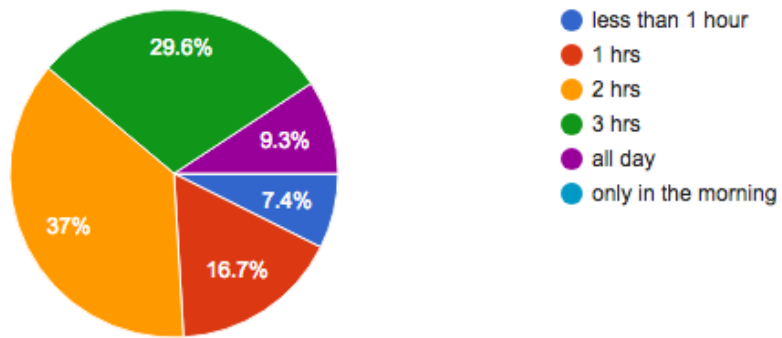
Questions - section 2

1. How big is your kitchen?

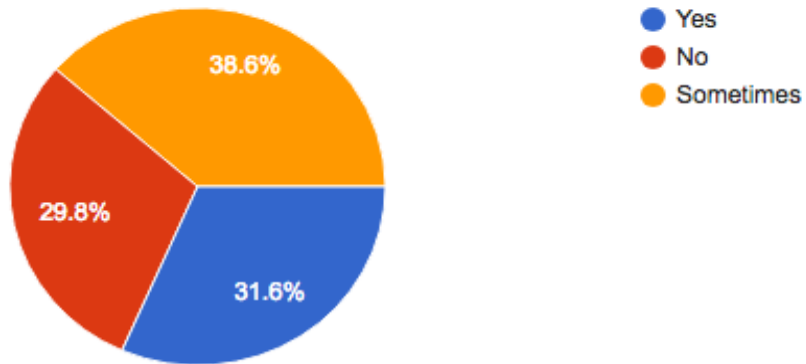


2. How many hours on average day you spend in kitchen per day?

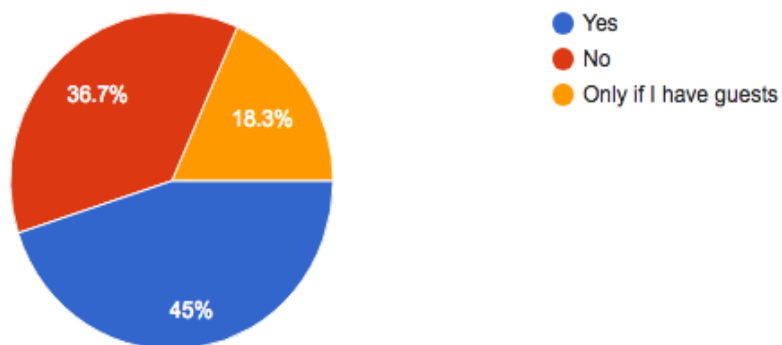
Some people like to cook, other don't. Number of hours spent in the kitchen defines how much an individual prepares food on daily basis and how much kitchen room is important to him/her.



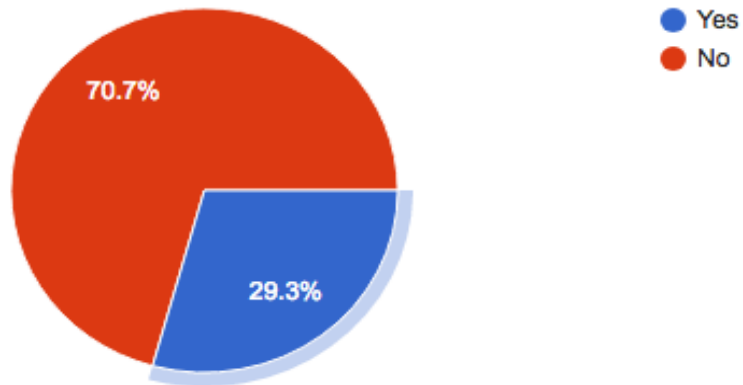
3. Do you cook all three (3) meals a day?



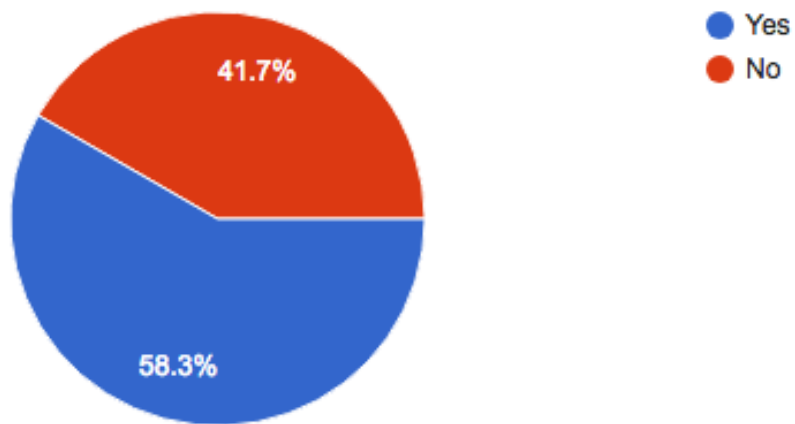
4. Do you have anybody else to help you with cooking?



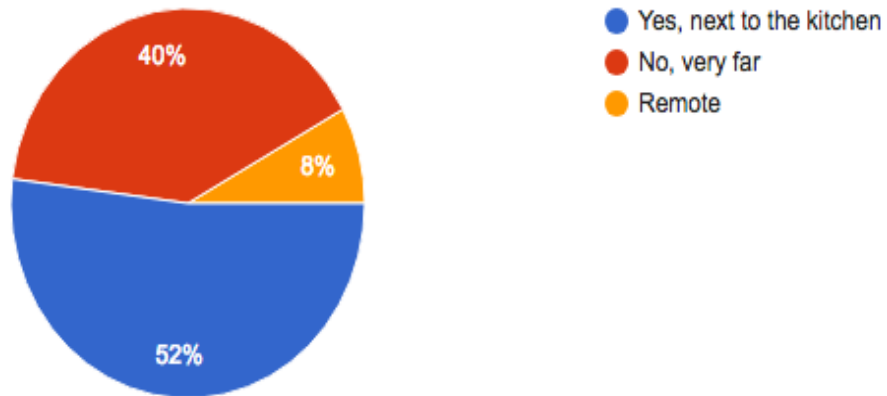
5. Do you have any disabilities?



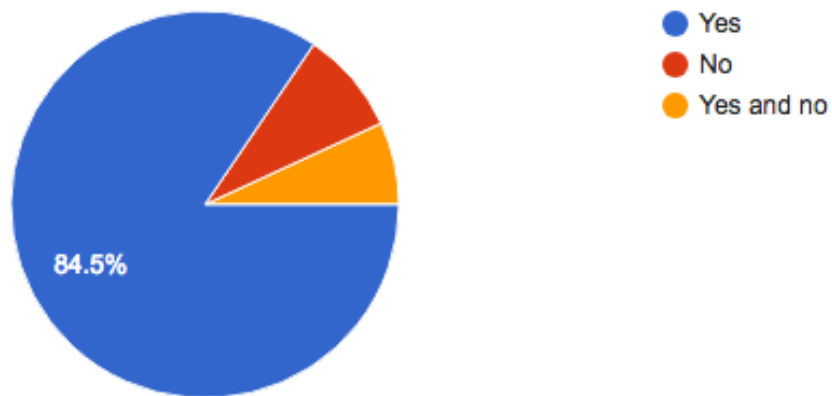
6. Do you have a separate storage room (where you store dry foods)?



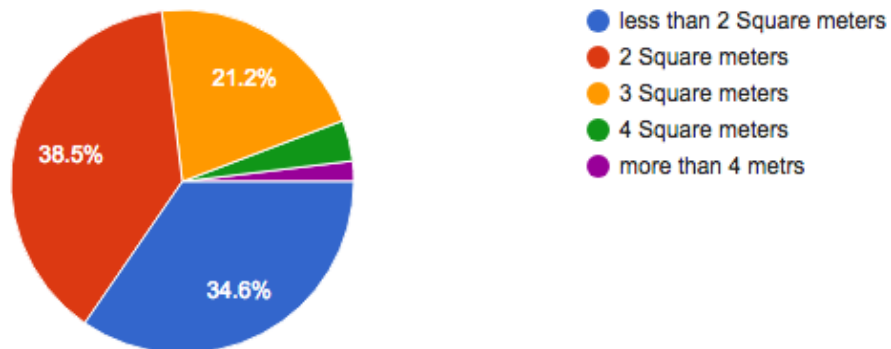
7. Is your storage room close to the kitchen or remote?



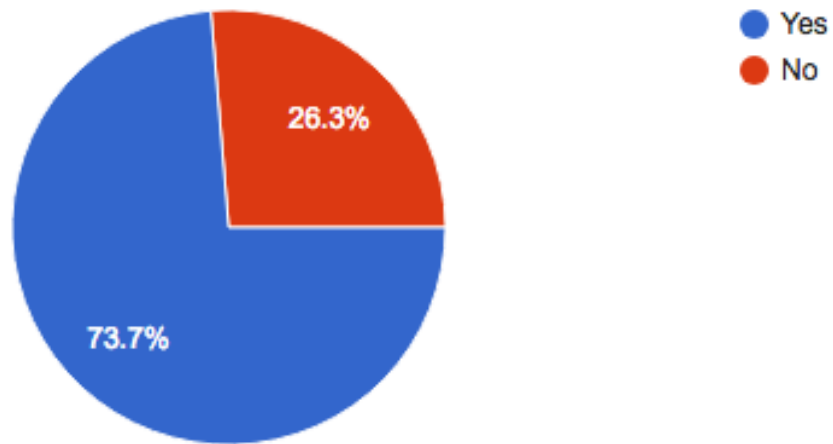
8. Do you have enough drawers to store spices?



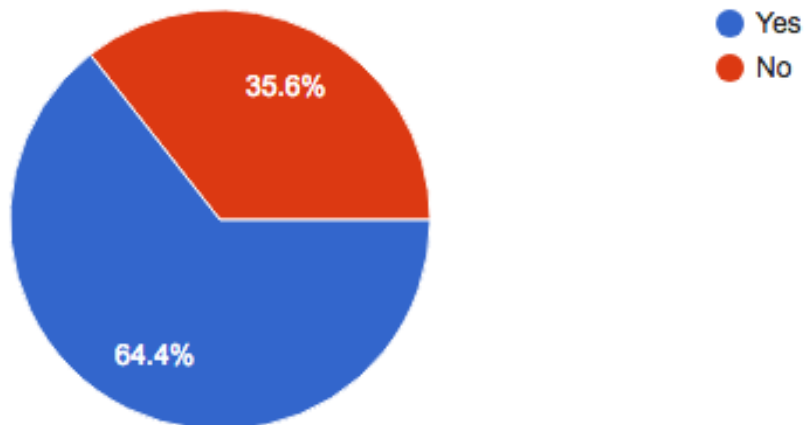
9. How big is your storage?



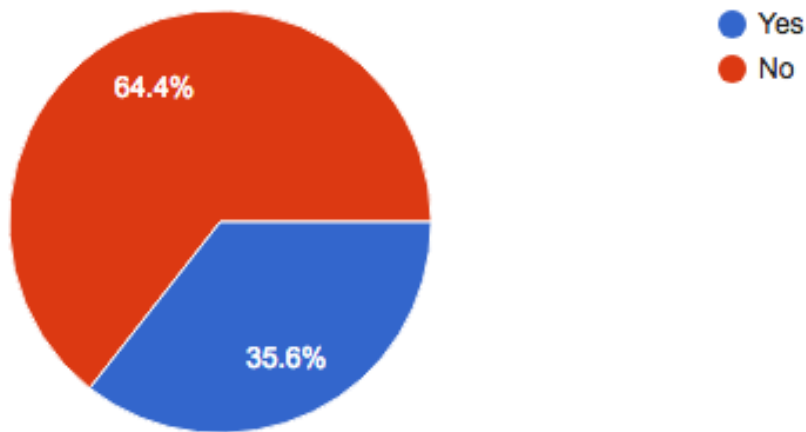
10. Is your tap water drinkable?



11. Do you have a dishwasher located in the kitchen?



12. Do you have summer kitchen (detached kitchen used only during summer months and for preparing winter stores)?



Section two of the questionnaire was heavily focused on individuals' current kitchen and storage size, and usability of the space. Asking the individual of the kitchen size and time spend in the kitchen per day directly impacts the individuals answer and wish for the larger kitchen. Section two slowly progresses into section three where open-ended questions were asked about individual satisfaction with ergonomics, kitchen appliances, usability of the space and number of guest they host per month.

Questions-section 3

1. Describe me your perfect kitchen? (Respondents' Written Opinions)

Answers:

Big nice and designed

It's not that perfect

Large kitchen with dining room and be at the end of the house

my kitchen is big it's color brown and white

A moderately sized kitchen (4x4 m²) with a separate storage room of (2x2m²). it should contain all equipment, gadget and accessories that makes life easier

Big clean and new and modern

A large kitchen with wide windows, large table in the middle like those in cooking shows, with a dining room

Wide open space, white color, comfortable and it has to have a view

Closed kitchen big and has many drawers

Well not too perfect but it's ok

I prefer to have kitchen in between 20 and 30 m2 with separate storage room

modern kitchen

35 m2, and has wide space for storage

has a vast space for storage, and many appliances?

nice

Storage room, space

wide, big and well-designed cupboard and

for me a perfect kitchen is the one that is have ease of accessibility to all its contents ... everything should be close and in the right place it should have the triangle of fridge sink and gas stove for easily reaching each of them. also it should have a good ventilation and lighting...

small, white with windows and porch

modern, with dishwasher

Black, eclectic and simple lines, no decoration

Peach color, full of light and traditional style with marble top island in the middle of the room

White and green, sleek with acrylic countertop and adjacent to the patio

Bold, lots of vertical storage, and yellow color

White, spacious and has a dishwasher

Big, full of light and adjacent to living room and has a tv

navy blue, masculine, contemporary, adjacent to living room

Pink, white and bohemian

Big, spacious with island and dining room

Close to dining room

small with dishwasher and with roof windows, has a balcony

red, spacious and close to the entrance and living room

white and small, cozy and functional

pink and bold

small, cozy and with inglenook

bigger with dining

white with window and bar counter

wooden, Scandinavian look and simple design

white, neat, sleek with wood combination drawers

small and green

small with dining room and bar (island)

Big, brown and with dining table 6 seats

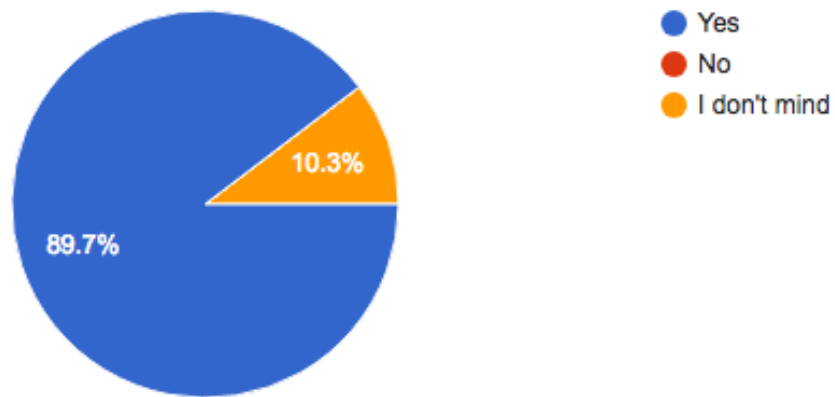
Beige, brown and wood; spacious modern

bigger than this with dining

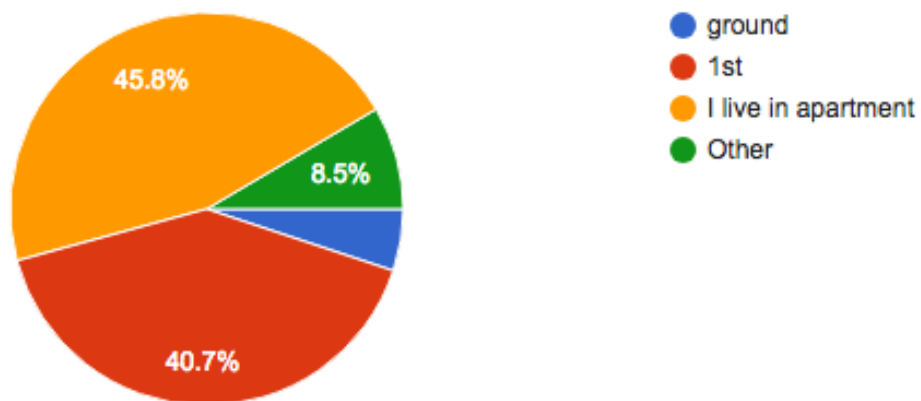
same size just yellow/beige

id mind this kitchen and design, I just wish there is a natural light coming in and for it to have an island

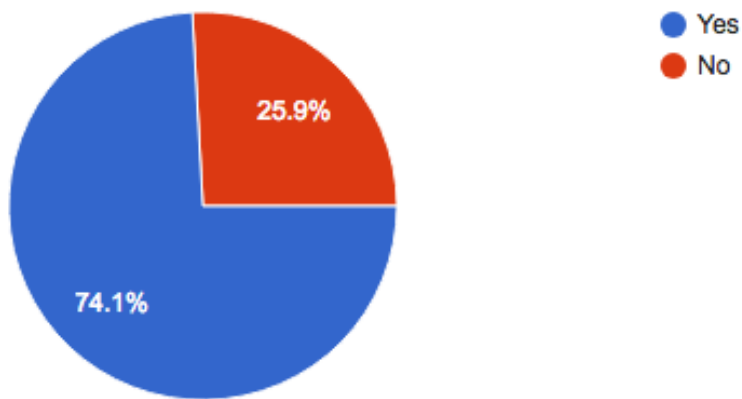
2. Do you think it is important to have access to natural daylight to the kitchen?



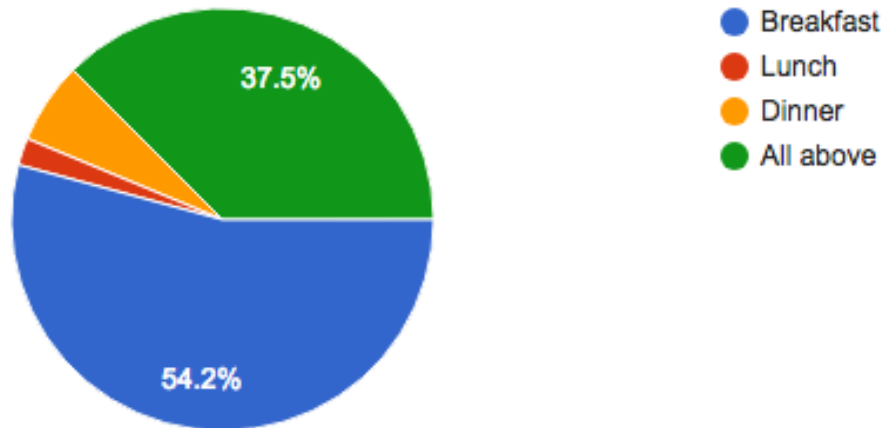
3. On which floor is your kitchen now and on where should be your ideal kitchen located? (ground, 1st, 2nd if you live in the house)



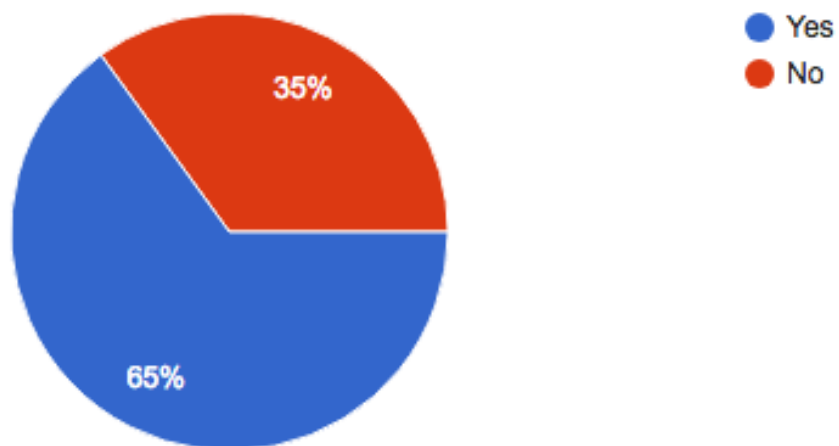
4. Do you dine in your kitchen?



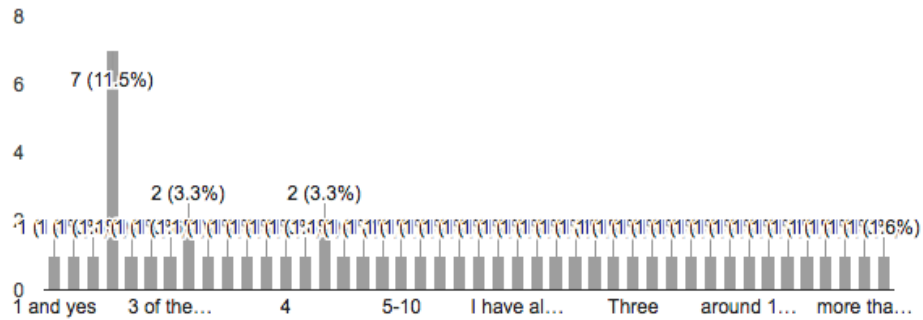
5. If yes, which meal?



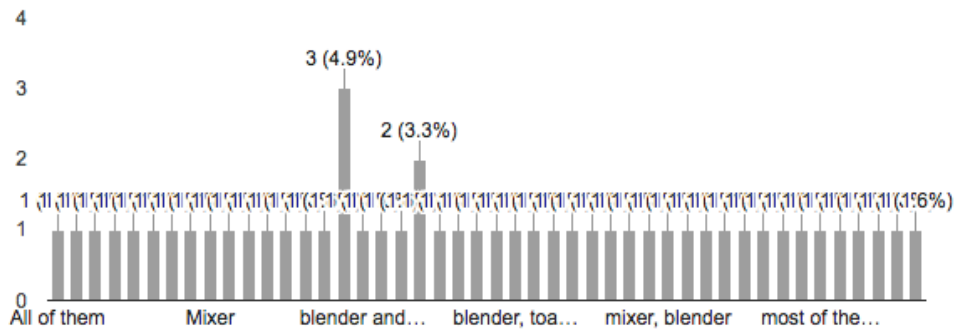
6. Do you have separate dining room?



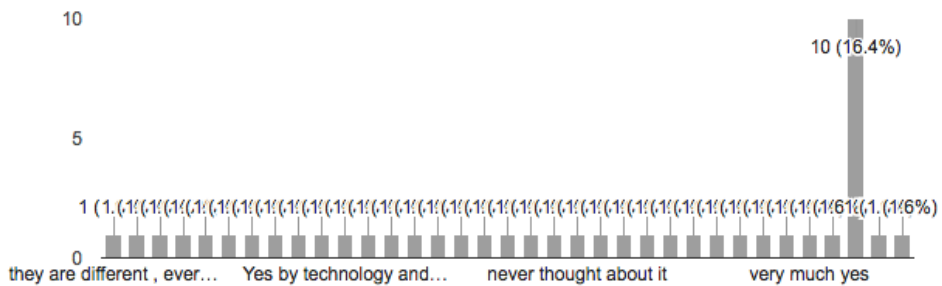
7. How many kitchen appliances you have and are you dependable on those when cooking?



8. What kind of appliances do you need for that kind of foods? Example: mixer, blender, toaster, juice maker, slicer, cutter

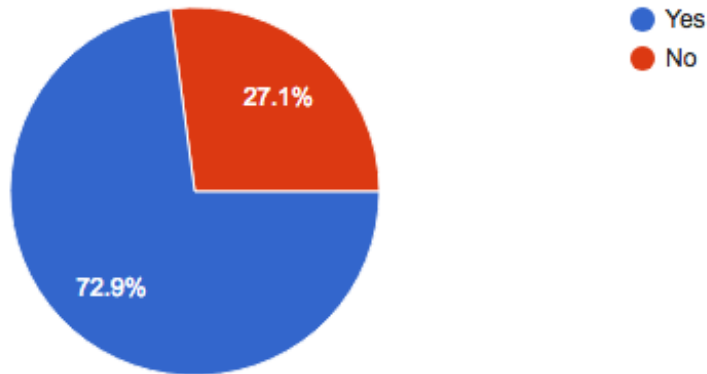


9. What do you think how cooking habits influence kitchen space over the years? (think about African and Japanese cuisine for example).



Questions-section 4

1. Are you satisfied with the size of your kitchen?



1.a) If no, why?

want bigger

want bigger

Not enough in the spiral days and large number of visitors

Because not everything is fit's in

I cannot move freely, I feel restricted

it is so small and not easy for move in it freely

old design. no enough space for more cooking activity.

Because it's small

Its small and sometimes I don't feel comfortable in it

Daha büyük ve rahat olabilir

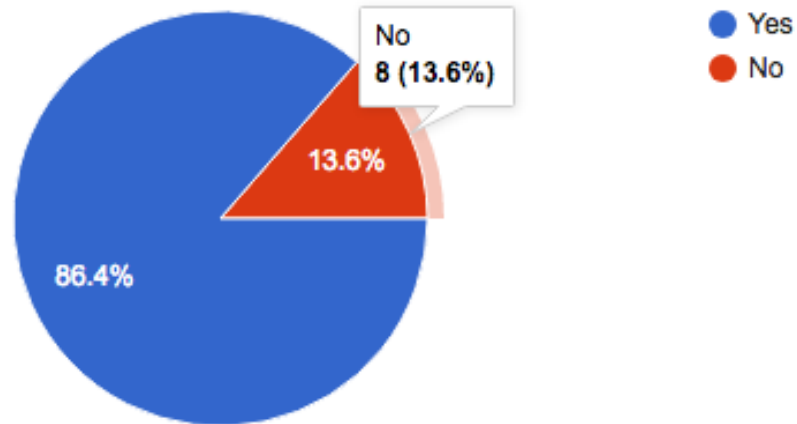
Because it's small, and it's length more than width (like a corridor.)

I would like it to be bigger and modern

would like it smaller, easier to clean

want it bigger

2. Are you satisfied with the organization of your kitchen?



2.a) If no, why?

I feel it is not too tidy

Distribution of kitchen equipment is not in place

no space and pipe for dishwasher machine

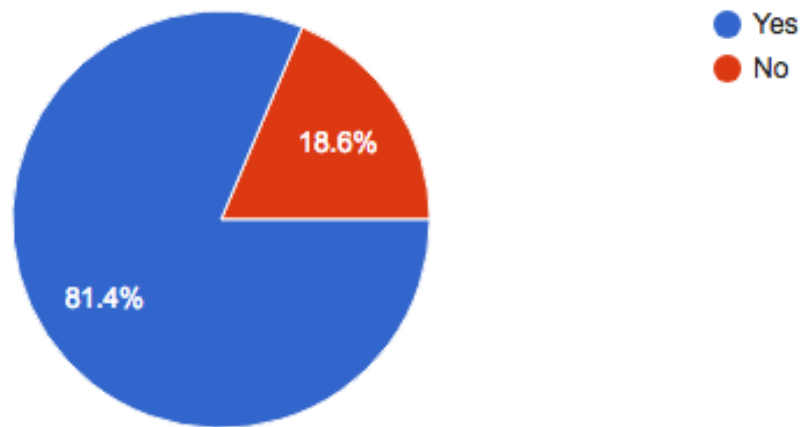
I am using two refrigerators therefore I need more space in kitchen

The cabinets and all other components are organized in one side.

could be done lot better

same as above

3. Are you satisfied with cabinets of your kitchen?



3.a) If no, why?

Not enough

Not quite good it needs repair

Because they are small and not enough

I think I need more

They are far away o to the kitchen

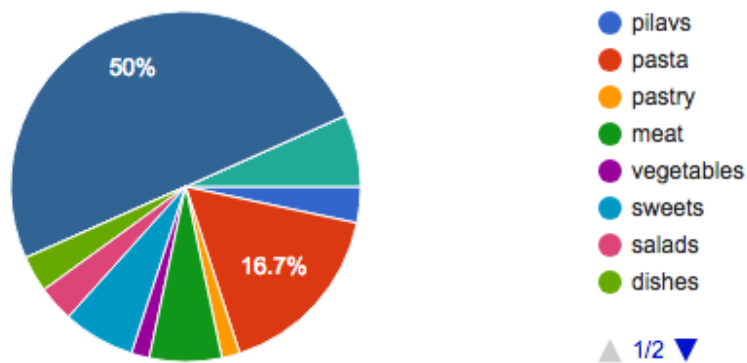
Small

Small

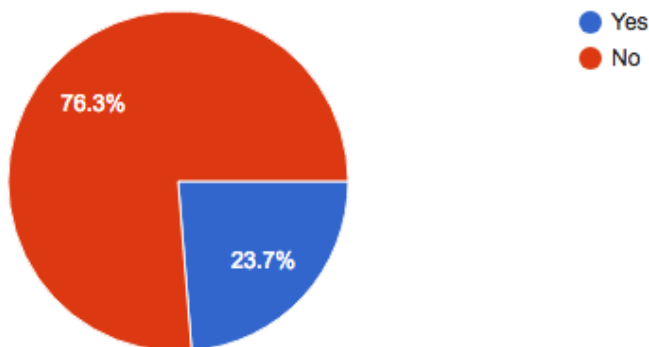
I would liek it to be more simple

too high

4. Which kinds of food do you prepare very often?



5. Are there any foods that you want to cook but because of your kitchen's incapacities you cannot cook?



5.a) If not, which?

steamed buns

Bakalawa, grilled meat and foods

Grilled meat ,,,,,, I dont have a grill ...and in my opinion grill need an outdoor place

Burek

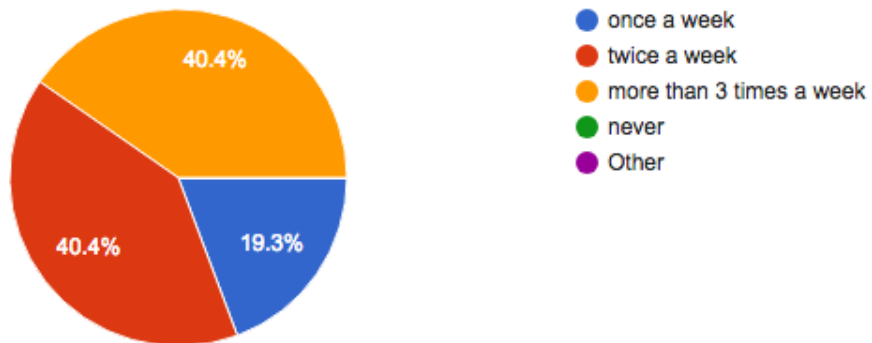
Dough

Dough

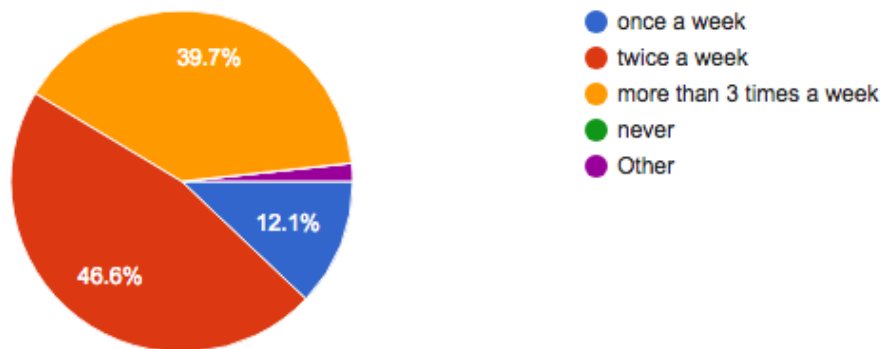
many, my kitchen is small

for my family (5 people)

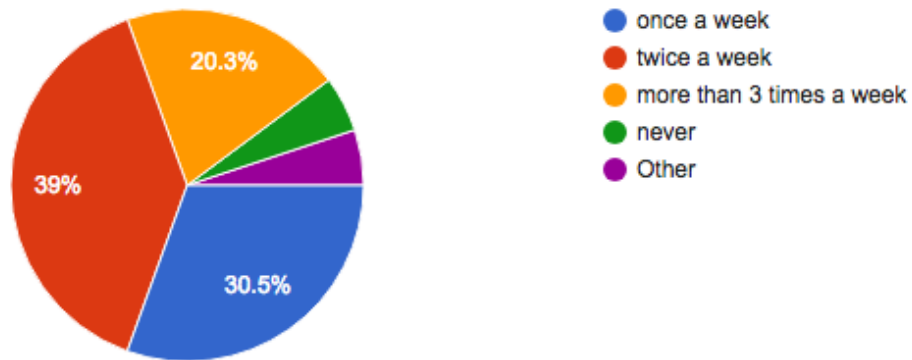
6. How often do you cook meat?



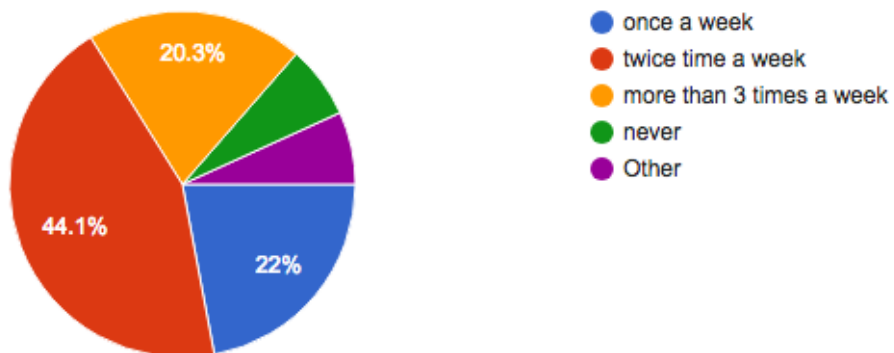
7. How often do you cook pasta and rice?



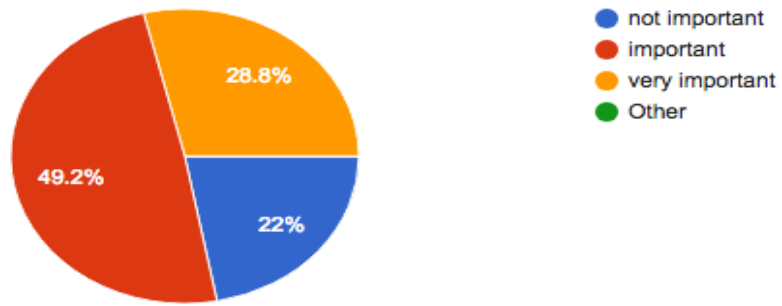
8. How often do you cook pastry and dough's?



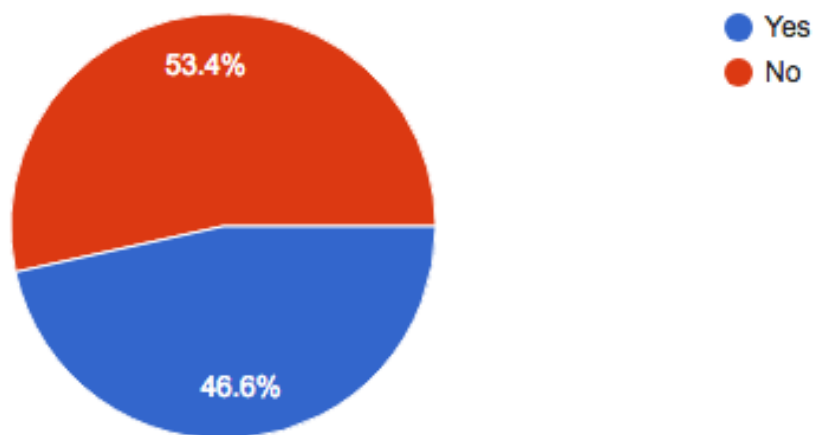
9. How often do you cooks sweet foods (cakes, puddings etc.)?



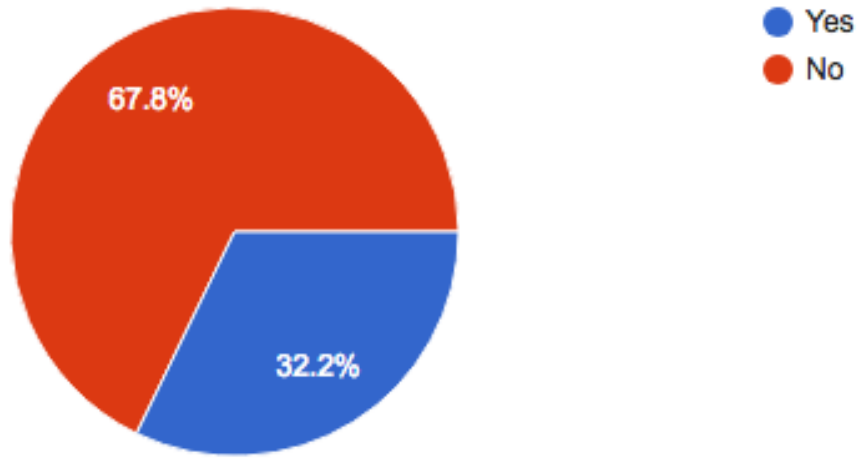
10. How important are the sweets in your cuisine?



11. Do you have any vegetarians in the family?



12. Do you prepare jams, pickles and similar food to preserve long time?



12. a) If yes, what amount?

2

one year

Depend

2-3 bidon turşu, çok fazla sayıda domates salçası

for entire family

for 4 people

For my family (5 of us)

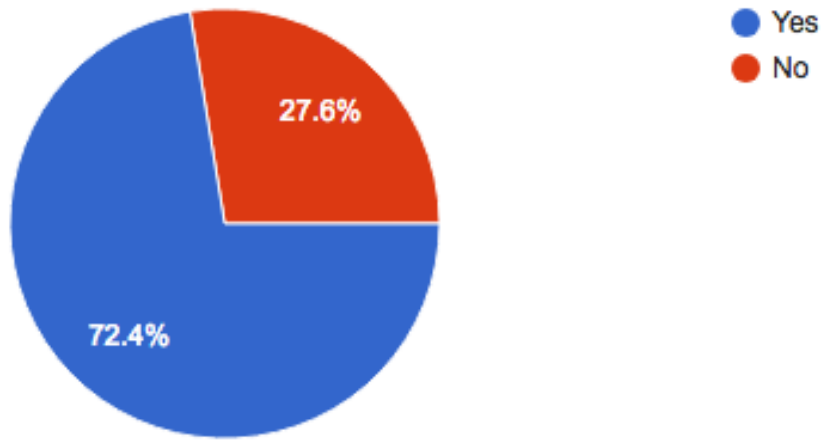
I help my mum; for entire family (15 people)

idk, helping my mum

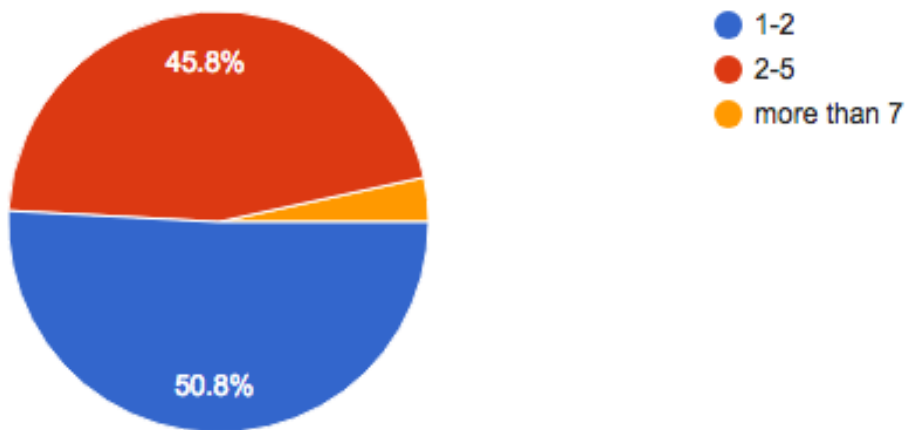
small, just for myself

for 2 families

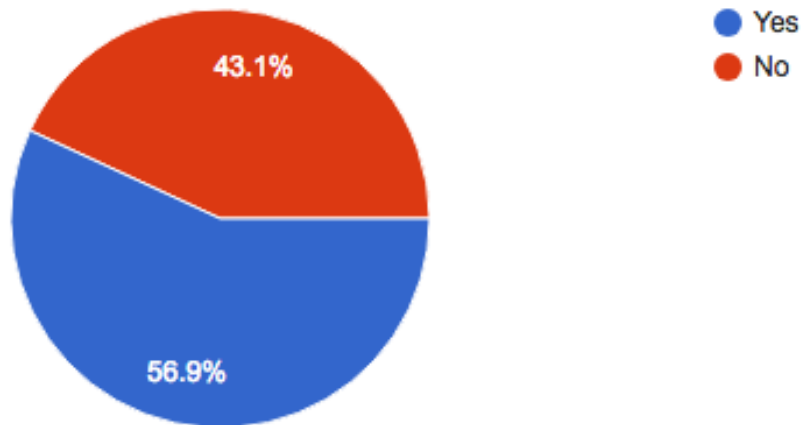
13. Do you have favorite utensils?



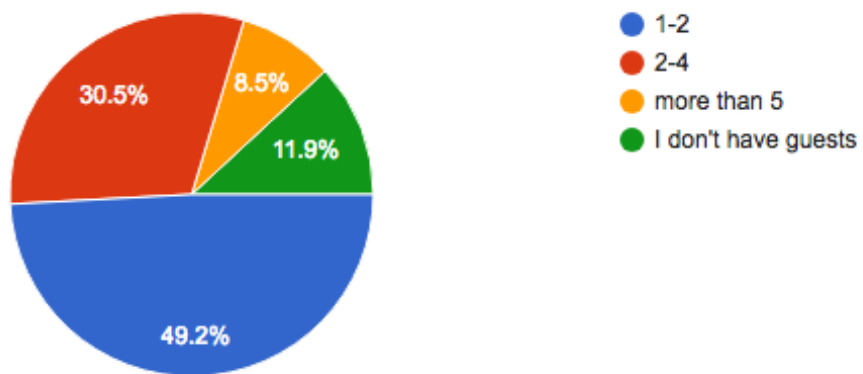
14. How many utensils you use on average when you cook?



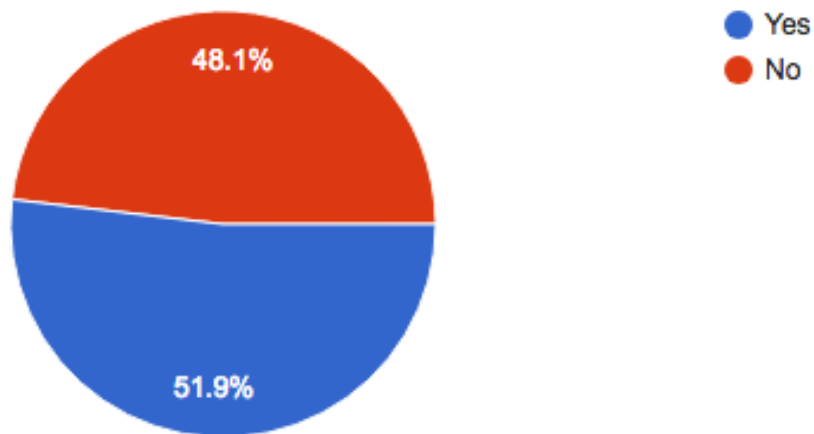
15. Do you agree that smaller kitchen eliminates the time spent moving from one side to the other?



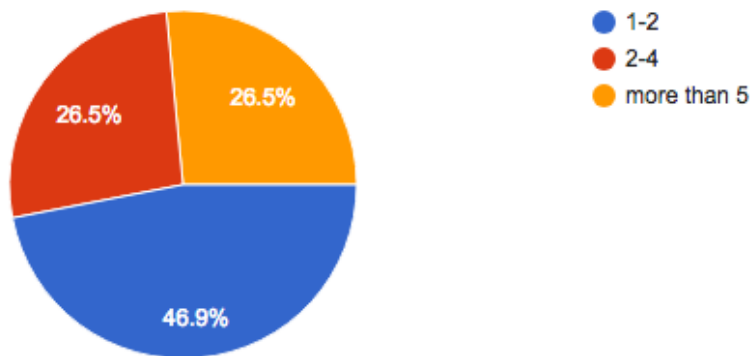
16. How many times a month's you have guests to have lunch/dinner with you?



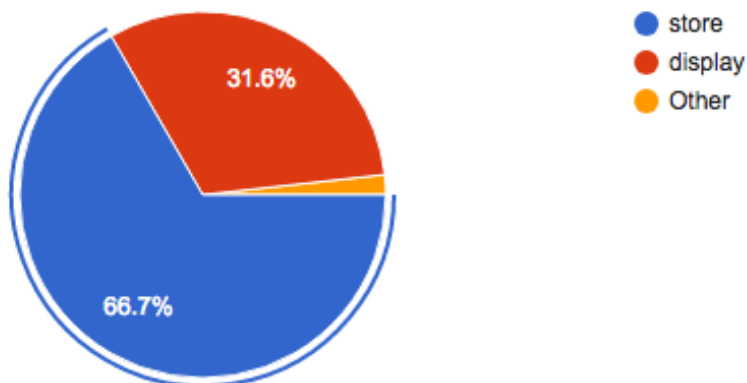
17. Do you have separate dining spaces for different genders of your guests?



18. What would be the maximum number of each group of genders? Including children?



19. Do you store your utensils after using it or it is displayed on/in the kitchen?



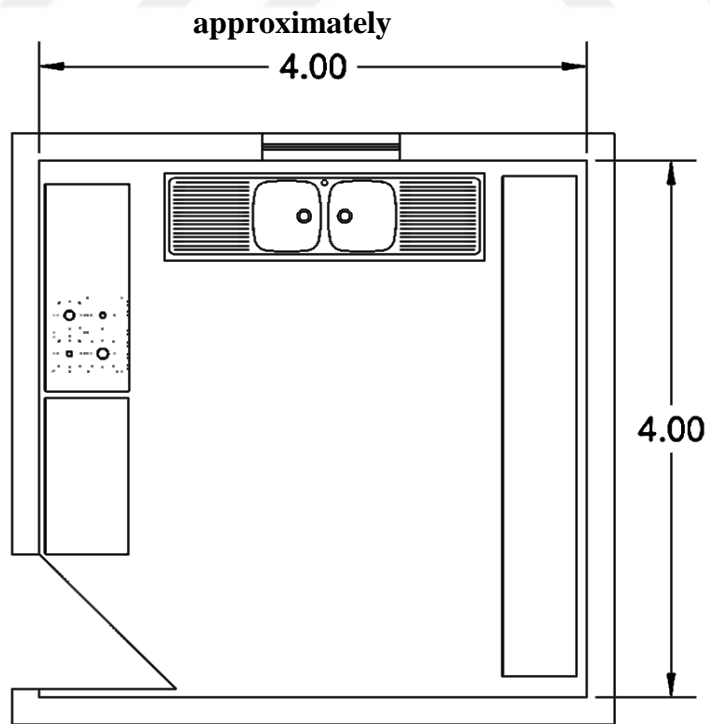
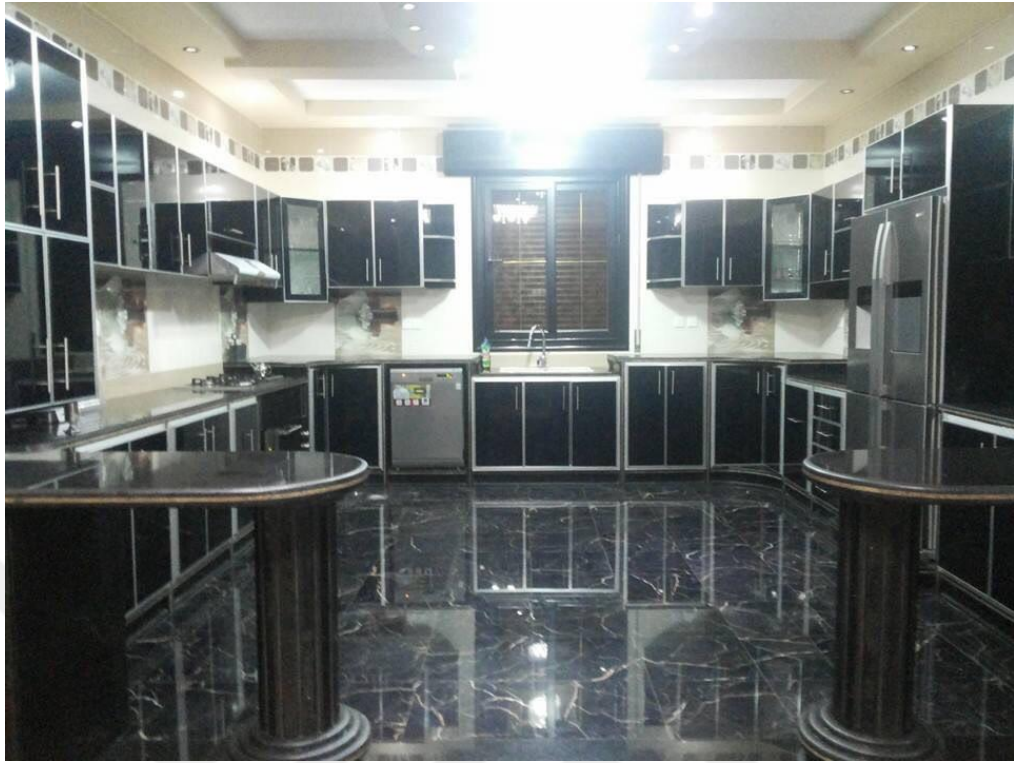
The fourth section of the questionnaire examines individuals habit and personal preferences, lifestyle and habits. The way people cook and the type of food they cook

can affect kitchen size and ergonomics. The number of people they cook for (if they live in a community) or single also matters. Big number of population today lives in a cities and there is not much liberty of choosing a kitchen size in a rented space (most of the time it is already determined by the apartment square footage and number of people living in). There are more factors that cuisine that impact kitchen size and ergonomics that it was thought before. Type of cuisine is important but is not crucial in the urban areas, people cook same old receipts in a way quick way due to the technology impact and numerous kitchen appliances can cut cooking time.



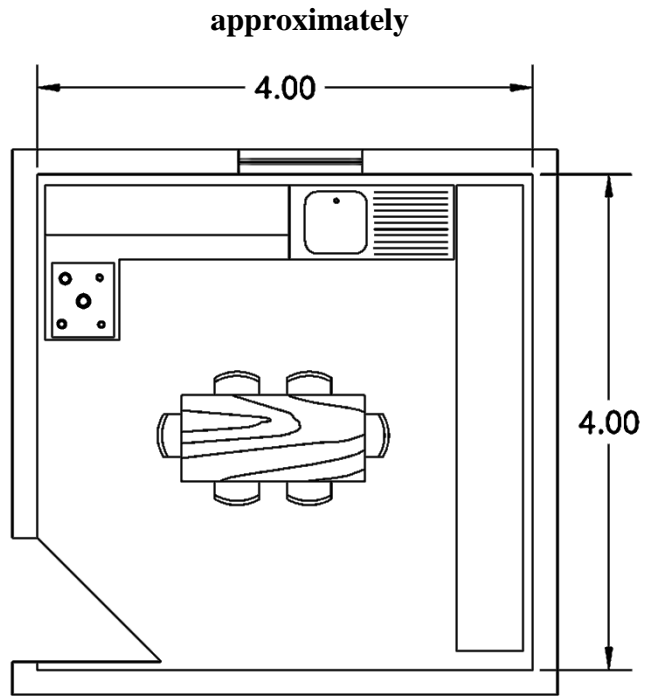


APPENDIX B: KITCHEN PICTURES

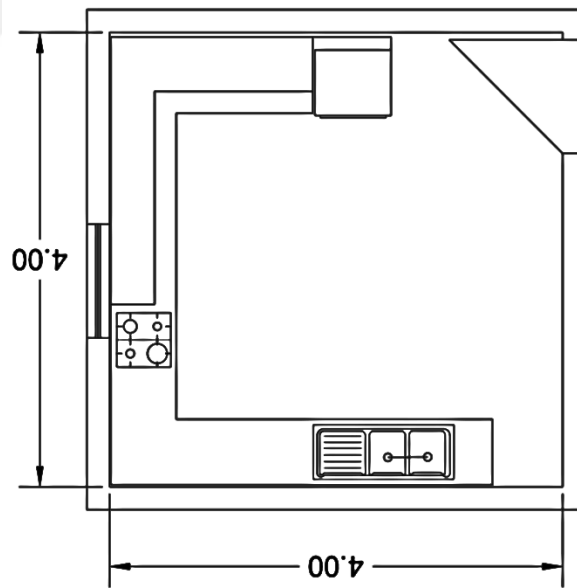


Libya .Mr. Ahmed Ali . kitchen of the house (one floor house)





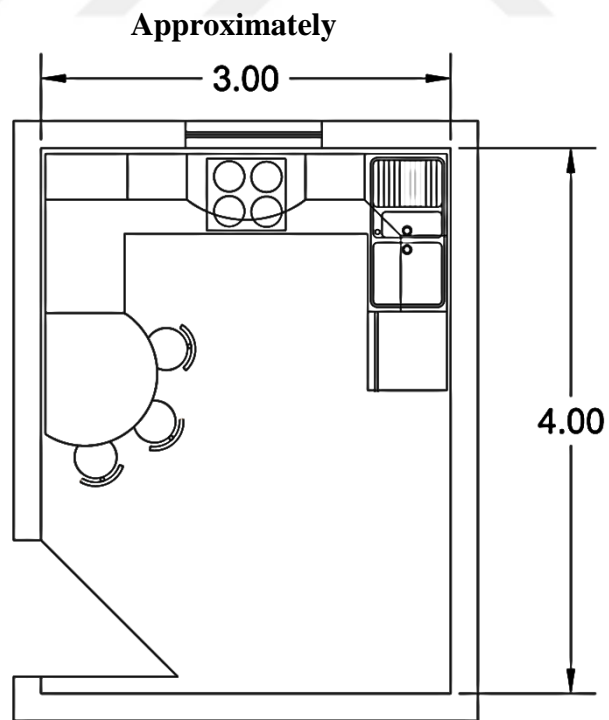
Turkey .Mr. Ahmed Akbay . kitchen of the house (Apartment)



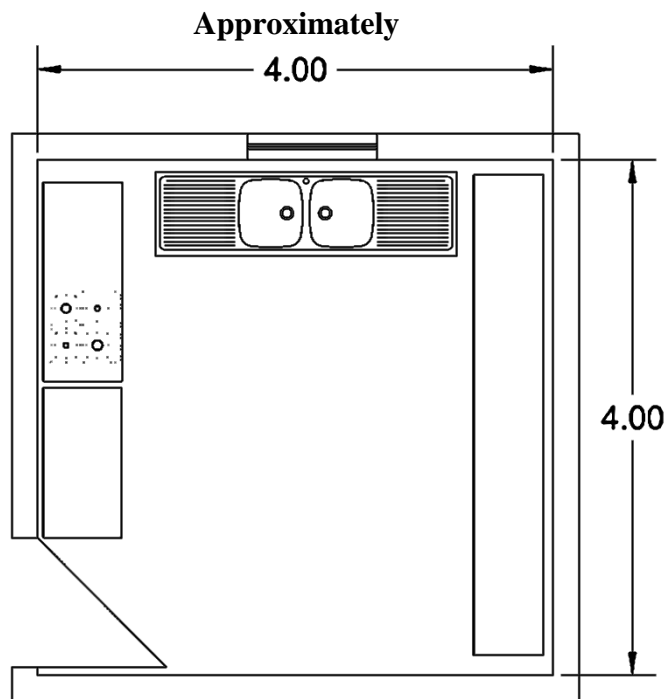
Libya .Ms. Rabia Abulgasim . kitchen of the house (one flor house)



Libya .Mr. Rima Ahmed . kitchen of the house (one flor house)



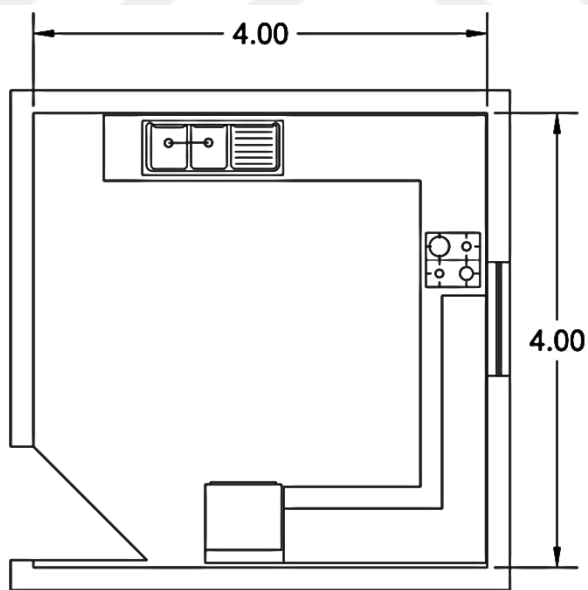
Turkey .Mr. Sadat yilmaz . kitchen of the house (Apartment)



Libya .Ms. Howeda mabrok . kitchen of the house (Apartment)



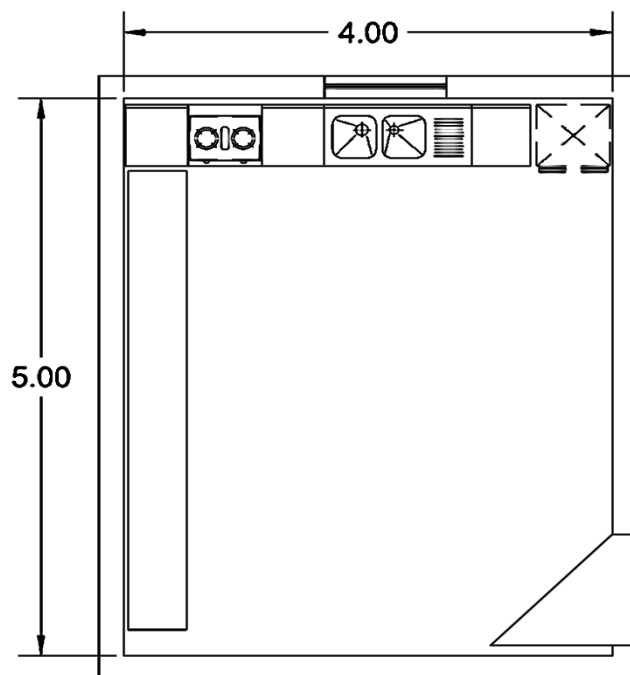
Approximately



Libya .Ms. Hawa Amir . kitchen of the house (Apartment)



Approximately



Libya.Ms. Jamila Juma . kitchen of the house (one floor house)



**SOME TRADITIONAL FOOD RECEPIES IN TURKISH AND LIBYAN
KETCHEN**

1. Turkish food receipts:

a) Dolma

Ingredients:

Pickled grape leaves, pickled in brine then washed and drained

Onions, diced

Rice, washed under cold water and drained

Flat leaf parsley, chopped finely

Olive oil

Pine nuts

Dried currant

Dried mint flakes

Allspice

Black pepper

Ground cinnamon

Granulated sugar

Lemon salt

Lemon juice

Serving: 10 (40 dolmas)

Tools and equipment needed:

4-5 different plates where the ingredients are; pot to stir rice, cutting board (or blender), larger pot to cook dolmas. In the past each dolma would be handmade and rolled by hand but today there is “The Ultimate Dolma Machine” that does that, therefore it cuts down preparation time and space; hot plate or stove needed.

(Sonmezsoy, n.d.)

b) Borek

Ingredients:

Extra-virgin olive oil

Mild green peppers, such as cubanelles or Anaheims, stemmed, seeded and coarsely chopped

Pul biber pepper (Aleppo pepper)

Onion, coarsely chopped

Salt and freshly ground beef

Canola oil, plus more for brushing

Eggs

Milk

Package yufka dough

Nigella sativa (black cumin seed)

Tools and equipment needed: pot to cook the meat and vegetables; stove and oven; bowl for eggs, milk and canola oil; preparation counter for yufka. (Conant, n.d.) Sometimes borek is made in rolls and that requires bigger counter for rolling the yufka and meat. .

c) Baklava

Ingredients:

Chopped mixed nuts
Ground cinnamon
Package phyllo dough
Butter, melted
White sugar
Water
Honey
Vanilla extract
Grated lemon zest

Tools and equipment needed: stove and oven, blender; counter for assembling baklava, cooking dish; pot for cooking sweet topping. (Lebow, 2007)

d) Asura

Ingredients:

Barley,
White kidney beans,
Chickpeas,
Rice,
Bulghur,
Sugar,
Water,
Hazelnuts, chopped,
Walnuts, chopped,
Almond, chopped,
Dry apricots, diced,
Peanut, chopped,
Raisin, washed and drained,
Apple, diced,
Orange, diced,
Sesame,
Honey,
Pomegranate seeds for topping.

e) Kaymaklı Ekmek Kadayıfı

Ingredients:

Half of ready, dried ekmek kadayıfı (15 cm/ 6” in diameter) – Turkish dehydrated bread for kadayıf
Pints / Hot water

For the syrup:

Sugar

Hot water
Lemon
Crushed walnuts to serve
Kaymak, Turkish clotted cream or clotted cream or mascarpone cheese to serve.

2. Libyan food receipts:

a) Sharba Libiya

Ingredients:

Ingredients:

Lamb meat, chopped into small cubes
Onion, chopped
Finely chopped tomato
Olive oil
Tomato paste
Dried mint
Finely chopped parsley
Lisan asfour (orzo or other soup pasta)
Chickpeas, soaked overnight then cooked or use canned (optional)
about Boiling water
Heaped teaspoon each of: turmeric, black pepper, red paprika, mixed spice
Salt
Whole spices (optional)
Cinnamon stick
Cardamom pods, crushed
a few shaiba leaves (known as dagad phool in Indian cuisine)

Tools and equipment needed: stove, chopping board or blender; pot, hot water.
(Libyan Soup with Lamb and Mint: Sharba Libiya, 2011)

b) Bureek

Ingredients:

The dough:

White flour
Water
Melted butter/ghee
Baking powder
Salt
Veg. oil to cover the rolls of dough
Egg for brushing
Starch (usually cornfour)
Filling suggestions
White cheese and dried mint
White salty cheese (feta) cut into small cubes
Ground dried mint

Spinach and onion filling:
Fresh spinach, well drained and chopped
Onions, cut into thin wings
Butter
salt and pepper to taste
Freshly grated whole nutmeg (optional)
Meat filling:
Lamb/veal mince meat
Finely chopped onion
Mixed spices
Salt and paper to taste

Tools and equipment needed: rolling pin, counter space for stretching the dough; 2 trays, stove and oven; baking dish, brush (Arabic Savoury Pastries: Bureek Muwaraq, 2011).

c) Hassaa

Ingredients:
Grounded fresh lamb meat or beef (optional)
Oil
Crushed tomatoes
Garlic
Tomato paste
Flour
red pepper (powder). Salt and turmeric
green hot peppers
fresh cilantro, basil and mint(equal amounts, chopped and mixed)
Lemon

Tools and equipment needed: pot and stove or hot plate, large sipping spoon, chopper, chopping boards (Libyan Food, n.d.).

d) Magrood

Ingredients:
Q pound dates (paste)
Cinnamon
Oil

Tools and equipment needed: tray to mix ingredients and tray to serve it (Libyan Food, n.d.).

e) Mhalbiya

Ingredients:
Whole milk
Rice flour
Sugar
'Atr (extract of scented geranium). If 'atr is not available, orange blossom water can be used

Tools and equipment needed:

Sauce pan, custard dishes, stove or hot plate, stirring spoon (Libyan Food, n.d.).

f) Basboosa

Ingredients:

Batter:

Semolina

Melted “samn”

Sugar

Plain yogurt

Peeled almonds

Baking powder

Syrup:

Water

Sugar

Lemon juice

Tools and equipment needed: bowl, baking pan, stove and oven; pot for syrup, stirring spoon. (Libyan Food, n.d.)

CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name:

Date and Place of Birth:

Marital Status: Married

Phone:

Email:

EDUCATION

Degree	Institution	Year of Graduation

WORK EXPERIENCE

Year	Place	Enrollment

LANGUAGES

Language	Speaking	Reading	Writing