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#### REPRESENTING THE EFFECTS OF CULTURE-BASED PRINCIPLES OF IRANIAN LIFESTYLE IN DESIGNING CULINARY TOOLS AND PRODUCTS

This study is based on the assumption that behind every daily device, especially cooking devices, there exists a culture effect from the user's lifestyle, which evolved through time and has many factors involved in its evolution. The goal of this research was to study these incidents' effects on designing everyday objects.

The primary research variables, based on the research purpose, were 'Time' and 'Artifact'. Moreover, taking 'Activity Theory' as the framework resulted in demonstrating a historical timeline for the variables showing the historical tipping point, which directly or indirectly affect the Iranian lifestyle and its cuisine. We claim that a plausible amount of influence on Iranian culture is taken from other cultures in history. In order to see the influence of western cooking devices on the life of Iranians, the research was conducted. To gather information from various parts of Iran that have different cuisines, we developed a chatbot for a survey with the ability to share pictures, videos, voices, and, most importantly, stories behind them. The analysis of this data notes the negative and positive aspects of such an influence. The design challenges of such a study is researching a set of Iranian culturary devices that could protect Iranian spirit and culture on the one hand and be adapted with necessities of modern life, on the other hand.

In concluding the research, a guideline was elaborated for designers to inspire them with ideas for culinary devices in future design processes.

Keywords: Iran, Cooking Culture, Activity Theory, Culinary Design.

\* This paper is a translation of my master thesis from Persian. It is a summary and does not include all the information provided in the original text for concluding the results. I am a certified English-Persian translator and have translated the Persian sources into English in order to use them here. I also have a TOEFL certificate with a score of 94. A handbook explaining this research findings is published online; for more information, click here.

# Introduction:

The world is growing smaller every day. Media flow and technological breakthroughs such as the TV, cinema, the internet and others are the most important factors enabling us to interact with remote communities which may be culturally different from our own. By such contact a common global culture is formed (Ayna,2011). Stuart Hall emphasizes that a new kind of globalization process, in which global elements are intermingled with local ones, has been started, and this new type is the globalization of the American culture (Hall 1998). The spread of a global culture and lifestyles is very fast, compared to previous times, and it emanates from an identifiable center (Taylan & Arklan, 2008). Due to new communication technologies and media, culture has become a commodity, produced, offered and marketed, and so it has become an image. The world is becoming a single social space held together by the cultural transportation of semantic systems and symbolic forms(King, 1998). Living in the information age changes everything in our lives, even in our daily and local life. It is easier to know more about other cultures and adopt them in our lifestyles no matter the place we are living in. One such consequence is in cuisine cultures.

Food is one of the ways humans define themselves as civilized. Identity—religious, national, ethnic—is intensely bound up with food (Civitello, 2011). Recently consumer food choices have undergone profound changes, related to the dynamics of globalization and the processes of individualisation of society (Corvo, 2007; Neresini & Rettore, 2008; Poulain, 2002). Gastronomy surely represents a significant and increasingly important dimension of social life, which affects other aspects of the cultural and economic context, in view of a society of leisure (Blackshaw, 2010). With the spread of globalisation, it is now possible to eat food from other countries and learn about the origin, culture and shared identity around it. Tasting and cooking other cuisines has been more accessible. It is possible to cook food without traveling to the origin of it and be accustomed to the culture behind it and even sometimes not knowing the origin of it.

Furthermore, the transition from a hunting economy to an economy of production represented a decisive change both in the relationship of man to land and in human culture (Braun, 2007). What we call culture takes place where tradition and innovation intersect(Braun, 2007). However, cultures are evolving through time, and needless to say, they affect other aspects of people following that culture. In the evolution of culture, by the evolutionary process of preadaptation, food comes to serve functions other than nutrition, which puts its nutritional aspects in a broader and more complex context. Food becomes a social vehicle, allowing people to make social distinctions and to establish social linkages, for example, by sharing food(Rozin, 2005). As an everyday activity, sustaining our life, eating experiences reveal the complicated relationship between food and society, involving material and symbolic aspects of cultures, dietary order, but also aesthetics or hedonism (Fischler, 2017; Lévi-Strauss & Isambert, 1965; McCormack & Douglas, 1967; Warde et al., 1998). On the figurative level, food and culture take us through all the repertories of social life: objects, places, situations, roles, practices, and behaviors, involving all the sociological levels. "On a larger cultural scale, we can identify the taste programming and the implicit interpretation grid in order to recognize and appreciate a dish, a wine; the frame effects (the culinary, the table manners) presented as useful and essential for eating in confidence; representations, values and beliefs that govern our relationship to food, taste, all aspects, speech included, taken into consideration (Boutaud et al., 2016b)".

Iran is a middle eastern country that by exchanging products with other countries became influenced by them. Persian cooking has many features in common with Indian, central Asian, Turkish, and Middle Eastern cuisines. The influences affected Iran's culture to lose its identity and become a mixture of eastern and western cultures. However, it has its particular characteristics and is unmistakably different from any of its counterparts. Therefore product design in Iran was modified. Nowadays, products are not designed based on Iranian culture, but other countries' designs inspire them.

### Questions this thesis will answer:

1. What are the reasons for cultural eclecticism in the Iranian lifestyle?

2. How did cultural transformations change the Iranian lifestyle?

3. How did culture shape the design of culinary products throughout the years?

4. What are the most crucial factors in changing the design of culinary products?

## **Cuisine:**

As an everyday activity, sustaining our life, eating experiences reveal the complicated relationship between food and society, involving material and symbolic aspects of cultures, dietary order, but also aesthetics or hedonism (Fischler, 2017; Lévi-Strauss & Isambert, 1965; McCormack & Douglas, 1967; Warde et al., 1998).

Moreover, Historians Have only recently begun to take notice of how the spread of potatoes, tomatoes, peanuts, and half a dozen other foods we now take for granted- changed human lives, often in quite drastic ways (Mcneill, 1999). The more recent trend towards food heritage and heritagisation reveals the dynamic role of history in understanding culture, as well as the marketization of culinary traditions. "Social changes, like evolutions in intergroup relations within societies, migration phenomena such as nomadism, refugees, expatriates, tourism, alongside with the industrialization of food production or the globalization of foods, the role of mass media and new technologies, all have their impact on the food production, distribution, preparation, foodways or drinkways changing either by expressing individual or group preferences for alternative consumption manners, or at collective level(Boutaud et al., 2016a)."

Cuisine, in terms of both the preparation of food and the social aspects of dining, is an essential part of any culture; indeed, some fundamental aspects of a culture may be more readily apparent in its culinary arts than in other traditions (Daniel & Mahdi, 2006).

## Design:

Our lives are full of interactions with different products; it can be said that humanity is not understandable and recognizable without them. We have a non-human relationship with products and our surroundings, which make our perception without things and non-human elements unimaginable and impossible. These relationships affect humans more than we realise, and this is where design plays an important role.

Design is mostly about solving a human problem; in other words, finding an answer to a human need. Everyday actions inherent in everyday design cases, actions that are incorporated into design solutions(Kim & Lee, 2014). However, human needs can be defined, changed, transformed, replaced, or eliminated. Human improvement in different areas of science and humanity, and consequences like knowledge, lifestyle, creativity, and culture are the main factors involved in this phenomenon. As a consequence of a change in human needs, the design will adjust the existing solutions or create new ones. Everyday activities adapt and change everyday artifacts based on the characteristics and needs of the people it is designed for. However, creating artifacts that are useful, feasible to develop, and enduring, the inspiration should be based on daily lifestyle and activities situated in its culture.

Culture is a pervasive force among people that shapes personality traits, problem solving tactics, affects thinking processes, and influences lifestyle preferences(Chu & Reeves, 1999) Culture is a part of the infrastructure of people's mindset and is the perception of the world. Designers are not excluded; the culture influences them as well as they grow up in it and are surrounded by it. They should consider culture in their design process to add something meaningful to people's lifestyles.

Furthermore, the design is intended for a wide group of audience around the world. Geographical differences, colorful cultures, varied societies, traditions and customs led to different lifestyles with myriad mindsets. The unique characteristics of each culture are revealed by the symbolic systems created by the people within that culture and plays a significant role when people create and design artifacts(Chu & Reeves, 1999). These differences in lifestyles cause essential modifications in the product or the way it is used. Design for the same need/problem in different societies, cultures, and lifestyles will create different end-results. These differences can also be seen in subcultures in different provinces, cities in the same country. Designers can directly observe target groups and their actual contexts; it is integral for designers to grasp the context not only from their own perspective but also from that of the target users.

The specific field of design is about people and their relation with the product –system (Mauri, 1996). Design, studies reality and interprets it in order to produce something, tangible (products), or intangible (services), which permits society to grow and live better. For this reason, design must consider the complexity and the variety of the contemporary world and act like a link among different aspects which gravitate around a point of interest. The case of cultural heritage is considered one of those points of interest in which a wider vision must be brought to light in order to connect and synergize all different aspects involved (building, territory, history, communication, service, fruition and preservation)(Brenna et al., 2009). Design approach permits people to use the immense heritage left by history, and to consider it as a chance to get pleasantly involved, while learning about the territory itself and having unique experiences. (de Biase, 2008) As an everyday activity that sustains our life, eating experiences reveal the complicated relationship between food and society, involving material and symbolic aspects of cultures, dietary order, and also aesthetics or hedonism (Fischler, 2017; Lévi-Strauss & Isambert, 1965; McCormack & Douglas, 1967; Warde et al., 1998).

Moreover, Historians Have only recently begun to take notice of how the spread of potatoes, tomatoes, peanuts, and half a dozen other foods we now take for granted- changed human lives, often in quite drastic ways (Mcneill, 1999). The more recent trend towards food heritage and heritagization reveals the dynamic role of history in understanding culture, as well as the marketization of culinary traditions. Social changes, like evolutions in intergroup relations within societies, migration phenomena such as nomadism, refugees, expatriates, tourism, alongside with the industrialization of food production or the globalization of foods, the role of mass media and new technologies, all have their impact on the food production, distribution, preparation, foodways or drinkways changing either by expressing individual or group preferences for alternative consumption manners, or at collective level(Boutaud et al., 2016a). Cuisine, in terms of both the preparation of food and the social aspects of dining, is an essential part of any culture; indeed, some fundamental aspects of a culture may be more readily apparent in its culinary arts than in other traditions (Daniel & Mahdi, 2006)

### Iran:

Geography obviously has a significant impact on the development of society and culture anywhere in the world, but its effect is particularly dramatic in a country like Iran. It severely limits where people can live, makes transportation and communications between different areas of the country difficult, and has greatly affected the kinds of lifestyles that are possible. First of all, Iran is, relatively speaking, a very large country. In its current borders, it has a total area (land and water surface combined) of about 636,000 square miles. It is now the seventeenth largest country in the world in physical size (Daniel & Mahdi, 2006).with a population more than 79.9 million in 2016 (https://www.amar.org.ir/).

In general, culinary practices in Iran have been affected by several critical cultural factors. The most obvious, of course, are the requirements of Islamic dietary law since the vast majority of the population are Muslims: meat should come from animals that have been ritually slaughtered; pork and certain other foods are forbidden; and wine or other alcoholic beverages, though certainly used by some people at various times, are illegal under Islamic law and have been strictly prohibited since the establishment of the Islamic Republic. Prior to the 1979 revolution, alcoholic drinks and pork meat in the form of ham and hot dogs were available in modernized sectors of major cities, even though these foods were avoided by the majority of people. Secularized Iranians, especially educated ones, are not much concerned about religious dietary restrictions(Daniel & Mahdi, 2006).

## Aim of the Research:

In this research, from all of the hidden factors in design, "culture" was chosen as the main factor affecting everyday life. Culture is at the core of the design process(Young, 2008). Culture and design affect each other in a loop, the design will observe and demonstrate culture in its end results, and culture is helping design to evolve. One of the design challenges is creating artifacts that the user wants to use, maintain, and keep for a long time. Such artifacts should be aligned with the user's emotions and enhance the user's experience. Artifacts can only reach this goal when designed based on users' values, mindsets, and behaviors, even if they modify them. An understanding of general cultural differences should influence the design process(Rogers et al., 2007).

Iranian cuisine is unique in its characteristics, using exclusive and uncommon ingredients, slow cooking, eating together, creating hospitality, and, most importantly, being affected by religion. Iran cuisine has influenced many cuisines through time, especially its geographical neighbors. Although, Iran is getting further from its rich heritage, since it faced so many historical ups and downs. Currently, Iran's culture is a mixture of western and eastern cultures that has shifted the Iranian lifestyle. There are not enough artifacts designed rooted in the Iranian culture, so it is reasonable that users use imported ones to cater their new and evolving needs.

The assumption in this research is that behind every daily device, especially cooking devices, there exists a cultural effect from the user's lifestyle, which evolved through time and has many factors involved in this evolution. The goal of this research was to study the cultural events and incidents' in Iraninan history that effects designing everyday objects. So, the data gathered will help designers design durable and adaptable products used in the kitchen daily. As most of the design research starts with studying the end-user, client, problem, products, and market, in this research, the context of activities in the kitchen was studied and explored.

### **Theoretical Framework:**

Activity theory is a social and cultural psychological theory and was chosen as the primary research method. The foundational concept of activity theory poses that human activity is understood as purposeful, mediated, and transformative interaction between human beings and the world (Kaptelinin & Nardi, 2012). The principles and components of activity theory have been used as analytical tools for many different subjects. These include: human-computer interaction (Kuutti, 2019), information systems(Bannon & Bødker, 1989), interface design(Bannon & Bødker, 1989), communities of practice (Engestrom Y, 1993), education (Engeström, 2014), etc. An activity consists of a subject and an object, mediated by a tool. A subject can be an individual or a group engaged in an activity. An activity is undertaken by a subject using tools to achieve an object (objective), thus transforming it into an outcome(Kuutti, 2019).

Engeström (1987) formulated activity context as a network of different parameters or elements that influence each other. Figure 1 shows Engeström's model (1987) of an activity system.

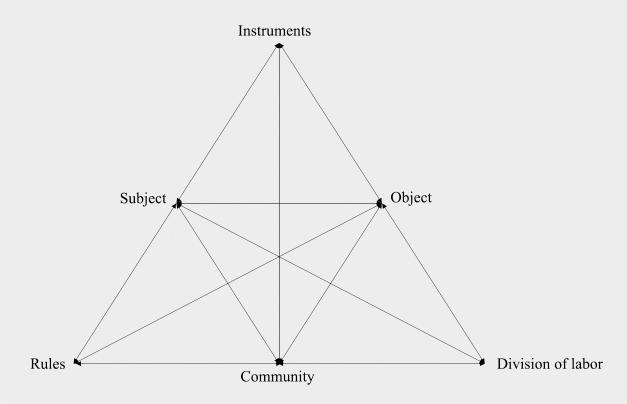


Figure 1. Activity system model (Engeström, 1987).

Activity theory is often associated with three levels describing the hierarchical structure of the activity. Each activity is conducted through actions of an individual, directed towards an object or another object. An action is a single task with a goal performed to achieve a self-contained, pre-conceived result relevant to the overall activity. A sequence of operations perform actions. Operations are the work functions or routines where each action is determined by the actual conditions and contexts of the action during its performance. Activities in activity theory are not static or given, but are dynamic. They are changing and developing. At the activity level, the object/motive itself is also reflected, questioned and perhaps adapted, reacting to larger changes and other activities (Kuutti, 2019). Because activities are not static but more like nodes crossing hierarchies and networks, they are influenced by other activities causing imbalances between them (Kuutti, 2019).

In this research, activity theory will be used as a framework for describing the components of an activity system in the kitchen. For this research, the information processing and decision-making modes are grounded on CHAT framework which is a Cultural-Historical Activity Theory. The historical roots, main ideas, and justifications of the culinary products were introduced. Object-oriented motives, mediation, supporting sub-activities/ hierarchical level; and interacting activity systems (Engeström's Third Generation) were used to study and analyze the context, findings, and data. Every element in Figure 2 was investigated in detail and was taken into consideration.

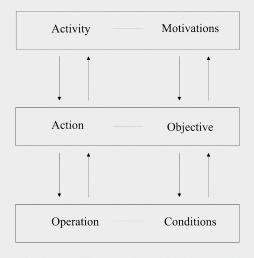


Figure 2. Activity levels (Neto et al., 2005).

As it was mentioned before, Activity Theory (AT) is a descriptive psychological framework helping to understand the unity of consciousness and activity. The foundation is a set of basic principles. These guiding principles include(Bannon & Bødker, 1989).

- Hierarchical structure of activity
- Object-orientedness
- Mediation
- Continuous Development
- Distinction between internal and external activities

## **Context Model:**

The best way to study an effective culture in an activity is to study the activity's context. Keeping to the pragmatic view on building artifacts, we impose a taxonomy on the context model during the design phase (Figure 3). This taxonomy incorporates the tradition in context-aware systems, and the general concepts found in Activity Theory. The taxonomy divides context into five sub-categories (Kofod-petersen & Mikalsen, 2005):

1. Environmental context: This part captures the user's surroundings, such as things, services, people, and information accessed by the user.

2. Personal context: This part describes the mental and physical information about the user, such as mood, expertise, and disabilities.

3. Social context: This describes the social aspects of the user, such as information about the different roles a user can assume.

4. Task context: the task context describes what the user is doing, it can describe the user's goals, tasks, and activities.

5. Spatio-temporal context: This type of context is concerned with attributes like: time, location, and the community present.

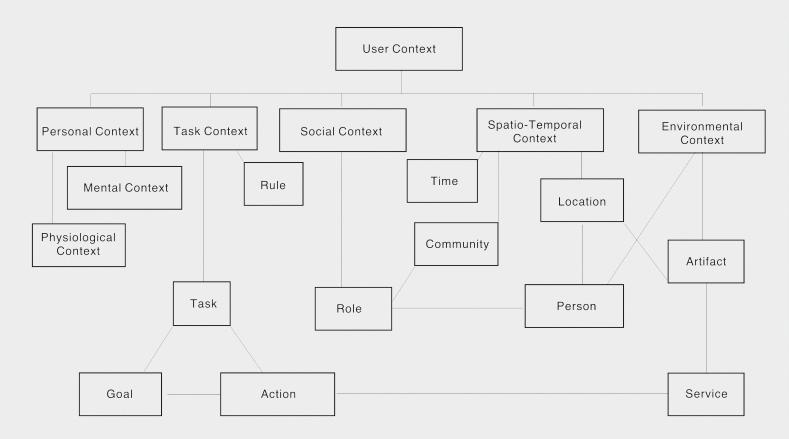


Figure 3. Context Model (Cassens & Kofod-Petersen, 2006).

### **Environmental context:**

The action under study in this research is "cooking," which will meet one of the three fundamental needs of humans, food. This action is so vital that an independent space in houses is dedicated to doing it, demanding using specialized tools and products. Cooking in Amid dictionary is defined as the art of creating food; also, being a good cook needs practice, and knowledge about this action will rank cooking in art, skill, and science. However, since the purpose of this research was to address daily life, the needs of the Iranian general public were considered not the experts in this field.

The spatial context is related to human relations to nonhumans, objects, products, services. Arguments about "artifacts" as one of the main variables in this research are elaborated in this section.

## **Personal context:**

Cooking in every society involves a collection of technical and artistic delicacy and skills that take place to transform the available ingredients into edible food. Every individual has a unique taste based on the circumstances they grew up in, the family, their connection, language, friends, personal characteristics, and many other factors. Moreover, this personal taste, along with personal skills, affects the cooking action.

## Social context:

The industrial revolution decentralized the power in different countries. In industrialized countries, however, the ensemble of techniques needed for the preparation of daily meals is much more limited and less burdensome, given that a large number of the preliminary tasks have devolved onto professionals, and to the agro-food industry. Moreover, in the industrialized countries, culinary activity tends to forsake the domestic domain to become a profession practiced in the public arena of restaurants. In this new dimension, cooking tends to change genders, becoming no longer a female domestic activity but to a profession exercised principally by men (Braun, 2007).

Underdeveloped countries lack the infrastructure that the developed country possesses, and in turn, get influenced by them. In other words, the source for social changes in underdeveloped countries are impacted and affected by cultural products and artifacts from the Western or more developed countries The growing influence of western countries on eastern ones is one of the main reasons for their structural changes. People of Iran didn't accept these changes quickly, however, over time it made its way into the life of the people. That is why the phenomenon of cultural exchange is crucial in social-cultural transformation and development.

For example, family gatherings are the most important aspect of social life. As Iranians face strict limits on entertainment under a theocratic government, family gatherings have become extremely important, not only as a means of performing various rituals, sharing food, and so forth, but also as the safest and most protected site for entertainment (Daniel & Mahdi, 2006). These kinds of family-centered and social-centered principles are deeply implanted in people's thinking and influence the ways of living as moral and intellectual doctrines in Asia(Chu & Reeves, 1999).

Nevertheless, modern architecture and living in flats and apartments, along with new families' independence, turned these gatherings to a weekly or even monthly event.

## Task context:

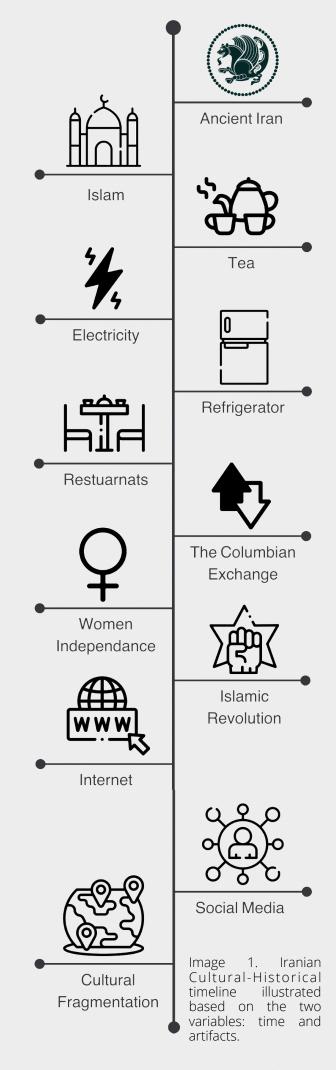
Cooking is a moral process, transferring raw matter from 'nature' to the state of 'culture,' and thereby taming and domesticating it . . . Food is therefore 'civilised' by cooking, not simply at the level of practice, but at the level of the imagination (Lupton, 1998)

Categorizing tools and equipment in the kitchen can be done based on various characteristics and features like form, material, style, and function. In this research, after studying and analyzing some of the general and common categories, a new category was introduced. It is based on the stages of using them in the cooking process, so cultural influence will be easier to understand.

A product can be obtained from the resources of the region, but also from commercial connections. It can be accessible to some, inaccessible to others. A product can be accepted or rejected, depending on the individual or collective tastes or on cultural choices the spread of new products was encouraged above all by need (Braun, 2007).

### **Spatio-Temporal Context:**

In this section, geographical status and evolution from traditional Persian kitchen (matbakh) to modern kitchens will be studied. The other primary variable in this research is "time," which helps define the research flow and concludes based on the historical timeline. The incidents from ancient times until the information age which influenced Iranian culture, were studied and taken into account. However, the most effective ones are illustrated in the graphical timeline (Image No.1).



In order to prove these findings, a survey was conducted. It was essential to gather information from all around Iran with different weather, cultures, and cuisines. The survey was designed in a digital platform so people around Iran can participate in it. The platform was a messaging mobile application called Telegram which is a popular and the most used messaging app in Iran. As of 2016, it was estimated that there were 20 million Telegram users in Iran (Iqbal, n.d.). This application has a feature for users to design and develop chatbots. Moreover, it is possible to send documents, pictures, audio, and video through this application.

The survey had 70 questions, in 6 different sections. Each of them with different purposes, different types of questions to answer, and different methods of answering. This will be explained in the following sections (Appendix No.2).

Totally 473 individuals participated in this survey, 23 of the responses were invalid or incomplete but 450 participants from different cities answered all the questions. They were categorized into 5 groups: west, north, east, south, and center of Iran. Since the characteristics of nature, culture and cuisine is different in these areas. Not only The survey wasn't limited to an age range, but it was designed in a way that people from different times participate in it (Figure No.4). Also, the questions were designed to understand the context better based on the years and broader answers would make the results more clear and concluding the historical effective points in Iranian cuisine.

#### General Data:

At first, the personal information of the user was asked. Age, gender, whether they are vegetarian or not. Also, there was a question in this section about the place the participant was born and the city living in.

#### Environment:

Questions in this part were related to the place they are living in. The number of people living in the household, their accommodation, its architectural characteristic, the placement of their kitchen and its characteristics, the distribution of the cooking, shopping, and kitchen related duties in the house between the people of the house.

#### Cooking:

Number of meals cooked in the week, Number of times food eaten outside, takeaways, and catering services. Usage of prepared food or fast food. Different kinds of foods and cuisines cooked. The last question was about the user preferences in automation in the cooking process.

#### Food:

The origin of the foods shown in the pictures was the primary purpose of this section to realizing the user's ability to distinguish different cuisines and point out their similarities.

#### Inventions:

In this section, a selection of non-ordinary products was introduced, where the user guesses the function and also the origin of them. Chosen products had different uses in different cultures. This section aimed to rank awareness level around existing inventions among users and the need for these kinds of solutions in Iranian food culture.

Also, the characteristics of the ideal kitchen spatial design and products were asked in this section. The answer to these questions is a great opportunity for designers to consider while designing for Iranian users.

#### Favorite food:

Favorite food can tell so much about a person. It is undoubtedly affected by different factors, from family background to personal preferences and culture. However, it also can indicate the level of one's inclination to Iranian lifestyle and preferences. As it is shown, the percentage of people with favorite food from Iranian cuisine is lower.

#### Shopping:

The shopping list can be an indicator of ingredients and also products that are going to be used. In the past, Iranian people mostly grew their ingredients themselves or got it from a local market. However, now they buy most of the ingredients as prepared, therefore the answer to this question would indicate the level of commitment to cooking traditions in Iranian families.

#### **Products:**

Pictures in this section were chosen so that their usage is clear and understandable, and the user can answer whether they have it and use it or feel that they are useful and want to have it. The materials of ideal products was another question in this section so that the designers can consider these as well.

#### Mehmani (Feasts):

Iranian people are welcoming and open-hearted, so guests are highly respected. It is a widespread practice among Iranian families to change their daily routine and way of preparing, serving, and cooking food when they have guests. These kinds of traditions were supported by big houses, living with extended families but now the architecture of homes has changed and people are more individualistic than before.

The questions in this section are about the characteristics of feasts. The number of people every household can serve as a guest; and other aspects in their feasts: the culinary, the table, the kind of food they are going to serve, the differences between their daily cooking style, and cooking for guests. At last, whether they outsource any of the food making and preparing process.

#### Design:

In the last section, users were asked to design a product for cooking meat, so their imagination can be compared with the current products or concepts.

\*\* Complete analysis of the results from the survey can be found in the published guidebook (in Persian) through this link. It also illustrated charts and graphs with the gathered data.

## **Conclusion:**

Culture and design are shaping the world around us. Every design has an enormous effect on cultural and societal changes. However, in this thesis, the effects of culture on the design cycle of Iranian culinary products were investigated and analyzed. The design community in a developing country like Iran should have research-based foundations for creating artifacts aligned with people's lifestyles. This research aimed to study how choices and events from everyday life are shaping Iranian lifestyles, carried out by illustrating the historical timeline of culinary products in Iranian homes.

Most of the actions and behavioral patterns in the Iranian kitchen were affected by other cultures. For example, people keep the tradition alive by serving food to many people and eating as a group, even though their living space is not as big as it was, but they are doing it at the dining table, which is borrowed from western countries. Also, the way they serve and present their food is affected by social media. Most people will not start eating until they take a picture of the table and post it online, not as an inspiration but as a marketing trap. The global technological marketplace has brought the need to address international and local target audiences (Young, 2008). The only way they can create the same scene as the picture is by using similar products shown in it. Reactions to these changes are "accepted," which means people will not resist adding them in their lifestyle.

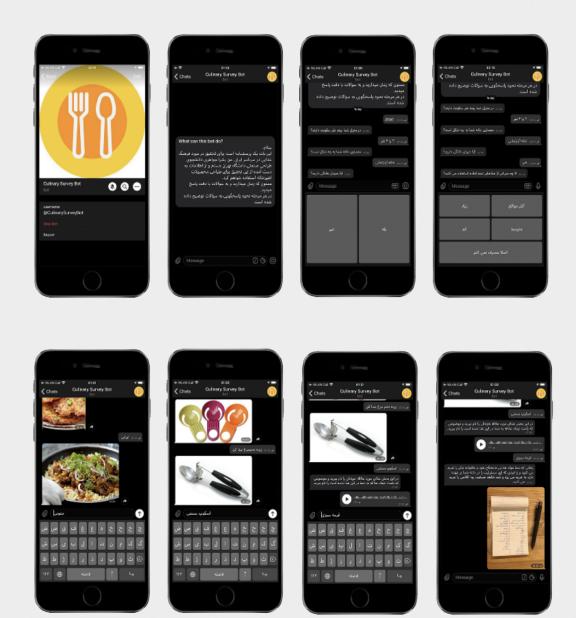
Iranian foods need more time to prepare and cook. Also, there are always unique ingredients used in them. Modern lifestyle does not permit it and people usually stick to traditional methods of cooking for special occasions. Nevertheless, designers can change this by designing modern products based on Iranian culture, so the delicious cuisine can find its way back in families and the legacy can last longer. I hope this research and finding can be a guide for designers to accomplish this goal.

### **Appendix 1:** Table of products which are affected by cultural incidents.

Persian Name	Function/Name	Status	Reason
	Cooking or boiling	deprecated	Less family members
پاتىل	over an open fire		Change In home architectures
			<ul> <li>No more baking bread at home</li> </ul>
بخارپز ماهي	Steaming fish	deprecated	<ul> <li>Influenced by Frying food</li> </ul>
دیگبردیگ	2.4	deprecated	<ul> <li>Teflon pots and pans</li> </ul>
			Less family members
			woman Independence
			<ul> <li>pre-cooked and cooked meals</li> </ul>
	Dehydrating	Added -Available	Women Independence
سبزی خشککن مشک	Vegetables		<ul> <li>Pre-cooked and cooked ingredients</li> </ul>
	Producing butter	Rarely found	Women Independence
	from yogurt		Change in food culture and less use of dairy products
			in foods
			<ul> <li>Pre-cooked and cooked ingredients</li> </ul>
هستەگىر ألبالو	Pit a cherry	Added -Available	Preserving foods
دمكنى	Steaming rice	Available -	<ul> <li>A product specified for cooking Persian rice</li> </ul>
	Coffee Coloria	common	er and a baseline and a second
ز عفرانساب قوری ز عفران چاقوی برش نان	Saffron Grinder	Available	<ul> <li>Financial problems in Iran</li> <li>Being the replacement for metal pounder</li> </ul>
	Steaming Saffron	Available -	
	Steaming Samon	common	Steaming saffron in a more effective way
	Slicing bread	Added -Available	No more baking bread at home
	loaves		Bread loaves, modern bakery
	Cutting sugar	Added -Moderately	Women independent
قند شکن اهرمی	cubes	in use	<ul> <li>Pre-cooked and cooked ingredients</li> </ul>
			<ul> <li>Industrial sugar cubes</li> </ul>
نمکدان در گشاد	Salt holder with	Rarely found	<ul> <li>Healthy trends in cooking and consuming salt</li> </ul>
	wide open	A 111	
خلال کن پوست مرکبات	citrus peeler	Available -	Preserving foods
	D: 11	common	Decorating food
سفر ہھای یکبار مصرف	Disposable tablecloth	Available -common	Women independence
	tablecloth		Ease of use
	Cooking crispy	Available	Consumerism
تەديگ ساز	Persian rice	Available	<ul> <li>Iranians' interest in eating crispy rice</li> <li>Restaurants marketing strategies to sell beloved crispy</li> </ul>
	reisiannice		<ul> <li>Restaurants marketing strategies to sell beloved crispy rice to the customers</li> </ul>
رب گوجەفرنگى گير خانگى گوشتىكوب برقى	making tomato	Added -Available	The Columbian exchange and import tomato in
	pastes (Food mill)		Iranian lifestyles
	Hand blender	Available -	Women independence
		common	Ease of use
			Multifunction tool
چاي ساز برقي	Electric tea maker	Available	Women independence
پ ی سر بر می سماور			Individualism
	Tea run	Available -not as	Women independence
	Soda stream	frequent Added- Moderately	Time consuming     Fast food and soft drinks culture
آب گاز دار کن	Soua scream	in use	Past food and solt drinks culture
پاپکرن ساز	Making popcorn	Added-Moderately	• The Columbian exchange and import corn in Iranian
		in use	lifestyles
			Hollywood movie culture influence
	Vegetable	Added -Available	Women independence
سبزی خرد کن	shredder and		Respect the traditional Persian cuisine
	slicer Sandwich maker	Added -Available	I floored by food to desced
ساندويچ ساز			Influenced by fast food trend
و افل ساز	Waffle maker	Added -Available	<ul> <li>Influenced by fast food trend</li> </ul>
	35 82		<ul> <li>Adopting other countries pastries</li> </ul>
نان برشتەكن	toaster	Added -Available	No more baking bread at home
			Women independence
	Electric Call and	Added Available	Individualism
گريل خانگي	Electric Grill and grill pans	Added -Available	Iranians' interest in eating kebab     Healthy trend in eating harbecued foods
تخممرغ پز	Egg boiler	Added -Available	Healthy trend in eating barbecued foods     Women independence
	1000		
برشزن ميوهها	Fruit slicers	Added -Available	<ul> <li>Social media influence</li> <li>Changes in bosting caused by different facts</li> </ul>
Mart and the second	Baking	Added -Available	Changes in hosting caused by different facts     Changes in hosting caused by different facts
ابزار شیرینی-	accessories	Autor Available	<ul> <li>Changes in hosting caused by different facts</li> <li>Having oven in most homes</li> </ul>
ېزى	1000000100		<ul> <li>Adopting other countries pastries</li> </ul>
			Social media influence
	Extractor hoods	Added -Available	Change In home architectures
هود			Smaller homes and kitchens
			<ul> <li>Respect the tradition of hosting friends and neighbors</li> </ul>
مايكروويو	The second strategy and the second strategy and		
مایک مونو	microwave	Added -Available	<ul> <li>Women independence</li> </ul>

## **Appendix 2:**

Screenshots of the Telegram chatbot indicating different types of questions and samples of participants answers.











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### REPRESENTING THE EFFECTS OF CULTURE-BASED PRINCIPLES OF IRANIAN LIFESTYLE IN DESIGNING CULINARY TOOLS AND PRODUCTS

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