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## Insights into the Art of Plating in Gastronomy: A Content Analysis of Master Chefs' Perspectives

Hatice Cifci <sup>a</sup>, Ilkay Gok <sup>b</sup>, Ozan Atsiz <sup>c</sup>, and Ibrahim Cifci <sup>d</sup>

<sup>a</sup>Department of Gastronomy, Institute of Social Sciences, Okan University, Istanbul, Turkey; <sup>b</sup>Faculty of Applied Sciences Department of Gastronomy, Okan University, Istanbul, Turkey; <sup>c</sup>Tourism Management, Yozgat Bozok University, Azizli, Yozgat, Turkey; <sup>d</sup>Department of Tourism Management, Faculty of Economics, Istanbul University, Istanbul, Turkey

### ABSTRACT

This study aims to ascertain and understand the art of plating dimensions from the perspective of master chefs. A semi-structured interview method was conducted with sixteen master chefs in Turkey to address this research purpose. The gathered data was analyzed via content analysis. As a result, four interrelated dimensions were identified; design principles, target audience, the character of the chef, and characteristics of the food. The findings contribute to the research agenda on the plating phenomenon to better understand the main framework of the art of plating. Further, many practical implications were also offered for relevant practitioners of the restaurant industry. The study is one of the first attempts to explore the dimensions of the art of plating from the perspective of master chefs in the restaurant-marketing context.

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Plating; gastronomy; and culinary art design; master chefs

## Introduction

The basis of the sense of art in gastronomy is more related to food design. Chefs who have a significant role in plate presentations' artistic formation express their feelings by their creativity. Thus, a chef should have a unique world view, an artistic perspective, a unique approach, comprehension skills, and an excellent education to create an artistic design (Sipahi, Ekincek, & Yilmaz, 2017).

The standards of “the art of plating” attributed to food as an artistic act are rooted in Japanese culture (Deroy, Michel, Michel, & Spence, 2014). A French chef, Antonin Carême, essentially presented his culinary works with the inspiration of architectural concepts, famous monuments, waterfalls, and pyramids, thereby making him famous in the field of gastronomy (Chossat & Gergaud, 2003). The art of plating herewith was combined with the “Haute Cuisine” that had an opportunity to thrive (Clark, 1975; Ferguson, 2003). Afterward, the “Nouvelle Cuisine” trend was conceptualized around the art of plating. Nowadays, with the advent of the Molecular Gastronomy discipline,

**CONTACT** Hatice Cifci  [hatice.cifci@outlook.com](mailto:hatice.cifci@outlook.com)  Department of Gastronomy, Institute of Social Sciences, Okan University, Istanbul, Turkey

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“Molecular Cuisine” and “Note-by-Note Cuisine” allow chefs to feel free in the development of gastronomy art (Piqueras-Fiszman, Varela, & Fiszman, 2013; Wang & Wang, 2015). In sum, with the systematization of the classical French cuisine, the consumption of foods with their natural forms was terminated, and the period of visual replacement of raw materials has been introduced (Rao, Monin, & Duran, 2005).

Previous studies on food esthetics have focused on the visual composition of food on the plate and its effect on consumption experience (e.g., Reisfelt, Gabrielsen, Aaslyng, Møller, & Møller, 2009; Zellner, Lankford, Ambrose, & Locher, 2010; Laan, De Ridder, Viergever, & Smeets, 2011; Zampollo, Kniffin, Wansink, & Shimizu, 2012a; Zampollo, Wansink, Kniffin, Shimizu, & Omori, 2012b; Zellner, Loss, Zearfoss, & Remolina, 2014; Spence & Piqueras-Fiszman, 2014; Wadhwa & Capaldi-Phillips, 2014; Valasco, Michel, & Woods, 2016). The initial starting point in these studies relies more on the notion, stated “You Eat with Your Eyes First” (Delwiche, J, 2012). However, the visual composition of the food during the presentation or the plating occurred intuitively (Deroy et al., 2014). The literature on the art of plating suggests that this understanding has been applied to many businesses for a long time (Mwangi, 2010) and focused on examining the application of plating in many culinary schools or courses. Despite this, it has still received limited attention in the gastronomy literature.

Visual compositions in a plate are often refined in a repetitive process until a ‘true feeling for beauty’ is reached with the chefs’ prior experiences. Moreover, consumers’ satisfaction in fine-dining restaurants relies more on the plate’s food arrangement (Crreira, Moital, Da Costa, & Peres, 2008; Namkung & Jang, 2007). In this regard, a study by Velasco et al. (2016) demonstrates that principles borrowed from the visual arts could be used to some extent in designing. Currently, the art of plating relies on a natural manner, where chefs design the visual aspects of compositions through an intuitive and iterative process. In this regard, literature has primarily addressed knowledge focusing on chefs’ intuition and facts that may or may not explain some basic rules. However, there is a lack of research that focuses on the art of plating, which is the basic phenomenon that combines gastronomy and art, and that sources lead chefs to benefit from the art of plating. Despite several publications relevant to the art of plating, these offer limited knowledge and fail to holistically identify the components of plating in the art of gastronomy in an integrated manner. This is a knowledge gap that is becoming increasingly important to be filled in the literature. Therefore, this research focuses on the art of plating concepts considering the insight of master chefs with a qualitative study.

More specifically, this research aims to determine factors affecting the plating of chefs in terms of the artistic inspiration (1), to ascertain the basic features and instructions of the art of plating (2), to understand questions of

how chefs adapt some artistic elements to their profession (3) and understand which elements they are paid attention to plate designing (4). From a theoretical perspective, this study will shed light on the importance of cooking, innovation in the perception of plating creativity, originality, and suitability criteria. The current research will contribute to chefs' artistic practices at the practical level by providing meaningful information about how to develop innovative, attractive, esthetic, and creative plate presentations.

## Conceptual framework

### *The art of plating in gastronomy*

A clue on the visual of foods has a significant impact on individuals' senses. According to Zellner et al. (2014), "we see the food before tasting it", and "the first sense of taste is taken with eyes." Therefore, physical appearance is a pivotal factor that affects food appreciation (Lyman, 1989). Several studies (e.g., Correia et al., 2008; Namkung & Jang, 2007; Zellner et al., 2011) also noted that customer satisfaction is greatly influenced by the art of plating in luxurious restaurants. In this regard, the art of plating caused customers to share their meals' photos on social media as a way to express their self-image and thereby obtain a meaningful food experience (Liu, Norman, Backman, Cuneo, & Condrasky, 2012).

The importance given to visual compositions is increasing nowadays. With the couture effect of chefs on gustatory, the food experience becomes vital in trendsetting, image building, and creating an artistic perspective based on legitimate tastes (Lane, 2013) because food appeals to the senses of people in fulfilling their food experience by activating their sense of entertainment (Joy & Sherry Jr, 2003). In that vein, a restaurant chef's professional arises when plating a dish, in that artful composition is involved a reflecting venue for a chef to expressing their visual artifacts (Styler, 2006). Those all invite chefs to become more involved in esthetic innovations with their artistic aspirations due to their reputation (Barreto, García-Segovia, Martínez-Monzó, J., Hervás-Oliver, & Hervás-Oliver, 2013).

The desire to present food enjoyably leads to manipulating ingredients into structural elements to create a unique plate (Roque, Guastavino, Lafraire, & Fernandez, 2018). Accordingly, Wada et al. (2010) stressed that some visual properties of foods such as color, shape, and image influence people's eating behaviors in various ways, resulting in the relationship between psychology and culinology. The unity and contrast effects used in visual arts provide a stimulating effect; therefore, to increase the design's effectiveness becomes more based on the contrasts applied in terms of form, color, and tone in harmony or balance (Roque et al., 2018).

The attractiveness of the plate presentation of food could also impact individuals in terms of liking the taste of specific foods or enhancing healthy foods' acceptance (Zellner et al., 2014). Young (2012) states that a shaped and exhibited presentation gives an idea to the individuals about foods' taste, aroma, and texture, and that is why creating a dish that looks amazing is an art. For this reason, many societies have designed the process of preparing food for more than just a consumption situation with not only highly developed, stylized presentation and participation methods but also to provide a status for ritualistic and esthetic purposes (Hegart & O'Mahony, 2001).

In the gastronomy literature, the plating typically depends on the ingredients, which determine the taste, the chef, or the restaurant's style (Velasco et al., 2016, p. 10). According to Germain (2015), the overall esthetics in plating essentially depends on each element's unique beauty, especially the main component's visual appearance. Deroy et al. (2014) emphasized that plating should be seen not only as decoration but also as a part of multi-dimensional food experience, which plays a pivotal role in both kitchen creativity and preferring any food today.

It is well-known that people tend to spend more money on restaurants offering plating compositions rather than fast-food restaurants (Edwards, Meiselman, Edwards, & Leshner, 2003; Michel, Velasco, Fraemohs, & Spence, 2015). In this regard, Zellner et al. (2011) concluded that a meal that was served meticulously is liked more than a meal served in a scattered presentation. The authors applied two experiments in their research: Hummus and chicken salad. The subjects thought that they paid more attention to the food prepared and presentation. Further to this, participants implied that they expected these foods to be served in a fine-dining restaurant and were willing to pay more for the food prepared and presented meticulously compared to meals with a scattered presentation.

In fine-dining restaurants, foods are placed on plates with attention and perfection before presented to customers. Therefore, plates designed artistically consist of color combinations, textures, layers, and compositions (Smith, 2014). According to Hobday and Denbury (2010), there are three significant plate presentation issues: arrangement, focal point, and sauce. They also stated that the arrangements are positioned in a starch smiling face at the ten o'clock direction, meat appeared at the two o'clock direction, and vegetables situated at the six o'clock direction. To elaborate on those kinds of foreseen principles and draw a meaningful framework, more intention must be paid to the principles of the art of plating.

### ***Principles of plating***

There is no right or wrong way of creativity in plating as in all other art forms. However, when some ethical rules or principles are applied, tested, and

accepted, those instinctively lead creators to success. Otherwise, it would be challenging to get engaged in making a visually creative meal for a person who is not a professional culinary artist (Germain, 2015; Spence & Piqueras-Fiszman, 2014; Spence, Piqueras-Fiszman, Michel, & Deroy, 2014; Spence, Piqueras-Fiszman, Piqueras-Fiszman, Piqueras-Fiszman, & Piqueras-Fiszman, 2013). Therefore, some or a few design principles are needed to be identified in terms of establishing a useful construct.

Roque et al. (2018) examined that consumers consider culinary skills and techniques and esthetic or artistic criteria (e.g., harmony and symmetry) to evaluate culinary creativity in plating. While these elements are processed with specific intensities and are repeated in a uniform and stable way, they could also appear at different times and in different directions, which allows a feeling and expression within the design. In a research by Stierand, Dörfler, and Sharma (2012), thirteen chefs from various countries (i.e., England, Spain, France, Australia, and Germany) were interviewed to explore creativity and innovation concepts in haute cuisine. According to this study, most chefs emphasized that creative and harmonious dishes should consist of three or four main ingredients at most compared with the visual arts. Also, it was highlighted that the overall impression should reflect the chef's signature-plating style.

In the art of plating, chefs emplace foods onto the plate at specific intervals. The reason for this is that whether foods, sauces, and garnishes are utilized intensively to get a more esthetic appearance, it can create a feeling of complexity for individuals (Spence, 2017). In other words, leaving a specific interval between the materials used in the plate increases the flavor of a meal for the person and makes it easier to eat. Thus, Germain (2015) noted that the usage of the entire surface of the plate should be avoided. However, fine-dining restaurants tend to put food on a plate in an unstable or asymmetrical fashion (Spence et al., 2014). Previous studies (e.g., Rowley & Spence, 2018; Spence, 2017; Spence, Youssef, Michel, & Woods, 2019; Velasco, Woods, & Spence, 2015; Youssef, Juravle, Youssef, Woods, & Spence, 2015) demonstrate that positioning the meal vertically or horizontally on the right side of the plate can be more significant the consumer's likability and willing to pay more. On the other hand, in various studies, it is mentioned that placing the food in the center of the plate esthetically impacts the consumer's selection positively while plating (Palmer, Gardner, & Wickens, 2008; Michel et al., 2015; Velasco et al., 2016).

Tones should be provided with the foods' colors in the plate design art. The way to create exciting plates is to cook food in different ways by mixing other foods or self-colors (Zellner et al., 2014, p. 32). According to Wada et al. (2010), original visuals of foods give us an impression of their freshness. A study investigating the customer's role in how they perceive and evaluate the plates offered in restaurants in terms of kitchen creativity concluded that

customers consider color-balanced designs more creative than colored unbalanced and single-colored designs (Roque et al., 2018). Zellner et al. (2010) investigated people's food appeal, willingness to experience, and overall food taste in four kinds of composition. Accordingly, four presentations were prepared: monochrome balanced, color balanced, monochrome unbalanced, and unbalanced color. Furthermore, it was examined whether balance and complexity (i.e., more color) determine the attractiveness of food impacts on artworks. As a result of their study, it was also concluded that the balanced compositions of the color increase the presentation's attractiveness but do not affect the unstable compositions' beauty.

As a pivotal plating element, color is both a multi-dimensional object and a robust communicative tool in the art of plating (Zellner & Durlach, 2003). In the artistic plates created by the compilation of many foods with different colors, applying other colored foods together can create confusion for people. So, it is essential not to overdo the plate design colors while performing the art of plating (Germain, 2015). In the literature, prior studies have indicated that gourmet plates consist of only a few hues. Likewise, many chefs in different studies stated that a meal could include three or more than four colors (Fernandez, Aurouze, & Guastavino, 2015; Germain, 2015; Hobday & Denbury, 2010).

Rolls (1986) underlined that another factor about colors that people do not like is monotony. Re-exposure to a food can cause to reduce the sensory features of the pleasant appearance of the food (Hetherington, Pirie, & Nabb, 1998, 2002; Piqueras-Fiszman & Spence, 2014). According to Roque et al. (2018), a creative cuisine product should be fresh and suitable for the day. However, it should not only be related to technical skills but also the unique culture, harmony, balance, and symmetry aspect of critical artistic elements.

Woods, Michel, and Spence (2016) investigated the presentation of the same amount of food as a single food on a plate rather than the number of elements of the food in a plate to maximize the food's visual appeal. This research concluded that despite the same amount of food on two different plates, the plate with more products is generally preferred to the plate with fewer products. Valasco, Michel, Woods, and Spence (2016) also examined how the balance in various compositions of the same material influences customer preferences and conducted experiments online or via an interactive digital platform during a museum exhibition. An obvious distinction was found in their research for balanced presentations according to unbalanced presentations (asymmetrical design). These two studies, which were conducted with chefs, have shown that coloring and positioning are essential to design parameters.

## Methodology

An exploratory qualitative approach was adopted for this study since no research, relatively, has been undertaken within a conceptual framework to

explore the art of plating from master chefs' perspective in the existing literature. Several semi-structured questions were established as a result of the literature review, and thereby face to face interview method was used to collect data between March and June 2019. For instance, participants were asked about what inspires them when designing plates, which emotions may be desired to make the consumer feel in the prepared plates, how a theme or composition can be created on ready plates, how some seasonal foods can affect plate design, and what are the basic design elements in the art of plating.

The target population for this research embraces all master chefs in Turkey. Chefs were determined as samples in the study since they are the creators of the dish, and their consciousness/concern about how their food looks have been raised due to their role in public (Demirkol & Cifci, 2020). A screening criteria category was determined while recruiting participants (Patton, 2005), so several categories were identified, including a professional education (**a**); interested in a different branch of art other than gastronomy (**b**); be famous and continuously share their plate designs on social media (**c**) and have high media properties (**d**). Given the wide persuasive influence of celebrity chefs in social media (Clarke, Murphy, & Adler, 2016), the screening criteria relied more on master chefs with high social media followers. In this regard, following previous studies (e.g., Veirman, Cauberghe, & Hudders, 2017), suggestions regarding the followers' threshold about being an influencer in social media, chefs with more than 10.000 followers were recruited in the study. The profile of the participants is presented in Table 1.

The authors sent a message to target respondents via social media channels, which explained the study goal and requested an interview appointment. Sixteen participants were recruited for the data collection phase by drawing on the screening criteria sampling method. Following Glaser and Strauss (1967) recommendation on the number of data saturation on a study sample, the authors agreed to end the data collection process, which indicates that any

**Table 1.** Profiles of participants.

Participants	Gender	Marital status	Education	Institution	Plate Design Training
P1	Male	Married	Undergraduate	Restaurant Owner	Domestic
P2	Male	Married	Postgraduate	Restaurant Owner	Abroad
P3	Male	Single	Postgraduate	University	Abroad
P4	Male	Married	Undergraduate	Restaurant Owner	Abroad
P5	Male	Married	Undergraduate	Restaurant Owner	Domestic
P6	Male	Married	Undergraduate	Restaurant Owner	Abroad
P7	Male	Single	Undergraduate	Restaurant Owner	Abroad
P8	Male	Married	Undergraduate	Restaurant Owner	Abroad
P9	Male	Single	Undergraduate	Restaurant Owner	Abroad
P10	Male	Married	Undergraduate	Restaurant Owner	Abroad
P11	Male	Single	Undergraduate	Restaurant Owner	Domestic
P12	Male	Married	Undergraduate	Restaurant Owner	Abroad
P13	Male	Married	Postgraduate	University	Abroad
P14	Male	Single	Undergraduate	Restaurant Owner	Domestic
P15	Male	Married	Undergraduate	Restaurant Owner	Abroad
P16	Male	Married	Undergraduate	Kitchen School	Abroad



additional participants would likely share the previously established themes. The interviews were lasted an average of 47 min and were digitally recorded; transcribed verbatim.

The authors consulted two academicians and one expert who works in the gastronomy field to validate the questions' contents (e.g., content validity). Moreover, a pretest was conducted on four participants to ensure the reliability of the interview questions. Pretest demonstrates that the questions were appropriate for investigating the research's accuracy were well understood by the participants, expressions are consistent and related to each other. The number of questions was enough to understand chefs' answers about the art of plating.

Before analysis, all data was read multiple times by authors to obtain a general idea about the data (Braun & Clarke, 2006). The data were thematically coded separately by all authors to contribute to the findings' reliability and validity in NVivo 12 qualitative software (Sikolia, Biros, Mason, & Weiser, 2013). All commonalities and irrelevant descriptions were systematically extracted during the analysis, and components were grouped under higher-order clusters after distillation by categorizing common themes (Brytting, 1990). When the findings of separated theme analysis by authors were evaluated, it showed a significant similarity of 90%, which overlaps the criteria of the qualitative analysis research standard (80%) (Landis & Koch, 1977).

An inductive (the current items) and deductive (previous literature) approach was adopted in the analysis process (Gummerrson, 2000), which enables authors to create an independent typology. The main dimensions were revealed by benefiting from the data pool created from the themes by considering the previous studies. By using this approach, the data was explained and categorized to understand better master chefs' perspectives regarding the art of plating phenomenologically (Creswell, 2007; Patton, 2002). Original quotations from the interviews were also shared to help understand the findings better and contribute to the data's reliability (Elo & Kyngas, 2008). [Figure 1](#) presents the main framework of the results.

## Findings

A total of 103 themes emerged from the open coding process at the first stage and then at the second stage; all these themes were grouped and categorized within themselves based on consensus among authors. Eleven sub-dimensions were revealed as a result of the second stage of the process. Further, in the final stage, four main dimensions of the art of plating in gastronomy were revealed (i.e., design principles, target audience, the character of the chef, and characteristics of the food) ([Figure 2](#)).

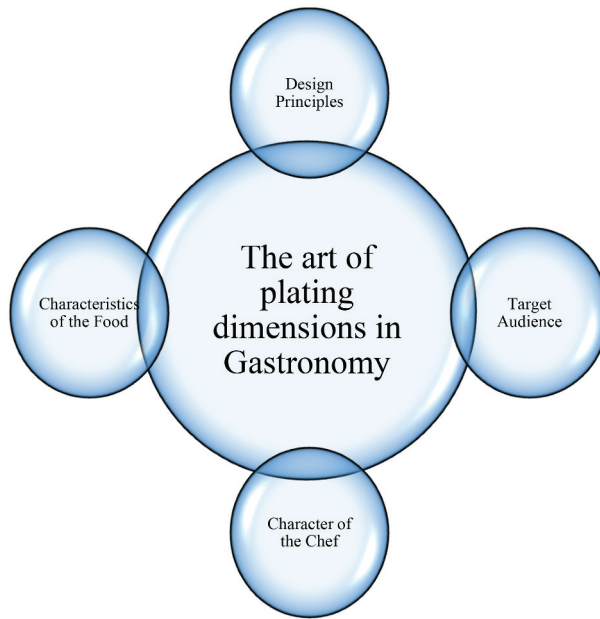


Figure 1. Research model.

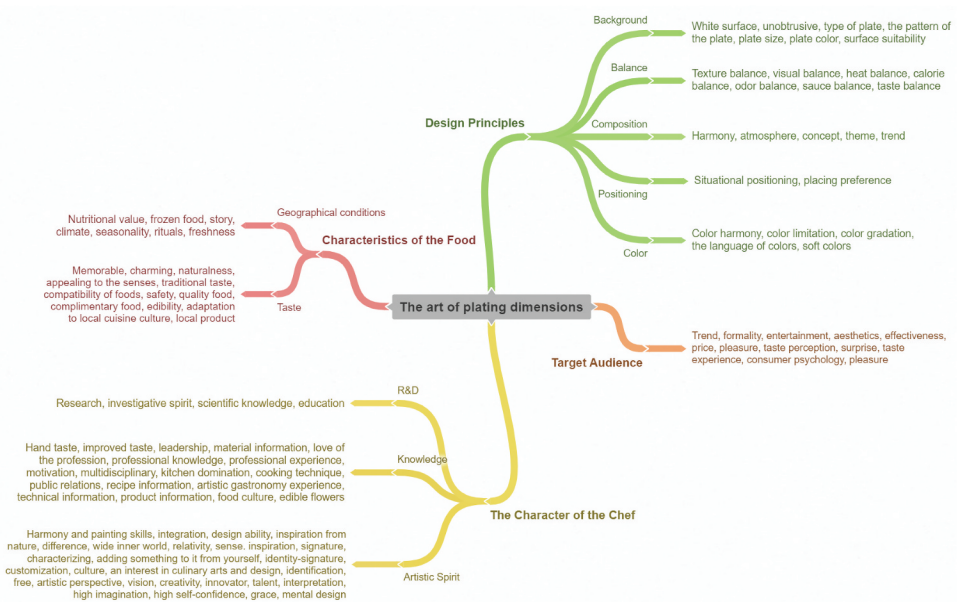


Figure 2. The art of plating framework.

### A) Design principles

Based on common themes from the research data, the dimension of design principles was created by combining sub-dimensions of background, balance, composition, position/placing, and color.

**Background:** Participants were asked about the role of plate background in the art of plating. The majority of participants had a common opinion on using white or creamy colored plates. It was concluded that the fact that the plate is transverse colors with foods to attract customers. This was considered as one of the most critical issues in the art of plating. Therefore, Germain (2015) implied that using the entire surface of a plate should be avoided. Similarly, in this regard, **P-8** mentioned:

A cream plate should be used. Dark-colored plates do not reveal themselves or reveal your presentation, and the floor should always be white. (**P-8**)

Besides, some participants have different opinions on the plate color. They pointed out that the plate can be colored to make a difference. Concerning this, one chef mentioned the following:

Today, there are colored plates. You can find red, black, blue, turquoise . . . You can find all kinds of plates. In fact, this adds vitality to the dish. When you yield the color of the product and the dish to serve it, the guest is pleased with it. (**P-4**)

Chefs place foods or products on the plate with creativity and rigorousness. Color, texture layers, and compositions are available on plates preferred by chefs who think like an artist (Smith, 2014). Plate size, pattern, and type in plate design are also unique plate design issues, and chefs generally prefer plates to serve their dishes comfortably and stand elegantly. Therefore, participants were also asked about using a different types of plates in the art of plating. This is further highlighted by two responses:

Serving a delicious soup in a large bowl and pouring it in less, the plate may seem exaggerated. It is wrong to serve a square dish on a round plate and a round dish on a rectangular plate. (**P-1**)

If a local food will be served, I prefer a copper-ceramic or different plate suitable for the region instead of a classic white plate. For instance, if I am making a European dessert, I serve it on a glass plate, or if I am cooking Mexican food, I prefer a wooden plate. (**P-16**)

In sum, chefs have a sensitivity of surface suitability when they serve their dishes. They consider keeping the texture, fluidity, or hardness of the food they cook in parallel with the surface's suitability. Concerning this aspect, two different participants mentioned:

The most important issue addressed is the texture, shape, inside, pattern, appearance, and color of the plate. If you must choose a plate according to the product you have designed for the food you make, or if you must use that plate, you should use a product accordingly. (**P-9**)

We cannot use liquid foods on wooden plates; the resistance of the surface plays an important role at this point. (**P-3**)

**Balance:** Participants were asked about the effect of balance on the plate to capture an attractive visuality. This theme is discussed with different approaches by chefs. Participants emphasized that they avoided unnecessary materials to capture the visual balance, and simultaneously, attractive visuality does not mean much without taste-flavor balance. Similarly, Pedersen (2012) pointed out that products, preparation, appearance, and taste are equally important in the art of plating. Namkung and Jang (2007) also stated that the design of food on the plate or its appearance has a significant effect on customer satisfaction. Our qualitative data support the previous researches by emphasizing the importance of balance. Two participants reported:

I am a careful and easy person like my plates. Although I use many ingredients, my plates are pure, and I try adding many different flavors. (P-2)

We can make a personal presentation of real food by using it shortly and concisely by decorating itself with the products in the plate design. For example, the “Gâvur dağı”<sup>1</sup> salad can consist of walnut and pomegranate syrup. We can decorate it with a walnut or pomegranate syrup. There is no point in using anything else. For that plate to gain artistic significance, it should not be decorated with a product that does not belong to a salad; it should be decorated with its content. (P-6)

Another highlighted issue was the balance of texture and sauce. Hobday and Denbury (2010) explained three critical elements in plate design: set up, focus and sauce, and emphasized the importance of sauce. Chefs generally use sauces in their plate designs, and they consider it as a balance element in any plate. One participant mentioned the following:

There should be 10 grams of sauce with the dish when serving it to customers. Without sauce, this cannot be named as the main dish. Thus, we can say, ‘sauces’ are the headliners or star performers of the meal. (P-8)

The balance of texture is a separate issue that chefs pay attention to offer guests multiple flavors on one plate. It has been widely mentioned that soft, hard, crispy, hot, or cold foods served on the designed plate should be in texture balance. Two participants implied about it following:

There should be one more meal on the plate. For instance, it must be crispy in a soft dish design. (P-12).

One of the issues that I paid attention to is texture balance. For example, when you eat food, you will feel the softness that will come from light water. If a few flavors are to be served on the plate, customers will take get a feeling of crispy, if there is mash under it, it will take its taste, and if there is the sauce, they will take it’s delicious, too. (P-2)

Moreover, the calorie is one of the critical issues that nutritionists focus on. When people thought of balanced nutrition, they are aware that calorie balance must be protected. Zellner et al. (2014) stated that plate design could increase healthy food consumption because calorie balance is essential in

providing a healthy life and weight control. Therefore, participants were also asked the importance of calorie balance in the art of plating. **P-8** mentioned: “*Each plate must contain carbohydrate, protein, fiber, and a certain amount of fat*”. During the interviews, most participants emphasized the sensitivity of this issue and view calorie balance as an essential fact in the plate design. Besides, some chefs emphasized that there should be some critical percentages regarding balance. Two participants mentioned the following:

The main product on the plate should be 70%, 35% is the garnish, and the remaining 15% is the sauce. (**P-13**)

Foods on the plate should include vitamins, carbohydrates, and proteins. This triangle should be put on the plate. Vitamins can be thought of as the vegetable group; protein can be thought of as meat, chicken, and fish groups; carbohydrates can be thought of as potatoes and rice. A plate must contain these three, and it must be balanced. We pay attention that vitamins and carbohydrates are not more than protein. (**P-15**)

**Composition:** Creating specific compositions in today’s plate designs occurs with different perspectives of chefs. It was emphasized that the importance given to visual compositions is increasing. The desire to present food entertainingly and interestingly has led to manipulating food ingredients as structural elements to create unique plates (Roque et al., 2018). Chefs are especially sensitive to concept and theme issues to meet the expectations of the customers. Therefore, participants were asked about how they create their compositions in their plates. Some participants mentioned:

Concepts used are essential in the plate you prepare, and there should be a concept in the menu. It is also very important to whom we target. Thus, we should work with the theme and should be very careful with whom it is targeted. (**P-12**)

A plate prepared for a special event is shaped under the title of that event. For instance, it is necessary to prepare a plate suitable for that story and region with those products under that heading like Central Anatolia flavors (**P-9**).

Participants also emphasized the harmony and atmosphere issues when creating compositions. Chefs have approached harmony from different viewpoints. Two participants mentioned:

In my opinion, harmony means all the ingredients on that plate. Sometimes the contrasts can be harmonious, but these are very relative concepts. Apart from this, ‘On the other hand, the flavors are very essential, these bitter, sour, sweet, and salty elements come together to form a brand new element, and this is called umami, and these four elements must be in a balanced form in the plate. Therefore, these should be considered when designing a plate. (**P-14**)

I view harmony as a sauce, and I think the sauce is a very precious concept. It is of the biggest equivalents of the meal. (**P-11**)

**Positioning:** Participants were asked whether it is an important issue to put the main dish in a specific place on the plate. Our qualitative data revealed that chefs' vision, experience, imagination, or desire to make a difference has led to "positioning". Some chefs implied that it is appropriate to place the main dish on the plate, while others stated that it would be better to set it right in the middle of the plate. Michel et al. (2015) and Velasco et al. (2016) pointed out in their research that the meal should be placed or positioned in the middle of the plate. The most vital point is that this process depends entirely on the chefs' initiative. However, The literature is rife with many disruptions on this issue. Numerous researches (e.g., Spence, 2017; Spence et al., 2019; Velasco et al., 2015; Youssef et al., 2015) also demonstrated that positioning the meal asymmetrically on the right side of the plate more effecting the consumers' behaviors. Our qualitative data thereby extends the discussions on this issue and contributes to the master chefs' perspectives. For instance, two respondents mentioned:

Generally, when people eat, their eyes move to the left rather than the right. We must always use the right material on the left side. In other words, the visual material that constitutes the main theme of the presentation must always be placed on the plate's left side. (P-10)

Yes, positioning in the plate designing is important. For instance, where should be the focal point when taking photos? Nose or clothing. The focus on the meal is also essential. The first impression to look at is the center of the plate, namely the middle of the plate. (P-6)

**Color:** The garnishes, sauces, and vegetables used by the chefs on the plate beside the main dish are of different colors. When asked about the coloring on the plate, most of the participants underscored that colors are necessary for plating due to their natural and lively nature. Therefore, our qualitative data support the study findings of Zellner et al. (2010) and Spence et al. (2013), in which color is stated as one of the main parameters contributing to food appearance. Another issue that participants emphasized is that the harmony of the colors utilized in the plate design. Stierand et al. (2012) mentioned this issue with similar explanations in their study. Color harmony is completed by bringing together parallel color tones and sometimes entirely transverse colors. In visual arts, since contrast has a stimulating impact on human psychology, it must include contrasts such as color, tone, and form in the plate design (Roque et al., 2018). In this regard, two chefs mentioned:

The color of the food we will put on the plate should be in harmony with the color of the garnishes, sauces, and spices used in the decoration. (P-1)

Colors are crucial. Lively and color harmony in the plate is essential. (P-15)

Some of the participants also remarked on the issue that colors should be limited. They underlined that it is adequate to include an average of three or

four colors on the plate, and excessive use of color creates confusion. Likewise, Hobday and Denbury (2010) argued that two or three colors should have a good plate design. On the other hand, Germain (2015) emphasized that using too many colors in the plate design will confuse; therefore, it is necessary to use fewer colors. Two participants mentioned:

It is perfect to use a maximum of 3-4 colors in plate design. Using many of them spoils the eye pleasure. (P-1)

There should not be too much color and too much confusion on the plate. I think it could be balanced with 4-5 colors at most. (P-15)

### **B) Target audience**

Based on common themes extracted from transcripts, the target audience dimension was created by combining the common themes; trend, formality, entertainment, esthetics, effectiveness, price, pleasure, taste perception, surprise, taste experience, consumer psychology, pleasure. In this dimension, many different findings have been mentioned, such as the vital importance of the target audience and thereby the necessity of the chefs to consider the target audience's characteristics while designing their plates.

Today, the chefs' plate designs are targeted to people who prefer restaurants with celebrity chefs (Michel et al., 2015). Edwards et al. (2003) mentioned that modern customers spend money in restaurants where delicious food with suitable compositions is served. In this research, it was revealed that chefs are also aware of this situation and take into account all customers' wishes and desires while designing plates because chefs desire customers to satisfy and enjoy their plate designing when they eat (Crreia et al., 2008). For instance, about this issue, P-16 implied that *"the chef makes his meal more artistic and offers his guests to enjoy this meal."*

Another highlighted issue is to consider in plate design is that the target audience is affected by the plate and food. Its physical appearance affects the taste of the food and enables it to attract attention. For this, chefs are meticulous about presenting the most esthetic and impressive plates with an artistic perspective. Combining the flavor they create with art, and presenting them to customers is one of the chefs' most important principles (Deroy et al., 2014). Two participants mentioned:

The goal of chefs is to visually impress people, which is exactly the art part of this job. Nobody doesn't want to eat if you can't impress people. The chef creates artistic work. (P-10)

A talented chef wants his plate to be liked by the customers and to be very popular among other chefs. Chefs want to be impressed by their plate design. When they taste the food, they desire to be impressed by its taste. (P-13)

### **C) The character of the chef**

Based on common themes revealed from research data, the character of the chief dimension was formed by the sub-dimensions of R&D (Research and Development), knowledge, and artistic spirit.

**R&D (Research and Development):** In the art of plating, it requires research, reading, and training to keep up with the changes. This is a must in plate design as well as everything else. It is thought that chefs are researching to keep up with the trends, presentations, and plate designs occurring worldwide. This (2009) stated that chefs should conduct scientific research and R&D studies to increase their culinary knowledge, change classic recipes and presentations and develop new presentation methods and techniques. When asked whether R&D is vital in the art of plating, two participants mainly implied this issue as follows:

You need research; you need experience; you need someone to guide you; you need to be conscious and open to innovations. (P-7)

I love to read and research, and I love to feed my imagination. My imagination never let me down, and I reflect it on the plate. (P-2)

**Knowledge:** There are many various explanations were highlighted under this dimension by participants. Professional knowledge, product knowledge, material knowledge, and knowledge of cooking techniques were only primary examples of them. Therefore, this study posits that the chefs have many responsibilities at this point. Deroy et al. (2014) detailed that chefs tend to blend their arts with science to create new techniques and flavors or to improve existing ones; however, when the subject deals with the visual presentation of food, they emphasized that designers continue to rely solely on their perception, ignoring the scientific side of the work. However, our qualitative data revealed that designing a plate is primarily being a good chef, whereas being a good chef contains developing palate, hand taste, and love of the profession. One of the participants mentioned:

To be a good chef, one needs to be a good person and a good cook, then a good food connoisseur. Of course, when we bring all of these together, you can be sure that you will be a good chef. (P-4)

Besides, material and product knowledge are among the crucial issues to cook well, and design plates among the chef's knowledge. It can be said that the plate design generally depends on the ingredients, products, and style of the



chef (Velasco et al., 2016). In this regard, the participants were asked about the role of their expertise in ingredients that have compatible with flavors. One participant said about it:

When designing the plate, you must know what the chemistry of the materials you will use in the plate can give you. Actually, you need to know the material well. You must have actually researched the history of the material or products. You need to know the chemical properties of the products and what results will give you at the point of what technique you use. After all, when you make a recipe with that material, you can know better how you can reflect it on that plate. This allows you to be more creative. (P-14)

**Artistic Spirit:** Diverse objects inspire artists to be able to perform art and create works of art. Chefs, who have an undeniable place in the culinary arts, emphasized that plate design cannot be made without inspiration. One participant mentioned:

Nature is our greatest source of inspiration. There is a colorful nature in meat, vegetables, fish, grains, etc. Processing nature means reflecting the colors found in nature to the plate. (P-8)

Chefs are also becoming kitchen artists at this point because they add artistic touches to their plates, which they created by adding all their souls. It was emphasized that the food arrangement on the plate with its artistic spirit affects customer satisfaction (Crrreia et al., 2008; Namkung & Jang, 2007). According to Young (2012), a carefully shaped plate design gives the audience an idea about its taste, aroma, and texture. It is also emphasized that creating a dish that looks surprising and interesting is regarded as an art. Freedman (2008) states that cooking is art. In this regard, two participants explained:

To be a good chef, one must have a good heart. Sometimes we talk to our foods while cooking and join these. (P-1)

When it comes to plate design, first of all, I have to make that dish myself. I'm designing in my head how to present that food, and every chef has presentation techniques. The presentation technique is very important. You can demonstrate your ability to design what will come on which side of the plate while cooking. (P-6)

Participants claimed that the plating they created was personal designs. They stated that they add all their souls, selves, imagination, culture, and creativity while designing plates. According to Hegart and O'Mahony (2001), societies today develop highly improved and stylized presentation and participation methods in food preparation processes. Chefs design plates in line with ritual and esthetic purposes to provide a status in this direction. For example, P-2 highlighted: *"A good chef needs to have a certain perception and culture. Like any other artist at the chef, he creates his dishes and plates inspired by daily life. I think a chef means an artist."*

The chefs stated that the plate designs expressed the chef's character, personality, and identity within all these issues. In this regard, Perullo (2019)

noted that the chef's taste and visuals play the leading roles in the taste of food and plates. It is stated that the plate designs made by the chefs play an active role in the taste of the food (Lyman, 1989). In this sense, three participants mentioned:

Each chef reflects their own identity on their plate. Products must be served on the right plates. Furthermore, it is vital for customers to taste their meals again by doing so. (P-3)

The portion amounts, foods, or similar colors required in the plate design must be compatible. This is the signature of the chef and varies from person to person. It depends on the perspective of the food, provided that you are not a copyist. (P-13)

The plate created reflects your character and profession. For example, customers call me a presentation magician and wizard. People understand my plate design as a result of my signature. (P-15)

#### ***D) Characteristics of the food***

Participants were particularly asked to explain the role of food characteristics in the art of plating and the possible challenge/or advantage they experience when using the geographic food on the plates. In this concept, geographical conditions and taste are regarded as sub-dimension of characteristics of the food.

##### ***Geographical conditions***

Participants stated that they take care to use our fertile and local geographic products. They also emphasized that geographic and fresh products also influence or determine the nutritional value of the food. One participant mentioned:

I design plates based on fresh products in my country and the audience I will target. Visualizing all this in front of my eyes is inspiring. My overall purpose is to present food utilizing geographical products and to create plate designs. (P-16)

When creating a plate design, some chefs prefer fresh products according to the season, while others use their reverse. A study by Wada et al. (2010) is concluded that pure conditions of the vegetables and fruits preferred while plating enables people to get preliminary information about their freshness. Two participants mentioned:

It is important to use products according to the season once. (P-10)

You need to make your guests feel that this business uses seasonal fruits and vegetables. For example, there is a turbot in November or December, and it is serviced with rocket or lettuce. Freshness and its seasonality are important. Thus, you should not offer anything that is not fresh. (P-11)

Apart from the freshness and seasonal nutritional aspect, the food's story in the art of plating was asked to participants. Our qualitative data revealed that

people are now also curious about the past of the food and the story of what they ate to perceive a meaningful dining experience and thereby gain satisfaction from it. A participant mainly elaborated it as follows:

We are in a period where cuisine turns taste into art, and presentations alone are not enough. Hence, a composition, story, and collage should be accompanied by the presentations. Besides, using seasonal products or using products with a story is of paramount importance. For instance, there is a portion of food about Cinderella who has a pumpkin, and we create a story with this meal. As I said, a more memorable effect can be achieved when there is visuality, story, and composition. (P-15)

**Taste:** The notion of taste is mainly a phenomenon that changes according to everyone and their palate. The taste experiences that are attractive, impressive, and memorable cause people to re-taste it (Pedersen, 2012). It was emphasized that the sense of taste is a matter that could be perceived differently among people and that it is the leading actor in the plating (Perullo, 2019, p. 75). Two participants mentioned:

The reason for this is the attractive presentation of the food and the taste of the food. The common idea is that: fill your mouth instead of your eyes. With the development of the sector, the customers want to see very well designed plates. (P-1)

You see the meal at first, and then you eat it. Its image may or may not remain in your mind, but if you feel the desire to eat again after eating food, then you have been successful in this regard. (P-5)

Besides, most participants emphasized that healthy, high-quality, and fresh foods should be used to achieve taste and visuality in plate designs. Zellner et al. (2014) used similar expressions in their study. Moreover, they drew attention to food safety. While designing plates, they debated any uneatable object should be placed on the plate. One participant said about it:

Everything I put on the plate needs to be eaten. I avoid even serving red meat with bones. I'm waiting for the plate to come empty because I want the guest to hear my art. The more your guests consume, the more satisfied they are, the stronger your future and career will be. (P-11)

Another issue that the participants paid attention to was the harmony of the plate's products and their ability to appeal to the senses. In this regard, Zellner et al. (2014) also emphasized in their study that the appearance of food will provide people with little information about their taste by using the expression "we get the first taste with our eyes." It is evident that the senses must act to perceive the taste, but chefs' primary function is to address several meanings simultaneously on a single plate. Two participants reviewed:

The senses should appeal to the smell, tongue, palate, and eyes. It needs to appeal to the senses. When it does not address one of the five senses, taste matching is insufficient. (P-8)

Gastronomy is the art of food. The artistic element exists from several angles, such as visual arts. We know that the color harmony gives an artistic perspective with the design in food and the elements in the service equipment we use. In certain periods, it equals the art in fashion or the current agenda. With the food designs, we can present many works using the material, sometimes with its texture, sometimes in liquid form, and sometimes in powder form. (P-13)

## Conclusion

This research aims to understand which dimensions are critical in the art of plating from the perspective of MasterChef in Turkey. In the literature, no study covers the art of plating from chefs' eyes who have a pivotal role in the kitchen and meal preparation. Thus, an insight into this knowledge gap had motivated us to concentrate on this issue. For this purpose and gap, this study was used a qualitative research approach when collecting and examining data. This approach is so proper in fields that was unexplored. As a result of data collection and inspection, 'design principles,' 'target audience,' 'the character of the chef,' and 'characteristics of the food' were occurred as four interrelated dimensions of the art of plating. These findings are original for the relevant literature and we believe that these will contribute to the art of plating literature in terms of drawing a main picture of this research field.

## Theoretical implications

This research has important theoretical implications that should be given a voice. Whilst prior researches (e.g., Zellner et al., 2010; Laan et al., 2011; Zampollo et al., 2012a, 2012b; Zellner et al., 2014; Spence & Piqueras-Fiszman, 2014; Valasco, Michel, & Woods, 2016) were more likely to focus on the consumers' perspective while investigating the dimensions of the art of plating toward determining of the principle of plating. For instance, positioning the meal asymmetrically on the plate is an ongoing discussion in the art of plating literature (e.g., Spence, 2017; Spence et al., 2019; Velasco et al., 2015; Youssef et al., 2015). Our study findings thereby contribute to the discussions on this issue by adding the master chefs' perspectives.

Therefore, given the originality of this study, to the best of the authors' knowledge, it is probably one of the first attempts to search the dimensions of the art of plating in gastronomy from the perspective of master chefs in a more holistic manner. Because chefs play the central role in creating the artistic plate design, however, the fact that the chefs are the creators of this art has been neglected by previous researchers. In this way, this current study provides insights into a better understanding of the art of plating in the gastronomy discipline by involving the creative role of master chefs in affecting consumers' behaviors. By doing so, this study also established a critical model from the

perspective of its creators, which harnesses the role of the art of plating in affecting customers' behaviors in restaurant marketing.

According to the findings, when planning marketing strategies for promoting restaurants, mater chef-oriented marketing with the art of plating should be considered. Furthermore, this study emphasizes the role of master chefs involved in the art of plating as a key component in understanding why restaurant managers and food industry marketers should realize the role of these individuals when designing marketing strategies. As a result, this study adds to the body of knowledge on gastronomy and, as a result, restaurant marketing.

### ***Practical implications***

As a marketing tool, the art of plating will likely thrive and play a more critical role in the future of restaurant marketing. This study reveals that in that concept, the design principles in other art forms also have a substantial value in the art of plating in terms of directing its implementers to success. In this dimension, the composition of the design and suitability on the surface (i.e., background) of the plate is also regarded as a picture plane and thus suggested as a meaningful principle to be formed to attract customers' admiration (Namkung & Jang, 2007). Therefore, our study findings support Germain's (2015) suggestion regarding avoiding using the entire surface of a plate. Moreover, it has also been highlighted that cream or white-colored plate floor is frequently preferred according to its texture. Besides, balanced protein, fiber, carbohydrate, and fat ratios in a designed plate were the most commonly suggested issues that have to be considered for providing calorie balance. Thus, this study confirms Zellner et al.'s (2014) suggestion, herewith indicates that the art of plating could help increase the acceptance of healthy foods. Therefore, food marketers should pay attention to the effect of plating on raising the consumers' acceptance through healthy food. Our qualitative data also observes that an excellent plate should consist of 70% main product, 35% garnish, and 15% sauce. Thence, our study findings touch on a neglected issue that previous studies have not mentioned regarding the art of plating. Also, the color draws attention to the design principles dimension. Just as a colorless life cannot be imagined, it cannot be preferred and imagined a colorless plate. The vitality of the color evokes the freshness of the product. This study agrees with previous studies (e.g., (Fernandez et al., 2015; Germain, 2015; Hobday & Denbury, 2010) in terms of avoiding to use several vivid colors simultaneously on a plate and, therefore, it suggests the usage of three or four colors for a plate design.

The target audience dimension is relevant to customers who demand the plating. People nowadays have carried the phenomenon of dining outside beyond feeding their stomach and have turned to purposes such as trying

different tastes, enjoying, esthetics, and experiencing various foods (Edwards et al., 2003). Thus, they do not hesitate to allocate a specific budget for all that wants and desires. So, they want to be surprised and feel unique due to their experience gained (Crreia et al., 2008). Chefs who can respond to all of these with their artistic touches are concerned about presenting esthetics and various plates. With this awareness, chefs pursue creating plate designs for customers' psychological state. It was underlined that these plate designs should be esthetic, different, and entertaining. Therefore, restaurant marketers should invest in employing chefs who have an artistic perspective on the art of plating to attract gourmet individuals to their business.

The character of the chef dimension is related to personal characteristics, experience, and profession, closeness to art, and researcher aspect of the chef. It was concluded that education and R&D should be provided to the chef's plate designs to be impressive and innovative. Further to this, it was emphasized that the artistic plates have emerged from the image of the taste, the beautiful appearance by combining the culture, experience, technical knowledge, and mastery of the chef. As a reflection of identification, plate designs that chefs with their artistic touches created are expected to pass all desires, wishes, and feelings to their customers. Plates created by chefs are viewed by them as a signature. Therefore, as different studies suggest (e.g., Deroy et al., 2014; Velasco et al., 2016), chefs should be too concerned with academia and other arts in order to blend their skills with science to reach the metaphor of beauty. Cooking is attributed as a branch of art (e.g., Freedman, 2008; Young, 2012); therefore, individuals who perform the chef profession should think, observe and create their products with an artistic spirit.

The characteristics of the food dimension are a vital element of plate design since it is one of the issues that need to be meticulous with its variety. Pure conditions of the foods offer an idea of their freshness (Wada et al., 2010) and affect the customers' behaviors (Zellner et al., 2014). However, foods are not always fresh due to the fact of seasonality and geographical conditions. Our qualitative data reveals that freshness establishes the most crucial point for plate design, and it has been stressed that being of high quality and local is among their first choices. Seasonal product use is seen as a symbol of change and difference. It is also seen as costly. In addition to these, chefs are in consensus on not including any products that cannot be eaten in the plate design. For this reason, while our study recommends the use of fresh, local products in the art of plating, it underlines that no non-edible product should be included in the plate.

### ***Limitations and future research lines***

Several significant limitations need to be considered in this study as well. First, this research was conducted in Turkey. Additionally, due to gender

inequalities with a heavy volume of masculinity in professional kitchens (Harris & Giuffre, 2015), the sample of this study was shaped around male chefs owing to screening criteria. Relatedly, Hofstede, Hofstede, and Minkov (2010) highlighted that masculinity tends to prevail high in the Muslim world. In this regard, the reason women's less involvement in chefdom professions might be attributed to the role of women in the Turkish community. Therefore, to make the findings more generalizable, further studies might be considering the opinions of the women chefs in western countries. Second, the actual effects of the art of plating prepared by chefs on consumers were not measured. Further research should also consider this issue in future studies.

## Note

1. A traditional and local salad used in Turkish Cuisine.

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## ORCID

Hatice Cifci  <http://orcid.org/0000-0002-9761-226X>

Ilkay Gok  <http://orcid.org/0000-0002-4871-8981>

Ozan Atsiz  <http://orcid.org/0000-0003-2962-1903>

Ibrahim Cifci  <http://orcid.org/0000-0001-7469-1906>

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