



# Objects, Design, Technology

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## **1. MATERIAL CULTURE**

In the beginning was the knife. Let's try to imagine a world in which cooking does not exist, and humans eat only what they can gather with their hands, teeth, eyes, ears, legs, etc., as if they were animals. Back then, humans had to behave like wolves or apes: they took what they found, sniffed it, tried it and swallowed it, all the while hoping it was not poisonous. They had neither the strength nor the sharp teeth of the wolf, nor their particularly refined senses of sight and smell. Perhaps they behaved like hyenas or vultures, living off the remnants left by the great predators. When did cooking come about? Many would say it started with fire, and the ability to cook, which must have involved suspending the food over an open flame. However, this happened at a more advanced stage, not only because of the difficulty posed by lighting a fire, but also due to the imagination required to think that a natural product could be improved upon by using heat.

It only takes a moment's consideration to understand that the idea of cooking must have come much earlier. The real problem was not a practical one like lighting the fire or finding a way of not burning oneself, but one of perception linked to the

way the natural substances that surrounded our ancestors were viewed. In order to imagine a steak, it was first necessary to look at the calf from which it came in an entirely new light, to consider it not simply as dead but subdivided into parts so that it can be transported, preserved, cooked and finally savoured.

Careful: this is not only the case with animals. The plant world also allows for a whole host of transformations. A simple fruit is made up of different parts: the external part (its skin), the internal part (the pulp), as well as others such as the seeds or stem. Taste, and therefore cooking, came about in the very moment we begin to think of everything nature has to offer as something to transform, an object made up of parts that do not all have the same value. We choose to keep the pineapple's pulp but not its skin because it is too hard. But this is the first step, because it is only by having imagined the possibility of deconstructing the object that one can imagine something even more complex, such as *piecing back together* parts from different natural products. This is where the idea of the *ingredient* comes from, without which cooking (understood as the process of working and combining natural products) would not exist. Only when human beings are able to (a) sub-divide that which nature offers, and (b) think of new combinations, is it possible to detach from the state of nature and enter a state of culture.

There are two important results that act as a starting point for this chapter. The first is that cooking comes from the capacity to imagine rather than the capacity to do. The second, almost paradoxically, is that this ability to consider transformations develops when it is possible to conceive of a blade that intervenes on the material. The object-knife is both a tool useful for *making* things, and a necessary dispositif for *thinking* in a different way. It is thanks to this dual nature of objects, in part material and in part abstract, that we can talk about material culture. By this we refer not only to the value objects assume in a particular community, but the way in which their configuration helps culture itself take shape. As such, not only is there no cooking without objects, but there is no gastronomy without them, if by gastronomy we mean that system of tastes and distastes that are at the basis of any dish. The tools we use to prepare so very many dishes are not simply tools but active participants: without them, the cook would not exist.

## 2. THE CHEF'S KNIFE



Fig. 1. European chef's knife  
(this is a German version).



Fig. 2. A Japanese yanagi.

Fig. 3. A Japanese *santoku*.Fig. 4. A Chinese *tou*.

In a cuisine like that found in Japan, we can see this clearly. Just think of sushi and sashimi\* in particular. In both of these typical dishes the main transformation undergone by the food is not produced through exposure to heat but by being cut. Sashimi is a piece of raw fish. But as any Japanese knows, this does not mean that it has not been 'cooked'. The chef must be entirely familiar with the different fish, know how to clean them, and obviously be able to carve perfectly formed mouthfuls from their flesh with a flavoursome consistency. It is an operation made possible by a knife that, in Japan, is considered the chef's knife par excellence, and it is different from that used in the West.









The expression 'Chef's knife' is an interesting one. It refers to the kind of knife that is indispensable when cooking, that which no cook or chef can do without. And yet it is enough to travel around a bit to discover that the shape of this knife changes depending on the country in which one finds themselves. In the majority of Western countries, the chef's knife is similar to that depicted in fig. 1, a design that originated in medieval times in France or Germany. For those that use it on a daily basis, it is a generic tool capable of cutting a large number of ingredients in different ways. However, it only appears to be infinitely versatile, as demonstrated when it is compared with Japanese chef's knives. In Japan there are two tools that are fundamental when it comes to cutting: the *yanagi*\* and the *santoku*. The first is a pointed knife that is fairly long (though shorter models do exist) with a slight curve (fig. 2) and a one-sided blade that allows for a more precise, neat cut. This makes it particularly well suited to slicing soft materials such as raw fish, much more so than a European knife. As such it is considered the gold standard in sashimi knives. Its shorter versions are also incredibly useful for cleaning and filleting. It is not just the blade that is important but also the short, thin handle made from bamboo, which, as it is smaller than the average hand, forces the fingers to slip forward onto the blade with the wrist resting on the handle (table 1). When this happens, it changes movement that causes the cut. It no longer originates from the wrist, as happens with the western knife (which, in fact, has a wider handle on which all fingers can easily rest), but from the forearm and elbow. This simple change makes a significant difference when it comes to controlling the blade, as the movements it is forced to make are produced by joints larger than the wrist, thus making them more precise and controlled. This is exactly what is

required in order to achieve those cuts that are indispensable for transforming fish into sashimi.

The *santoku*, which has recently become very popular in the west (fig. 3), takes its name from the 'three uses' it has: slicing, dicing and mincing. Here the blade is wide and rather square, whilst the curvature of the blade is minimal. However, the handle is broad and so the control comes from the wrist like with the western knife. Its uses are very different to the *yanagi*, and in a certain sense, complementary. It is not used for fish, but for the other significant ingredient in Japanese cuisine: vegetables. They are used in many dishes, often presented in the form of thin leaves or strips, or as elegant mouthfuls. The Japanese use of vegetables is shared with their neighbours in China, which dedicates its own chef's knife to this very ingredient, called the *tou* (fig. 4). On close inspection we see this model shares many characteristics with the *santoku* whilst exaggerating them. Much wider and heavier than the latter, the *tou* has a blade with a much less pronounced curvature, seeming almost straight. But most significantly it has a different handle that is somewhat reminiscent of the *yanagi* in both its dimension and the way in which it forces the user to hold the knife with their fingers on the blade. Once again this causes the wrist to become rigid and the movement to originate at the elbow, giving not just greater control and excellent precision, but also the possibility to lower the knife quickly and thus make multiple, rapid cuts in a short space of time.

When it comes to knives, it is not just the original shape of the raw material (a fish, a courgette, meat, etc.) that counts, but the shape it is required to take on (a mouthful of sashimi, chopped vegetables or a succulent rib-eye steak). These are actions that we can reconstruct in detail by analysing the object's two interfaces. The first is that between the knife and the human user, which refers to the hold and the way in which the action will be carried out; the second, which I will refer to instead as the knife's interface\* for the material, refers to the ingredients and takes note of their mechanical properties. A table here will help us summarise the effects produced by the structure of the different interfaces found in these four knives (table 1).

We are yet to discover the precise origins of the shape of the western chef's knife. Its medieval origins are linked to meat eating, perhaps that of an animal roasted whole which then have had to be divided up in front of those about to eat it. In this case a knife with a pointed end would have indeed been necessary, especially one capable of inflicting a certain force (thanks to the curvature of the blade its progressive thickening from the sharp blade to its blunt top), but with which they could also cut much thicker slices than those found in oriental cuisine. This required rather unrefined movements that did not require the repetition typical of slicing vegetables, for which wrist control was more than sufficient.

	<b>Yanagi</b> (Japan)	<b>Santoku</b> (Japan)	<b>Tou</b> (China)	<b>Chef's Knife</b> (Europe)
				
<b>Interface* for the human user</b>	<p>Handle: short and thin, not contoured</p> <p>Finger position: index finger and thumb on the blade, the handle knocks against the wrist</p> <p>Movement: lengthways</p> <p>Actuator of movement: with the wrist now rigid, the movement comes from the forearm and shoulder, making it more stable and precise</p>	<p>Handle: standard dimensions, lightly contoured</p> <p>Finger position: Fingers slide onto the blade, as such its height causes it to maintain a certain distance from what it is slicing.</p> <p>Movement: percussive/lengthways</p> <p>Actuator of movement: forearm with some play in the wrist</p>	<p>Handle: very short, not contoured</p> <p>Finger position: between the blade and the handle</p> <p>Movement: percussive</p> <p>Actuator of movement: forearm</p>	<p>Handle: standard, contoured</p> <p>Finger position: on the handle with the possibility of lengthening out over the blade</p> <p>Movement: lengthways</p> <p>Actuator of movement: wrist and forearm</p>
<b>Ideal cutting position</b>				
<b>Interface for the material</b>	<p>Blade shape: thin and elongated</p> <p>Blade: only sharp on one side</p> <p>Curvature: minimal</p> <p>Most efficient: cutting lengthways</p>	<p>Blade shape: wide and not very long</p> <p>Blade: sharp on both sides</p> <p>Curvature: minimal</p> <p>Most efficient: a combination of percussive and lengthways cutting</p>	<p>Blade shape: very wide</p> <p>Blade: sharp on both sides</p> <p>Curvature: none</p> <p>Most efficient: percussive cutting</p>	<p>Blade shape: elongated, becoming gradually thinner</p> <p>Blade: sharp on both sides</p> <p>Curvature: Pronounced</p> <p>Most efficient: cutting lengthways</p>
	↓	↓	↓	↓
	<p>Ideal for slicing soft materials, such as fish, with precision. This is the knife typically used for sashimi</p>	<p>A versatile knife, particularly good for percussive cutting and good control. It is an ideal tool for making precise, repeated cuts such as those necessary when preparing vegetables.</p>	<p>Despite being used in China for a vast range of cutting techniques, its characteristics make it most suited to repetitive, percussive chopping. It is perfect for chopping vegetables in a uniform way, managing to cut them into even very small pieces. The thickness of the blade helps to keep the vegetable steady between each cut</p>	<p>Despite being suited to a range of uses, on closer inspection its suitability for cutting meat becomes clear, as not only can it slice the meat effectively, but thanks to its pointed end it can also cut, separate and so on. It is also fine for chopping vegetables, though it is less constant in its precision compared with knives with a wider blade</p>



### 3. FROM THE KNIFE TO THE TABLE

As we have seen, the knife is not solely a tool that allows cooking skills to be developed. It also has a great deal to do with another fundamental element of gastronomy that is also heavily linked to the use of objects: consumption. This does not only involve the table, the way it is set and conceived as a space created to host as many people as things, but also other ways of consuming food, such as eating in the street using disposable containers and different forms of cutlery. In this sense, Japanese culture is emblematic, given the very way the food itself is worked into a mouthful understood as a unit of taste that, once at the table, requires no further intervention. Hence the reason there are no blades to be found on a Japanese table, with food being picked up using chopsticks, much like artificial fingers that touch the food instead of us. It is precisely this physical contact (or its absence) with food that constitutes the central point of our investigation into food consumption. As such, we must take into consideration a tool that allows us to carry out this very function\* whilst taking it for granted: the fork.

It is always surprising to note how those objects we hold to be indispensable, and whose form\* seems to us to be so simple and obvious that they become entirely necessary, are in fact the result of choices that were anything but simple or obvious. It is particularly surprising to discover they have not always been used in the way we think. The fork is usually made of metal (though in the past it was also made from wood, and today new materials are being used to replace those in plastic), it is made up of two parts - the prongs required to skewer the food, and the handle in order to hold it. Again we have two interfaces: one for the non-human (the food) and the other for humans. With regards to the first (the prongs), today we increasingly find those with four rather than three, whilst those with two prongs, though common in cutlery during the 1700s, are today no longer found on the table but in the kitchen, in a larger format as carving forks. Needless to say, there are numerous variants to be found throughout history, in which the materials, the length of the prongs and the kind of handle all vary. But despite being interesting, this is not our focus here. Our interest lies in the fork itself and its uses. Indeed, there is nothing obvious about using such a tool to manage our contact with food.

In Europe, people ate with their hands until at least the Middle Ages and no one thought anything of it. In the 1600s, scholar Vincenzo Nolfi wrote a treaty on etiquette in which he described the fork as a tool destined to be quickly forgotten because, he said, it was disgusting to imagine placing a piece of metal in one's mouth that could also alter the food's taste. Gentlemen and women needed only to take care over which part of the hand they used to bring food to their mouths. Using the whole hand, perhaps licking and sucking food remnants off it, was boorish, but limiting oneself to using just three fingers,

and not licking them after touching the food, was considered exemplary behaviour. But most importantly it was correct with regards to the food. It was taken as read that touching the food was an intrinsic part of savouring it, a knowledge that we have lost with all foods save a few, such as bread, cheese and cured meats which we continue to eat with our fingers. It is no coincidence therefore that the first forks had three prongs, reflecting those three fingers etiquette considered advisable. As for bread, its status is interesting. It is a food to be touched, in fact it is almost obligatory to appreciate its consistency and texture using touch. It is also a tool used to help food onto the fork without using one's fingers, or even as a container for the food itself, as with kebabs which are wrapped in a thin layer of bread. So, a food to touch but also a food with which to touch. Indeed, the idea of making edible plates is by no means an invention of contemporary food designers.

But when did we start to use the fork, and with which foods? It is impossible to say with any certainty, but the first accounts of this tool date back to 1361 in a list of goods smuggled to a merchant, in which reference is made to 14 dozen forks 'ad comendum macherones', for eating pasta. In the Middle Ages, forks were used only when eating pasta, which at the time was seasoned only with butter and cheese and eaten hot, something that made it difficult to handle. It is no coincidence that Italy was one of the first countries in which, at the end of the Middle Ages, the use of the fork that today we consider indispensable began to be widespread.

The history of another protagonist of the dinner table, the spoon, is very different as it is the only device that our body is unable to substitute. Fingers are able to grasp food and teeth are able to break it up as a knife would do, but we have nothing that can imitate the spoon. As such, examples of spoons can be found in the most remote historical periods, as they were indispensable for consuming any food with a liquid consistency. This led to the possibility of preparing dishes of this kind and therefore to the invention of the saucepan, whose arrival somehow does much more than simply take the preparation of raw materials to another level as from that moment there would be an explosion of differentiation and specialisation, a journey whose origins we easily forget, losing sight of its arbitrary nature. Tradition is nothing more than a successful invention and not the product of necessity, therefore every solution, no matter how logical it may appear, is always only ever one of many alternative possibilities. The point is, if anything, that no solution ever appears out of nowhere.

#### **4. THE INVENTION OF THE COOKING POT**

Today we view the cooking pot as the most simple tool in the kitchen. I am not referring to any type or shape of pot in particular, but a generic container that is resistant to heat and capable of holding both solid and liquid substances. And yet this invention arrived very late in human history. To create

such an object requires a material with two characteristics: the first is the malleability needed to give it a shape that allows it to act as a container, and the second is resistance, indispensable as it must withstand the heat of a flame. The problem is that in nature no such material exists. Wood is malleable but cannot withstand a naked flame, something that stone could do though it is incredibly difficult to mould. It took thousands of years to resolve this problem using terracotta. Its invention must have been an accident, probably with a fire set in the evening next to a deposit of the material, which had turned solid the next morning to the surprise of our ancestors. We are talking about a time that coincides approximately with the Upper-Palaeolithic era, which began around 40,000 years ago, when humans lived in small, nomadic communities of hunter-gatherers and knew nothing of agriculture, which in turn only began to develop 10,000 years ago in the Neolithic period along with an enormous number of innovations including the use of terracotta.

It should be said that when humans discovered this material they did not use it to make cooking pots or pans, or any other kind of container. At that time they ate whatever nature had to offer and moved continuously, both to find new food and to escape predators. They had little, therefore, to preserve. Furthermore, and this is something we struggle to comprehend, they did not even consider cooking methods such as boiling. Our ancestors knew the effects heat had on meat and probably on vegetables too, but the relationship between these materials and the flame was direct, carried out by suspending fragments of food over the heat source. So what did they do with terracotta? They did not, as we might expect, use it to make useful objects, but for artefacts with a purely **symbolic** value, such as small statues for use in rituals. Its primary function\* was not material but **symbolic**.

In order to find the first terracotta containers used for cooking food we would have to wait until 10,000 BCE and travel to the Japanese coast, where the Jomon people began to use cylindrical objects to cook the mussels that grew in abundance in the nearby seas. The first recipe for which it was used, therefore, seems to have been a mussel soup. It was very basic, of course, as our ancestors were only interested in getting the shells to open without burning the mollusc inside. However, by doing so, they ended up also preserving the water held within the shells, **changing** the taste of the seafood. However, the container's **symbolic** value is not lost in this case either, as the first cooking pots in history were not rough objects clumsily thrown together. Rather they had a surprisingly regular shape if we consider that the potter's wheel was not yet known to them, and were finely decorated by wrapping the fresh terracotta in a plaited cord that left a pattern on the vessel. Indeed, the word Jomon means 'cord'.

At this point, we might think that the passage from roasting to boiling was merely an issue of spreading the word of this



invention, but once more things are not as we may think. It is true that the technique for working with terracotta quickly spread from its few places of origin (one of which is Japan), refined enormously by the potter's wheel, but it is also true that the habit of using these objects for cooking initially remained extremely limited. Containers of all kinds became incredibly useful when agriculture began to take shape and human communities stopped roaming, beginning instead to build houses and fill them with objects. But once again the passage from the potential function\* of cooking to its actual realisation is in no way obvious. It is known, for example, that the enormous ceramics finds in the *Franchti* cave in the Peloponnese (thought to be one of the oldest examples of agriculture in Greece, with artefacts dating between 6,000 and 3,000 BCE), despite being fit for use on an open flame, were not used in this way, at least not on a daily basis. Those small pieces that showed signs of having been exposed to a flame were made in a way that would suggest only occasional use, and contained traces of food substances that were not part of the local people's daily diet. Archaeologists believe that these tools, as before, were used in rituals that required the consumption of food. This is a very real possibility if we consider contemporary rituals and the role played by the ingestion of substances.

## 5. COMPARING CULTURES: WOKS AND THE SALTAPASTA



**Fig. 5.** A saltapasta



**Fig. 6.** A traditional Chinese wok



**Fig. 7.** The traditional way of serving spaghetti with tomato, adding the sauce to the pasta once it has been placed on the plate.



**Fig. 8.** A plate of spaghetti al pomodoro served in the modern way, with the pasta and sauce perfectly combined thanks to the use of a saltapasta, a deep frying pan.

While the first cooking pot was undoubtedly made of terracotta, with the discovery of metals all kitchen utensils and cookware changed profoundly. As well as becoming stronger, they cooked the food in a different way due to the physical characteristics of this new material. Whereas earthenware is useful for slow cooking (because it is a poor heat conductor, the heat accumulates and is slowly released), iron heats rapidly, providing the full transformative force of the flame. However, what we have already said about terracotta is also true for the use of metal, that its potential for technical innovation does not necessarily revolve around the kitchen, especially not straight away. Rather, the tools and needs, the former ideally being a response to the latter, actually came about at the same time, as the evolution of a culinary thought that held together the dishes and the way in which to create them.

A good example of this can be found in Italian gastronomy, which relatively recently adopted into its 'standard' set a pan that had never before existed within it. It is a kind of wok or deep frying pan that, in the land of pasta, has been named *saltpasta* (meaning to 'toss the pasta'). Before continuing, it is worth mentioning the value of such a change. Italian cuisine is without doubt one of the best known and most imitated in the world, blessed with an enormous variety of dishes, particularly if you consider the country's relatively contained geographical dimensions. Its long, thin shape makes it host to different climates and ecosystems (marine, hill, lake, etc.) and therefore a broad range of ingredients and ways in which they can be prepared. Among these pasta holds an important position, not just because of the international popularity it shares with pizza, but because of the great variations it allows. There are thousands of possible sauces or dressings, shapes the dough made from water and flour can take, and transformations it can undergo. All this means it can adapt to (and foster) the traditions of the various regions whilst maintaining its recognisability and, therefore, its uniting power. Furthermore, we know that cuisine played an important role in uniting Italy as a single country in the second half of the 1800s. A role so important that it has made the preparation of pasta in Italy an authentic ritual that, equal to religious ones, must be carefully followed in order to be effective. And like every ritual it requires a series of objects, among which, however, there has never been a *saltpasta*. The reason for this is very simple: traditionally pasta was not mixed with the sauce. The *pastasciutta* (as pasta was called until around fifty years ago in order to differentiate it from *minestra* in which the sauce and pasta are cooked together) was first boiled and then the sauce added once it had been served on the plate (some regions call it *minestra secca*). The diner would be faced with a mountain of spaghetti with the sauce sitting on its summit (fig. 7). The first gesture commensal would then make would be to mix the pasta and the sauce, combining the two components as they wished, thus contributing to the definition of the dish. As a

result, the standard range of pans found in an Italian kitchen comprised of tall pots in a classic cylindrical form, perfect for boiling long pieces of spaghetti (the shorter, more shallow pans were mostly used for preparing the sauces, *saucepan*), or flat cookware such as frying pans. No pot had curved edges of a medium height like those found on a *saltapasta*.

This is no longer the case today. It would be very hard to find a house that did not own this new pan. It is such an enormous and sudden success that it leaves people gobsmacked, how did no one think of that before? After all, its technology is not particularly sophisticated, simply giving an unusual shape to some metal. So it was not technical knowledge or industrial processes that impeded the development of such a pan, but taste: only when tastes change are culinary tools able to change. Today in fact, pasta is almost always served pre-mixed with the sauce. Even in a simple tomato pasta, the pasta must be combined with the sauce before it is served on the plate and not after (fig. 8). Some consider this a fad, suggesting it is a senseless whim destined to soon disappear as many trends do. However, not only has this fashion meant that in just a few years millions of pans have been sold, but it would be very difficult to go back. It is true, there will be new fashions, but it is impossible for them to ignore this transformation of taste.

This brings us to the wok-*saltapasta*. Its high and slightly curved walls allow it to effectively contain errant strands of spaghetti whilst mixing with the sauce, while the metal it is made from heats up quickly and distributes that heat evenly, with its broad opening (its shape is like the top of a cone with the base diameter smaller than that on top) allowing liquid to evaporate quickly. The same result can be obtained with a normal frying pan, but would require much more skill, whilst with the wok the object's shape suggests the correct movements, accompanying the user and preventing any spillages. The wok is perfect for this, hence this style of frying pan's impressive sales in a setting where it seemed tradition would always win out.

We are yet to see what kind of ties this pan has with the culture that is responsible for its creation. While, as we have said, kitchen tools are the expression of a particular gastronomic tradition, their form\* is determined by this and therefore by the transformations that characterise it, and the way in which that culture understands what is 'tasty'. The wok is a very ancient pan. The first known examples of the wok date back 2,000 years, historically placing it at the basis of Chinese gastronomy, in a country with no pasta to toss, or at least no dishes that are equivalent to those found in Italian cuisine. Chinese noodles, made from beans and other cereals, not only have a different consistency to durum wheat pasta, but are used for many different dishes, from *stir-frys*, the quick cooking of meat and vegetables that are carefully marinated, to deep frying. These are cooking methods for which no one in Italy would ever use the *saltapasta*. Indeed, on close inspection, the wok and the *saltapasta* are in no way identical (figs. 5 and 6). First

of all, the traditional wok has a curved rather than a flat base (fig. 6), which means it must be suspended over a gas hob using an adaptor; the curve of the wok's walls is softer compared to that of the *saltapasta*; and the traditional wok often has two handles similar to those of a casserole dish, whilst a *saltapasta* only has one long handle like that of a frying pan. None of these differences exist by chance. Each reflects the different way this objects relates, on one hand, with people, the human beings that will use it to carry out the transformations required by a certain number of recipes, and, on the other, with non-human entities that can be both the ingredients placed inside it and other objects such as a burner.

Take the handles, for example. Creating handles such as those in fig. 6 means imagining them solely as being used to lift and move the saucepan, entirely different to that found in fig. 5, a lever that allows for those movements typically required when tossing the pasta. We can see then that in the traditional Chinese wok the ingredients must have been moved about in the pan, crucial to them not burning, using a spoon. This is the traditional practice of the stir-fry, in which (according to the experts) cooking time must be shorter than the time taken to dress a salad.

Another interface\* with culinary value is the base. Making it curved, as in the traditional wok, not only makes it best suited to stir-frying, which requires the continual movement of the ingredients inside the pan, but also to another kind of frying – deep-frying – which requires the food to be fully immersed in boiling oil. An entirely spherical base allows less oil to be used when deep-frying a bite-size chunk of meat or vegetable than a flat one. But while on one hand we have the relationship between food and pan, on the other we have the relationship between food and mouth. In China, the latter is mediated through the use of chopsticks, thus requiring small bite-size chunks to be fried. This is why curved woks have continued to be used despite the inconvenience of requiring an adaptor for use on a gas hob. It is also why when the wok, a truly migratory pan, arrived in Italy, it was able to flatten its base without affecting its functionality. This obviously does not mean that in Italy food is not fried, but that different things are fried in different ways and, crucially, that it is assumed they will be only be cut, portioned, divided and made into 'units of taste' like bite-sized mouthfuls after cooking.

## 6. DESIGN IN FOOD

In conclusion we must refer to the repercussions that a perspective such as the one we have presented has on the very notion of **design**. Indeed, for decades the task of **design** has been summed up in the idea that *form follows function*, so it is the function\* that determines the details of the configuration any given object must have. To the point that this same form\* should not vary unless it is adapting to functional needs. In light of what we have said about the many objects linked to

gastronomy, it is still necessary to ask ourselves not only if such an unequivocal process going from form to **function** is possible, but also, and most importantly, what such a **function** consists of. As we have seen, the function\* of the knife is not simply cutting, just as that of a pot is not solely cooking. The knife is devised to cut something in a specific way, and these further determinations are only defined within a precise understanding of food, of what is considered tasty and what is not, aspects that are in no way objective or universal as demonstrated by the diverse traditions found the world over. The same thing happens with the pot, which is made in order to produce a certain kind of heat in a certain timeframe as well as holding specific ingredients, allowing precise actions to be carried out on them. These are all issues that, as we have said, can also be found in objects earmarked for food consumption and not just in its preparation. There could be many other examples beyond those that we have given, and in each one new issues and factors would emerge. What must not change is the gaze that we turn to each one. A gaze that never thinks in terms of single objects or single dishes with specific founding features, but that prefers to maintain a perspective that allows us to perceive and valorise the relationships between objects, dishes, usage, habits and rituals. In a perspective that views gastronomy as a cultural product it is the networks that count, rather than the single nodal points of which the network comprises, especially when it comes to a dimension of life so utterly important as that of food. Only in this way is it possible to think of **design** in relationship to gastronomic culture. A relationship that once more is not unequivocal (an idea of food does not come first, followed by the object required to create it) but one of reciprocal conjecture: a system of objects and a system of tastes arrive together, continually influencing one another. To the point that when a designer thinks of a new kitchen product, they not only need to ask themselves how it will work, if it will have commercial success or if it will be cheap to produce or easy to recycle once it is no longer needed, but what kind of changes it will introduce to the gastronomic system to which it belongs.

## FOCUS 1

**Thermomix TM6**

*Vorwerk's Thermomix TM6 is the latest incarnation of one of the most sophisticated kitchen appliances. What counts is not what it does but the role it takes on in the kitchen.*



Among the many electrical appliances that fill our kitchens, one seems more representative of our time than any other. We are not talking about an esoteric dehydrator or a sophisticated blast chiller, but that everyday champion that is the Thermomix. It is famous: a blender whose bowl can be heated, that is also able to weigh ingredients and turn itself off at a pre-established time. It does not sound much but the Thermomix has changed the lives of many. It is not so much the actions it carries out (or the very few it does not), but how it does them. In other words, its philosophy is what counts. In theory, it should be an aid, a tool that carries out particularly boring actions, like mixing or kneading, on our behalf, or those tasks that require great speed, such as mincing. But it is not. Everything begins with the recipe, which the machine displays on its integral screen. Once the recipe is chosen, the programme begins, and what follows is a sequence of highly detailed instructions. The user does not need to think, just obey, pouring into the bowl the required ingredients in the required quantities at the right moment. You do not even need to check it, to the extent that you (almost) never have to look inside or open the mixing bowl because the machine never gets it wrong. The recipe you have chosen will come out exactly as you see in the picture. But this is the whole point: what counts is not what it brings to cooking but what it takes out – anxiety. Because cooking is, beyond any required know-how or skill, a question of nerve. All those ‘add as required’ to consider, those instructions to ‘just see how much is needed’ dished out by Granny, all



those hurdles that will cause those lacking in passion to quit sooner or later. And so, here is the magical object to solve the problem, not a simple aid but an actual operator, a little chef friend who we help in the kitchen.

## FOCUS 2

### Roner

*The Roner allows you to maintain the water in any container at a constant temperature. In this way it is possible to cook various foods without them coming into contact with the liquid using vacuum packaging. It therefore becomes possible to bring the food to a very precise temperature, maintaining its consistency and taste to perfection.*



If someone had told Sir Benjamin Thompson, Count of Rumford, that the cooking systems he was experimenting with back in 1799 would be the height of fashion in gourmet restaurants the world over, he would perhaps not have believed it. He was a scientist, and his studies on food focused predominantly on canteens for the poor, looking at how to make (for example) nutritious, low-cost soups without compromising on taste. His response was very clear: by lowering the temperature. And so, two centuries later, here we are rethinking how we roast meat. Rather than placing it in the oven at 180° and waiting for it to duly brown on the outside without drying out too much on the inside, we vacuum pack it in a plastic bag with all the necessary seasoning, and down it goes into the heated water of the Roner for 3 hours at just 58° (sometimes even 6–8 hours depending on the amount of meat). Using a resistor, a pump and a thermostat, this device maintains the water inside a container at a constant temperature for the necessary amount of time until the meat reaches that same temperature. At this point, it will not simply be cooked, but it will have reached a kind of metaphysical state of perfection, remaining deliciously soft and full of its juices. The only problem is that when you take it out of the plastic bag the meat will be pale and wholly unappetising. The requisite browning will have to take place after, in a frying pan,

perhaps using a knob of butter. But beware: only leave it there for the time necessary to give it a magazine-worthy appearance. At that point, it will be an explosion of flavours the likes of which the palate has never known. This is what many great chefs today search for: to reproduce simple flavours – such as those of meat, tomato, fish – and render them as intense as possible. The only collateral effect is that the Roner needs company: in order to use it correctly, you will also need a vacuum packing machine.

### FOCUS 3

## The Sieve

*Apparently limited in use and of no real complexity, sieves actually play a fundamental role in the kitchen, much like all those tools that 'perfect' dishes. In the photograph is a Chinois, which, with its characteristically conical shape, is suited to filtering dense substances.*



At times, in order to understand the meaning of kitchen utensils it is necessary to consider them separately from their physical appearance. Take the sieve. It is an object like many others that peers up at us from the kitchen drawer where we throw everything we know we should have but never really use. It is, however, much more than a simple tool: it separates, filters, divides, distinguishing between what is good and what is not, what is desirable and what is best kept away from the plate. When we use a sieve we accept the idea that the sauce we have cooked, the flour we are about to use in our cake, the broth we have watched boil for hours, are not quite as they should be. We suppose they can be improved using something, a net with fairly small holes from which our half-finished dishes will emerge purified, combined, smooth. In short, perfected. So that is why those who use sieves (if they accept their philosophy) have dozens of them. There are the flat ones with fine nylon nets, perfect for removing impurities from sugar and flour and incorporating just enough air to make cakes fluffy and light; those rounded, metal ones that are ideal for liquids; and those conical ones like the *chinois* (literally 'Chinese' in French because it is reminiscent of the

traditional Chinese hat), which with the pestle that often accompanies it, is ideal for more dense substances such as a béchamel sauce that needs those last, miniscule lumps smoothed out, or boiled vegetables from which a velvety puree will emerge.