

## View Points

# There is no reason to argue about taste

*This paper is a transcript of Prof Peter Klosse's inaugural speech, delivered at Stenden University, Leeuwarden. Set against the backdrop of a rapidly evolving industry, the message is of particular significance.*

## Introduction

Gastronomy is a beautiful profession. Anyone who loves food and drink will quickly agree to that. However, as far as I am concerned, this profession is not merely about culinary enjoyment or 'the art and practice of cooking and eating good food' as the *Oxford Dictionary* states. A gastronome is also much more than a foodie. It is a modern and broadly trained food professional who knows a lot about taste and tasting. Stenden University sees that correctly. I have been asked to lead and elaborate on this new discipline – a challenge that I gladly face. In this introduction, I will outline the extent of gastronomy and the way we are going to structure this new profession here at Stenden. Of course I will try to convince you of the uniqueness of this step of Stenden.

'There is no reason to argue about taste' is the title of my lecture. If we add 'anymore' to this statement, we have a good start. Indeed, there is every reason to reflect on the fact that we have lost the grounds to argue. For a long time most people have considered taste to be a personal conception – a notion that everyone makes for himself and that over and over again. Taste would be personal – why elaborate on something as volatile as that? Fortunately, we now know better. At the same time, it is remarkable that we have accepted it for so long. It is not very logical. Taste has never been that personal. A steak tastes different to a baked salmon and also coffee and tea are very different.

Wine experts may surprise people by taking a sip and telling the origin and quality of a certain wine. Yet the logical conclusion, that taste is not a personal conception, has not been drawn. If only we had started to compare apples to oranges a long time ago.

### **People have no taste**

The first thing you will notice if you look for the word 'taste' in the dictionary is that it has many meanings. It is rather ambiguous.

That gives rise to confusion. If we want to end this confusion, then the first challenge is to better define some of the concepts involved. This is a crucial step. If we fail to find clear and unambiguous definitions, we risk ending up with a picture with many different perspectives.

Everything we eat or drink has taste, but people have no taste. For some, that comes as a shock and it's even happened to me that someone considered it to be an insult. If you view taste as a product characteristic, you'd better have no taste, because then you'd find yourself on the plate of the cannibal. The dictionary may be rewritten at this point

and there is more to be reviewed. To end all confusion, it would even be better not to talk about taste at all in this respect; flavour is a better word, if it is only broadly defined – I will come to that later.

Consequently it is better not to call taste a sense. However, tasting has everything to do with our senses. Indeed, all our senses are involved in tasting. This makes tasting very different to hearing, seeing, smelling and feeling. Those are singular senses; they have one organ that captures the signal and one brain area where it is processed.

Tasting is a so-called multi-sensory experience. It is a synthesis of senses. We taste with our eyes, nose, ears, and yes, also with our tongue, or rather with our mouth. Partly because of this multi-sensory character, tasting is a complex and difficult matter to investigate.

It gets even worse if you realise that every human being has a personal framework in which he or she tastes. There are differences between men and women, children and elderly, races and nations. Culture and experience plays a role and also the price of products and the climate and so we can still continue. Everyone knows the examples. It doesn't even stop there; there are also influences from products that are tasted simultaneously. There are tastes that elevate each other, while some others degrade each other. Even the greatest of wines can turn into plonk with the 'wrong' dish. Surely, that is better avoided.

### **Universal taste factors**

Gastronomy or taste science is the discipline that connects taste/flavour and tasting and all aspects involved. The modern view on gastronomy is scientifically validated in my thesis 'The concept of flavor styles to classify flavors' (2004). Through my Academy of Gastronomy many of the key figures of the Dutch gastronomy have found their way. This study and the teaching have become an important part of my life. That in itself is special because, during my studies [in] Business Administration, I was certain that I would not take over my father's restaurant De Echoput. I'm glad that I listened to the voice of my heart and discovered my true passion there.

My study of the roots of gastronomy started when my father embarked upon wine research together with Dr Bob Cramwinckel. In this research, the first factors were found that helped to describe flavour. At first we thought these factors were helpful to describe differences in wine; later on we concluded that they actually did much more than that: they were flavour descriptors.

It subsequently led to the creation of the Academy of Gastronomy, writing books, my PhD at the University of Maastricht and finally this professorship. Nobody could foresee this huge development when we started our wine research in 1988. The parameters that made this all possible are mouthfeel and flavour richness. They are worthy to be discussed briefly.

### **Mouthfeel**

Nowadays it is hardly conceivable that the concept of 'mouthfeel' was unknown and hardly used. It was first introduced and described in detail in my first book on gastronomy, 'Taste', that appeared in 1998. Since then, it has grown to be commonly used. Apparently people have no problems understanding what mouthfeel means. Within mouthfeel we distinguish the first two dimensions of flavour: 'contracting' and 'coating'. Acids and salts cause cells in the mouth to contract. The drying of certain bitters or absorption of saliva by starch, and the crispness of crusts are also examples of contracting.

Mouthfeel coating is quite different. Here substances leave a thin layer in the mouth. Think of fat and sugar in a solution, also the egg yolk of a softly boiled egg as an unmistakable example of coating. The gastronome is aware of the differences in viscosity of oils and knows which one to use to reach the desired effect. We can use these two dimensions to start a model.

Foods and wines are always intricate compositions of contracting and coating influences. Their flavour is the result of choices that chefs and wine makers have made. In some cases, the balance is more towards the contracting side; in other cases it is more coating.

### **Flavour richness**

The second parameter in our model is flavour richness or flavour intensity. In the metaphor of sound, we would discuss decibel. The analogy goes even a step further. Decibel is an indication of the volume of sound, but says nothing about the sound itself. Likewise flavour richness must not be confused with quality. In other words if the flavour richness is high, this does not necessarily imply that the quality is high. Flavour noise exists.

Within the flavour richness we can also say something about the type of flavour. We distinguish fresh and ripe flavour tones. Apple and citrus fruits are nice examples of fresh, [as are] parsley or mint, or cucumber and fennel. Ripe flavour tones are those of ripe melon or pear, or of rosemary and garlic. Also vanilla, cinnamon and clove are examples of ripe flavour tones. The word 'ripe' as flavour tone should not be [confused] with the maturity of the fruit. A ripe apple or lemon is always fresh.

Preparation can have a big influence on the flavour type. Onions illustrate this nicely. A raw onion is clearly contracting and fresh, after some time in the oven, ripe flavour tones develop; they can even become sweet. There are many examples that show the ripe flavour tones increase with the rise of flavour richness as a result of cooking techniques. In that sense, the flavour type may well be an indication of the flavour richness.

### **Model**

Mouthfeel and flavour richness enable to describe flavour in an objective way. That provides a wealth of possibilities. To

begin with, it is possible to create a model. We have just seen the model develop. The results are the so-called flavour styles: groups of flavours with similar characteristics.

This is the beginning of science! Science endeavours to build and organise knowledge in the form of testable explanations and predictions about the world. We have just objectively described a part of reality. We used mathematical language to make the model and develop a hypothesis about the structure of taste/flavour. The purpose of this theory is to describe and to explain the coherence of the observations.

The challenge of a model is to test it – again and again – and to try to improve it wherever possible. That too is science: the exchange of information in an effort to get an even better understanding of the reality. Since Plato, and especially in the Middle Ages, academies or universities are the designated spots where this process takes place.

### **Where are the 'basic tastes'?**

The above model provides a usable depiction of the world of flavour which is easy to understand. The question frequently asked is: How does this representation relate to the basic tastes? If you take any basic biology book you are led to believe that taste can be reduced to the so-called basic tastes: sweet, acidic, salty and bitter. For centuries, research has been conducted on these substances; we have not even mentioned them. The reason is that the hypothesis of the basic tastes is rather flawed.

The suggestion dates back to the time of Aristotle. In addition to the basic four, he indicated also spicy, astringent, and harsh/rough as basic flavours. Unfortunately, the last three mentioned have not survived in history, as they are clearly related to mouthfeel. In the sixteenth century, Fernel suggested the addition of 'greasy' and 'tasteless'. Later still, alkaline and metallic were mentioned to be basic tastes, but basically all suggestions were discarded; the focus stayed on the main four. This changed in 1908, when the Japanese Ikeda discovered umami, or the taste of glutamate. It is now referred to as the fifth basic taste.

We had to wait until these last years for the shift in thinking. Sophisticated techniques enable new research. With the use of MRI we are better able to analyse nerve signals and literally see to which parts of the brain they are linked. We now know that the receptors on our tongue are capable of much more than had always been thought. Receptors have been identified for fatty acids and calcium and there is much more to come. With all these 'new' basic tastes, the focus on the basic four has lost its use.

This can hardly be considered as a surprise. Earlier we stated that all our senses are involved in tasting. It is therefore hard to conceive how a singular focus on the papillae of the tongue could provide a solid clarification for taste or tasting.

Something else is remarkable. Hänig showed in 1901 that there are no zones on the tongue. Nevertheless, these continue to be mentioned in all kinds of text books. On our tongue different structures of papillae can be distinguished, but specific zones where certain flavours supposedly are tasted, are nonexistent.

In the flavour styles theory, we come across the old 'basic tastes' in the respective influence they have on mouthfeel and flavour richness. Acidic, bitter and salt have a contracting influence; sweetness is coating. Umami as well as salt have a big impact on the flavour richness.

### **From taste to tasty**

We have elaborated on the technical, objective side and risk that you think that gastronomy is only about mathematics. It is therefore time to give attention to the other side. Gastronomy has everything to do with enjoyment, passion and pleasure; with people!

The Greek Epicurus was the founder of the Epicurean philosophy and strongly believed in the importance of a pleasurable life. That did not prevent him from being a true scientist who studied physics and had very progressive ideas about the atomic structure of materials (about 300 BC!). According to him, one should never take something for granted until it has been thoroughly tested.

The Frenchman Brillat Savarin has earned his place in history as the first real gastronome – albeit ‘avant la lettre’. His book, *La Physiologie du Goût*, was published in 1825. Passion and pleasure were important ingredients in his life as well. He starts his book with his famous aphorisms. Some of which are famous even today; for example, ‘the discovery of a new dish means more to humanity than the discovery of a new star’ and ‘tell what you eat, and I tell you who you are’. In his writing he also points out that culinary success doesn’t come by itself. You must really know what you are doing and he expected exactly that from his cooks and servants.

It may seem strange to mention Jean-Philippe Rameau in this respect. He was a composer and is not known for his gastronomic skills. He wrote the *Traité de l’harmonie* and studied harmony in music. The beauty of music is not a coincidence; it is a matter of harmonious proportions – of mathematics! It helps to know what harmony is and how it is structured. This understanding helps other composers to avoid errors. Rameau’s work dates from 1722! The world of music has a big lead over the gastronomes – about 300 years – and we can also establish something else: the existence of a theory on harmony has not hindered successive generations of great composers in their creativity.

### **Tasty laws**

It seems almost contradictory: tasting is subjective and finding something tasty will always be a personal privilege. How can there be rules on what to do and what not to do? This being said and true, I am convinced that ‘tasty’ is not just an incident. It is rather the result of doing things right. Just as knowing about harmony helps to make ‘beautiful’ music.

Finding something beautiful is just as subjective as tasty. I’ll mention some other practical examples. In the first place wine and food pairing. The flavour classification makes it possible to find good combinations. Again, harmony is at work, but in a different way. Contracting wines fit go well with contracting dishes, and so on.

My research on the ‘culinary success factors’ is another example. It shows that there are six factors that successful dishes have in common. Dishes that comply with these factors are better liked than others. In Denmark, hospital meals were greatly improved with the help of these factors – to the satisfaction of the patients.

Don’t get me wrong: ultimately it is everyone’s personal right to find something tasty or not. However, the chance of a positive judgement is much greater if taste is managed carefully.

### **Gastronomy in hotel schools**

Here we are at the core of the reason why the step of Stenden to support gastronomy fundamentally and to make it a part of the curriculum is so good and important. Everyone may and should expect hotel school students to be well trained and able to ascertain that their guests will enjoy what is served. These guests must pay for the service and they’d better have a positive judgement. Furthermore, people travel more and more around the world. They experience other foods and cultures. Most likely they are influenced by these experiences and – whether we like it or not – they are inescapably more critical about the services rendered, wherever they are.

That requires quite a lot of the students. They must be trained well to be successful in their trade. There is a lot to learn in many areas. They should know about the influences of varieties and agricultural methods on taste. They should know something of the physics and chemistry side of products. They should be aware of the influences of preparation techniques on taste – and not only in the kitchen. Also the way all sorts of drinks are made, belongs to the field of study. Then they must also understand the one who is tasting and that in all respects, cultural, psychological, sociological, etc. Then there are the mutual influences of products consumed at the same time. The combination of wines and dishes is the most notable.

Also we are not there yet, because where does all that tasting and pleasure lead? Gastronomy has a direct relationship with a variety of global issues, such as nutrition and health, nutrition and food production, nutrition and taste and even with political choices.

At Stenden there will be a minor and a Master’s degree [in] Gastronomy. The minor focuses on the basics. The depth of gastronomy will be sought in the Master’s degree, including all kinds of social, ethical and environmental issues.

There are not many places in the world that offer gastronomy programmes on a scientific level and Master’s degrees in this discipline are even more rare. Where they are offered, there is a lot of attention in the curriculum on the gastronomic customs of countries and their history. As far as I know, Stenden is the only institute in the world where Gastronomy is offered in this comprehensive and fundamental way.

### **The gastronome**

At the end of my speech, you will have gathered that a gastronome is much more than somebody who just likes food and drinks. He is a modern and well-trained professional who can lead organisations or parts of them where food and drinks are served. The gastronome is neither the chef, nor the *sommelier*, but he or she understands their language and can communicate with them. Nor is a gastronome a food scientist, yet he knows enough of the processes involved to get something tasty on a plate.

You understand: Stenden may be proud to give room to train these individuals and I’m happy to be here.

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