Perfume and Cooking

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When a chef and a perfumer work together, this can result in a riveting dialogue on aromas and the translation of moods into taste and smell. Even before we met, chef Stefan Wiesner had used perfume to accentuate his creations a few times using the same herbs and spices as in *Le Male* by Jean Paul Gaultier in an ice cream. In a radio feature Wiesner then mentioned that he would one day like to work with a perfumer. Since I had grown up next his home village of Escholzmatt it made sense to volunteer my services. And that is how our shared story began.

We debated, inspired and analyzed one another. My knowledge of chemistry – and to a certain extent also of physics – helped me to better understand, and in some cases even just begin to understand, the common processes used in cooking. The incentive for this kind of dialogue was to discover just how the other person thinks and to open one another's eyes. An encounter between a perfumer and a chef is a meeting of two different worlds, each one new to the other. Perfumers think and work quite differently from chefs, since we are merely able to examine our raw materials and creations in bottles, on scent strips and ultimately – and most significantly – on skin. A

perfumer spends two to four years of his career by simply studying, memorizing raw materials, without actually creating anything. Later he creates simple accords by using two or three components. The focus hereby is not on creating a masterpiece, but on learning and gathering knowledge.

Smell is not taught in schools the way singing or drawing are. It is therefore very important to train the sense of smell – perfumers learn this at special schools, but graduates will then always also have to undergo a perfume house's own internal training courses.

Right from the beginning, fantasy is an important "component" of the perfumer's work. And this involves smelling and tasting without seeing at the same time first and foremost. This "blind" tasting and smelling stimulates fantasy and fosters the imagination. Few people are able, for example, to identify orange oil or mandarin oil on a scent strip, because the accompanying peel or fruit is not visible. In our day-to-day lives, our sense of smell relies strongly on our vision. Perhaps when smelling "with their eyes", very few would recognize lavender in a yellow-colored shower gel, while a violet shower gel might prompt an immediate identification of lavender. Colors and shapes help us to perceive and recognize odours and flavors better. This in turn helps us to understand the complexity and the multifaceted flavor of fruits, vegetables or meat. One example is mandarins, where we can discover facets of lime and orange blossom, amongst other things.

A chef is far less likely to conduct extensive studies of all his possible food ingredients than a perfumer is. During the chef's training, he prepares or helps prepare meals right from the beginning. Right from the start he sees how his dishes will look, what forms, colours and tastes will characterise the meal. Scents are everywhere during the cooking process. Starting by peeling, chopping of vegetables and fruits, later frying, stewing, boiling them, are resulting in complex odour accords. An interesting point here is that everything one perceives in the air is no longer in the dish. It has evaporated.

Taste is perceived via the tongue and nose. The typical aromas of meat, fish, nuts, fruits, etc. are identified via the olfactory organ. Some scientific studies show that the proportion of scent involved in taste is up to 80 percent. In turn, knowledge or recognition of scents helps a chef to "discern" dishes more accurately, i. e. to perceive the full complexity of the culinary creation better and more intensely. This gives him ideas on how new combinations might ultimately work, how they can be developed further, or about finding out why the dish he has created is harmonious. In a pear, for example, we can taste, smell facets of quince, cognac, lily-of-the-valley and freshly cut grass. Recognizing these facets of the scent accord 'pear' requires years of acquired knowledge and precise analysis.

In contrast to a customer who gives the perfumer detailed instructions for a perfume, cooperation with a chef is very different. Stefan Wiesner generally begins with a dish, with the intention of then creating variations of this in smaller or greater combinations. What might go well together, what can be used to complement the dish, which reductions can be made and to what? All this requires a great deal of work and plenty of trial and

error. Often, as the dish progresses, one notices that one or the other component no longer creates the effect one is actually seeking.

The common features in the work of the chef and the perfumer lie in the experimental testing and approximation, and the constant sampling of new possibilities. One has to simply try out new things – they cannot be developed according to a reference book, but they can be an excellent start or source of inspiration.

But the differences between the chef and the perfumer are also obvious: the chef needs to perform outstandingly each and every day, always creating something afresh. Every day he has different guests, each guest expects the same excellent dish, and perhaps will even come back because of it. Dishes appear to be far more complex than perfume. They have to be served at specific temperatures and with specific textures; smell and even taste are just two aspects. Visual appeal is part of the experience of eating, so the colors in a dish have to go well together and the presentation must be appetizing. The tongue wants to be indulged by sweet, sour, bitter, salty and umami, whilst the nose likes to be seduced by roasting flavors, different fruits, vegetables, spices and herbs. A perfume on the other hand is developed, sold and then produced in quantities of millions, without the perfumer continuing to be involved in the distribution process. He does not hear what customers and consumers say about his perfume at the sales counter, how they criticize it or comment on it. At most, he might see a bottle on display in a store now and then, but his work essentially ends with the basic formula.

For Stefan Wiesner's perfumes, which were named after ancient runes to reflect his interest in their meaning, we initially sought scents whose accords could easily be incorporated into dishes. 'Bay Rum' is an old classic, developed in the Caribbean. The main components are all native to the region: rum, orange (peel) and West Indian bay leaves (not to be confused with common culinary laurel leaves, one bay leaf is sufficient for ten liters of stock). With these three components, Stefan flavored/modified a fish dish, and they are also the main accord of the perfume *Fehu* (meaning fruitfulness or genesis). The perfume *Sowilo* (sun, Kundalini) was inspired by a classic Eau de Cologne, supplemented with basil, cardamom, caraway, lavender, rosemary and thyme (all of which are aromas also often used in cooking). *Gebo* (gift, harmony), the third perfume, is inspired by what is probably the most elegant and luxurious theme in perfumery, a chypre. The chypre is the "fur coat" or "diamond necklace" of perfumes. It is not worn every day, but only for special occasions. I think it is a great addition to *Fehu* and *Sowilo* and thus forms a beautiful bridge to perfumery. All three perfumes do not differ from industrially-produced scents.

The development or creation of a scent can take various forms. One can draw on works from the past (known as 'formulas' or 'recipes') that fit with the idea or brief, and often a new scent is based on one that has been successful in the market. Generally, the marketing also describes precisely what impression or desire is invoked in the customer. There are new raw materials or new themes that can be incorporated.

To get everything just right – top notes, middle notes and end notes – a great number of attempts is often needed and this work can be frustrating at times. It is a question of patience; over 95 percent of our experiments end up in the bin. But once the work is complete, the sense of achievement is magnificent.

This means the first impression a perfume gives, the top note, should immediately draw the consumer under its spell. The middle or heart note is crucial in defining the character of the perfume, as well as for the "scent" you perceive when someone wearing it walks past you. This part of the scent is also influenced by the end notes, the fixing. These are responsible less for the character of the scent than its enduring nature. Since they have a low volatility, they evaporate slowly and therefore stay on the skin for longer. However, an overly high proportion of fixers can negatively affect the intensity and radiance of the perfume to the extent that the customer gains the impression of it being weak and not lingering.

That said, let's get back to the cooking: not all aromas found in the kitchen can be translated into pure scents. Milk, chard, lime and bay leaf are all things I can interpret in perfumery, but pig's head is trickier, possibly with aldehyde notes for the fattiness. I would think sardines simply cannot be interpreted in perfume form. Aside from meat and fresh fish, pretty much anything can be interpreted as a scent composition. Whether there are consumers who would be interested in such scents, though, might be doubtful. For example, to recreate a simple dish like pizza as a perfume for candles, I would begin by analyzing the individual components. I can create cheese, oregano and tomato; representing the pizza dough, on the other hand, is quite a challenge. The most difficult thing is finding the balance that makes it possible to smell all the components clearly. Thus hot, sharp spiciness cannot be smelt, because it causes a stimulation of the pain nerves and is not a smell on its own.

Scent has always accompanied cooking right from the beginning, even when humans cooked their food in caves on open fires. You can even smell whether it is pork or beef sizzling on the grill. Scent was always present, but oftentimes overlooked.

However, for some years now there has been an increased interest in a pairing between perfume and dishes. Perfuming the air whilst eating, however, is somewhat difficult. It can mislead, interfere and in fact be very unpleasant. What does work well though, is if various aromas are sprayed in the air during consumption of, for example, weakly salted mashed potato. This leads to a more sophisticated perception of the mashed potato.

If, on the other hand, like Stefan Wiesner you aim to recreate a perfume in the kitchen, then the dishes should be based on the perfume's top notes. The composition and ingredients of a perfume are often indicated in its publicity and marketing material. It is therefore relatively easy to identify the main components of a scent. You can then try to combine the herbs, spices, etc. to create a harmonious mixture in order to subsequently incorporate this into a mashed potato, an ice cream, a dessert cream, a soup or a sauce. Of course the finished product should taste like a dish and

not like a perfume, so the components should be used in moderation. It sounds pretty easy this far. However, if you want to get more complex a little imagination is required, so you can use coriander leaves to simulate the aldehyde notes, apricots as freesia or feta cheese for the costus root. We perfumers also have a secret weapon, a gas chromatograph (GC) with a mass spectrometer (MS), abbreviated to GC/MS. This is my "brain", so to speak, because I use it to analyze essential oils. I can clarify structures, check whether suppliers are selling counterfeit products, analyze market products, see what makes a product so successful, etc. The GC/MS is not however limited to the analysis of perfumes (it is thanks to this gadget that I have "insider info", secrets or new raw materials the perfumer might have preferred to keep to himself, without informing customers or marketing), but can also be used for rare or new herbs and mixtures of herbs. A few years ago I tried to produce a list under the title "foodstuff compositions". That also shows that cooks and chefs have always come up with combinations of herbs, spices etc., in which scent plays an important or a primary role. Curry, for example, is centuries old.

A primary concern in the kitchen is to avoid "over-composing" – i. e. not make the whole thing so complex that it is no longer possible to perceive a character or the character is simply too boring and inexpressive. Hence a tomato soup must remain a tomato soup and not become a basil soup. A basil soup does not necessarily require tomatoes. Thus Stefan Wiesner and I began calling herbs and spices 'modifiers', as is common in perfumery. Modifiers are used to make creations appear more beautiful, radiant, intense or interesting. They are added sparingly enough for a clear effect to be perceived, but without it being possible to actually discern the fact. So-called "creatives" often struggle to contain themselves, adding an endless amount of different modifiers and thereby achieving almost thoroughly disappointing results. For me, this has nothing to do with complexity or creativity, but rather with the fear of forgetting something or avoidance of precision. Here, the precision is precisely what is interesting, and this is where Stefan Wiesner is a master. A perfume always "represents" something, tells a story, allows us to dream, transports us to the seaside or the mountains, or gives us a sense of cold/warmth, just like a taste composition can. It combines certain themes, complements them or creates contrasts.

In my view as a perfumer, it is important to make clear to the person cooking just how complex the tastes of the individual foodstuffs are, how they can contribute to the complexity of dishes and in what way this stimulates the variety of combinations and the level of creativity. That is why blind tasting and the practice and discovery of scents are so important, including – and indeed precisely – for laypersons at home. But the most important thing here, I believe, it's more fun being a gourmand than an analyser.