

Clearing the Air: In Praise of Synthetics

[January 9, 2008]

In the January issue of *Perfumer & Flavorist* magazine, **Steve Tanner** (Arylessence Inc. president and CEO) discusses "[Misconceptions Surrounding the Fragrance Industry](#)" (page 22). In his article, Tanner stresses the need for improved communication within and outside of the fragrance industry for the continued use of safe materials (both natural and synthetic). Unfortunately, as the media promotes all-natural fragrances as healthier for the consumer and the environment, synthetic fragrances are misperceived as unsafe. Here, *P&Fnow* chats with two Arylessence perfumers—**Bruce Garlick** and **Heather Sims**—to elucidate the benefits of synthetic ingredients and what the industry would look like if synthetics were lost from the palette.

**P&Fnow:** As you see it, what are some of the unique benefits of synthetics?

**Garlick:** First of all, with synthetics you have absolutely predictable color and odor stability. You have consistent odor quality regardless of climatic variations and harvest variations. Additionally, they are very easy to work with. In many cases synthetics are capable of replacing natural ingredients that are derived from endangered species or botanicals. For example, ambergris has not been used in perfumery for decades because of the ban on whale products, but perfumers have Ambrox and other similar materials. Currently, the situation with sandalwood oil is very severe because the trees were being depleted. Now we have so many different synthetics that do a wonderful job of replacing sandalwood oil that I believe most fragrance houses aren't using the natural sandalwood any longer. The use of animal-derived products, such as musk, is also very sensitive. Certainly, the increase of synthetic musks available to perfumers has helped enormously. Those are really important benefits of synthetics to perfumers.



**Sims:** Our creative pallet at the moment would be tremendously depleted without the use of synthetic ingredients.

**P&Fnow:** What would the fragrance industry look like if synthetic materials were lost?

**Sims:** We wonder what would be left of fragrance houses. I think the loss from an economic standpoint would be tremendous. The industry would become an unaffordable luxury; only the wealthiest people would be able to use fragrances if we were left with just naturals. So, in addition to having a limited palette, it would be too expensive for the average consumer.



The effects on consumers would be devastating. The pleasures of daily life experienced through household and personal care use, both of which use huge quantities of synthetic ingredients, would disappear. Can you imagine laundry without

fragrance and bathing in the morning without fragrance? All of the things that I think have become sort of subconscious pleasures would become obsolete.

**Garlick:** If synthetics were banned it would take us back to the state of the fragrance industry in the 19th century. As Heather mentioned, that was when fragrance was a true luxury. It wasn't available to most people because of the cost. The perfumers' palette at that time was a very limited one, consisting of just what could be derived from nature.

As for what would be lost if synthetics were banned &hellip we would lose the very foundations of perfumery. We would lose the basic floral notes such as jasmine and rose because we couldn't afford them. And we would lose muguet (lily of the valley) because it can only be created synthetically. The aliphatic aldehydes (such as aldehyde C-11) are something that perfumers almost take for granted these days. These ingredients are inexpensive; they have a remarkable effect on the performance and the aesthetic quality of a fragrance. They bring elegance and a complexity that you couldn't achieve with natural ingredients.

**Check out the final part of the interview in the January 23 edition of [P&Fnow](#), where Garlick and Sims will discuss:**

- their favorite synthetics
- examples of fine fragrances using synthetics
- how naturals and synthetics can work hand-in-hand to create successful fragrances

## Clearing the Air: In Praise of Synthetics Part 2

[January 23, 2008]

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**P&Fnow:** What are some of your favorite synthetic materials to work with and why?

**Sims:** Hedione is one of my favorite synthetic ingredients. It is so widely used in fragrances that it has become a building block of perfumery. Not only is it a beautiful jasmine and used to create beautiful white florals, but it has this ability with almost any fragrance that you use to provide a naturalness and smoothness. It can be used for almost any fragrance type—florals, woods, fruits.



**Garlick:** You see this ingredient used in men's fragrances just as commonly as in women's. In fact, the first commercial use of it was in Dior's *Eau Sauvage*, a men's fragrance.



My favorite synthetics are probably the rose ketones. I work primarily with alpha-damascone, beta-damascone and damascenone. What's fascinating about these ingredients is how they can give strikingly different effects depending on the context in which they are used. For example, in Chanel's *Coco Mademoiselle*, alpha-damascone and damascenone accentuate the rose accord, whereas in *Juicy Couture* the alpha-damascone gives the suggestion of green apple. In *Burberry London for Men* and Tom Ford's *Tobacco Vanille*, damascenone gives a tobacco note.

There are many different facets to the rose ketones. First of all they are all rosy, but they can also be fruity (like plums, berries, apples and black currant), herbaceous, minty and tobacco. It just all depends on the context in which they are used. When I use these materials I'll often get a secondary scent that I didn't necessarily intend but that is usually really unique. I enjoy that there is still a sense of unpredictability using these ingredients because of the way they blend with the other components in a fragrance.

**P&Fnow:** Can you please give a few examples of scents that exploit synthetics particularly well?

**Sims:** You could go all the way back to *Chanel No. 5* with the use of aliphatic aldehydes. That's probably one of the first fragrances that used aliphatic aldehydes and was tremendously successful. One of our favorites is the Bulgari collection of fragrances. It's just a beautiful line that is based primarily on synthetics. For example, almost 50% of the formulation for *Omnia* is composed of musks. They are blended beautifully with other woody notes. Although it smells very sophisticated and complex, it is in fact a very simple formula.

**Garlick:** There's nothing "synthetic" about the smell of Bulgari's fragrances. A customer would not say that it smells synthetic. The fragrances are elegant and beautifully balanced. They are a great demonstration of how you can create with modern synthetics.

**P&Fnow:** Can you please give a few examples of how synthetics and naturals might be employed in tandem to construct a winning fragrance?

**Sims:** This is essentially the role of perfumery today. This is what perfumers are good at: knowing when to use the naturals and when to use the synthetics in order to create a beautiful winning fragrance. One of my favorite examples, which Bruce already mentioned, is Tom Ford's *Tobacco Vanille*. That fragrance has a lot of synthetics in it but without the use of patchouli the fragrance would not have the same character.

**Garlick:** Although by and large natural ingredients play a fairly small role in a finished fragrance, unless it's a lavender or citrus fragrance, it is a very important role. If you want to create a lavender or citrus note, we, as perfumers, rely on the natural oils. We rely on oils like patchouli, because these are notes that cannot be reproduced synthetically.

The idea of a perfumer's palette being limited to all synthetic or all natural would severely restrict a perfumer's creativity. I think a majority of the fragrances in fine fragrance and personal care contain both synthetics and naturals. As perfumers it's important for us to make the point that while the emphasis of this interview has been on the value of synthetics, naturals are just as important. We are asked frequently to make all-natural fragrances, but it is much harder to make than an all synthetic fragrance, because your palette is so limited.

**Sims:** I think we will see an increase in requests for all-natural fragrances. We are happy to create natural fragrances and for a segment of consumers it is important for them, but we just don't want to get into a situation where the claim of all-natural means that synthetics are bad.