

Base notes of perfumery

Guy Robert, Quintessence, Paris, France

As I consider myself an everyday working perfumer, I thought it would be interesting to say a few words about our tools and the way we use them; especially the ones we use to emphasize the base or bottom notes of our creations.

It is far easier to produce original top notes than original base notes. This is the reason I am going to discuss the blending of tenacious perfumery raw materials.

Smelling the various fragrances launched during the past ten years, one very often has the impression of fine, sometimes original and strong, top notes. However, several of those fragrances develop in a strange way, and some do not develop at all.

After a few hours on the skin or a day or two on our blotters, it is amazing to smell how poor, cheap and negative are the base notes of those fragrances.

Hedione, Lyrall, Ambrettolide Oxyphenylol and those chlorine smelling resorcinates are very interesting products, but to me, they are the modern and lazy way to obtain the tenacious base notes our seniors obtained fifty years ago with such products as Musc Xylol, Amyl Salicylates, Acetophenones and Diphenyl Oxide. It is the same thing with all those wonderful musks; these modern products have no evaporation curve. They are too lasting. Moss, Vetyver, Patchouli do have an evaporation curve: they last long but their odor is weakening away after some weeks, months or even years.

A few leading American style perfumers are producing very powerful and lasting perfumes, they also are trying very hard to make original and luxury looking top notes. But, as far as I know, they are not trying very hard to improve their background notes. The superiority of the old continent creative perfumers depends on our knowledge of the well balanced perfume.

There is only one way to blend a perfume after having achieved the first skeleton or primary accord. That is to add to this basic accord the middle note modifiers which can help to round off, to give more body to the skeleton. These products bring in-

tensity, strength, diffusive power, and the lasting qualities: the "sillage" that is to say the scent or trail (as it is used when hunting) derives from

Geoff Davis, Secretary of the British Society of Perfumers; David Cartwright, President of the British Society of Perfumers; and Guy Robert of Quintessence, Paris, speaker, at a recent meeting of the BSP. Mr. Robert's presentation is published here.

Perfumer & Flavorist Volume I, Number 6 December/January 1977

Founded in 1906 as The American Perfumer

Base notes of perfumery, G. Robert p. 1
Naturally occurring chemicals in foods, B. Lawrence p. 5
Basic features of modern flavour regulation (IOFI publication) p. 7
Major Tropical Spices, B. Lawrence—Introduction p. 15; Bibliography p. 20
Recent progress in essential oils, B. Lawrence p. 31
Lavender and lavandin in France, S. Allured p. 35
Mentha citrata: a unique fragrance essential oil, J. Todd p. 37
Editorial p. 41; Patents, D. Kenney p. 42; Perfumers Notebook, H. D'Arblay p. 44; Bibliophile, Octavo p. 45; Perfumer & Flavorist Editorial and Author Index for Volume I p. 47; News p. 48; Literature p. 55; Calendar, Professional Services, Classified Advertising, and Advertisers Index p. 56

them.

The blending suggests a harmony of constituents, and from that balance comes the lasting effects of the fragrance.

Many young perfumers try to use slow evaporation components to "fix" their compounds. But it is not reasonable that a mixture of quick evaporating products could be made more lasting by addition of a slow evaporation solvent or by so-called fixatives.

The only way to obtain a lasting impression is to rebuild the original accord with more lasting ingredients trying to reproduce the same balanced accord using various scales of olfactive values.

There are a few odorant components in natural animal products, but we often confuse them with animal odors. The diffusive effect brought to our perfumes by natural Amber, Musk and Civet is not obtained by Ambreine, nor by Muscone or Civetone.

History of base notes

If we take the easiest way to classify classical perfumes launched between 1885 and 1955, we can find that during those 70 years, the creative perfumers use the same raw materials or nearly the same, and the same compounding methods.

Some of the creative people for this period were not aware of the raw material technique, i.e. they were using a few dozen natural products and a few dozen specialties from deLaire, Firmenich, Givaudan, Synarome, Descollonges and others. How happy they were!

Some others were working with the hundreds of synthetics and natural products we all know, plus various tricks not yet published.

But in all, we can consider that basic notes were used as follows:

Floral perfumes. The basic accords nearly always contain Musk Ketone and Musk Ambrette, Cyclopentadecanolides or Brassylates; Jasmin and Rose Absolutes, Orange Flower Absolutes; Amyl or Hexyl Cinnamic Aldehydes, Hydroxy or Schiff-bases; Methylionones and Orris.

Floral salicylates. Nearly the same products listed above, and in addition, Benzyl or Amyl Salicylates (and their neighbors) all Balsams, all aliphatic aldehydes; fruits (Peach, Strawberry, Raspberry, Coconut); green notes (from PADMA to Narcissus Absolute).

Powdery sophisticates. The products above, plus cassie note, Hay, Anisic notes; Coumarin and Tobacco notes, Vanillin and assimilates; Amber, Civet, Honey, Spices; Oak mosses, Vetyver, Sandalwood, Woody acetates.

Powdery orientals. The products above, plus most animal notes; Patchouli, Quinoline serial, Civet, Leather; Musk Ambrette, Ambrettolid, Costus.

I was very much interested by a publication I received a few days ago.¹ I think that we would have difficulty in making lasting products with that method. It is true that the dilutions described give the impression that the aliphatic Aldehydes are more lasting; and it is also true that Citronellyl Propion-

ate is more lasting on the blotter than the Acetate; but when more than two products are mixed together, the entire blend evaporates in its own way. And that way sometimes has nothing to do with the behavior of the individual constituents.

Talking of power (diffusive power and lasting power) reminds me of a funny experience with Jack Pickthall in 1952 when seven different people related to perfumery had to give a power evaluation of two very different chemicals; one was Amyl Cinnamic Aldehyde, and the other one Hexyl Salicylate. Some of us found the Salicylate as strong as the Aldehyde; while others were using numbers as high as a hundred to four hundred times stronger for the Aldehyde. This experience brought to mind a conversation with Dr. Albert Verley who said to me that he has always used traces of various salicylates in his Jasminic Aldehyde. This is an interesting explanation.

Among the training exercises which I often use are the classical nose-training exercises, and the researches on simple flower notes, and the useful notes such as Chypre, Fern, Hay, and Colognes. However, the most interesting experiments are based on these typical and simple accords:

Musk Ambrette/Ketone + Oak Moss + Coumarin + Methylionone + Absolute Jasmin
Musk Ketone + Amyl Salicylate + Hydroxycitronellal + Methyl Nonyl Acetaldehyde
Ambrarome + Coumarin + Vetyver + Hydroxycitronellal + Jasmin Abs.
Oak Moss + Methylionone + Cassie Abs. + Orange Flower Abs.
Musk Ethylene Brassylate + Woody Acetate + Aurantol (Hydroxycitronellal/Methyl Anthranilate Schiff Base)
Sandalwood + Quinolines + Hydroxycitronellal + Jasmone
Civet + Vanillin + Coumarin + Styrax/Tolu Balsams + Methylionone
Patchouli + Peach Ald. + Methyl Nonyl Acetaldehyde + Clary Sage
Patchouli + Civet + Rose Abs.
Patchouli + Amber + Olibanum
Ambrettolid + Oak Moss + Quinolines + Patchouli

Of course, you have recognized most of these accords. When mixing those simple notes, the result is always interesting. But you must agree with me that it is only by careful, long and patient observation that we can choose the best balanced and the longest lasting effect for each combination of materials.

I saw in the June, 1976, open letter from our Chairman of the British Society of Perfumers, that object No. 2 of our Society is: "encourage the education and development of perfumers." Unfortunately, my talk, as every piece of information on our work, appears really discouraging. For thirty years I have tried to understand and to deduce various laws, or at best a few rules which could be technically valuable, and yet I have not found them.

Reference

1. "CONTACT," Haarmann & Reimer, Number 12, p. 8.