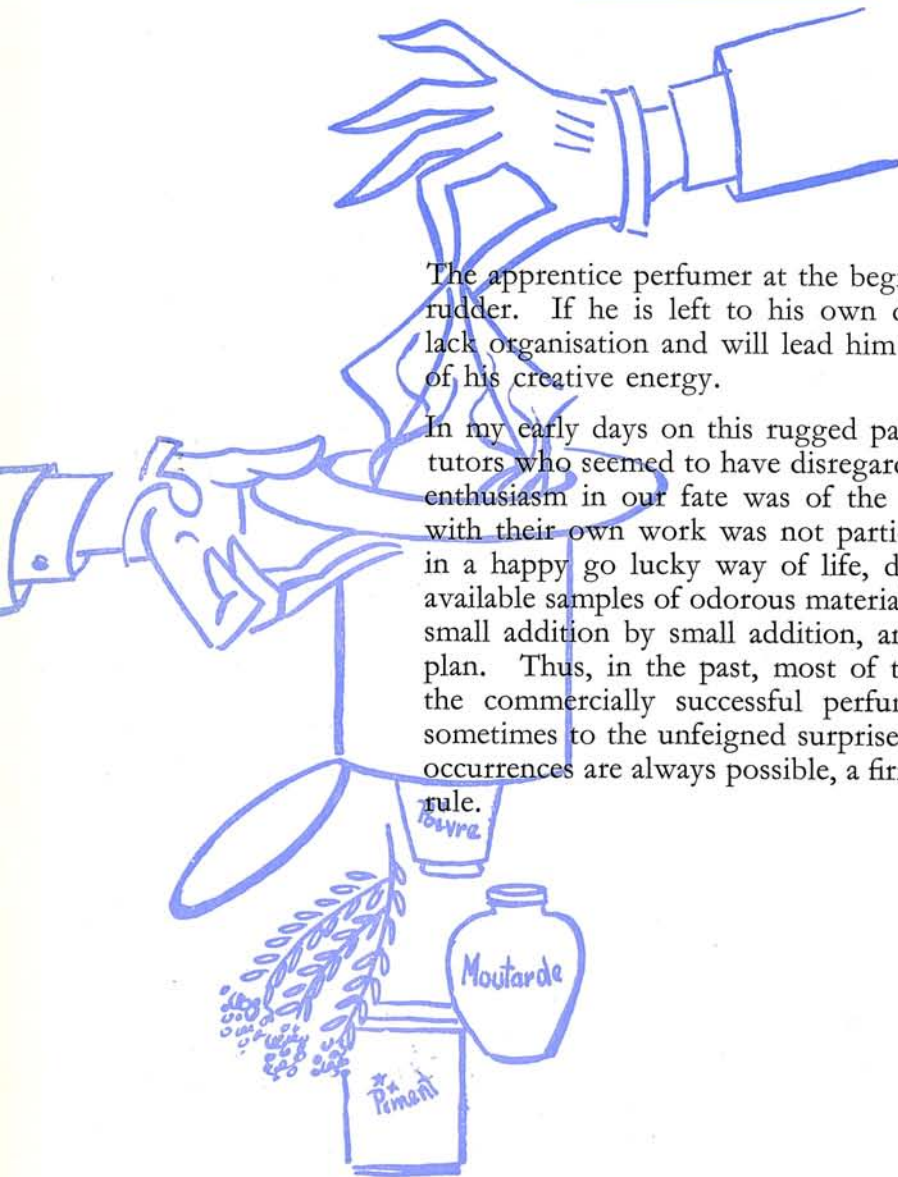


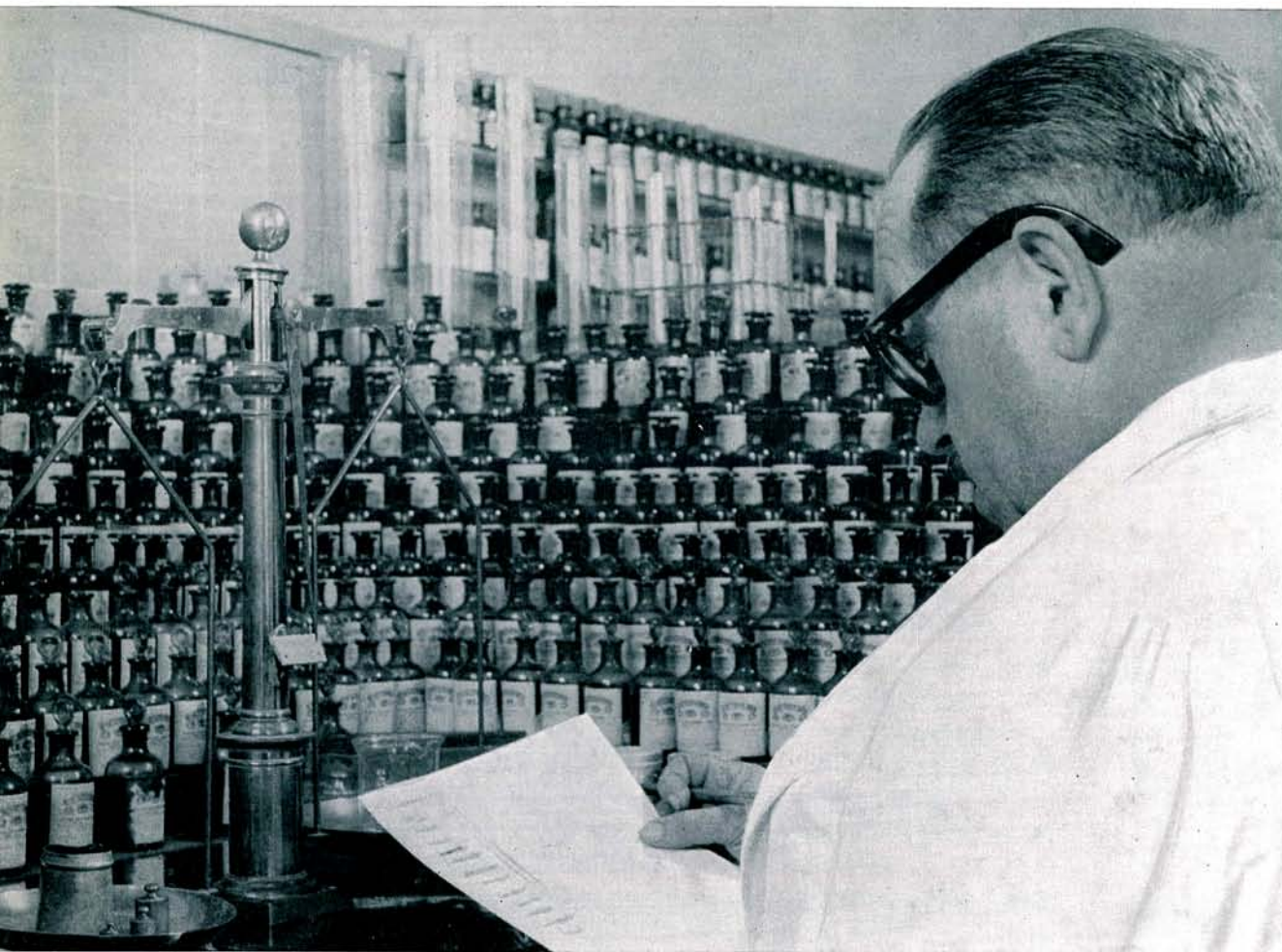
# A METHOD OF CREATION IN PERFUMERY

The apprentice perfumer at the beginning of his career is as a ship without a rudder. If he is left to his own devices or badly led, his discoveries will lack organisation and will lead him inevitably to wasteful and ineffectual use of his creative energy.

In my early days on this rugged pathway, I found myself in the presence of tutors who seemed to have disregarded the necessity for basic rules and whose enthusiasm in our fate was of the mildest. Watching how they proceeded with their own work was not particularly enticing: they appeared to believe in a happy go lucky way of life, desultorily dipped smelling strips into the available samples of odorous materials, and thus their formulations progressed, small addition by small addition, and not according to some pre-established plan. Thus, in the past, most of the great perfume creations, or rather, of the commercially successful perfumes, were produced almost by chance, sometimes to the unfeigned surprise of their authors! Although such happy occurrences are always possible, a firm belief in them should not be the guiding



BY JEAN CARLES



Since the trial and error method held no appeal for me, I attempted from the very outset of my career—fifty years ago—actually to understand the whys and wherefores of the fascinating world I had entered for better or worse. This is why I feel I may now offer to share whatever experience I have acquired since to my younger colleagues, many of whom still work undirected and create in a haphazard fashion, in the expectation of a potential miracle.

In perfumery, however, miracles are few and far between. From the very outset, a perfumer should be able to tell whether a creation stands a chance of becoming a sales success. The technique I eventually worked out has made perfume creation surprisingly easy. Thanks to it, I am never at a loss for creating new perfumes.

Although some sort of apology should be in order for the seemingly inordinate conceit of what I have just set forth, all my laboratory colleagues and all those who came to us for tuition can vouch that I have stated nothing but the truth. Also, I firmly believe that the simplicity and the ready applicability





of my method will become fully apparent once I have disclosed my views on organised creative perfumery.

Perfumery at present is at a crossroads. The number of trained perfumers tends to decrease since the long apprenticeship required appears an insuperable obstacle to most young people who cannot afford to wait long enough before earning their living. Such a situation should be remedied at all costs. While it is not to be expected that originality can be taught, nor that the potential sales appeal of a novel composition will be apparent to the young perfumer before he has gained the experience which only time will bring, it is nevertheless of prime importance that the apprentice perfumer be given help and guidance for coordinating his first attempts in the field of perfume formulation.

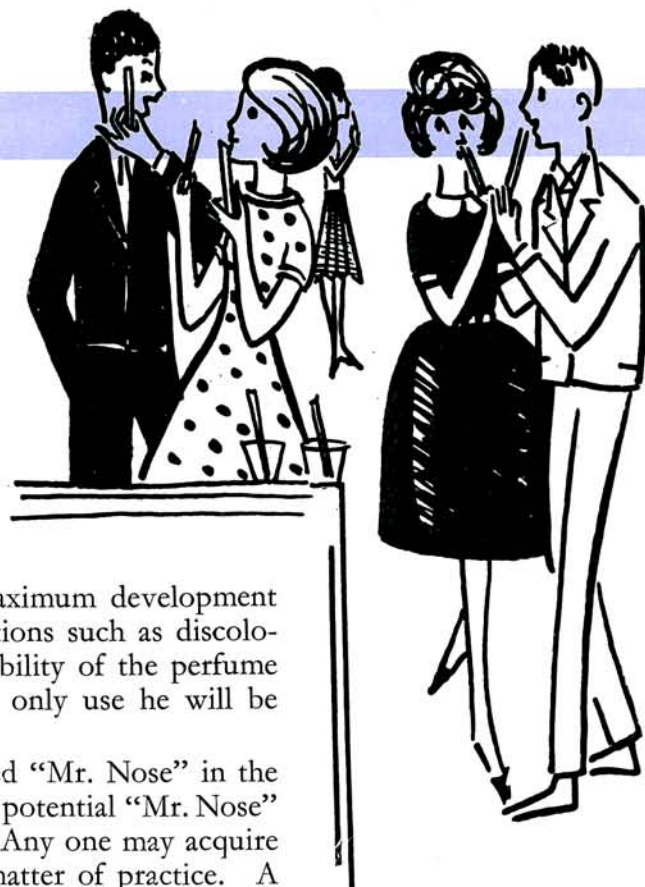
There is no mystery in the way I work. Over the past thirty-five years, more than one hundred students, both French and foreign, have taken courses in perfumery in the Company's laboratory at Grasse and have been taught according to the most simple method I had devised for myself.

Thus is given below the result of fifty years of sometimes disappointing, but often most rewarding experiences, in the hope that my young colleagues will find therein new possibilities for future creations and will see their enthusiasm increase tenfold when their efforts are crowned with success, since without enthusiasm there can be no perfumer.

Actually, what is perfumery and how should it be understood?

Perfumery is an art, not a science, as many seem to believe. A scientific background is not necessary for the perfumer; scientific knowledge may even sometimes prove an obstacle to the freedom required in perfume creation. The creative perfumer should use odorous materials in the same way that a





painter uses colours and give them opportunity for maximum development and effect, although it is understood that potential reactions such as discolorations within the ultimate formulation and also the stability of the perfume should be given due consideration. This is about the only use he will be able to make of his scientific training, if any.

The perfumer's only tool is his nose. I have been called "Mr. Nose" in the U.S.A. about twenty years ago. But any one of us is a potential "Mr. Nose" since, in perfumery, there just is no privileged "nose". Any one may acquire a highly developed sense of smell, as this is merely a matter of practice. A good nose, that is, an excellent olfactory memory, is not sufficient for producing a good perfumer. By the term "a nose" is meant a perfumer who is able to distinguish a pure product from an adulterated product, who can tell Lavender 50 % from Lavender 40 %. I myself, in spite of my long experience, am but a beginner in comparison to the old "noses" I met at Grasse at the beginning of my career and who were able to detect olfactorily the geographical area where a given oil of Neroli or of Lavender came from.

*Olfactory training* is of prime importance and should never be neglected or interrupted. Our own perfumers make it a strict rule to test daily their knowledge of perfume materials and this is why a half hour is set apart for this exercise which we all perform in true competitive spirit.

Let it be emphasized again that no "nose" can be said to be better than another, and that it is merely a question of olfactory memory for which daily training is not only necessary, but indispensable.

Thus, the training of a beginner who knows nothing about perfumery should begin with the olfactory study of all odorous materials, both natural and synthetic. In order to facilitate such a study, the beginner will first be given to smell contrasting odours, and later materials belonging to a same odour family. In the following pages are given two tables relating to olfactory studies according to such requirements. Learning to smell his smelling strips, to identify and to distinguish from one another all odorous materials, the beginner will soon notice that the odour of the products changes with time, that the rate of evaporation is not the same for all products.





# OLFACTORY STUDY OF ESSEN

## STUDY BY CONT

### STUDY BY ODOUR FAMILIES

		1st study	2nd study	3rd study
10th study	CITRUS Notes	Lemon	Bergamot	Tangerine
11th study	WOODY Notes	Sandalwood	Cedarwood	Vetyver Java & Bourbon
12th study	SPICY Notes	Cloves Bourbon	Cinnamon China & Ceylon	Bay
13th study	ORANGE Notes	Neroli Bigarade	Petitgrain fr. Grasse	Petitgrain fr. Paraguay
14th study	ANISE Notes	Anise	Badiane	Sweet Fennel
15th study	ROSE Notes	Absolute Rose de Mai		
16th study	RUSTIC Notes (camphor-like)	Lavender	Lavandin	Spike, Spanish & Provençal
17th study	BALSAM & AMBER Notes	Balsam Peru (Absolute)	Balsam Tolu (Essence)	Vanilla (Resinoid & Infusion)
18th study	FLORAL Notes	Absolute Jasmine	Absolute Tuberose	Absolute Jonquil
19th study	RESIN Notes	Olibanum	Benzoin	Opoponax
20th study	ANIMAL Notes	Absolute Civet	Musk Tonquin (Infusion)	Castoreum
21st study	CITRONELLA Notes	Citronella Java & Ceylon	Lemongrass	Ylangena
22nd study	MINT Notes	Peppermint	Spearmint	Pennyroyal
23rd study	MISCELLANEOUS Notes	Ylang-Ylang	Cananga Java	

# TIAL OILS AND ABSOLUTES

## R A S T I N G O D O U R S

4th study	5th study	6th study	7th study	8th study	9th study
Orange (Portugal)	Sweet Orange	Bitter Orange	Cedrat	Lime	Orange (Guinea)
Patchouly	Oakmoss (Essence)	Oakmoss (Absolute)	Pine, Sylvestre & Maritime	Cypress	Guaiac wood
Nutmeg	Pepper	Pimento	Juniper (berries)	Cascarilla	Coriander
Absolute Orange Flowers	Absolute Orange Flowers (water)	Petitgrain ex Bergamot-tree	Petitgrain ex Lemon-tree	Petitgrain ex Tangerine-tree	Absolute Orange Leaves
Bitter Fennel	Basil	Tarragon	Cumin		Caraway
Rose Bulgarian (Essence)]	Geranium African	Geranium fr. Grasse	Geranium Bourbon	Geranium Palmarosa	
Rosemary	Thyme	Eucalyptus	Laurel Noble	Hyssop	Myrtle Origanum Sage Spanish
Tonka Beans (Absolute)	Styrax	Cistus-Labdanum	Sage Sclary	Balsam Copaiba	
Absolute Hyacinth	Absolute Narcissus	Absolute Violet (leaves)	Absolute Cassie	Absolute Mimosa	Absolute Orris
Myrrh	Elemi	Galbanum			
Costus	Ambrette (seeds)				
Melissa					
Marjoram					
Niaouli	Bois de Rose	Shiu	Wintergreen	Cajeput	

# OLFACTORY STUDY OF CHEMICALLY

## STUDY BY CONT

### STUDY BY ODOUR FAMILIES

		1st study	2nd study
8th study	AMBER Notes	PAM	Musk Ambrette
9th study	ANISE Notes	Anisic aldehyde	Anethol
10th study	ALDEHYDIC Notes	Aldehyde C.7	Aldehyde C. 8
11th study	ANIMAL Notes	Indole	Skatole
12th study	BALSAM Notes	Cinnamyl acetate	Cinnamic alcohol
13th study	WOODY Notes	Cedryl acetate	Vetyveryl acetate
14th study	CITRUS (Lemon) Notes	Citral	Citronellal
15th study	SPICY Notes	Cinnamic aldehyde	Eugenol
16th study	LEAFY (Green) Notes	Phenylpropyl alcohol	Phenylacetic aldehyde
17th study	FRESH Notes	Hydroxycitronellal	Nerol
18th study	FLORAL Notes	Linalool	Terpineol
19th study	FRUITY Notes	Amyl acetate	Aldehyde C. 14
20th study	JASMINE Notes	Benzyl acetate	Amylcinnamic aldehyde
21st study	LAVENDER Notes	Terpinyl acetate	
22nd study	HONEYED Notes	Phenylacetic acid	Ethyl phenylacetate
23rd study	MINTY Notes	Menthol	Rhodeol
24th study	MUSK Notes	Musk xylol	Musk Ketone
25th study	NARCISSUS Notes	Paracresol acetate	Methylparacresol
26th study	ORANGE (peel) Notes	Linalyl acetate	Methyl anthranilate
27th study	ROSE Notes	Geranyl acetate	Rhodinyl acetate
28th study	ROSE (petals) Notes	Phenylethyl alcohol	Phenylethyl acetate
29th study	ROSE (fruity) Notes	Rhodinyl formate	Geranyl formate
30th study	VANILLA Notes	Vanillin	Vanillal

# DEFINED AND SYNTHETIC PRODUCTS

## R A S T I N G O D O U R S

3rd study	4th study	5th study	6th study	7th study
Hibiscolide				
Aubepine crystals	Anisic alcohol	Anisyl formate	Anisyl acetate	
Aldehyde C. 9	Aldehyde C. 10	Aldehyde C. 11	Aldehyde C. 12 (lauric)	Aldehyde C. 12 (MNA)
Ethyl cinnamate	Methyl cinnamate	Amyl salicylate	Isobutyl salicylate	
Acetivenol	Cedrol	Ionone 100%	Ionone alpha	Methylionone Vetyverol
Citronellyl acetate	Citronellyl butyrate			
Isoeugenol	Methyleugenol	Methylisoeugenol		
Centifol acetate	Centifol	Methyl heptine carbonate	Bromostyrol	Diphenyl oxide
Geraniol				
Aldehyde C. 16	Aldehyde C. 18	Amyl benzoate	Amyl cinnamate	Amyl formate
Benzyl formate	Benzyl propionate	Benzyl cinnamate	Benzyl phenylacetate	Benzyl salicylate
Linalyl phenylacetate				
Paracresol phenylacetate				
Argeol	Linalyl benzoate	Dimethylantranilate	Nerolin crystals	Yara-Yara
Citronellol	Geraniol	Geraniol P	Rhodinol	Rhodol
Phenylethyl phenylacetate		Palmarol		
Rhodinyl propionate	Rhodinyl phenylacetate	Geranyl benzoate	Rhodinyl benzoate	Geranyl butyrate
Heliotropine	Coumarin			



Therefore, the next step will be for him to establish a classification of odorous materials according to their volatility.

While such a classification could be established scientifically, the apprentice perfumer will soon attain unexpected proficiency by forgetting any technical information he may have, and by establishing "his" classification for himself, as I had to forty years ago.

On the smelling strip will first be inscribed the date and time at which a drop of the odorous material was deposited thereon, and later the date and time at which the product on the strip will begin to lose its main characteristic, its typical odour. When proceeding thus, no consideration should be taken of the ultimate off-odours, such as terpenic notes or the like. This technique will soon make it apparent for the student that while some products are very volatile and lacking in tenacity, others are of intermediate volatility and tenacity and others still are of low volatility and high tenacity.

Such data will then readily be set forth in tabular form, all available odorous materials being listed under three headings, as follows:

Very volatile products lacking tenacity	Products of intermediate volatility and tenacity	Products of low volatility and high tenacity
<i>Top notes</i>	<i>Modifiers of base notes</i>	<i>Base notes</i>
Amyl acetate Bois de Rose Linalool Phenylethyl acetate Lemon Lavender Bergamot Orange Coriander Tarragon Laurel noble Petitgrain from Lemontree etc., etc.	Basil Terpineol Petitgrain from Paraguay Galbanum Verbena Thyme Geranyl acetate Juniper Tansy Phenylethyl alcohol Geraniol Absolute Lavender Citronellal Neroli Rose, Bulgarian Ylang Geranium Aldehydes C.8 C.9 C.11 C.12 Cloves etc., etc.	Methylionone — Ionones Absolute Orange Flower Sage Sclary Amyl salicylate Absolute Jasmine Benzyl salicylate Cedarwood Aldehyde C.16 Aldehyde C.18 Sandalwood Artificial musks Absolute Oakmoss Vetyver and derivatives Patchouly Celery etc., etc.



The student will then have to be taught how to use this table.

As set forth above, I have termed:

- very volatile products lacking tenacity ..... *Top Notes*
- products of intermediate volatility and tenacity ..... *Modifiers*
- products of low volatility and high tenacity..... *Base Notes*

The reasons for this choice of terms are the following:

As indicated by their name, the *base notes* will serve to determine the chief characteristic of the perfume, the scent of which will last hours on end and will be essentially responsible for the success of the perfume, if any.

Any one even remotely familiar with perfume materials is aware that all products of low volatility and high tenacity such as Vetyver, Oakmoss, Patchouly, the Methylionones and the like give off a rather unpleasant smell when freshly deposited on a smelling strip but, on the other hand, that the scent given off during the subsequent stages of evaporation is excellent. This is the reason for the use of the *modifiers* of intermediate volatility and tenacity which will serve to change the unpleasant top note of the base products.

Finally, the very volatile *top notes*, lacking tenacity, will serve to impart to the perfume composition a very pleasant odour on opening the bottle.

At the time of their first olfactory studies, therefore, the students should establish individually, for future personal reference, a table giving a classification of the rate of evaporation of all the materials they will eventually come to use. This will prevent them from using a modifier in place of a base note, or a top note instead of a modifier, or conversely. *No perfumer can afford not to be thoroughly familiar with this classification which is the sole available means for rationally creating perfumes.*

Too many perfumers still proceed by trial and error, in the hope that chance will lend a helping hand. A good perfumer should actually "smell" his perfume prior to the actual blending of the formulation, and start out by writing down in itemized form his complete selection of components.

My method reduces almost to nil the difficulties of perfume creation. Aware of the various stages of the odour development of perfumes, our students establish their formulations according to the rate of volatility of the products used; such formulations are therefore readily legible and easy to understand. They are, in a way, *olfactorily legible*. Always starting out with the top notes, they list, in logical succession, the modifiers and finally the base notes which will impart the chief characteristic of the perfume. Any of my formulas are written down according to this method which makes it possible to *pass a first judgment on a formula merely by reading it.*

Thus, actual blending and scenting of a perfume formulation is not necessary at this stage, a careful appraisal of the written formula makes possible an effective readjustment which will unfailingly improve both its scenting power and its quality. Last, but not least, the reasons for the adjustments can readily be explained to the students, and understood by them. All those who were trained by us or who spent some time in our laboratory are familiar with this method and have successfully applied it since to their own students.

*For illustrative purposes, let us take as an example the creation of a Chypre note.*

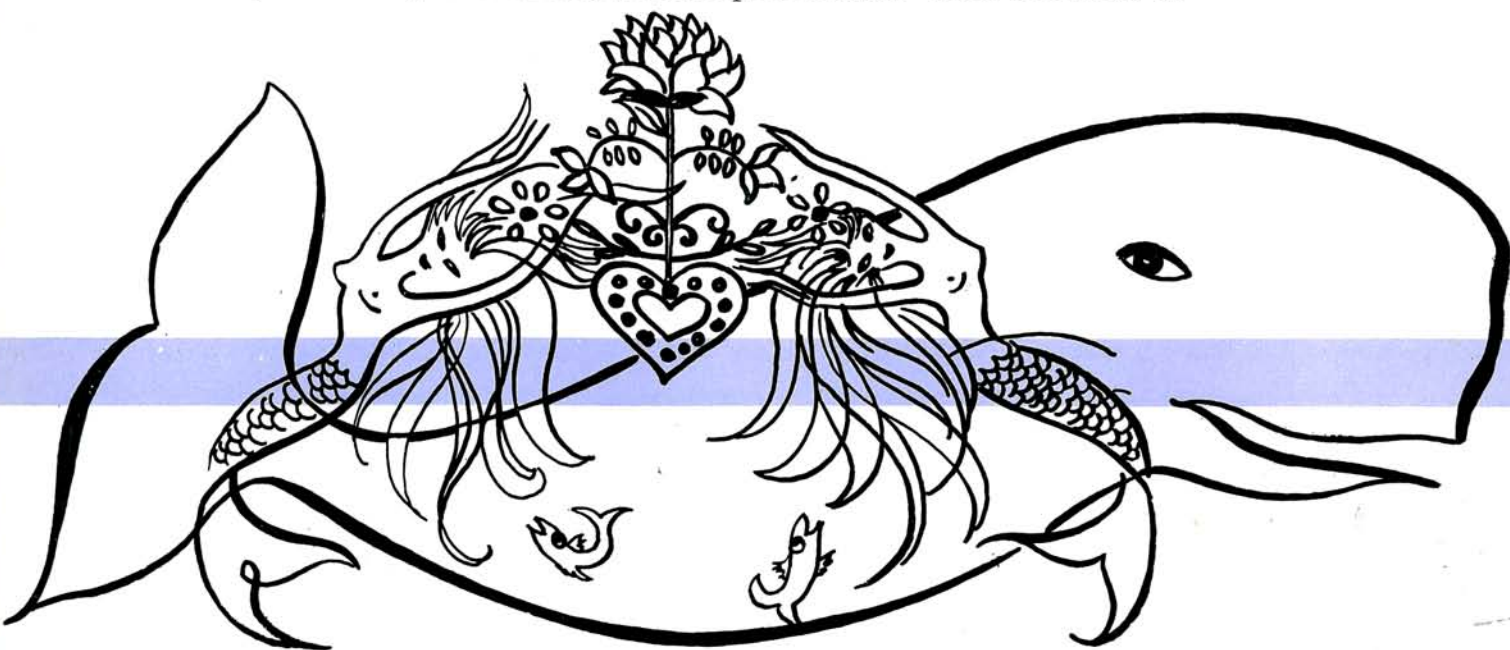
1. *The "accord" between bases.* Absolute Oakmoss is the basic raw material for the Chypre note. It belongs to the series of products of low volatility and high tenacity, or base notes. Others of the more common materials belonging to this series are products such as the Ionones and Methylionones, Vetyver, Patchouly, Acetivenol, Cistus labdanum SIS, Althenol, Selvone,





Ambergris 162 B, and the like. Therefore, we must choose among them the products which will blend with Absolute Oakmoss and impart an original characteristic to our perfume. We shall begin our study of this "accord" in the following manner:

We shall select a second product belonging to the series of base notes, whichever will seem most appropriate for blending with Absolute Oakmoss. In the present case, we shall use, for example, Absolute Cistus colourless or



a similar product such as Ambergris 162 B, and we shall prepare a series of "accords" containing both constituents in the following ratios:

<i>Absolute Oakmoss</i>	. . . . .	9 8 7 6 5
<i>Ambergris 162 B.</i>	. . . . .	1 2 3 4 5

We shall not test combinations beyond the 5:5 ratio, since the following ratios of materials:

<i>Absolute Oakmoss</i>	. . . . .	4 3 2 1
<i>Ambergris 162 B.</i>	. . . . .	6 7 8 9

would no longer produce an "accord" based on Oakmoss, but an "accord" based on Ambergris. We shall then choose between the five "accords" based on Oakmoss and, for example, shall decide on the following:

6 <i>Absolute Oakmoss</i>
4 <i>Ambergris 162 B</i>

Since any Chypre note should also have a musk-like character, we shall add a certain amount of Musk ketone or of Musk ambrette to the above "accord". Thus, the base of the desired Chypre note will be as follows:

6 <i>Absolute Oakmoss</i>
4 <i>Ambergris 162 B</i>
1 <i>Musk ketone</i>



When smelling this blend on a smelling strip, we shall notice that its immediate effect is rather unpleasant, although this will fairly rapidly disappear and be replaced by a pleasant long lasting note essentially characteristic of the personality of the ultimate perfume.

II. *The modifiers.* How can we subdue, or, rather, adjust this unpleasant note? We shall immediately find a solution to the problem by studying the table giving the classification of odorous materials according to volatility. Among the products of intermediate volatility and tenacity, we shall find which product, or products, will be best suited for blending with our “accord” between bases.

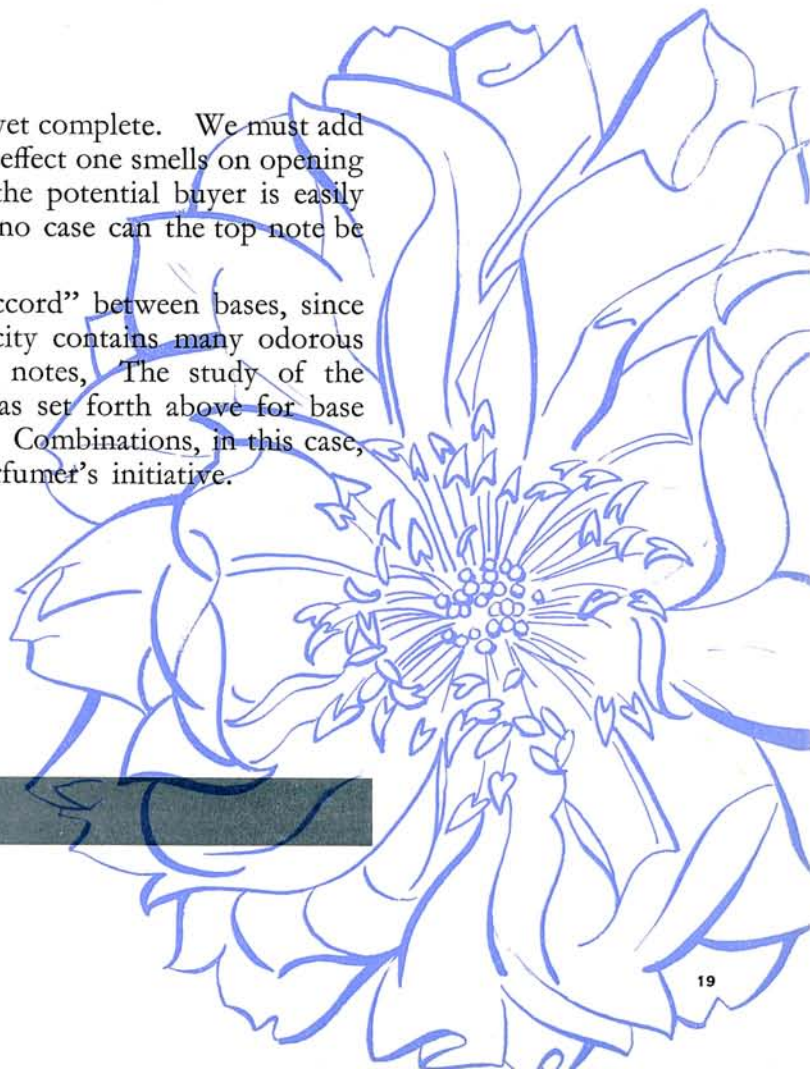
We shall choose a floral note, a rose note, for example (Absolute Rose or Rose d’Orient 2644 JD). This rose note will subdue the immediate effect of our “accord” between bases and make it more pleasant. It will play its part as a modifier of base notes, and this is the reason why we have termed the products of intermediate volatility and tenacity: “modifiers” (of base notes). To the Rose note we shall add a trace of Absolute Civet, so as to impart a slight animal note to the Chypre note.

At this stage, the formula is as follows:

<i>Modifiers</i>	}	3 <i>Absolute Rose or Rose d’Orient 2644</i>
		1 <i>Absolute Civet, 10% sol.</i>
<i>Bases</i>	}	6 <i>Absolute Oakmoss</i>
		4 <i>Ambergris 162 B</i>
		1 <i>Musk ketone</i>

III. *The top note.* Our formula, however, is not yet complete. We must add to it a top note, which will produce the immediate effect one smells on opening the bottle. This note is fairly important, since the potential buyer is easily influenced by it,—with or without reason, as in no case can the top note be the characteristic note of the perfume.

This study is far easier than the study of the “accord” between bases, since the series of very volatile products lacking tenacity contains many odorous products most of which possess very pleasant notes. The study of the “accord” between top notes can be carried out as set forth above for base notes, but with much more freedom and fantasy. Combinations, in this case, are countless, and may be left entirely to the perfumer’s initiative.





As with base notes, we may study several “accords” between two or three notes, or even four. Let us, for example, after testing various combinations, decide upon the use of sweet Orange and Bergamot in the following amounts:

4 *Sweet orange*  
1 *Bergamot*

Thus, the extremely simple formulation of our Chypre note may be written down as follows:

<i>Top notes</i>	4 <i>Sweet Orange</i>
25 %	1 <i>Bergamot</i>
<i>Modifiers</i>	3 <i>Absolute Rose or Rose d'Orient 2644</i>
20 %	1 <i>Absolute Civet, 10 % sol.</i>
<i>Bases</i>	6 <i>Absolute Oakmoss</i>
55 %	4 <i>Ambergris 162 B</i>
	1 <i>Musk ketone</i>

It is understood that the above is not a complete formula, but that it is merely given for the purpose of illustrating the method set forth in this paper.

iv. *Proportions. Percentages of the three groups of products: bases, modifiers and top notes.* This percentage is extremely important: it is, for the major part, responsible for the tenacity of the perfume. A perfume containing 20% of bases, 30% of modifiers and 50% of top notes would lack tenacity, since the percentage of bases would be relatively too low as compared to that of the more volatile modifiers and top notes. Therefore, the proportions are selected so as to obtain a balanced evolution during evaporation.

v. *Extension of the above formulation.* We shall now examine how this Chypre note formula could be completed, or modified. Let us first consider the base notes. We have already realised the “accord”:

*Absolute Oakmoss*  
*Ambergris 162 B*  
*Musk ketone*

We might, for example, add to it Vetyver Bourbon, or Java, which will result in the following “accord”:

*Absolute Oakmoss*  
*Ambergris 162 B*  
*Vetyver Bourbon*  
*Musk ketone*



and we shall endeavour to find the proper ratios of ingredients, as follows:

	A	B	C	D
<i>Absolute Oakmoss</i> . . . .	4	6	3	3
<i>Ambergris 162 B</i> . . . .	4	3	6	3
<i>Vetyver Bourbon</i> . . . . .	4	3	3	6
<i>Musk ketone</i> . . . . .	1	1	1	1

Thus, when studying the above "accord", the main characteristic will be imparted by Oakmoss in experiment B, by Ambergris in experiment C and by Vetyver in experiment D.

The student perfumer will also be able to choose between the following "accords":

*Absolute Oakmoss*  
*Ambergris 162 B*  
*Patchouly*

*Absolute Oakmoss*  
*Ambergris 162 B*  
*Methylionone*

*Absolute Oakmoss*  
*Patchouly*  
*Vetyver*

*Absolute Oakmoss*  
*Methylionone*  
*Vetyver*

*etc.,*  
*etc.*



according to his preferences with respect to the main odorous characteristic of the base of the Chypre note he wishes to create. Obviously, these "accords" could be increased to contain four, five or six notes; for example:

*Absolute Oakmoss*  
*Ambergris 162 B*  
*Patchouly*  
*Vetyver*

*Absolute Oakmoss*  
*Methylionone*  
*Vetyver*  
*Patchouly*  
*Ambergris 162 B*

*Absolute Oakmoss*  
*Ambergris 162 B*  
*Vetyver*  
*Patchouly*  
*Aldehyde C. 14*  
*Absolute Jasmine*

*Musk ketone*

*Musk ketone*

*Musk ketone*



It is therefore apparent that this method offers endless possibilities for creating new notes and new perfumes, the perfumer being entirely free to use any odorous material in these "accords", provided however that such materials are selected from the series of base notes; such complete freedom in the choice of the starting odorous materials may also be given to the beginner.

Whatever the type of formulation, once we feel the "accord" between bases is complete and fully satisfactory, we shall have to reconsider our first selection of modifiers. In our first tentative Chypre note formula, we might, in place of the Rose note, use an Orange note, a Jasmine note, or any other floral note such as Lily of the valley or Carnation. Again, top notes should also be similarly adjusted.

For the purpose of illustrating the procedure used for such adjustments, a series of modifications is given below.



*Original Chypre note formulation*

- Sweet Orange*
- Bergamot*
- Absolute Rose*
- Absolute Civet*
- Absolute Oakmoss*
- Ambergris 162 B*
- Musk ketone*

*3rd modification*

- Bergamot*
- Sweet orange*
- Absolute Rose*
- or*
- Rose d'Orient 2644*
- Absolute Oakmoss*
- Ambar liquid*
- Methylionone*
- Vetyver*
- Patchouly*
- Absolute Jasmine*
- Musk ketone*

*2nd modification*

- Bergamot*
- Laurel noble*
- Angelica seeds*
- Juniper berries*
- Muguet 113*
- Absolute Oakmoss*
- Vetyver*
- Patchouly*
- Ambergris 162 B*
- Aldehyde C. 14*
- Absolute Jasmine*
- Musk ketone*

*1st modification*

- Sweet orange*
- Bergamot*
- Orange Flowers 1103*
- or Absolute colourless*
- Absolute Oakmoss*
- Ambergris 162 B*
- Absolute Jasmine*
- Musk ketone*

*4th modification*

- Bergamot*
- Lemon*
- Linalyl acetate*
- Jasmin 1103*
- Geranium African*
- Orange Flowers 1103*
- Aldehydes C.9, C.10, C.11*
- Absolute Oakmoss*
- Gardenia Invar*
- Styralyl acetate*
- Vetyver*
- Ambergris 162 B*
- Musk ketone*

*5th modification*

- Bergamot*
- Linalyl acetate*
- Linalool*
- Geranium African*
- Ylang*
- Rose de Mai 68*
- Aldehydes C.9, C.10, C.11*
- Jasmin 1103*
- Absolute Oakmoss*
- Irisantheme*
- Patchouly*
- Vetyver*
- Acetivenol*
- Absolute Jasmine*
- Coumarin*
- Musk Ambrette*
- Musk ketone*
- etc., etc.*

Thus, modifications of the original formulation may be carried out endlessly; although the resultant blend is always within the scope of Chypre notes, an entirely different perfume is obtained each time. However, this result can be achieved only provided the original formula is written down as suggested above, in the following order:

*Top notes*  
*Modifiers*  
*Base notes*

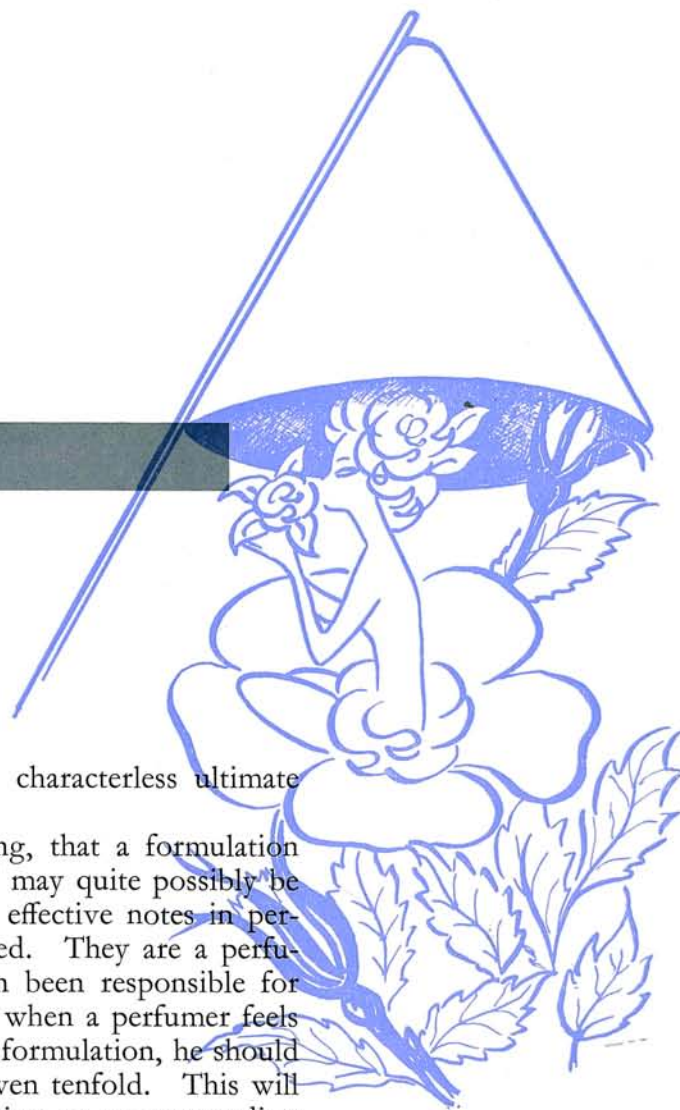
The specific example given above of the successive steps of perfume formulation shows how any particular type of perfume may be endlessly varied. But the method applies just as well when the perfumer wishes to obtain novel perfumes from a basic formula established to contain "accords" of which he is especially fond.

In this respect, I shall describe an experiment with which our former students are well familiar and which might be called "a brief lesson in perfumery". I first write down, with a black pencil, a very simple formula containing, let us say, about eight products and which results in a very acceptable perfume. To this formula, I then add new products, the names of which I write down with a red pencil: thus, a second perfume is produced *while the proportions and the constituents of the first formulation remain unchanged*. Pursuing this amusing experiment, I add a new series of products to the second formula just obtained, writing down their names with a blue pencil; it is understood that these new products contain top notes, modifiers and base notes. Again, without effecting any change in the products making up the first two formulations, a third perfume is produced which is also entirely different from the others... and the experiment might go on, endlessly, by mere addition of products.

At this point, I feel the subject of accessory products should be mentioned. What are "accessory products"? As far as I am concerned, belong to this series products which, owing to their typical odour or to their high scenting power, cannot be used in large amounts in an "accord" between bases or between modifiers, but whose more or less trace presence in a formulation results in a complete change in the character of the latter and imparts to it an unique cachet. Examples of such products are aldehydes C.12 MNA and C.14, styrallyl acetate, isobutylquinoline, galbanum, cascarilla and the like. However, although I have just recommended to use such products with moderation, this is not to be taken as a standing rule. Aldehyde C.12 MNA, for example, proves to be an exception and it should be known that some products such as Geranium give most successful blends with as much as 50% of it. The advantages which may be derived from the use of accessory products are therefore readily apparent and it would be pointless to discuss them at greater length in the present paper. But such considerations bring me quite naturally to mention an error which is quite common in young perfumers.

Our eager would-be perfumers seem to feel that they are under the obligation to produce "well rounded" perfumes, in other words, that they should subdue or hide any predominating odorous material. I believe this is actually the worst mistake a perfumer could be guilty of since this desire for attaining maxi-





mum equilibrium in a perfume results in a subdued characterless ultimate composition.

One should never believe, before actual experimenting, that a formulation contains an excess of a given product. Such "excess" may quite possibly be due to the lack of some other product. Dominantly effective notes in perfumes should be neither feared nor deliberately avoided. They are a perfumer's own secret, and such "faults" have quite often been responsible for tremendous commercial success. As a matter of fact, when a perfumer feels the amount of a basic product should be increased in a formulation, he should increase this original amount twofold, threefold and even tenfold. This will afford him the almost unhopd for opportunity of hitting on an outstanding "accord". This amount can always be reduced at a later stage, but the perfumer will know at once what results can be expected from the use of an excess of Absolute Oakmoss, of Vetyver, of Methylionone and the like in the ultimate formulation, an excess which, sometimes, will "pay".

At present, to meet with success perfumes should actually "explode" all over, so to speak. Modern perfumery requires contrasts, sharply characterised olfactory values. The perfumer should be totally unprejudiced, should entirely disregard his own tastes. Woe to him if he hates Vetyver, if he cannot stand Aldehydes ! He should be aware that *there are no incompatibilities in perfumery*, that apparently clashing materials will blend successfully on addition of another product playing the part of a binding agent making their odours compatible. The creative perfumer should, above all else, consider the clientele's tastes. The commercial success of a new perfume, of a novel "accord" is essentially dependent on his original ideas, on his brainwaves.

I have often been asked the question: "What is the latest fashion in perfumery?" There is no fashion in perfumery. Only actual sales success dictate the fashion. A good perfumer is a perfumer who knows how to create a "best seller".



Great perfumers, as great concert pianists, should make it a strict rule to practice scales, in other words, to study possible “accords” between bases, since only therefrom can they derive the necessary technique conducive to virtuosity. While this is an overwhelming all-embracing task, an effort should be made however to reduce it to less gigantic more readily accessible proportions. It is not necessary, when studying “accords” based on Chypre notes, for example, to consider the combinations of Absolute Oakmoss with all existing odorous products. The perfumer will first select the odorous raw materials he will see fit to use in his creation of a Chypre note, and it is only from such materials that he will study the satisfactory “accords” between bases.

But, although I have stated at the beginning of this paper that, in perfumery, miracles were few and far between, I must say that this, actually, is where the true miracle stands. The very selection a perfumer will make of the raw materials to be used as ingredients in a new formulation is the best of all possible standards for appraising the originality, the initiative and the genius of the creative perfumer, on which the success of a new perfume is entirely dependent. And while it is possible to devise a method which will enable the apprentice perfumer to understand and to acquire some sort of a technique, in perfumery as in many other fields many will be called but few will be chosen since the essential qualities which lead to success cannot be taught, any more than can be taught enthusiasm, the joy of living and of creating, and the love for one’s calling. These are innate qualities without which there is no great perfumer.

