Perfumery: Techniques In Evolution IV

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In November 1978, 21 years ago, I introduced the first article of the series, "Perfumery: Techniques in Evolution,"[1] at the Fifth Convention of Perfumers in Spain. I was then a member of the Spanish Society of Cosmetic Chemists and The Professional Group of Perfumers, organizations that I quit some years later. I started talking about the word "evolution" as a key hallmark to understand our profession. At this time I described products like α-damascone, β-damascone, damascenone, calone (watermelon ketone), all virtually unknown in 1978 by almost all the perfumers in the world. I stated that these chemicals were going to be the elements making the forthcoming evolution of perfumery possible, an evolution that was a real revolution already looming over the horizon. Well, I was right. In 1978 there was not a perfume with calone in it. Now, it is one of the most successful ingredients; one with which perfumers won't be able to work without. Damascones and damascenone where known only through the patents, through scientific papers describing minor ingredients in bulgarian rose oil, rose oxyde, neroloxyde, rose furan and p-menthen-9-al; at the time, these were used in bases such as cetylia, dorinia or damascenia. Most perfumers, exept those working with the company that patented them, used these bases without knowing which chemicals were responsible for imparting the sought-after effects of radiant, fruity and rosy nuances.

However, I said something wrong. I said that this evolution did not mean any break with perfumery's past. Unfortunately, and at that time I did not see it, there has been a major break. Perfumery of the past, the technique used by the most excellent perfumers, Jean Carles, Edmond Roudnitzka, Ernest Beaux, Maurice Maurin, Paul Vacher, Guy Robert etc.; men and women that spent their lives expressing themselves through combinations of essential oils and chemicals were going to be hampered by several organizations that began telling us what ingredients we could and could not use; if it was allowable to use 0.1% of costus or not, even in limited amounts, for example. Italian bergamote oil, styrax, Peru balsam, cinnamon or chenopodium oils were treated as hramful. According to the logic of these organizations, the crusaders of human health, we found out that almost all essential oils were not advisable to be used except in light touches. Clary sage, black pepper, juniper berry, frankincense and laurel-leaf oils were allowed; blessed generosity by those concerned with the health of the world. Many chemicals that were discovered by enthusiastic young chemists cooperating closely with me were often stalled for years and years by these organizations, and could not be used at all.

Another branch of what I call crusaders of human ethics, those defending the rights of animals, started fighting civet, castoreum and all the rest of animal products, for the sake of saving animals from cruelty.

This appears to be a noble target, yet, like most of us, these people eat meat every day with out qualms.

We perfumers have been left almost without essential oils, without animal products and with the marketing and evaluation boards of every company acting as "divine judges" whose final say was pure dogma to be follow without so much as a whisper.

I remember one day, after having worked a combination of honeysuckle, musks and sweet balsamic notes for a long time, a combination that I judged as beautiful, full of harmony, warmth and creativity, I was met by one of the heads of the marketing department who after smelling my work for about one or two minutes told me that it was "not bad", but I was missing 0.1% of aldehyde C.12 MNA to finalize my creation. Knowing my weakness in front of him, I agreed, showing him after half an hour the "modification" that was found to be perfect. I had not placed the aldehyde as suggested. I showed him the exact same product and it became a big hit in the market.

Preserving the Art

Van Gogh, Matisse, Marc Chagall, Picasso, Renoir, and Gaugin were revolutionaries in the art of painting when compared to the classics. I won't say they are better or

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worse than Rembrandt, Rubens, Leonardo Da Vinci, Giotto, El Greco, Zurbarán or Velazquez, but many people prefer their work to the classics, finding their art closer to our present realities, joys and worries. Can anyone imagine a review board telling Van Gogh not to use yellow, or red, since after testing they had found that touching those colors would cause harm to one's hands? Or what if the intensity of a painting is too bright, using too much red as in "The Harmony in Red" by Matisse, and will harm the eyes of the viewer? It is an exaggeration, but not far from the reality of our profession.

Polysantol, ebanol, firsantol, sandal Mysore core, brahmanol, sandalore, sandela, candalum and bacdanol are extremely interesting sandalwood chemicals, but sandalwood oil, the rich, milky, long-lasting oil from Mysore, is something. It is an extremely good element to combine with those chemicals. Now, there is no sandalwood oil. It is not possible to re-plant trees, it is not possible to re-exploit the ground to keep having the oil. We are told the oil must be forgotten. An excellent decision to save the planet, but could we imagine great creations like Madame Rochas which have been re-orchestrated because of the natural product, or Herrera for Men, without the oil? Could we make them with only the chemicals? Have we the right, while trying to create new olfactive accords with epimerized hedione, isospirene, florhydral, iso E super, tonalide, cedramber, nor limbanol, muscenone δ, helvetolide, habanolide, muskolon or okoumal, to outlaw the beauty found in original Madame Rochas? Have we the right to ban this lovely olfactive accord? My intimate thinking tells me simply, no. The creative work of the past, accords that were lovingly blended with months or years of effort to achieve perfection and beauty, have been replaced by mixtures of chemicals that consumers say all smell the same.

What I mean is that imposing on the artist when it comes to the expression of feelings is simply nonsense. I am a strong supporter of research. I am eager to smell any new chemical resulting from the research, to test it, to blend it, to try to use it since it is a new treasure, a new element that could enrich our sensations and our capacity to express beauty felt through the sense of smell, but it is sad the way modern perfumery is handling this.

This approach to our profession is already a reality and it will affect our way of working forever. In my personal laboratory in Cabrils, Spain, where I can see the beauty of the Mediterranean coastline, I spend many days and nights expressing myself and creating nice accords without worrying about guidelines that kill the spontaneity of our work. I smell many new creations, and have never gotten sick. This is my way of saying to the world, "I am a free man." Is it just a dream to keep being free today as a professional perfumer? Maybe, but Michaelangelo used to say a beautiful phrase, "The future belongs to those believing in their own dreams."

Recent Progress in Perfumery Elements

When trying to analyze the evolution of research and the procurements of new chemicals to be used in modern perfumes, I classify them in various olfactive families, as I did in the past. Although I know the sense of smell is individual and that everybody smells different, I have no other option to describe chemicals than using my own sensations, logic and classifications.

Through my long trips exploring the countries of Asia, I found many essential oils and interesting "attars". However, there is no time in this work to talk about these lovely natural ingredients. I primarily use products like motia, moulshri, gul hina, kewra, champa, shamama, saffron, agarwood oils from India, Cambodia, Laos, Malaysia, Indonesia, Vietnam and Kapoor Kachri. Ciperious scarious, balchar, brahmi, mantri and many more extraordiary products will be described in part V of this work along with other chemicals too numerous to mention here. One of my greatest professional satisfactions has been the ability to combine this Asian knowledge of traditional Indian perfumery, introduced in Arabic countries by Indian perfumers long ago, with our Western methods of perfume formulation. The creations are fantastic and the addition of these rare materials increases the quality of most of our accords, giving them more body, more warmth and more intimacy. A sense of feeling that can only be achieved by the charm of natural ingredients. Most of these attars are codistillations of exotic flowers and rare roots and woods over sandalwood oil, but today we find many of them codistilled over diiosoctyl phtalate, a new beautiful replacement, I suppose, for the natural oil from the jungles south of Mysore, the lovely capital of the old maharajahs of this Indian state.

I wil start with the agrestical olfactive family and I will include the list of chemicals described in parts I,[1] II[2] and III[3] of my work on the top, before the new description of new aromatic products. It is understood that when talking, for instance, about the floral-rose chemicals, I know β-phenylethyl alcohol, citronnelloll, nerol and geraniol but I do not mention these products because they are well known by everybody and it will be a waste of time. These chemicals made the evolution of perfumery possible at the beginnig of this century and though we are in 1999, we use them more and more. When I describe accords I never mention those classical popular and old chemicals that, of course, I use, but the heart of accords made with rare ingredients in order to achieve novelty; the novelty making possible perfumery today and in the future.

Agresticals

This family of agrestical-scented chemicals will include the following sub-groups:

Herbaceous-lavender-clary sage
Linalyl and terpenyl acetates, myrcenyl,ocimenyl and citryl acetates
Linalool oxide
Trimethylcyclohexyl acetate (sautane)
Lavandulol and Lavandulyl acetate
Octen-1-ol-3 ,octen-1-ol-3 acetate, methyl dioxaspiro undecane (hersage)

Dihydroterpenyl, menthanyl and nopyl acetates
(I), 2,6,6-Trimethyl-6-vinyl-tetrahydropyran (geranium oxide),
2,2,6-trimethyl-2-vinnyl-tetrahydropyran (lime oxide),
2-methyl-2-vinyl-5-isopropenyl tetrahydrofuran (desoxide),
Heridon, oxaspirane, acetomarane (II),
2,5-dimethyl hepten-5-ol, cis verbenol, (III)

This subgroup was widely mentioned in my past works and you can find above the list of products described before. I would like to add six more chemicals, those being:

Tetrahydro-4-methyl- 2-pyran-4-ol is a small "jewel", having a lot of nuances like rosy and herbal, with a beautiful clary-sage note than combines extremely well with all kind of citrus accords but also with jasmine making a revolutionary twist when mixing it with octenyl cyclopentenone and other lactones. The accords of clarycet, oxaspirane, gingergrass oil with quinolines, mint oils, and musks are extrordinary. I am working more and more with it. Its combinations both in fine toiletries and functional fragrances are full of a velvet sensation that warms the spirit of those smelling it. It is beautiful when mixed with the hersage, anoxirane, magnolan, prenjasmon and ambersage.

Cyclohexyl crotonate smells of lavender and cistus, and I love its accords with myrrh oil and resinoid, juniper berry, frankincense, and ethyl phenoxyacetate as found in base Samaram. Its future possibilities are unique. Samaram is able to twist every fragrance imparting a strong animal-cistus note; very new, strange and beautiful.

Sclarene (4,5-Decamethylene oxazole) is green, balsamic, agrestical, clary sage-like but more metallic than the oil. The accord of sclarene with clarycet and citrus oils, cedarwood, mints, isopropylquinoline, rosemary (natural), clary sage, and tobacarol is great and is part of the base called Ischia**,** a beautiful one.

Basilex,(8-Acetoxy-3-methyl-9-methylene-tricyclo-{5,2,1,0,2,6}-dec-3-ene) is a precious unknown chemical recalling part of the warm herbal note of sage, basil, peppermint and even lavender. It enhances most fragrances and is particularly active with herbal and floral notes, especially rose accords. Accords of basilex with peomosa, novorosan, doremox and octalinol are good. When mixed with clarycet and oxaspirane, the mixtures are great.

Balsapia is based on a captive chemical slightly blended with touches of ethyl maltol, giving a fir-balsam effect. It is extremely important for boosting ambery, kephalis and cistus top notes. It is widely used in functional and fine toiletry fragrances such as Rocabar.

Let's finalize this sub group with sagetone V (Bornane-3,1-cyclopentanone-2), an ingredient that again combines very well with those described above sclarene and clarycet. It is more woody than the other chemicals of this family. One of my favorite students, a woman full of creativity named Eugenia Navarro, made a great work with it called Introspective, using a lot of sandalwood oil, myrrh, iso E super and balancing then with an accord of huminol, ethylene brassilate and sclarene. I really enjoy reworking this accord, however I could not do it better than she did in 1993, when unfortunately she quit the profession.

Herbanate, the ethyl ester of the acid corresponding to the old and well-known chrysanthal, an extraordinary and not widely known chemical. It is absent from most creative laboratories. Herbanate smells herbal, fruity, spicy, earthy, slightly woody, warm and sophisticated. It gives fantastic results when combined with spicy notes.This chemical is the key ingredient of bases like dulcetima, pineapple or hervasate**,** a terrific application of the same.

***Earthy*:** I did not mention any chemical of this subgroup in the past other than geosmine, but geosmine (geonol), like huminol M, is more humid than earthy, although vey often these two concepts go together. Just walk or ride a horse in a Mediterranean forest after the rain and you'll see what I mean.

Huminol M (8-Methyl-1,5-dimethylbicyclo-(3,2,1)-octan-8-ol) has an extremely powerful, humid, earthy odor related to real geosmin, geonol or geovertol that also recalls the real norpatchulenol, one of the key chemicals in patchouly oil. It combines extremely well with other agrestical products. Bases that try to evoke the heart of Mediterranean forests after a winter rain like rosswood or maresme are expressions of beauty partially achieved with this chemical using interesting wood chemicals to hold and hide it since the natural scent, although agrestical and humid, is deeply woody.

Terrasol (Ethyl fenchol), also in the line of huminol but less humid and more rooty, earthy and mossy. Combinations of woody chemicals with the so-called labienoxime and hederyl create a real new line full of liveliness.

Rootanol (o-Terbutyl-4-methyl-cyclohexanol) is chemically similar to verdol with an additional methyl group. It is very rooty as its name states, and is beautiful when combined with those described in this family since the natural humid smell of wet earth is quite complex and interesting.There are no perfumes with a clear humid note, but when walking with my friends or riding our horses on the Mediterranean mountains close to the sea, everybody loves this natural smell that when properly dosed can therefore create new accords widely sought. It is also very interesting to use rootanol in fabric-softener fragrances since, if properly dosed, can bring accords with an extremely new clean note.

Chinchilol (1-Allyl-2,2,7,7-tetramethylcycloheptanol) is a nice chemical that combines greatly with both rootanol and terrasol, adding an important amber nuance to these described chemicals. It is very interesting to modify men's fragrances like Ungaro for Men and Gentlemen by Givenchy, combining patchouly, ambrinol, civet and terrasol, rootanol and chinchilol along with cistus absolute, and bases such the described Samaram. Also, bases such as patmos, imagined during a September trip when smelling the air of the Greek island, or Kirenia, imagined on an October afternoon when walking down the hills after having seen the monastery of Bellabbais in Northern Cyprus, near Kirenia, are excellent to blend with these olfactive profiles.

Vethymine (2,4-Diethoxy-5-methylpyrimidine) is earthy, dusty, woody and rooty with strong nuances of vetyver,

patchouly and agarwood. It is not known to many perfumers, but it is very useful when trying to modify accords where the woody note of these essential oils is imparted and is useful in royal accords where agarwood oils from India and Cambodia are mixed to Indian rose oil, shamama, amber and saffron. If forms part of the base, mahatma, the heart of many Asian creations.

Histidal (2-Methyl-3-cyclohexecarboxaldehyde glycerol acetal) is herbal and earthy. It combines very well with isocyclogeraniol, phenafleur, ambersage, maderan and dulcinyl.

All these chemicals blend extremely well with agarwood accords. Agarwood, the fabled essential oil from Cambodia, Vietnam, Laos ,Thailand, Burma, Malaysia and India, is one of the real treasures and a pleasure to the spirit. Although the natural product is scarce, it is used in good quantities in the Middle Eastern perfumery. I worked a lot on the olfactive reconstitution of agarwood oils. I say oils since there are three different products, including oils from Burma, India and Vietnam; Laos; and Cambodia, Thailand and Indonesia, each group being totally different. There are also great differences between Vietnamese, Burmese and Indian agarwood oils but the differences are less if we compare these oils with one of Cambodian origin. Although we call them all agarwood oils, the botanical name of the trees from India or Cambodia are different.

I worked a lot on the olfactive reconstitution of agarwood oils and achieved good success with what we call bio-agarwood oils**,** products made with high technology. My work continues, and if really successful, if we could get the real thing through perfumery work, it will be a major breakthrough in our professional world since we could eventually use them in Western perfumery. Agarwood oils are the most sensational of all the woody, rooty, leathery and animal essential oils. The natural ones are produced by us. In the West, we consider sandalwood and vetyver oils as royal jewels. In the Middle East, the real royal jewels are the different agarwood oils that today, in 1998, are priced when pure between US$8,000 to US$30,000 per kilo, depending on the various origins.

***Minty*:** I will mention four items I find very interesting, isomint, freskomenthe, givmenthe and frescolat. Isomint is missing from most laboratories, but the combinations of the same with mints, menthones and other mint products are very beautiful, increasing the power, radiance and naturalness of mint oils and imparting new, creative accords.

Freskomenthe (2-Secbutyl cyclohexanone) and givmenthe (2-Cyclohexyl cyclohexanone) have dusty, herbal, menthone-like notes, but when combined with arbensis dementholized mint oil, they increase the sweetness of the same making it more peppermint-like.They are extremely useful when formulating fragrances for bleach and other chlorine products.

Frescolat (l-Methyl lactate), combines well with all the described chemicals and when adding some caramel-like ingredients such as ethyl maltol, mentholactone or furaneol, the harmony of mint accords is supreme. I did not touch on this sub group in my past works.

***Camphor*:** Patchomint (3,3-Dimethyl-2-norbornane-2-ethanol) is camphoraceous, minty, coniferous, having nice patchouly nuances and is very useful when formulating foam-bath and other functional products.The accords of patchomint with aliphatic aldehydes such as C-9 or C-10 along with alkenals and alkadienals (Floral super, dominal, geraldehyde, 4-decenal, dodecadienal) and nitriles like dodecen nitrile or tridecadien nitrile are really good. I also like accords of the same with floralozone and calone to impart along with classical chemicals beautiful and "tonifying" accords. The product can be also widely used in fine toiletries.

The so-called dihydrociclol (norbornanol) it is strong and very camphoraceous and stable in fuctional products such as bleach, giving originality to too many formulations using only isobornyl acetate and related products.

The third item I want to mention, cis-2-pinanol, is camphoraceous and has an extremely clean note, very useful for soaps and functional products when wanting to introduce clean and more elegant notes than those imparted by the widely used ingredients in these formulations.

***Citronellic*:** Citronnellal, trimethylhexanal,citronnellic acid, tetrahydrocitral, geranic acid, pellargonic acid (I), TMH aldehyde, gergamal (II), belong to this subgroup and will be enriched with landenal (3,7,7-Trimethylbicyclo-(4,1,0)-heptane-2-carboxaldehyde) an old chemical forgotten by most perfumers and extremely strong, posessing fresh, herbal, citronellic, citrusy shades within its odor. It should bring a creative twist to citronnellal. The effects are remarkably good when mixed with limonen aldehyde and trifernal.The base, citroneland, is extremely good for functional products.

Greenal's (2,5,6-Trimethyl-4-heptenal) odor is related to aldehyde TMH and trimethylhexanal, though more delicate, less metalic and more floral-green as compared to these chemicals. The accords of greenal with metonyl, mandaril and frutonile are extraordinary and one of the key bases of functional perfumery used only internally. Also, the base, citroneland, is extremelly good for functional products.

Isononyl nitrile possesses a metallic note with important herbal and fresh effects when mixed with the related key bases along with florhydral, isonometal, floralozone and cyclamen aldehyde and creates an unsurpassable functional beauty whose spectrum can be modified by increasing the quantities of metonyl and mandaril.

***Chamomile*:** Ethyl pentenoate, butylic, isoamylic, n-amylic esters of pentenoic, tiglic, 2-methyl pentenoic and angelic acids, 1,3-dimethyl-3-butenyl isobutyrate (isopentyrate), methylpentenyl isobutyrate, butyl pentenoate, amyl tiglate, allyl tiglate, rholiate (II), methyl Cammomille (III) belong to the chamomile group.

I will add to the early descriptions of this group, carbavert (methyl 2-hexenoate), which is extremely powerful, giving

nice unexpected effects when combined with herbavert and floramat, an incredible forgotten chemical belonging to the floral-fruity subgroup. It is a great chemical to boost herbal and green topnotes especially when big quantities of iso E super, vertofix and methylionones are used.

Methyl pentyrate is a great chemical much superior to the more known isopentyrate. It is a pity it is not as available as desired.

Camonile is a base made with an important captive that I can't mention. It works very well in both functional and fine toiletries while imparting a precious herbal-chamomile scent quite natural and beautiful. Combinations of camonile with laurel-leaf oil and isobutyl isobutyrate are extroardinary.

***TEA (TheaspiraneIII)*:** This important sub-group has been frogotten by creative perfumers whose most imprtant chemical is theaspirane, described in part III[3] of my work, is enriched by 6-hydroxydihydrotheaspirane, more fruity (damascenone-like) than normal theaspirane. Its accords with mate absolute, β-ionone, dihydro-β-ionone, epimerized hediones, osmanthus and boronia absolutes (natural or reconstituted) are new. It is not often used, but dihydro-β-ionone was not used often, either, and is now a key chemical in modern perfumery. These tea accords are a source of a new trend that is very successful in the international markets that started with Cologne au The Vert, de Bulgari, a real creation . This creation contains neither theaspirane nor 6-hydroxydihydrotheaspirane but the modifications we can achieve by adding these chemicals are just great. Additionally, the modification we can achieve by using it in profiles such as Escape for men, mixing it with fruitberry**,** (berryflor) and precarone are excellent. The base, green tea auram, is an impressive application of those chemicals. It is used to impart an herbal, more natural modification to all Bulgari Cologne au the vert profiles.

***Dry leaves*:** 1-Ethinyl-1-cyclohexanyl Acetate (Herbacet Nr.1), Tachrysate, Ethyl Chrysanthemate (II) are included in this group.The sub-group of agrestical with a dry-leaves note will include chrysantheme, which is a very interesting chemical. Although when smelt pure it is not so impressive, its effect when enhancing and improving green notes is remarcable. It works very well with triplal and all the cis-3-hexenol family of chemicals and the accords of it with precarone, ether MT, phenexal and dihexal are quite good.

Neoproxen, an interesting chemical that is very stable in acidic media, could be combined with the minty chemicals described before and also with all kinds of eucalyptus and lavender notes.

***Thujone*:** 2,2,6-Trimethylcyclohexanone, 2,4,4-trimethyl-cyclohexe-2-one (pineone), and thujone, 4-methyl-tricyclo (6,2,1,0) undecan-5-one (plicatone) (II) belong to the sub-group of thujonic chemicals and will include artemone (1-acetyl-3,3-dimethyl-1-cyclohexene) which is an impressive chemical smelling of real thujone. It is very herbal, strong, vibrant and its uses are infinite. It can be used in fine toiletries fragrances as well as in functional fragrances, especially in those used for foam bath and shampoo.

Tamigone is a chemical missing in most laboratories. It is thujonic and, as in the case of artemone, vibrant and strong. It combines extremelly well with plicatone and etaspirene, giving this remarcable cassis product a good fixation. It is also very good when mixed with the so-called octalinol and most of the woody olfactive profile products.The combination of tamigone, plicatone and etaspirene along with other inportant chemicals is the heart of an internationally successful base, having an incredible strength and effects when used.

Tetramethylethylcyclohexenone, is very herbal and has important honey subnotes.The accords of tetramethylethyl-cyclohexanone, one of the best products I know, are limitless and it is used extensively. Its combinations with woody and honey-like chemicals are important and again it is excellent to mix it with tamigone, isophorone, phenylacetates, nor limbanol, base XVIII E and okoumal to get unexpected results. It also blends incredibly well with resins such as benzoin and frankincense as seen in important bases such as resinodor and fixambral and it is a major ingredient, along with chemically related chemicals such as diethyldimethyl-cyclohexenone or trimethylethylcyclohexenone in products like aromel givco, nectarol or miel blanche.

Herbac (1-Acetyl-3,3-dimethylcyclohexane) includes important shades of both thujone and camphor. Artemone is a good product to enhance thujonic accords and therefore its combinations cannot be mentioned in a work like the one I am writing here. It has been successfully used in bases such as thujetone and chamomile ITA that create delicious shades to herbal fragrances.

Let's finalize this sub-group by mentioning artemisia ketone (2,5,5-Trimethyl-2,6,-heptadien-4-one), again a great, nearly forgotten product that blends extremely well with the rest of this family and whose uses cannot be fully described in a work of this length.

***Juniper berry*:** To finalize the olfactive family of agrestical products, I will describe two remarkable chemicals, almost forgotten, belonging to the sub-group of juniper-berry notes.

Juniparome (Dimethyl tricyclo (5.2.1.0)-2,6-decenyl methyl ether), an old chemical possesing an interesting novelty, hasn't been used much. It has shades of juniper berry with fruity notes of tropical fruits and sweet honeysuckle magnolia-like parts. Its use could create quite a new trend in fragrances for shampoo, foam bath. It also combines well with ozone-like smells such as melozone, vertral and the jewel of floralozone mixed with the described thujonic smells and also coniferous scents.

Also interesting is junipal (4-Formyl-7,7,9-trimethyl bicyclononene), very strong and stable in many media, able to achieve good twists to accords like those imparted by combinations of juniper berry and clary sage oils.It works well when mixed with ambrox, musks, β-damascone and ambrinol.

Aldehydic

This group includes aldehydes C-7, C-8, C-9, C-10, C-11 lenic, C-11 lic, C-12L, C-12MNA, C-13, cis-4-heptenal,

trans-2-heptenal, trans-2-nonenal, 9-decenal, trans-2-decenal, trans-2-undecenal, trans-2-dodecenal, trans-2-tridecenal, myrac aldehyde, citronellyl and geranyl oxyacetaldehydes, mandarin aldehyde, bigaradial, citrophore, citrodial, iranal (I), trimethyldecadienal (trimenal), cis-4-decenal, trans-4-decenal, citraldial, muguettal, lysorangia (II), and 5,9-dimethyl-4,9-decadienal (dominal)(III).

Floral super (4,8-dimethyl-4,9-decadienal) and geraldehyde (5,9-dimethyl-4,8-decadienal) are isomers of the chemical described in part III[3] of my work, dominal. Both are extremely strong aldehydes and, as usual in chemicals with this structure, have strong citrusy floral notes that combine very well with other aldehydes, especially the alliphatic, but also with products such as 4-decenal. I personally love these products and use them in small traces in all kinds of fragrances since they increase the power, radiance and elegance of them.They are really indescribable with words, as complex as they are. When used in dilutions, they are far better than alliphatic aldehydes, always giving more synthetic effects, though more widely used than related products.The alliphatic aldehydes improve when mixed with products like floral super, geraldehyde or dominal. However, I feel it will take some time before the alkenals and alkadienals are fully rediscovered in perfumery. Creativity will demand increasing use of these chemicals

Ozonic

This is one of the most important groups, one that has really influenced modern perfumery. The first product I'll mention is precyclemone B (1-methyl-4-(4-methyl-3-pentenyl)-3-cyclohexenecarbaldehyde), with its pure ozonic, marine, radiant, clean and strongly diffusive smell. It is used and used extensively in many fragrances that have succeeded in the market partially due to the auratic effects of the prominent chemical that makes fragrances far more noticeable. It has been applied in fragrances such as Dolce Vita, Eternity for Men, XS for Men, Cool Water for Men and many more.

Cyclemone A, used far less than precyclemone B, proves very interesting in functional accords for boosting the difussion and increasing strength.

Cyclomugual nitrile, which is the nitrile of cyclemone A, is more stable than the aldehyde though less floral and more metalic.Great effects can be obtained from those two related chemicals when formulating detergent fragrances. Interesting top notes are found when mixing them with herbavert and with diprosal**,** a totally forgotten aldehyde.The symbiosis of both products is unique but requires the skills of good perfumers to find and balance the beauty that can be achieved by blending them.

Woody

This segment includes many sub-groups and is one of the most important in perfumery

Pungent woody (patchouly, cedarwood, vetyver) : Cedryl and vetyveryl acetates,vetyverol, cedrol, cyclododecyl methyl ether (palisandin), cyclododecyl ethyl ether, cyclodecyl methylallyl ether, methyl cyclododecyl methyl ether (madrox), α-cedrene epoxyde, methyl cedryl ketone (vertofix), mahagonate, cedryl methyl ether (cedramber), isolongifolanone and isolongifolanyl acetate, timberol, tetramethyl tricyclo undecane epoxyde (romanal), patchouly epoxide, trimethylcyclodecatriene epoxyde (cedroxyde), rhubofix, octahydrotetramethylnaphtalene (iso E super)(I), calarene epoxyde, caryiophylenyl formate (caryolan), 4-methyl-4-phenyl-2-pentanol (corps 53), methyl vetyvate, 4-cyclohexyl-2-methyl-2-pentanone (vetyval,vetyvertone), khusimone, vetyverones, 6-isopropyl-2-decalone (decatone), veltonal, trimofix (II), oxyoctalin formate, amboryl acetate, limbanol and physeol (III) are included in this group.

Nor limbanol (2,2,6-Trimethyl-α-propyl-cyclohexane propanol): In part III of this series, I described limbanol, a nearly unknown chemical that is excellent yet different from nor limbanol. Nor limbanol is simply fantastic, powerfully woody in the direction of patchouly, but not humid and with important ambery effects. It was found as an impurity in a much older product, timberol, imparting to it many of its valuable effects. Nor limbanol is found in many fragrances such as Ted Lapidus for Men and Marbert Men, among others, and in important bases such as limbwood.The accords of nor limbanol with cedroxyde, base XVIII E, coranol, precyclemone, caryolan and polywood are extraordinary. It is one of the best available woody products and it will be used more and more in the years to come, becoming a must-have item in the perfumery of the 21st century. The effects of nor limbanol with musks, especially muscone, muscenone delta, exaltone, exaltolide and habanolide, and woody chemicals such as spirambrene and ambraketal (used in large amounts), have given life to one of the most successful masculine fragrances of the Middle East.

Dextro nor limbanol, extremely new and resulting from research, is more powerful than nor limbanol and is just starting to be used. Again, it will be an important chemical in the years to come and will possibly affect perfumery beyond the year 2000. It is velvety, creating beautiful accords with quinolines such as iso E super, amber ketal, karanal, vertofix, trimofix, boisanol, cedroxyde, spirambrene, woolfwood, oxadrane and many other chemicals.

Okoumal, being used quite widely, is a heavy, woody-musky chemical that is extremely fixative. One of the important uses of okoumal has been in Escape for Men where the accord made of birch leaf givco, florhydral, ebanol, helional (about 5%) kephalis, veloutone, sandalore, koavone, floralozone and precyclemone B was extraordinary. Okoumal is also used in functional perfumery and forms part of important detergent and fabric-softener fragrances although it will be increasingly used in the next coming years. I also foresee a good future for okoumal missing from almost all perfumer's shelves.

Amraketal (phantolid ketal + a methyl group) is vey close to okoumal and still more heavy and musky. It should be classsified between the musky and woody families, but I place it here because it is related to okoumal. Applications are similar to the above. Do not confuse this chemical with ambraketal (14,15-Bisnorlabdan-8-α-13,13,20-dioxide), also called Z-11, which is one of the most important chemicals used in our profession, described in the second part of my work.

Boisanol(Trimethyl cyclododecadienol and trimethyl-cyclododecatrienol) is the corresponding alcohol to cedroxyde. Boisanol is supreme and one of my favorite woody chemicals working in small amounts similar to the way trimofix and ambraketal work. Combinations of both are extremely good and accords using them with vetyverol and vetyveryl acetate are even better than these products alone. They work well providing lift and life to iso E super, kohinol and vertofix coeur. It is a real "Burmese ruby" of the woody family.

Tobacarol (5,6-epoxy-2,6,10,10-Tetramethyl bicyclo (7,2,0)-undecane), another real jewel, is warm, woody and spicy with notes of clove, macis and nutmeg, ambery, tobacco, and others. Because of its many shades and nuances, it is impossible to fully describe. It combines extremely well with citrus notes and the accords achieved when mixing lime oils or lime chemicals such as the lime dienes DA, with tabacarol and octalinol, are part of perfumery's future. Additionally, the accords of tabacarol with oriental-woody fragrances are remarkable since tobacarol provides them substantivity, fixation and body. Accords of tobacarol with woolfwood, spirambrene, oxadrane, octalinol, and the limbanols are impressive. It is a chemical of the future since it will be used increasingly in the coming decade. Tobacarol, a chemical that has been used as a captive for a long time, is one of the key woody notes of Herrera for Men, incorporated in this fragrance either directly or through a base. The accord, kohinool, iso E super, tobacarol, dimethylcyclormol, nutmeg oil and paraanisyl phenylacetate is the key of one of the most outstanding international woody bases in the world. Many people have been using tobacarol by using this base where it occurs at a dosage of 10%, without knowing which was the woody note used in their fragrances.

Hydroxyambran (2-[cyclododecyl]-propan-1-ol) works extremely well with the limbanols, okoumal and tobacarol. It provides body and fixation while mixtures of both chemicals with unsaturated macro-cyclic musks are part of the future. Hydroxyambran is one of the most long-lasting and powerful chemicals I know. I feel that an accord of hydroxyambran, nor limbanol, ambraketal (Z-11), okoumal, tabacarol, havanolide, exaltonene, coranol, octalinol and muscenone δ with touches of isospirene and etaspirene has a supreme harmony and an extraordinary auratic breathing quality; an important part of the success of a fragrance. However, this accord is not the last word in accords, since what can be done with these chemicals (in recombinations) is simply unique and limitless. Many perfumers search for the supreme accord in perfumery, but it does not exist. Arts are evolving and accords full of beauty will always be as plentiful, plural and diverse as the tastes of people. Art has always been the mixture of the past and the future. Fidias did not know Michaelangelo and Zurbarán did not know Marc Chagall. All of them are part of the history of the fine arts as will those artists to come.

Spirambrene is a nice, strong chemical with a closeness to boisambrene forte, nor limbanol, cedroxyde and cedramber. It is somewhat more seaweed-like than the above and imparts important velvety nuances to woody notes. Again, I believe it is a chemical that has a bright future in our industry. It is being widely used in fragrances such as Kenzo for Men, Eden, Gio and Agua Fresca by Adolfo Dominguez, among many others.

Dione (Trimethylcyclohexyl acetyl-2-cyclopentanone) is unknown and forgotten chemical by many perfumers. It posseses notes of cistus, precious woods and amber-animal nuances. It is a valuable fixative, good for imparting woody-animalic shades in chypre and fougère fragrances. It is quite stable in both acid and alkali media.

Karanal (2,{2,4-Dimethylcyclohex-3-ene-1-yl}-5-methyl-5-{1-methylpropyl}) is a new and special chemical. I call it special because the way its smell is interpreted varies significantly. I find it weak, possesing the organoleptic properties of products like iso E super or kohinool. However, other perfumers find it extremely strong with properties resembling trimofix, boisanol or ambra ketal, while still other people find it equal to amber core, cedramber or amboryl acetate. It is said that small amounts impart very important nuances in fragrances that I am unable to smell at all. It is like the macrocyclic musks that need to be mixed in order to be smelled since people highly sensitive to muscone can normally not smell civettone and vis a versa. The same thing applies to karanal. I smell it weakly, while other people smell it to a medium degree and still others smell it to an extremely strong degree. It is very difficult to please everybody. I have used karanal in an extremely beautiful base called woodauram**.**

Woolfwood**,** a relatively new chemical unknown to many, is woody with what I call norbornanyl effects. What I mean by norbornanyl effects is a mixture of nuances found in products like palmaire or herbacet No. 1 or No. 2, although those are not woody. It is a pity that sensations and feelings are so complex that we do not have words to express them. You will find in my writings too often, the same adjectives used repeatedly. Woolfwood is very elegant and combinations of it with leathery chemicals, oakmoss and labdanum and ladbacuir, are very beautiful. Additionally, accords of woolfwood with cedroxyde, nor limbanol, firsantol, phenexal, aldehyde NU, methyl decanile and musks like habanolide or muscenone δ are extremely interesting.

Vetylbois (1,4-Dimethoxy-2-terbutyl benzene) is a very clean, woody chemical with nuances of vetyver and patchouly that is dry and elegant. Its accords with spirambrene, oxadrane and dione are quite remarkable and its ability to

dry patchouly dominated accords is quite interesting. It has been frequently used in perfumery mainly in small quantities as part of important bases where it imparts its properties. Examples of fragrances containing vetylbois are Heritage, Eau Fraîche de Leonard and Insensé de Givenchy.

Cyclamber (13,Oxabicyclo {10,3,0} pentadecane) is a relatively old chemical missing from many laboratories. It is a sharp, velvety, ambery, woody, elegant and very diffusive note that blends very well with nor limbanol and cedramber. It is very substantive and therefore extremely useful in detergent and fabric-softener fragrances. Personally, I have always liked cyclamber very much, and I believe this chemical deserves a better future, to be used more often as a very noble ingredient in many accords. The bases brentwood, begur, sacred musk and agarwood Pra**.**, contain this product. It is widely used in combination with extremely rich materials.

Oxadrane, a product developed in the late 80's and unknown to many, is quite interesting and combines very well with dione, vetylbois, labienone, novolide, tetrascone and physeol, imparting unusual effects to spicy and woody accords. It is interesting as well when mixed with koohinol, koavone, polysantol, iso E super, ambra ketal and p-anisyl ahenylacetate.

Amber core (o-Terbutylcyclohexyloxybutanol-2) is beautiful, velvety, and delicate, smelling similar to cedramber, but with a different ambery nuance that is less costly. It is very effective in functional products since it is quite substantive. It is also very useful for boosting the fragrance of detergents. It forms part of the base called begur**.**

Sandalwood: Hydroxytridecyltricyclo tridecane (Sandela), santalol, bergamotol,cis-β-santalol (I), sandalore, brahmanol, corps santal, acetate TCD, bacdanol, sandal Mysore core (II), krishnanol, indianol and krishnanone (III) are included in this sub-group.

Ebanol (3-Methyl-5-{2,2,3-trimethyl-3-cyclopenten-1-yl}-4penten-2-ol) and its isomers are very rich and powerful sandalwood chemicals with musky nuances. It is very strong, but must be fresh because if it is old or not properly stored, it develops many synthetic sandalwood chemicals, urinous and animal shades. Ebanol was first introduced as part of the base super sandalore. Either pure or through bases such as super sandalore, it has been used in many fragrances, both in functional and fine toiletries fragrances. I believe it is a good chemical though sandalwood oil is so complex that no chemical imparts its class and all nuances. It is best to blend them and to use them together.

Polysantol (3,3-Dimethyl-5-[2,2,3-trimethylcyclopent-3-en-1-yl]-pent-4-enol and 1,2,2-Trimethyl-4-[2,2,3-trimethylcyclopent-3-en-1-yl]-but-3-enol) is a mixture of both isomers. It is one of the best available sandalwood chemicals. It is strong, with an impressive character posessing important segments of the natural oil, imparting a fruity nuance which is missing in the same. Polysantol is an important development that is important to the evolution of our profession. Blends of polysantol with ebanol, bacdanol, brahmanol, blue chamomile oil and sandela are unique. However, my belief is that sandela must always be used as a fixative for all sandalwood chemicals. The accords of polysantol and firsantol are also excellent since the latter product lacks the fruity note of polysantol and hides it, making the mixture more of a sharp, dry sandalwood. Polysantol has been used in many fragrances such as Xs for Men, Safari for Men, Samsara and many others. Products like Safari for Men, Samsara and Marbert Men contain impressive amounts of polysantol. It has also been used in the green and white Palmolive toilet soap fragrances. It is also used in bases such as sandalwood 77125 B, brentwood, mysorene and new frutambria, with great success.

Firsantol, a higher isomer of polysantol, is really a jewel. It is more sandalwood-like than polysantol and more dry, less fruity and has a note resembling pure cis-B-santalol which, it seems, is going to be synthesized soon in industrial scale. Firsantol is one of the greatest sandalwood chemicals ever developed, and has a bright future as a key ingredient in our profession. It has been used in many fragrances and bases yet remains virtually unknown to many. It is more long-lasting than polysantol.

Candalum is another chemical I would like to mention**.** What we know as sandela is a mixture of isomers named 3-isocamphyl cyclohexanol. Many of these stereoisomers are almost odorless while others are extremely strong. Candalum is an extrordinary product in which the best-smelling isomers are conentrated. It is by far stronger than sandela and similar products. It is difficult to understand the possibilities of candalum without being a skilled perfumer, but I believe it has a very good future, influencing the perfumery of next decade. What is good, sooner or later succeeds.

This family of sandalwood-related products is one of the most revolutionary and one where the research had been more successful, by far, more than patchouly, vetyver or agarwood notes. However, if it is true that cis-B-santalol can be synthezised, we will have a real jewel that is still missing. All these products like brahmanol, bacdanol, sandal Mysore core, polysantol, firsantol, and ebanol, are not as long-lasting as cis-B-santalol, one of the keys to the scent of the natural oil. Sandalwood oil that lasts about three months in a smelling strip is mainly composed of α-santalol (weak), cis-β-santalol (extremelly important), epi-β-santalol, trans-β-santalol, spirosantalol, (important), cis-lanceol, cis-nuciferol (important) and trans-a-bergamotol (important and partially reponsible for the milky top note). The research on synthetic chemicals with sandalwood notes has been very important, providing chemicals that are, by far, less long-lasting than the natural ones. I believe it is necessary to find good, rationally available chemicals that last longer than those available today. One of them, already produced, is candalum and also those described in part III of my work Indianol, krishnanone and krishnanol were chemicals produced when trying to find long-lasting sandalwood-related products. However, the purification and stabilization were not very good, and undesirable, strong

animal-hormone nuances appeared when synthezising, producing and storing them.

Lichenous

Evernyl(I) Orcinyl Nr.3(III) is included in this sub-group.

Seamoss (Methyl 3-methyl resorcylate): This substance is crystalline like evernyl and orcinyl No. 3, which is as strong as those described before but less used and known. Seamoss is a very good product smelling clearly of oak and tree moss absolutes that deserves a better use in our future creative works.

Ethyl 2-hydroxy-4-methoxy-6-methylbenzoate: This is an almost unknown chemical with important shades of oak and tree-moss absolutes. It is not much used because it is olfactively considered less important than evernyl, orcinyl No. 3 and seamoss. However, evernyl is not 100% oak-moss absolute. When mixed with orcinyl No. 3, for instance, the mixture is much better than evernyl alone, being more natural. My point is that mixtures of evernyl, orcinyl No. 3 and ethyl 2-hydroxy-4-methoxy-6-methylbenzoate are more beautiful than evernyl alone because they are closer to the natural product from Yugoslavia. The related chemical is extremely long-lasting, good for use in mossy bases and accords. The product imparts good substantivity on fabrics, especially cotton.

Woody-Floral

Methylionones(I), dihydro-γ-ionone, myrtenol, 2-methyl-3-(-2- methyl-5-isopropenyl cyclopentenyl) and propyl acetate (Pentambrette)(II) are included in this group.

Koavone (Acetyl diisoamylene isomers): This product is not very new and is widely used in perfumery since it is very elegant. It is related to the smell of methylionone γ, but less heavy and more sharp while providing lift to the top notes of all the products in which methylionones and iso E super are used. It has been used frequently in fragrances for fine toiletries such as Globe by Rochas, Tsar by Van Cleef & Arpels and Jazz among others, and in functional fragrances such as Lenor. It has also been used in fabric softeners and Pink Palmolive toilet soap. Koavone is a unique product as well, with its future assured being used more and more in next decade's fragrances.

Dihydro-β-ionone has an odor somewhat mild, woody, floral and slightly fruity, possesing great radiance and beauty. It is a relatively old product that has only recently found found a wider audience when introduced in the creative accord of Issey Miyaki for ladies. Afterwards, it was used in many fragrances, amongst them Dolce Vita and Bulgari for ladies. However, it is found in many traces in many fragrances because it is an important part of the reconstitution of osmanthus absolute, along with dihydro-β-ionol, γ-decalactone and theaspirane. I believe it will be used increasingly in perfumery, with many accords being created with its complex and ambiguous, floral, woody and fruity notes.

Ironyl (Butyl-3,4-dimethyl-3-OH-5-[2,6,6-Trimethyl-2-cyclohexenyl]-4-pentenoate): This element is almost unknown to many perfumers and it is a very interesting chemical since it is fabulous for fixing methylionones, imparting velvety and extremely nice nuances full of charm. It can be mixed with iso E super and vertofix providing these chemicals, already complex, an additional orris note of great value. I believe, it is a chemical that should be rediscovered. It is a pity that the product I described in second part of my work, pentambrette**,** has almost been discontinued. Accords of pentambrette with ironyl, musks, hedione and irones have much beauty and radiance, especially now that we have extremelly strong musky chemicals such as exaltonene and muscenone δ. Pentambrette should be re-introduced in our industry and boosted again along with ironyl and many other forgotten chemicals. The beauty of ironyl, pentambrette, habanolide and epimerized hediones, calone, and helional could give accords an unsurpassed elegance.

Iritone (4-[2,4,6-Trimethyl-3-cyclohexenyl]-3-buten-2-one): This element and its isomers work more or less like ironyl, but in a different stage of the evaporation of the fragrance. Iritone and methyl iritone enliven methylionones and ionones, and work very well with koavone. It is being used in many fragrances, especially in functionals, because of its stability in soap.

Kohinool (3,4,5,6,6-Pentamethylheptanol-2 and isomers): Kohinool has a woody, floral, amber note with an unsurpassable beauty that combines extremely well with iso E super, making what I believe to be a dream accord. In the past, I used to say that nothing was comparable to vetyveryl acetate or vetyverol, but upon seeing mixtures of iso E super, kohinool, cedroxyde, nor limbanol, boisanol, trimofix and amber ketal, my mind changed. They are as great as the previously mentioned old and classical products.The best well-known use of kohinool is Herrera for Men (around 5%).

I will finalize this sub-group with ambrate and dihydroambrate, old chemicals that are not properly understood and not widely used. They are full of many shades and have complex odor descriptions.They are woody and floral with important nuances of ambrette that work very well with iso E super and methylionones making the achieved accords more sophisticated and interesting. It is quite different from mettambrate, which is much more fruity and licorous chemical that will be described later in this part of my work.

Animal

The first sub-group of this segment is one including chemicals with a musky note. It is interesting to notice that some musky products are undoubtedly animal, while others are more radiant, clean-diffussive and flowery. However, having respect for the deer musk that led us to start the research on these chemicals, I will classify them all here in this sub-group.

Musk

Muscone, exaltone, exaltolide, civettone, ambrettolide, 10-oxadecanolide (Oxalide), 11-oxadecanolide (Musk R-1), 12-ocadecanolide (Hibiscolide), galaxolide, traseolide, tonalide, ethylen brassilate, versalide, musk D.T.I.(I), muscogene, musk moskene, hexadecanolide (Dihydro-ambrettolide), neomusk, muskia, muskalia, muskione, musk moskene and thibetolide (II) are included in this group.

Habanolide (Cyclopentadecenolide): This chemical was found as an impurity in products such as exolide super during an attempt to get better reactions to synthezise exaltolide (Cyclopentadecanolide). It possesses a radiance, elegance and beauty that I find indescribable. The accords including it are limitless. The olfactive strenght of the unsaturated macro cyclic musk chemicals is much higher than the saturated ones that have been used for decades, such as muscone, exaltone and exaltolide. Habanolide has been used in many fragrances whose most remarkable example is Bulgari for Men, where its extroardinary, powerful and long-lasting musky effect is imparted along with muscenone δ, another unsaturated macro cyclic musk chemical. Habanolide is, perhaps, one of the most elegant products I know of. Again, I regret that pentambrette has been almost discontinued since the accords of both products together could be extremely elegant.

Muscenone δ: (Methylcyclopentadecenone): If habanolide is radiant, floral and musky with metalic notes, muscenone δ is animal, strongly musk tonkin, and plays a role in the natural product's odor, perhaps, more important than muscone. The same thing happens when smelling a rose-flower fragrance, where the smell of damascenone and β-damascone is almost as strong as the scent of β-phenylethyl alcohol or citronnellol, though they are present in minute traces. Muscenone δ smells of the most animal-like part of deer musk powder or musk absolute, if made. All of these unsaturated macro cyclic musks are incredibly strong and accords we made in the past mixed cresols with exaltolide or muscone and are now much finer and more elegant when using muscenone δ or chemically related products. It is being widely used in fragrances such as Bulgari for Men.

Exaltonene (Cyclopentadecenone): If muscenone δ is the unsaturated chemical related to muscone, exaltonene is the unsaturated chemical related to exaltone. It is incredibly strong, animal and smells of deer musk powder. It can be applied in the same elements mentioned with muscenone δ. Its animal note is more remarkable and beautiful than that of muscenone δ. Mixtures of muscenone δ, exaltonene, exaltone, habanolide, exaltolide and muscone are the holy *sancta sanctorum* of the musky sub-group. I believe the research in this area has approached perfection and we can now say that we know what the meaning of musk, today, is not at all like galaxolide.

New products coming from research are the so-called helvetolide and vulcanolide, that have applications similar to muscenone δ and exaltonene. Small traces of them increase the power of products like habanolide, exaltolide or exolide super to a high degree. Accords made in the past with p-cresol, p-cresyl phenylacetate, maritima, galaxolide and musk cetone seem to me today very outdated. The future is coming in a new direction and this direction will be extremely important in the perfumery of the next decade.

Novolide: This element is a crystalline substance almost unknown in this industry with features resembling tonalide, but more fruity. It is useful as a fixative for fruity notes, so fashionable today. Novolide has been used in bases such as osmanthinia givco and it works well with dihydro-β-ionone, 6-hydroxydihydrotheaspirane, damascenone and damascones, tuberolactone, tuberolide or methyl tuberate, jasmin lactone, the almost forgotten lactone of cis-jasmone, and myrasline, a very good product nearly discontinued. Also extremely interesting are the accords of novolide with the beautiful and old nectaryl (2-{p-Menth-1-enyl-9} cyclopentanone), fortunately being promoted again. Accords of nectaryl, precarone, corps popinal, radjanol, fixal, givescone, berryflor and florhydral with novolide are extremely good. Unfortunately, some of these products are being restricted because of those not responsible with the task of creativity in our profession.

Muscalone: This element is another interesting substance that is very powerful and unknown to most. It has not been used extensively, but I would like it to be rediscovered since its many nuances provide an extreme beauty to many accords. This is especially true in combination with ambretone (5-cyclohexadecenone), an unsaturated musk structure much older than those described herein and inexplicably unused for many years. Its olfactive beauty, musk, and animal nuances and diffusion made it a success of recent research. Ambretone is long-lasting, substantive, extremely stable and smells quite natural of musk with ambrette nuances that are very charming. Again, accords of pentambrette, the forgotten jewel, with ambretone and hedione are unique.

Amber Gris

Methyl dodecahydro trimethyl naphtofuran (Ambrox), ethyl dodecahydro trimethyl naphtofuran (Grisalva), homo cyclo geraniol, ambrarôme absolute, dynamone, grisambria (I), 2-hydroxy-2,5,5-trimethyl ocatnile (α-ambrinol), 2-hydroxy-2,5,5-trimethyl-8,8-A-epoxyoctaline (Ambrinoloxyde), oxambrol, muscambrol, muscarome, castorol, costia, oxambria, indian wood, 2,6-dimethylbicyclo-decanol (Geosmin), homocyclogeranyl chloride, γ-homocyclogeraniol, ambraldehyde, ambraketal, (II), dihydroactinidolide, and dihydroambrinol (III) are included in this grouping.

Having previously mentioned products like ambrox, ambraketal (woody-ambery), grisalva, homo cyclo geraniol, ambrarôme absolue, dynamone, grisambria, α-ambrinol, ambrinoloxide, oxambrol, muscambrol, castorol, costia, oxambria, dihydroactinidolide, ambraldehyde and dihydroambrinol in my past works, few chemicals are to be newly introduced. Labdacore can help us to widen ambery

shades we may be looking for. One thing is important that must be said in our epoch of rationalism and pragmatism; ambrox, though unique and fantastic, is not amber gris and never will be. When in Zanzibar, the Maldive Islands, Aden, Al Mukhalla, the island of Socotra, the wild Yemeni region of Mahra, on the shores off the Sultanate and many other places where giant turtles are in sight, amber gris is available. When I smell the natural product, I feel shame and pity for our epoch. Amber gris is a wonder while ambrox, so widely used as the alternative, does not have the charm of the real thing, though many people want us to believe the contrary. Amber gris, which was supremely understood and rationalized by Ohloff, was described as humid, earthy, fecal, marine, algoid, tobacco-like, sandalwood-like, sweet, animal, musky and radiant, is thousands of times nicer than ambrox and far more mysterious.

It is a pity that we could not think over every chemical and provide such a charming and complete description as available for amber gris. Though we've lost the natural product, we have a beautiful memory of it.

That we have forgotten about this natural jewel and badly replaced it by ambrox shows how our modern society disregards the charm and depth of the subjective world concerning the fine arts. I will talk about it, hopelessly,at the end of this segment, trying to quote about arts, design and social reality. Now we cannot even think of applying amber gris, our top and already overly expensive limit is ambrox.

Coiraceous Castoreum

I have never mentioned this before because castoreum is, for me, one of the most important ingredients I have ever smelled. I did not want to chemically analyze it too much since I was afraid of losing the feeling that the scent brought to me when I recalled it.

p-Ethylphenol: This element has an extremeley complex scent, when diluted, of oak moss and castoreum. This chemical is used in important bases and accords with dihydroambratte (Castoreum givco), dihydro-β-ionone, dihydro-β-ionol, theaspirane (it is an important part of natural osmathus absolute), which are full of beauty. Diluted p-ethylphenol is extremely interesting when mixed with β-ionone, a rediscovered product which is being extensively applied in fragrances for fine toiletries. It was previously only used in rose, orris or violet accords. I have always thought about the beauty of β-ionone. I remember reciting the above in 1969, when a student in Grasse and very young. I was told I was "crazy" by very experienced perfumers. p-Ethylphenol could be an important ingredient as well, but skill is necessary to dose it properly.

Nolinac (4-Ethyloctanoic acid): This chemical is also called costus acid N. Nolinac is another jewel smelling of costus and castoreum when extremely diluted. It is the key of most synthetic costus bases. We cannot use the natural products because we could die from smelling such a poison. We can smell nolinac in infinitely small dilutions. Accords of nolinac, costaulon, patchoulac, p-ethylphenol and p-isopropylphenol, along with many other things, give us a new rooty, animal character that I have used to create bases like castoral, castorax, animusk, coirilys and Bangladesh.

P-terbutylquinoline: This is an almost forgotten chemical which should not be confused with isobutylquinoline, normally a mixture of isomers where P-terbutylquinoline often occurs along with sec-butylquinoline and other related products. P-terbutylquinoline alone is more erogenic, more castoreum-like and more animal.The chemical, as in the case of p-ethylphenol, nolinac and many other important products, belonging to this sub-group should be carefully dosed. Only then will we feel all its strength and beauty full of possibilities. It is important to mention that all these products blend very well with the chemicals I will mention in my next sub-group that I label animal-floral.

Animal-Floral

P-cresyl isobutyrate, P-cresyl isovalerate, P-cresol, and indolal (II) are included in this group.

This is a unique sub-group and one of the most important in our profession. Mentioned by me before in my past works I will continue it by adding:

Narcisse ketone (p-Cresyl ethylcarbonate): This chemical is a jewel, unknown and forgotten by most perfumers. Narcisse ketone is less medicinal and less animal than other p-cresol derivatives, and by far more floral. It is a product that can really take us to the world of narcisse absolute. The accords of narcisse ketone are limitless, having the ability to be mixed in all kinds of narcisee-like florals and animal bases such as animalis, based in p-cresol derivatives and a special treatment of cedarwood oil. Narcisse ketone warms up, harmonizes and provides radiance and auratic breathing to most of the formulas where skilfully used. Again, it is a product to be rediscovered and re-used since the effects provided, I believe, are much better than those imparted by p-cresyl acetate and other p-cresols, which I find are more synthetic and metallic.

Sumatril (Tricyclodecane carbonitrile): Although this chemical is rated as spicy and herbal, it is deeply animal-floral. Sumatril is quite stable in functional perfumery and it gives interesting accords with another forgotten product, ethyl phenoxyacetate, inexplicably missing from most laboratories. Sumatril gives impressive lifting to resinous accords and it combines very well with tetramethylethylcyclohexenone, etaspirene, tamigone and laitone, creating new blendings.

p-Cresyl crotonate: Again, this chemical is a unique, forgotten and unknown product, key in many international bases. It has a clear narcisse note, more natural than most p-cresol derivatives. It is also fruity, tobacco and extremely floral when smelt at the proper dilution. Accords of both nracisse ketone and p-cresyl crotonate are simply excellent.

Citrindol: This is a totally unknown schiff base that has been widely used in classical perfumes such as Joy, but also in newer fragrances such as Polo, more or less modified. The accords of citrindol with tufurol acetate, n-propyl

benzyl carbinol, n-butyl methylanthranylate, acetyl isoeugenol, phenoxyethyl propionate and p-methylphenoxyethanol are part of the history of our profession. However, many perfumers used those elements without exactly knowing what they were using.

Caramel

Maltol, methylcyclopentenolone, dimethylhydroxyfuranone (Furaneol), tiglic and angelic acids, ethylcyclopentenolone, ethyl maltol, maltyl isobutyrate, and propionate (II) are part of this sub-group.

I mentioned before that the influence of these profiles is large and increasingly important. Products like aramis have an important caramellic note given by maltol. The oriental beauty found in amazone is extrordinary and has sandalwood, exotic resin and caramelic nuances full of charm. However, today, one the most frequently used absolutes, either natural or reconstituted, is fir balsam. It affects perfumery more than most ingredients. Its effects are unique, but I don't have time to mention them since there are nearly no men's perfumes without fir balsam.

Cyclopentacide (Cyclopentilideneacetic acid): This element is not familiar to most perfumers. Cyclopentacide blends extarordinarily well with fir balsam accords, imparting a new twist to the natural or reconstituted product. Cyclopentacide also blends well with mossy products as well as with fruity elements and with the nearly forgotten (and difficult to use) glycomel. It also blends well with methyl pentenyl salycilate, firsantol, myroxide and isoacetate. Cyclopentacide accords with tiglates and angelates are simply a dream. However, my experience sometimes is very limited. I still do not know how to properly use cyclopentacide or glycomel. Perfumery is reflection and hard work and requires much time and study.

Balsamic

Vanilla: Vanillin, ethyl vanillin (I), guaiacol, vinyl guaiacol and acetyl guaiacol (II) are included in this sub-group.

Ethyl and propyl dianthilis: These chemicals are long-lasting and impart very different effects that are, by far, less vanilla and more spicy-balsamic and carnation-like. They blend extremely well with many florals such as jasmine, tuberose, carnation, gardenia and magnolia. They are not extensively used. One of the formulas we can admire their effects in is Jasmin Etoile Civco. I like them very much and I have worked accords of them with nectaryl, tuberolide, osmathus, methyloctalactone, prassinate, magnolan and diantheme. These are, according to my sense of beauty, supreme.

Isobutavan (Vanillyl isobutyrate): This chemical posseses sweet, vanillic with buttery, chocolate and cocoa shades. It is used when one is looking to diversify and sophisticate the effects found with vanillin and ethyl vanillin. I like accords of isobutavan with cyclopentacide, laitone, ethyl laitone and mettambrate. It is a virtually unknown chemical and will blend very well with accords such as those found in Angel or Hanae Mori for Ladies.

Ultravanil (2-Ethoxy-4-methylphenol): This chemical is extremely strong and quite forgotten. It works well with creosol when trying to impart real vanilla-absolute effects. These effects are unique when working narcisse and carnation accords or reworking elements such as the accord of amazone or old Van Cleef & Arpels for Men, both extremely complex fragrances so different to those being formulated today. However, as I said when discussing the chapter related to amber gris, vanilla absolute is something we need to forget about. What is vanilla if we can smell vanillin, ethyl vanillin and vanitrope? It is by far enough, or, if necessary, accords of vanillin with isoamyl acetate are also available. What else do we need? As I said before, pragmatism, rationalism and a great capacity for resignation are virtues highly appreciated by our society. Vanilla or amber gris are too complex to be understood by a world providing us with Planet Hollywoods and Hard Rock Cafes, where the noise is such that nobody can talk.

Honey

I never mentioned these before, but classical products such as phenylacetic acid and many phenylacetates are extremelly important. Bases such as nectarol, miel blanche, miel oliffac or aromel givco are top ingredients and keys of many accords.

p-Anisyl Phenylacetate: This chemical is an old, forgotten and recently re-used element in a top woody base where it is mixed with koohinool, iso E super, dimethylcyclormol, nutmeg oil, tobacarol and other captive ingredients. The accord of the base, modified, is around 10% of Herrera for Men. p-Anisyl phenylacetate imparts an extremely good fixation with elegant honey undernotes, yet it is clean, diffusive and blends very well with vetyveryl acetate and sandalwood oil. I feel we are being told to forget these precious ingredients.

Propyl phenylacetate: This chemical is used less than ethyl phenylacetate. However, it is by far more natural honey-like. Its accords with azarbre and tetramethylethylcyclohexenone are unique as found in the base melauram, where they are combined with rare ingredients. It is an available chemical that needs to be rediscovered. I like to work with it quite a lot having achieved remarkable results.

Cypronat (Cyclohexene isopropylacetate): This chemical has a strong, unexplored honey note. It is very interesting to mix it with tetrahydro-p-methylquinoline, phenylacetic acid and oxyvet, to achieve a very unusual animal-honey effect that I find very substantive to be used in detergents and fabric softener fragrances and fine toiletries.

Resinous

Labdanax (II) is included in this sub-group.

I always loved the term "precious resins." We cannot forget that Christ was offered gold, silver frankincense and myrhh by

the Three Wise Men when they came to worship him. This is because in those times, the three ingredients had the same value. When the Romans used to travel to Samaram, a fabled harbor close to Takah and Mirbat in present Oman, they exchanged these precious resins with gold. Silver frankincense was used in their temples and the Christians took it for use in churches. Myrrh was used in parties and orgies and therefore was almost banned until rediscovered by perfumers at the end of last century and the beginning of this one. However, there are no synthetic chemicals clearly smelling of those resins. The chemistry of frankincense is easier than the one of myrrh. I have never seen synthesis of curzerenone or dihydrocurzerenone nor the many furans and furan ketones such as furadien-6-one, that occur in myrrh.

Aromavert (Schiff base of camphollenic aldehyde and methyl anthranylate): This is quite an interesting chemical since it olfactively combines the notes of resins with parts of orange-flower absolute and green parts of neroli. I like to use it in many fresh accords and bases incorporating cassis, mango and citrus notes. Aromavert and these bases, octalinol, epi hedione, habanolide and iso E super are very good when combined. Its accords with Eau Sauvage profiles are remarkable.

Lavonax (4-Pentenophenone): This chemical is described as an opoponax, myrrh and labdanum chemical that works very well with kephalis, samaram, labdanax, myroxide, and cyclohexyl crotonate. It can be used either in combination with the natural resinoids or with many chemicals to impart an oriental, non-discoloring effect in many functional accords.

Morellone (Benzyl dipropylketone): This chemical smells of Peru and tolu without many parts of the natural products such as those provided by nerolidol or cinnamates. It is a very stable chemical and it is very substantive. It should be re-used increasingly along with musks in order to modify the olfactive substantivity provided by them.

Forenat (Styrallyl crotonate): This chemical is nearly forgotten and very interesting. It is missing from most laboratories with important aspects of labdanum, Peru and tolu. I have used it often and mixed it with interesting oriental accords. It is good to combine with rose and ginger lily head-space accords. One fragrance to be reworked, where ginger lily head-space accord was used is cabotine. The addition of forenat and other key ingredients such as precarone, phenoxanol, myroxide, berryflor and florhydral to this accord gives a new twist that I find quite interesting as seen in many of my bases (lilypure family).

Farnesene: This perfumery element is an increasingly used sesquiterpene found in almost all natural products, especially in gardenia. It gives very interesting notes with florals and also combined well with opoponax, myrhh, benzoin and some of the products described in the honey and herbal honey sub-groups.

Tobacco

3,3,5-Trimethylcyclohexanone, 3,3,5-trimethyl-2-cyclohexen-1one(Isophorone), 2,2,6-trimethyl cyclohex-5-en-1,4-dione (Oxophorone)(I), 3-megastigmatrienone (Tabanone), tobacco leaf, cetotabac, darjeeling, oxo-damascone and oxo-edulan(III) are included in this sub-group.

I want to recall that the chemicals described in past parts of this series are extremely important. Accords like those found in cetotabac, tobacco leaf or darjeeling are unique when providing balsamic shades to many fragrances and tobacco flavors. Cetotabac is a base that successfully soothes the irritative effects of tobacco smoke.

3-Theaspirone, (Oxotheaspirane) is sweet, balsamic, deeply fruity and shows the typical fruityness of tobacco leaf with plum and chocolate aspects. It resembles oxo-edulan in that it blends very well with most fruity chemicals as well as tabanone, dihydrotabanone and tetrahydroedulan. All these important chemicals will help to further develop the tobacco-flavor industry.

B-Oxoionyl isobutyrate, an excellent forgotten chemical that is heavy and deeply floral, smells of tobacco, plum and osmanthus. Osmanthus absolute is quite a complex odor, though it is primarily deeply fruity. Everybody knows that its odor and taste work extremely well when combined with tea and tobacco. Osmanthus absolute has an herbal character imparted mainly by theaspirane and linalool oxides (both furanoid and pyranoid). It has an important oily character imparted by linoleic, oleic, palmitic and linolenic acids, as well as a mild, woody-fruity smell mainly provided by dihydro-β-ionone, and dihydro-β-ionol with traces of dihydro-α-ionone. Osmanthus absolute has orris, violet and boronia notes mainly imparted by β-ionone. It posseses a fruity-milky note imparted by γ-decalactone, tuberolactone and many other lactones. However, most of the reconstitutions are made only with G-decalactone and it has a very particular characteristic fruityness, absent in most of the reconstitutions which is provided by megastigmatrienone epoxyde, megastigmadienone epoxyde and many oxo ionols, oxo ionones and oxoionyl derivatives. This particular fruityness is the most individual and distinctive found in the natural product. It is the most decisive and beautiful yet, as I said before, it is absent from most reconstitutions and is very close to the fruityness found in tobacco leaf. B-Oxoionyl isobutyrate imparts this special characteristic fruityness found in both products. It is an unknown and infrequently used chemical that could be, if promoted, an important part of the sophistication of many fragrances. The base, osmanthus absolute 8688/D, has many of these sought and important parts of the natural product.

Coumarinic/Tonka

Coumarin, hexahydrocoumarin, octahydrocoumarin, γ-heptalactone and γ-hexalactone(I), rhodipol C, florex, and 6-amyl-α-pyrone(II) belong to this sub-group.

Laitone (7-Isopropyl-1-oxaspiro [4,5] nonan-2-one): This chemical is a forgotten and totally unknown jewel. It posseses an extremely strong milky, coumarin-tonka note, which is more milky and less tonka than octohydrocoumarin (by the way a very good chemical), and also more fruity with D-decalactone notes.

Methyl laitone (4-Methyl-cyclohexyl spiro-4-γ butirolactone): I find that this is much less oily and milky than laitone, and more coumarin-tonka like with reminiscences of fennel and quite herbal. It is the most tonka-like chemical of the laitone family as well as less milky when compared with the other two. However, it is less long-lasting than ethyl laitone or laitone.

Ethyl laitone DA: (4-Ethyl-cyclohexyl spiro-4-γ butirolactone): This chemical falls in between laitone which is more milky and lactonic and methyl laitone which is more coumarin-tonka and herbal. It is an extremely strong chemical used in dilution (DA) to impart extraordinary effects such as in Romeo & Gili for Men.

Dehydrotonkalide (4-Ethylbuten-4-olide): This is another unknown chemical with a coumarine-tonka smell. It is quite interesting and blends very well with the laitones and florex creating a wonderful base.

Tonkalactone: This is an extremely strong and very interesting chemical combining tonka-coumarin with root-dry-woody and anisic notes. It also has a strong iron-like smell. It is the most powerful coumarin-like chemical in its top note, but less long-lasting when compared with octahydrocoumarin, laitone or ethyl laitone.

Coumolide: This chemical posseses a coumarin-like note more sharp and tonka than octahydrocoumarin which is more lactonic and less herbal-like than methyl laitone. It is very good in combinations with the laitones and florex.

Tricyclone DPG: This is a coumarin-like note presented in a way (DPG) that makes it weaker than florex, coumolide, the laitones or octahydrocoumarin.

Cantryl (Campholen nitrile): This is quite different from the chemicals related in this family. As a nitrile, it has the typical coumarin note imparted by nitriles which is more metalic and less tonka-like. Cantryl is a very good chemical, very stable in soap and detergents, whose accords with vertral, sweet tuberose, ylang, undeca and deca γ lactones, trimofix, frambinon, heliotropine, lilial, lyral, rosalva, β-damascone, tagette oil, sandalwood chemicals, aldehydes, and timberolare, are unique and used in a top fragrance for toilet soap.

Trivertanyl (Triplal nitrile): This is one of the most useful tonka top notes in functional perfumery which harmonizes with coumarin. Triplal nitrile is an extremely good note to impart its freshness in fougère-like accords twisting these old mixtures with a young note that makes them very interesting. It is used in top important functional products. The accords of trivertanyl with aubepine nitrile, a long-lasting chemical with tonkalactone, mettambrate and laitone are simply exceptional.

Citrics

Lemon: Geranyl nitrile(I) and undecen-2-nitrile(II) are included in this group.

Ethyl citral: This is a forgotten and almost discontinued chemical. I really don't know the reason why, but this was possibly dictated by somebody that does not understand our industry at all. It is more floral than citral and also more metallic. It also has an ability to fix it, which is remarkable. I used this in many lemon colognes, some of them selling well. It also blends well with petitgrain, neroli and with biodegradable musks such as habanolide. The accords are limitless.

Lemonile (Ethyl citral nitrile): Lemonile is much stronger than citralva as well as more citrus-like and less floral. Its ability to boost lemons where citral or ethyl citral are used is also unique. Lemonile should be used as much as citralva, yet is not, precisely because of its strength. It must be diluted to be understood.

Citronile (α-Methylgeranyl nitrile): This chemical is missing from too many laboratories. It is citrusy though more floral and less sharp than the chemicals described above. However, combinations of citronile, citronitrile, lemonile, mandaril, metonyl and citronellyl nitrile are very interesting and also important to impart some novelty to the old accords made with geranyl nitrile (Citralva).

Mandarin/Tangerine

Trans-2-dodecenal, trans-2-tridecenal, 2,6-dodecadienal, mandarin aldehyde, bigaradial (I), tridecen-2-nitrile, florexaltric, citroherbil, and citronitrile (II) are included in this sub-group.

Mandaril (3,12-Tridecadien nitrile): Again, this is a chemical missing from most laboratories. It is extremely strong, diffusive, less metalic and more natural than tridecen-2-nitrile. It is extremely stable and great to impart a new citrus twist to the well-known chemicals used for years and years. Accords of metonyl, frutonile, frescile, citronile, citronitrile, ocimenquintoxide and lime dienes DA are extrordinary, providing a freshness, especially when incorporating lime dienes DA. It is very fruity, juicy and natural. I also like accords of it with sinensals, dihydronootkatone, thioterpineol, cassis chemicals and oxane. I want to mention the base lemozone as a very good accord of these related chemicals with many rare non-described.

Lime

Lime oxide, already described in my past works as herbal-citrus, is very different when smelt pure or when seeing its effects. Lime oxide, which is a reaction product mixed with terpenes, and whose soul is what is called ocimenquintoxide, is an extremely interesting chemical unknown by most perfumers. It boosts all accords where citralva and other nitriles are used. It is extremely important in toilet soap and detergent fragrances and also in fine toiletries. It combines very well with lime oils, dimethyl-octenone and with cineoles (mainly 1,4-cineol). It imparts a natural freshness that is highly sought and adds an uncommon strength to those compounds.

Lime dienes DA: This chemical was introduced in early 90's and it is as interesting as it is unknown. Lime dienes DA is juicy and blends extremely well with chemicals such as isospirene, etaspirene and octalinol. The accords of lime

dienes DA are limitless. Lime dienes DA forms interesting accords when mixed with bases like citroasis or in fragrances like Armani for Men or Eau de Tsar, a very fresh, pleasant and wearable fragrance.

Grapefruit

Nootkatone (I), methyl pamplemousse, thiocineol, thiolimonene, vert de pamplemousse (II) and thioterpineol(III) are included in this sub-group.

Dihydronootkatone: This chemical is a citrus, grapefruit-peel chemical without the woody nuance of nootkatone. It combines very well with the sinensals, thioterpineol and octalinol, amongst others.

Floralate (2,4-Dimethyl-3-cyclohexene-1-methanyl acetate): This is a well-known chemical not widely used though very important. It smells citrus, grapefruit-like, with dry leaf shades and possesses somewhat rooty and metallic. Accords of floralate with octalinol, neocaspirone, dispirone, pamplenol C, pamplefleur, methyl pamplemousse, corps 53 and etaspire are also great. Floralate blends extremely well with ocimenquintoxide, mandarin aldehyde, veticol acetate, vetikone, citrathal, decatone, verdoracine, pamplovert, oxane, as well, creating one of the best grapefruit bases, grapequorum, ever made. It is very stable both in soaps and in alcoholic perfumery.

Pamplenol C (3-Oxa-4,4,8,9-tetramethylbicyclo [4,4,0]-dece-7-ene and isomers): This is an old but very interesting chemical. Pamplenol C is less rooty and metallic than floralate, but more fruity. Pamplenol has just been applied in one of the biggest detergents and one of the biggest shampoos in the world, because its performance when blended either with green (Triplal, cis-3-hexenol), with fruity (Manzanate) or green herbal (Herbavert), it imparts body, difussion and sweetness to those products. It is a product to be re-used and rediscovered since its posibilities are many.

Floral

Novorosan, citronellyl nitrile (Agrunitril), and citral glycerylacetal (II) are included in this sub-group.

Dimethyloctenone (2,5-Dimethyl-2-octen-6-one): Again, this is not a very new chemical. It has a clean citrus-floral smell of great strength. It harmonizes, enhances, exalts, and rounds-off many accords, working very well with herbal, citrus and floral-fruity chemicals. I like accords of the same with labienoxime DA, since one product harmonizes the other creating a vibrant form that works by itself. It is also important to mix it with other cassis notes and tropical fruit products.

Spicy

There are several sub-groups belonging to this group that I would like to discuss below.

General

Eugenol, methyl eugenol, cinnamic aldehyde, cuminic aldehyde, livescone, dihydrolivescone, dihydrocuminic aldehyde (Perilla), cinnamyl nitrile, sigaride, sylvestone (I), cinnamalva, ethyl safranate, base EJM, saffrania, exaltia, myrtenal, safranal, spezia, fleur d'epice (II) and 4-isopropyl-2-cyclohexenone(Crypton) (III) are included in this sub group.

I won't add any additional chemicals, but I would like to emphasize the importance of those described and classified in previous installments.

Anisic

Canthoxal and anisimal (II) are included in shis sub-group.

Tarragol (Octahydroeugenol): This chemical is very new, smelling of tarragon and basil oils. It is very elegant and stable and I believe it will be used increasingly in the future. Combinations of it with coranol, basilex, prassinate and tamigone give you bases of unusual freshness that work very well with woody and citrus notes. I love an accord made of tarragol, basilex, octalinol and citrotone B, being extremely useful in boosting citrus/anisic notes in soaps, shampoos and detergent fragrances. It exalts products like verdyl acetate, propionate and isobutyrate while enlivening combinations of both with pelargene, farenal and profarnesal (Oncidal).

Floral

This group is comprised of many sub-groups.

Fresh floral: Linalool, dimethyl heptanol (Dimetol), tetrahydro-linalool, tetrahydromyrcenol, allo-ocimenol (Muguol), dihydromircenol (I), tetrahydromircenyl acetate, ocimenol, pseudo linalool (II) and phenoxanol (III) are included in this sub-group.

Ethyl linalool: This chemical is more floral and less fresh than linalool with shades of neroli, petitgrain, bergamot and magnolia. It combines extremely well with almost everything including dihydromircenol and coranol. It is not possible to note here the good accords achieved with ethyl linalool since today it is one of the most widely used chemicals. It is not new but it was rediscovered some years ago and now it is not possible to build any top note without it. It is perhaps its ability to harmonize and naturalize white-flower fragrances that is the secret of its success. However, for me it is somewhat synthetic and smells a little bit of functional fragrances, especially fabric softeners, a field where ethyl linalool is also being widely worked.

Ethyl linalool continues to be used in many modern fragrances such as Eternity for Women, Wings for Women and many others

Coranol (4-Cyclohexyl-2-methyl-2-butenol): This may be one of the most important chemicals used today. Coranol has an extremely fresh, floral and somewhat vibrant rosy-metallic note that is really almost impossible to replace. It combines exceptionally well with dihydromircenol and other beautiful products not used as frequently used as cyclohexyl propanol. It is not as widely used as cyclohexyl propanol, ocimenyl acetate and ocimenol, imparting to every fragrance its freshness, strength and difussion. It blends exceptionally well with citrus, floral, woody, spicy

and musky notes and harmonizes green-metallic products such as stemone, gardamide, labienoxime DA or buccoxime. Coranol is being used everywhere and it is a real key element for the top note of the olfactive forms achieved with it. An example among many where coranol has been used is Bulgari for Men (Musky habanolide, Muscenone δ) and many other fragrances. Coranol is going to be a key developmental element in future since today, it is still captive and not known by many perfumers.

Mixtures of coranol with nor limbanol, octalinol, salicylate de methylpentenyle, salycilate de cis-3-hexenyle, polysantol, habanolide, muscenone δ, calone, helional, firsantol, basilex, prassinate and epi hediones, ambraketal (Z-11) and trimofix are the most recent successes present of our world of perfumery. However, I would like to see it mixed with epi hediones, habanolide and old pentambrette to achieve something really new and elegant.

Jasmine

Dihydrojasmone, cis-jasmone,cis-jasmone lactone, jasmolactone, hedione, jasmonyl, jessate (I), pentilcyclopentenone (Delphone), decalinol acetate, cis-jasmone, dihydrojasmone, jasmospezia, jasmine lactone (II), methyl jasmonate, α-hexyl-γ-butyrolactone and cis-3-hexenyl γ-butyrolactone (III) are included in shis sub-group.

Epi hediones (Hedione HC, paradisol, kharismal, cepionate, super cepionate): When in 1966, my good friend Edmond Roudnitzka created Eau Sauvage, hedione was emerging as the greatest revolutionary element in perfumery since the discovery of vanillin, ethyl vanillin, the aliphatic aldehydes, coumarin, heliotropine and the other chemicals that made possible the historical landmarks of our art in this century. Hedione was used by Roudnitzka at around 2%, not more, and it worked in creating a diffusion and an auratic breathing aspect not seen before in any floral chemical. Rounitzka was an extremely experienced man who spent hundreds of thousands of hours smelling. I remember that one day, we met and discussed hedione. He told me that the greatest problem he faced with it, was a sense of saturation when dosing greater amounts in fragrances. It was like a border the product could not go beyond. The results were the same when using 7% or 25%; the diffussion was blocked. He told me he wanted to go beyond that, especially in Diorela and the old forgotten and withdrawn treasure Dior Dior. This was the reality until epi hediones were born. The first product was cepionate, but cepionate is only about 30% epimerized and although it was more difussive than hedione, the difference was not that great when comparing the price of both chemicals. Later on we started seeing higher epimerizations like 60 and 70% (Hedione HC, super cepionate, kharismal) and 90% to 95% (paradisol). Here we broke another limit to difussion. We started seeing fragrances with an inmense auratic breathing, with a diffusion through the wind (the word auram is latin, meaning "diffusion through the wind" and "perfumed breeze"). We realized this was going to affect perfumery as much as hedione, when Roudnitzka made Eau Sauvage more than 30 years ago. Products like CK One, amongst others, were appearing, forging a new period in perfumery as radical as the one that resulted from Eau Sauvage hitting the market 30 years ago. We will see a great development in the future. It will be interesting to see how these new products will affect the present and future of perfumery. Diffusion was once achieved with hedione. Today, unsurpassable auratic breathing in perfumery is achieved by epi hediones.

I could continue talking about new and old products like jasmine lactone, cis-3-hexenyl butirolactone, isojasmone CNC (not to be confused with with normal isojasmone), but these products have already been mentioned briefly in my works and, although important, they are not so important when compared with the way epi hediones are influencing perfumery in our age and presumably the future as well.

Rose

Products destined to greatly influence the perfumery of future include rose oxide, nerol oxide, rose furan, p-menthen-9-al (I), dimethyloctandiol (glycol de rose), centifolil, anatolil, methyl geraniate (II), phenoxanol (III).

Nothing has really revolutioned the concept of this subgroup phenoxanol. Phenoxanol, like epi hediones, is synonomous for diffusion, class and revolution of "aura." Phenoxanol, as I predicted in 1979 when nobody knew it, is strong and makes our accords glorious. It is well-applied (around 8%) in Aire de Loewe, a fragrance that changed the Spanish perfumery. It has been used extensively in many countries.

Also very interesting, but not often used, is peomosa (2-Methylphenylethyl alcohol). This product could and should be as important as β-phenylethyl alcohol since it smells very naturally of a fresh rose petal. I believe it will be used, sooner or later, in fragrances in large quantities. It can, when combined with rose noble chemicals like roseoxyde, neroloxyde, damascenone, damascones, dihydrofloriffone, TD and dihydroroseoxyde, impart new aspects of the flower. We can increase its freshness in a way we cannot with just phenylethyl alcohol. A jewel of harmony can be achieved when blending peomosa with acetaldehyde diphenylethylacetal, hyacinth body Nr. 3, florhydral and precarone.

Florol: This chemical could be described between the rose, magnolia and lily of the valley chemicals, however, its important rosy aspects are paramount. Florol will possibly be re-discovered as was magnolan, an extremely old chemical recently rediscovered. The accord of florol, ambrettolide, black pepper oil, muscone, ambrox, ethyl acetoacetate, helional and cyclogalbanate is one of the biggest successes in the white-flower profiles. Combinations of florol with full sampac and florhydral along with other interesting and relatively unknown products, have created the base dremia almost unknown.

I want to mention that other products, such as rosaphen, rose nitrile, floramat and damascate, are quite interesting.

Carnation

Elintaal, dianthox (Diantheme) and carnothene (I) are included in this sub-group.

Here, I will include both propyl and ethyl dianthilis, described in the vanilla sub-group of the balsamics because they possess aspects of both sub-groups. It should be noted that dianthox (Diantheme) and carnothene are very important as well.

Magnolia

Magnolan (2,4-Dimethyl-5,6-indanyldioxane): This is very old product that was introduced in the sixties as a very good functional chemical to be used in detergents and later in fabric softeners. It has finally found successs in fine toiletries. I have always liked magnolan. However, I am more interested in the flower of magnolia whose chemical reconstruction can be seen in the base magnoliana. I was born with magnolias, I have beautiful magnolias in my garden and too many times I have wondered why this flower or gardenia and even jonquil, are so forgotten and why we insist on using jasmine

Cyclomethylene citronellol (3-{4-Methylcyclohexen-3-yl}-butanol): This is a product that sooner or later will succeed since the its accords with mayol, florol, nectaryl, lyrisal, bulgarat and floramat are extraordinary.

Boronia

β-Coronal (2-Methyl-4[2,6,6-trimethyl-1-cyclohexenyl]-2-butenal: This is a very old product used in one of the bases that formed Alliage. It is nearly forgotten. It is strong with important parts of boronia absolute, the jewel of Tasmania, orris and violet. β-Coronal blends very well with ambrox, ambrinol, ambrinoloxide, dihydro-β-ionone, reseda body, candalum and other sandalwood chemicals, as well as with sandalwood oil, mate absolute, myroxide, myrrh and resins of orient.

Lily of the Valley

Oncidal, cis-dihydro shiseol (Mayol), lilial, lyral, cyclamen aldehyde, bourgeonal, dupical (I), pinoacetaldehyde, α-pinyl isobutiraldehyde, myraldyl acetate, racinal, oxyacetaldehydes, maceal, 2-4 hexadienol (Mimoril) (II), phenylacetaldehyde glycerylacetal, muguet alcohol, muguet alcohol acetate, and reseda body (III) are included in this sub-group.

Florhydral (p-Isopropylphenyl-2-butanal): This chemical was introduced to our industry in 1990 and has only recently been applied. It was once called super lilial because it is much stronger than lilial. However, its smell is not only lilial and lily of the valley in nature; there is an important cyclamen and ozonic side. It also has many nuances found in meta-lilial, a totally unknown product and isomer of lilial that is extremely potent. Florhydral has supreme accords with precarone and berryflor. It boosts lilial nuances, and is quite substantive. It is bright and enhances accords. It will be another chemical of perfumery's future. It is already one of the relatively unknown chemicals that I am working with. It's application possibilities are limitless.

Majantol: This chemical is one of the best smelling lily of the valley elements. It is floral, slightly herbal and combinessupremely well with all florals and musks. Recent successful applications are seen in *Contradiction and Good Life* by Davidoff.

Corps popinal (4,4-Methyl-3-cyclohexenyl pentenal): This chemical is strong, lily of the valley-like and combines extremely well with allyl-ionone, precyclemone B, allyl amyl glycolate and cyclogalbanat. I believe, if promoted, it could be a with potential for successful blending. I remember a great accord of corps popinal with mimosaldehyde, but unfortunately somebody extremely clever withdrew mimosaldehyde from our shelves. Sadly this may also happen to corps popinal.

Mefranal (3-Methyl-5-phenylpentanal): This is the corresponding aldehyde to phenoxanol. It is bright, vibrant, floral, lily of the valley-like and blends very well with florhydral and precarone, berryflor, labienone, lyral, habanolide and mettambratte. Its shades, as in the case of the alcohol, are extremely rich and full of possibilities. A great base made with mefranal is animaflor, a product that will be used widely.

Salycilate de methylpentenyle: This is another important and unknown product that should be classified between the floral, lily of the valley and floral-green subgroups. It works well with cis-3-hexenyl salicylate, helping to naturalize it when overdosed. It blends very well with florhydral, coranol, octalinol, tetrameran, chrysantheme, bulgarat, phenoxanol, hydroxyisodamascone and phenexal, as well as with many green-fresh-floral chemicals, imparting a very elegant and natural twist.

Mugetanol (1-4-{isopropylcyclohexyl}-ethanol): This is a relatively old chemical, but only recently introduced in an application that goes in the direction of an older development, muguet alcohol. It combines very well with other floral, kewra, sandalwood and green products. Mugetanol imparts an interesting reaction to sandal rose accords that help in diffusing.

Lyrisal (2,5,7,7-Tetramethyloctanal): This is an interesting, largely unknown chemical that has important shades of lily of the valley. It combines nicely with cyclomethylene citronellol, mayol, florol, and many lily of the valley/magnolia chemicals. There is a bright future for blendings of these products.

Aldehyde XI (p-Methylphenoxyacetaldehyde): This is a chemical that falls between lily of the valley and hyacinth. It is also ozonic and its accords with calone, helional, lyral and cyclamen aldehyde formed the heart of New West for ladies, a product that launched both aldehyde XI and calone in the international markets. It has created a trend that today is in full strength. It is important to note that p-ethylphenoxyacetaldehyde, a totally unknown chemical briefly mentioned in part II of my work, is even better than aldehyde XI. It is more bright, deep-floral and clean.

Floral Metallic

Rosalva, roseate, ambronate and bromarose (II) are included in this sub-group.

Rosyrane (2-Phenyl-4-methyl-dihydropyrane): This is a chemical with a lively smell that falls between fresh aspects of rose, hyacinth and lily of the valley. This little-known chemical is wonderful for replacing the vulgarity of diphenyloxide and other products of the family. Rosyrane blends very well with triplal, isobutylquinoline, roseoxide and sandalwood chemicals. I find that this chemical is very stable.

Doremox (Tetrahydro-4-methyl-2-phenyl-2H-pyran): This chemical is very powerful, rosy, lily of the valley, metallic, somewhat herbal, full of life, beautiful and vibrant. It can be used in combination with rosyrane and with all products described with the same. It combines extremely well with bases containing etaspirene, neocaspirene, nitriles, glycolierral, cyclamen aldehyde, florhydral, myroxide, floralozone, basilex, florantone T, cyclorosan, ether MT, cashmeran and octalinol. It is a beautifully vibrant chemical that is not used widely, which may change in the future.

Floral Woody Orris and Violet

2,6-Nonadienol (I) is included in this sub-group.

Irival: This is an almost forgotten chemical. I would like to say that this is one of the best chemicals imparting an orris-absolute note at a fraction of the price. Irival, a nitrile, works extremely well with ionones and floral-woody chemicals.

Irotyl (Ethyl 2-ethylhexanoate): This chemical is strong, sharp, and imparts a very clean orris-like note that combines with methionones, ionones and irival extremely well. It is an untouched and unworked jewel. I made a variation of persil, a good but very heavy fragrance that does not contain the chemical. The variation has more lift, more top note The accord, irotyl, methylionone nectaryl, is delicious.

Violetnitrile (2,6-Nonadien nitrile): If irival and irotyl are important to impart functional orris accords, violet nitrile is important to impart functional violet accords. It is found as a key chemical in the base viotryl, and it has been used in many important products.

Green Floral

Hexyl salicylate and cis-3-hexenyl salicylate (II) are included in this sub-group.

Ethyl phenoxyacetate: This is an extremely interesting green, floral chemical and is not simply just another ester, as many will rate it. Its accords are vibrantly floral and extremely important in functional perfumery. Reintroduced in 1985, it forms part of very important functional products and is simply extraordinary in new fabric softener fragrances. It is almost unknown or disregarded by most perfumers. Its importance is, and will be, capital.

Precarone*:* This chemical is green, floral, intense and natural. The accords of precarone with berryflor and frohydral are very new when having in mind white flowers, and form part of a very important international base. It blends beautifully well with the damascones, nectaryl, phenoxanol, peomosa, mefranal, salycilate de methylpentenyle, anthranilol, pentenyl acetate and so many other.

Palmarosa

Isocyclogeraniol (Trimethylcyclohexenemethanol): This is a very interesting chemical, not widely used but more fresh and herbal than some classical rose chemicals. It combines well with floral-woody products such as tetrameran, nerolidyl acetate, nerolidol, bisabolol or farnesol, and with oxaspirane and the forgotten gingergrass oil.

Fruity

This sub-group includes frutinat (II), rosetyl, decenyl cyclopentanone and oxo-damascone (III).

Berryflor (Ethyl 6-acetoxyhexanoate): This is a beautiful chemical smelling of jasmine-raspberry and mimosa. Berryflor is floral, sweet, fruity, tender, delicate and combines with many accords. It is found in bases like dossinia givco, white cyclamen and the new chrysantheme. Berryflor blends well with herbal functional notes such as the one found in Pantene Pro V shampoo, whose accord would improve if added. It also works well with functional fabric softener green-floral notes. It is based on ethyl phenoxyacetate or lily of the valley natural scents in combination with florhydral and precarone. In blendings, with labienone, benzylisoeugenol, bulgarat, and benzyl cinnamate, it works well. It is a product that should be enhanced, promoted and used lavishly.

Labienone (2,4,4,7-Tetramethylnonan-6,8-dien-3-one): This chemical is floral, fruity, and a little bit raspberryplum-like. It blends very well with many chemicals of this family. Labienone forms great accords with mettambratte that makes it more licorous. It also blends very well with ethyl phenoxyacetate, laitone and related products.

Givescone (Ethyl ethyl,α-cyclogeraniate): This is a well-known chemical that is difficult to describe. It has many nuances of the damascones and damascenone, but is less sharp-metallic and has more of a sweet apple note. It combines very well with undecavertol, myrascone, tetrascone, and it forms part of important international bases, important functional fragrances (Ariel Future) and alcoholic fragrances (Jean Marc Sinan for ladies).

Datilat (1-Cyclohexyl ethyl crotonate): This chemical is relatively and smells of plum and dates with a delicate fruityness. Its accords with frutinat, cyclomethylene citronellol, mayol, labienone, berryflor, damascate, hydroxyisodamascone and floramat and some mild cinnamates makes it simply delicious and useful in fragrances.

Methyl cyclogeraniate: This, again, is an interesting floral-fruity note. It is similar to other products of this subgroup. Methylcyclogeraniate combines well with chamomile chemicals, such as isopentyrate and tropical-fruit chemicals, such as oxane. It also forms good accords with

berryflor, mayol and florol. Naturally, its uses are not limited to the described accords. Blends of methyl cyclogeraniate, givescone and ethyl cyclogeraniate form accords even better than the methyl alone.

Pyroprunat (2-Cyclopentyl-cyclopentyl crotonate): This fresh-fruity scent can be used in many sophisticated accords. It combines extremely well with tropical fruits, apple, plum as well as florals, such as linden, freesia or champa (frangipani). It gives extremely nice new twists to osmanthus absolute or moulshri.

Floral/Animal

Campal, cashmeran, cashmeran O (II) and patchoulac (III) are included in this sub-group.

Octalinol (2,2,6,8-Tetramethyl-2-octalinol) or (Homo ambrinol): This is one of the most important chemicals used today. Its smell is floral, musky, metalic, radiant, vibrant, ambery, animal and difussive. It combines extremely well with citrus new chemicals, especially from the grapefruit sub-group such as methyl pamplemousse, pamplovert and zestal, imparting a special lift to many of them. It improves the top note of many alcoholic fragrances, and also with products such as irones, β-ionone, dihydro-β-ionone, β-coronal, the quinolines, mate absolute, cashmeran, nor limbanol, ambraketal (Z-11), trimofix, habanolide, coranol and forms many indescribable accords.

Fruity

This group includes many important chemicals.

Melon: Cis-6-nonenol, dimethyl heptenal (Melonal), floralozone, dihydroxybenzoxepinone (Calone), helional (I),cis-6-nonenal, novenal (II) ziblenia and melol (II) are included in this sub-group.

Methoxymelonal (6-Methoxy-2,6-dimethylheptanal): This is a forgotten chemical, part of an extremely important international base. It is fruity melon and by far less sharp than melonal. It combines well with calone, helional, epi hediones, florol, p-ethylphenoxyacetaldehyde, p-isopropylphenylacetaldehyde and floralozone. It works well when seeking melon, magnolia and syringa accords. It works well with citrus in many eaux fraîches.

Watermelon

Cis-3-cis-6-nonadienol (do not confuse with Trans-2-cis-6-nonadienol[Violet leaf alcohol]), an entirely different product): 3,6-Nonadienol is very fresh and as watery as watermelon. It is an important ingredient of the flavor of this natural product. I believe the accords of 3,6-nonadienol with calone are really unique, imparting an even more natural aspect to the fantastic watermelon ketone (Calone). Extremely sweet bases such as melenia or sea breeze are important accords for the future development of the use of calone and 3,6-nonadienol.

Pineapple

Cis-4-octenoate, ethyl cis-4-octenoate, emanol, allyl heptilate, allyl cyclohexyl propionate and allyl phenoxyacetate (II) are included in this group.

Raspberry

p-Hydroxyphenyl butanone (Frambinone) and p-methoxyphenyl butanone (Frambinon methyl ether)(I) are included in this group.

Floral

Veloutone and cyclopidene (II) are included in this group.

Lactonic

Nectaryl (2-[p-Mehthenyl-9]-cyclopentanone): This is a unique chemical that clearly shows that creativity must be improved in our profession. γ-Undecalactone is overused and is less elegant than nectaryl. Nectaryl blends extremely well with all the flowers, imparting fixation and radiance. Accords of nectaryl with myrasline, precarone, cyclomethylene citronellol, tuberolide, florol, mayol, full sampac auram (a unique partially scientific, partially perfumistic, reconstitution of the Indian flower called locally motia), floramat, frambinon methyl ether, florhydral, floralozone, lilial and lyral are extraordinary. Nectaryl also blends well with γ-undecalactone, softening its slightly vulgar note and making it more distinctively new. It also improves mixtures of nectaryl with tuberolide, tuberolactone, octenyl and decenyl cyclopentanones that I find to be very elegant. It has been used in functional products such as persil and in many fragrances for fine toiletries, but not as much as I would like.

Methyl tuberate or tuberolide (2-Methyl-1,4-nonalactone): This is another extremely interesting chemical, nearly forgotten. It is strong, lactonic, and smells of tuberose, peach, shades of osmanthus, jasmine and coconut. Many people have consistently used tuberolide with tuberose accords. It is a mistake since it does not improve tuberose accords much. However, the effect with other florals (Jasmine, jonquil, gardenia, magnolia) is extraordinary. Accords of tuberolide with osmanthus are also interesting, enhancing and beautifying most foral fragrances when properly used.

Tuberolactone (6-[2,Pentenyl]-5,6-dihydro-2-pyrone): This chemical is strong, fruity, lactonic, creamy, peach and coconut-like, and full of nuances and shades difficult to describe. Tuberolactone is a real jewel that blends extraordinarily well with epi hediones, habanolide, nectaryl, calone, florol, phenexal, ambrettolide, muscone, cyclogalbanate, octenyl and decenyl dyclopentanones. It is very expensive, but small traces impart a distinctive, extremely elegant dry down notes in fragrances. Found in osmanthus absolute and tuberose absolute, it is a chemical of great importance that is able to improve most of the accords where it is added.

Cassis

Sulfox (II), buccoxime, buccovert and thiovert (III) are included in this sub-group.

Neocaspirene (10-Isopropyl-2,7-dimethyl-1-oxaspiro-[4,5]-deca-3,6-diene): This chemical is powerful, extremely sharp, metallic, herbal and smells of cassis. It is extensively used in important international bases. The accords of neocaspirene with ethyl safranate and nectaryl are very elegant, as those including ethyl maltol, vanilline

and musks. Neocaspirene is one of the key missing elements in most laboratories globally.

Labienoxime DA (2,4,4,7-Tetramethyl-6,8-nonadien-3-one oxime): This chemical is very strong and smells of cassis and bucchu. It is less minty than sulfox and less bucchu than buccoxime. I find it more papaya-like than those products. The way it is introduced is not pure (DA), and therefore I have only smelt the product diluted as most perfumers that know it. Its strength in the dilution (DA), is about the same as sulfox at 0.1% and buccoxime at 5%. It is a key ingredient of papaya givco.

Isospirene (2,6,9,10-Tetramethyl-1-oxaspiro-{4,5}-deca-3,6-diene): As you see, this product is chemically related to neocaspirene. Isospirene, although already desbribed by me as a citrus-herbal chemical in part III of my work, is so complex that I want to classify it again here. It is extremely powerful, metallic, cassis-like and very difussive. It forms part of many important bases such as cassis base and berberis. Its accords with ethyl maltol are simply unique giving an unexpected synergetic effect and an enhanced warmth to all the fragrances where it is used. It blends well with oxane and galbanolene super. Isospirene is a chemical missing from most laboratories, though it is used in the form of bases. It gives interesting twists to fragrances where osmanthus, cassis bud absolute and sulfox are used.

Etaspirene: This chemical is extremely powerful and more herbal than isospirene and neocaspirene. It blends well with thujonic chemicals such as tamigone, plicatone, octalinol and doremox.

Licorous

Mettambrate (3-Secbutyl cyclohexylacetate): This is an extremely interesting fruity and licorous chemical, smelling of rum and other alcoholic drinks. It has nuances of red wine and brandy. It is good to impart its excellent note. Accords of mettambrate with laitone and tetramethylethylcyclohexenone. It is a key of important international bases like brentwood. The potential uses of mettambrate are limitless.

Rhumacetal (Cyclohexanone diethylacetal): This chemical is ethereal and interesting, because it smells of rum (very natural). Diethylacetals are an important part of a rum flavor that is widely used by the tobacco industry.

Peach

I would like to stress the differences between the lactonic part of peach and its green, fruity, metallic part

Isopropyl methyl thiazole: This is an incredibly powerful chemical that should be used in high dilutions. It is green, licorous, fruity, metallic and a chemical that was used in reconstitutions of peach and apricot flavors. However, trace amounts of this chemical in heavy musk-oil accords and blends with large amounts of methylionones, provide an unexpected lift. It is important to blend it with etaspirene, nectaryl, γ-undecalactone, helional, crude ipsidienone, grisalva, β-damascone, blue chamomile oil and hexyl acetate. It forms part of a very successful feminine fragrance.

Radiants

Muscone, exaltone, exaltolide, civettone, ambrettolide, hedione, isodamascone, α-damascone, β-damascone, damascenone, pentambrette, cashmeran, cashmeran O and irones (I), trans-δ-damascone (Dihydrofloriffone TD), epi hedione and epi methyl jasmonate (IV) are included in this sub-group.

I mention this family here because all the products described exalt, enhance and lift the diffusion and the aura of every fragrance. These chemicals have already been described in other families (musky, floral-jasmine, etc.), but it is good to name them again here. Products like habanolide, epi-hediones, epi methyl jasmonate and octalinol fit in this part of the classification.

Greens

Grass: Cis-3-hexenol & esters, trans-2-hexenol, leaf acetal and leaf alcohol acetal, dimethylcyclohexenyl carboxaldehyde (Triplal), trimethylcyclohexenyl carboxaldehyde (Isociclo citral), zestarome, agrumal, zestodial (I), cis-4-hepten-2-ol, verlastil, liffaroma, 2-ethoxythiazol (II), and cis-3-hexenyl allyl ether (III) are included in this sub-group.

Green flowery: Phenylacetic aldehyde, hydratropic aldehyde and DMA, adoxal, phenoxyacetic aldehyde (Cortex), phenylacetketone, hyacinthia, cortexal, folial, florizia, deltia (I), p-isopropylhydratropaldehyde, p-isopropylphenylacetaldehyde, vernaldehyde, formyltricyclodecane (Vertral) (II), glycolierral, phenyral, P-ethylphenoxyacetaldehyde (III) and Hexenyl Oxanate (IV) are included in this sub-group.

Hexenyl oxanate (Cis-3-hexenyl acetoacetate): This chemical is less green and much more floral than the grassy chemicals. I find it slightly fruity and good in accords with salycilate de methylpentenyle, salycilate de cis-3-hexenyl, salycilate de benzyle, helional, phenexal, thracylene, florhydral, lilial, lyral, the schiff bases of the latter, musks and benzyl salycilate.

Melozone (Octahydro-4, 7-methano-1H-indenecarboxaldehyde): This chemical is very powerful, green, floral, smelling of ivy and other green-wet-herbs. Combinations of this product with triplal, isocyclocitral and small traces of huminol, geonol and terrasol, form interesting accords, if properly balanced. Additionally, accords of the same with helional, hederyl, 3,6-nonadienol and calone are very new and lovely as well as natural. It has been successfully used in the base ivyone.

Green/citrusy-fruity: Dynascone, neogal, galbex, galbania, allyl amyl glycolate, cyclogalbanate (II) and tangerinol(III) are included in this sub-group.

Green metallic: Secbutyl methoxy pirazine, isobutyl methoxy pirazine, ourtivert, isobutyl phenylethyl carbinyl acetate (Corps rhubarbe), stemone, styrallyl acetate (I), ourtivert, isopropyl methoxy pyrazine, isohexyl methoxy pyrazine, greenoxane (II), vertamide and kerfoline (III) are included in this sub-group.

Gardamide (N-Methyl-N-phenyl-2-methyl butyramide): This is a very powerful chemical; green, metallic, with woody nuances, similar to some of the chemicals described on the citrus grapefruit sub-group such as floralate, vetikol acetate and corps 53. It has, therefore, a grapefruit note, though it is less intense than those related chemicals. It has, as with most of these described products, a rhubarb note. It is quite stable and useful in mixtures with kerfoline, isobutylquinoline, vertacetal, terravert and terranil, as well as in hyacinth and gardenia. The former are accords where its personality stands out with force.

Gardenia, one of the most beautiful flowers in the world, is comparable to rose and jasmine. It has been virtually forgotten by perfumers. I have worked very hard in order to find out the real reconstitution of this flower and succesfully formulate the gardenia florauram. The absolute, which is not available, nearly identical (99% accuracy).

Hederyl (2,[2-Methyl-3-pentenyl]-5-ethylpyridine): This product is very powerful, green, metallic and animal-like. This nearly unknown chemical blends well with kerfoline, labienoxime, terrasol and vertral. Hederyl contributes to wet, green, metallic and ivy notes. It is important with Mediterranean bases such as begur, patmos, marjalia, provençalis, grazalema, almazora, hervasil and the outstanding kirenia.

Fruity Green

Manzanate (Ethyl 2-methypentenoate): This is a very difussive, strong and elegant-fruity note widely used in both functional and alcoholic perfumeries. It smells of apple and has many grassy and velvery nuances. I believe it will be increasingly used in future. It has been used in Ariel Future, and traces of it are found in Pert Plus. Combinations of manzanate with neroli, musks and lily of the valley chemicals are outstanding. I have worked with many scientific reconstitutions of the essential oil of neroli bigarade in the world. It smells 99% identical to the natural oil.

Green/Fruity/Tropical

Oxane and 3-Methylthiohexanol are included in this sub-group.

Green Resinous

Undecatriene, ocymene epoxyde, chrysantal (I) and fantesal (III) are included in this sub-group.

Green Violet

2,6-Nonadienal, DMA- Trans-2-Nonynal, Methyl Nonylenate, Cis-3-Hexenyl Heptincarbonate, Methyl Octin-carbonate (I) and Nonadyl (III) are included in this sub-group.

Undecavertol (4-Methyl-3-decen-5-ol): This is a green chemical smelling of important aspects of violet and mimosa. Undecavertol is fresh, young, and combines very well with tetrahydrolinalool, dimetol, and givescone. It forms a well-known international base that smells of linden flower while its accord with myrascone, givescone and tetrascone form an impressive reconstitution of the mimosa flower. It has been used in important fragrances such as XS pour elle and in functionals such as Ariel Future. It also blends extraordinarily well with 2,6-Nonadienol, a part of parmantheme.

Nonadyl (6,8-Dimethyl-2-nonanol): This is an interesting product I want to fit in this sub-group though its smell is difficult to classify. It has many possibilities.

Green Herbal

Herboxane, herbane, cyclonemal and herbavert (IV) are included in this sub-group.

Herboxane (Pentanal hexyleneglycol acetal): Although very old, this element remains very important since it is not easy to find chemicals with such a natural smell. Herboxane is green, herbal and it combines extremely well with coniferous and citrus notes. It also can be applied with the Mediterranean bases mentioned before. Good examples of what can be done with herboxane are the bases floravert, citrofresh and citroherbil.

Herbane (Butanal hexyleneglycol acetal): A lower homologue to herboxane, this chemical is more sharp and less natural. However, it works better in low traces.

Cyclonemal (Hexanal hexyleneglycolacetal): This is a higher homologue to herboxane which is powerfully green and citrusy and smells, when concentrated, like tomato leaves. It is very useful when increasing the strength of lemons and top notes for liquid detergents and fabric softeners. It works superbly with ethyl phenoxyacetate and shampoos.

Herbavert (3,3,5-Trimethylcyclohexyl ethyl ether): This is a very good chemical that should not be forgotten. It is quite volatile and has very good substantivity. I like to use it in many products that are both functional and alcoholic. It blends very well with fruitate, pamplenol, lilial, manzanate, doremox, allyl cyclohexyl propionate, cyclohexyl salicylate, undecavertol, givescone and floramat, amongst others.

Roots

Rhubaflor, costaulon, root body (III) are included in this sub-group.

An extremely important base called shamaria, which is really outstanding, blends extremely well with rosy and woody notes.

Leathery

Aldehyde NU and alcohol NU: These are old and virtually unknown chemicals used extensively with boul Nr. 6 B in some important leather bases such as the corinal family, which are used in very important international fragrances. These products blend very well with allylionone, musks and create accords whose beauty and elegance is supreme.

Arts, Design and Social Reality

I have finished the description I wished to write in this article. Now, as I have done in the three previous parts of the series, I would like to continue to express the ideas that, in my view, make sense to our profession beyond the

material interest. I feel that these ideas are not understood by many of those forming part of the business establishment where our profession is rooted. I don't understand why this is true. We could do the same amount of business while at the same time dignifying the profession and its deeply philosophical, sensitive and intellectual origins, and launching, from time to time, great creations that would last and remain stable in the international markets.

False progress in perfumery: Looking at the period from 1965 to the present, I see that many good creations have been launched and will continue to be sold for a long time to come. These include L'Eau par Kenzo, Angel, Amarige, Cabotine, Issey Miyaki for ladies, So Pretty, Bulgari for Men, Egoïste Platinum, Tresor, Herrera for Men, Yvresse, Samsara, Cologne au The Vert de Bulgari, Cool Water, Safari for ladies, Heritage, and Roma. Perfumes such as Anais-Anais, Fidji, O de Lancome, Montana for ladies, Amazone, Paris, Aramis, Eau Sauvage, Diorella, Cristalle, Chanel Nr. 19, Private Collection, Vetyver by Gerlain, Jean Louis Scherrer for ladies, First, Santos, Van Cleef & Arpels for men were and are being sold every day. I publicly apologize because I certainly cannot name all the "good" existing fragrances. However, most of these fragrances were launched with trusted advice from perfumers and were not formulated in a short 15-day rush to fill a beautiful bottle. If perfumers had more say in the process, the results would be even better. However, after the success of CK one, an incredible number of fragrances have been launched. These fragrances could have been made by a computer. There is an increasing conviction that everything smells the same.

When I wrote part one[1] of this series in 1978, I was a very young man and I thought, as I do today, it was useful to talk about art and society in relation to our industry. I was an idealistic perfumer that wrote phrases like, "I don't believe a true perfumer is a 'nose,' I believe he or she is a human being, a mind and a philosopher who tries to express a sensibility, and who also offers it to us for us to get to know it and to appreciate it." I also wrote, "The artist should be able to make it understood that true progress will come when society assimilates arts and culture. He must, as all citizens [must], work to attain a world which will be based on the ability to perceive the emotive and poetic value of things. True civilization is nothing but a question of wisdom, culture and sensitivity." And I wrote: "The purpose of our profession is to heighten awareness by means of created beauty; and for this we need the support of the marketing industry whose purpose, along with seeing that a product is sold, should be to see that it is sold by means of constructive advertisement that improves culture."

I first presented part II[2] of this series on November 6th, 1979, when I still was an idealistic perfumer with a headful of ideas from years of discussions and correspondence with my good friend Mr. Edmond Roudnitzka. I wrote then, "The kind of society in which we live is marked by an extreme materialism. Because it lacks a spiritual truth, it leads to disenchantment, frustration and insufficiency of ideals and dreams..." I also wrote, "Marketing in perfumery has debased the most sublime aspects of this profession. There are some sectors that have completely ignored the most important artistic and emotional values that belong to it." I suggested that "the time has come to strengthen our noblest values. I do not mean by this that a good perfume can lead to absolute happiness; but I do mean that the day society demands art and true spiritual progress, our world will be then in a position to overcome all its problems." I complained that "the perfumer is belittled by exclusionary policies, and is forced to make [something] to fill a pretty bottle." Finally, I wondered "if, in spite of so much progress, we have ever lived in an age of greater spiritual insecurity. It is precisely this sense of false progress that is leading us to the greatest of upheavals, because of the lack of something in which to believe."

When I introduced Part III[3] on February 11-14, 1986 at the International Perfumery Congress in Portimao (Portugal), I started mentioning words like *desolation*. I said, "Culture, taken almost solely as technique or study, as the Kingdom of Omnipotent Reason, was sure to lead our profession (and in fact the whole society) to a wasteland close to desolation—a desolation of the soul, of the spirit, of mystery, of intuition and of myth. And have we not said that these were precisely the characteristics of the creative perfumer?" I observed that "Voltaire, one of the fathers of Rationalism, thought that Reason was certainly a weak light, but it was the only thing that counted," and I followed up with my own observation that "No work of art, no great perfume, has been made with this as a premise." But I was still quite idealistic when I wrote the following:

> I believe in art because art is the expression of the most sublime human values... It is an emotional reflection cultivated by the depth of an individual conscience. While I agree with Marcel Proust, that life, in its permanent flow, is no more than lost time that can only be recovered for eternity by the artist's work, I cannot accept his belief that there is no relation between interior life and social life. I believe that mankind and society will have really progressed the day we have found the way to face the differences between exterior social existence and the interior life, or the "memoiries" described by Proust.

Because Proust was perhaps the most detailed and descriptive writer ever, he projected his interior life in his words without meaning to, because he was doubtful that people would understand him.

I concluded Part III on the following idealistic note:

Sensitivity to art and a sense of being cultured should be norms that guide society. Only the day this sensitive understanding of art and culture succeeds in guiding will our society see its wishes fulfilled. This sensitivity and a strong sense of social justice are the duties of every citizen, of every artist and, therefore, of every perfumer.

New vs. eternal: Almost 13 years have elapsed since Portimao. I am still young, but not as young as then. During those years we've seen a certain progress based on a materialistic Rationalism which is supremely useful scientifically, but we have also seen more and more our collective personality stunted. Do we progress? Is the art of perfumery progressing when so many new and beautiful ingredients are discovered in order to boost our creativity? The answer should be Yes, because now we have more materials than ever; look at the description of so many new chemicals ready to be used, to be discovered, to be worked. But my answer today is No! It is unfortunate. It makes me sad. I wish I was mistaken. But my answer is No!

We don't see eternal values at the horizon. We see more and more that real communication and dialogue—a key for progress and success, especially amongst young people—is avoided by setting up new concepts in places like "Hard Rock Cafe" where the noise is so loud that it is simply impossible to talk while dining.

Again I say, we don't see eternal values at the horizon. Perfumery is lately being made with Iso E Super, Tonalid, Vertofix, epi hediones, Helional[a] and ethyl linalool with formulas that could eventually be made by a computer, that sell when launched but fail soon, necessitating the launch of new fragrances that will, most probably, also fail. In 1994 alone, we saw as many launchings as had previous occurred throughout the whole history of the industry! When there is no "heart," when there is no "art," the demanding word is "new, new, new," because heart and beauty are always sought, at least subjectively, by the society.

Lately I have frequently visited important perfumery shops, where I watch and listen to the customers. Their questions mainly are, "What has been recently launched? Can I smell it?" This search for new, new and new undoubtedly means failure, failure and failure for what has been done, because when we really love something, we are not so desperate for rapid change. We are pleased. We want to keep on enjoying our life and happiness based on our feelings, on our reflections, on our serenity.

Behind the sad reality of this search for the "new," one finds a whole aggressive world of marketing departments, evaluation boards and a strong sense of collective frustration. Are we promoting what is really good? In other words, what are we trying to market: master pieces of art or something false that the consumer will smell once deeply and reject as a bluff? Is the problem of failure in perfumery a marketing problem or a problem that comes from a wrong evaluation? If the evaluation and the fragrances are good, it there an environmental problem? Here I'm talking about the way the perfumery shops look with all the products packed like medicines, one beside the other. Are the good fragrances promoted with enough mystery and charm? Or is the problem based on the fact that the market has lost the sensitivity to appreciate beauty, and therefore everything will fail? We must find a sociological and philosophical answer since, perhaps, the response to these questions is complex and something that is rooted in the state of our society.

Social reality and the Classical Greeks: For many, many years, the "real life" for the ancient Greeks was the fulfillment of a social function. Mankind then, at the peak of its wisdom, served the community as a limb serves the body. This was the great ethic, dreamed and preached by all the philosophers that created the civilization known as Western Classicism and that later, after the death of Alexander the Great in 323 BC, was called Hellenism. This has been called the greatest civilization created by mankind. We can say that happiness and culture of a majority of the society were the real objectives of that beloved civilization. I still remember the thoughts of Protagoras, one of the greatest philosophers of that period and the real father of "moral relativism." He defined Western Classicism with these superb phrases:

Culture in our minds, Serenity in our hearts, Law in our conscience, Freedom at the level of moral freedom, Tenderness when feeling the Fine Arts and in the soul of sensitive people, a Motherland as a place where tolerance and plurality and wisdom reign...

And it was like this until the last years of Plato. Plato believed in mankind, dreamed of mankind and devoted all his efforts to save mankind from alienation, decline and destruction. He examined eternal questions as a drama and not as a demonstration while fleeing from dogmatic answers. Already tired in his last years, he wrote "The Laws" and "Timeus." They are known as his "Dialogues of Old Age." What had happened to that man who was once so full of illusions, who wanted to get men, women and gods (at this time understood as dialogue towards truth) close together, who wanted the whole society close to all the gods? What had happened to the same person that had written the "Socratic dialogues" as Io, Lyssos or Apology, and the "Doctrinal dialogues" as Fedo or The Republic, and the "Critical dialogues" as Parmenides or Sophistos? Where had all the flowers gone? Where had all the energies gone? Where had gone the dream to make out of the Man simply a Man, a reflective and wise person, a serene human being?

Those late "Dialogues of Old Age" represented the philosophical collapse of the old ideal, never fulfilled, that should have brought women and men close to perfection. This ideal is the very deep root and real longing of Western Classicism, our cradle, our cultural origins. We westerners all come from those philosophical and forgotten origins.

In those "Dialogues of Old Age," Plato has already lost hope. He distrusts the honesty and intelligence of those called to rule the society, those he named "custodians." "Who is going to custody the custodians?" he wrote. "Who will care for them not to corrupt themselves?" And after this unanswered and unresolved question, he just dreamed of a very little town, very, very small, isolated, very isolated and very, very far away, conducted under a very strict conservative thinking and totally free from external influ-

Iso E Super, Vertofix and Helional are trade names of International Flavors and Fragrances, New York, NY, USA. Tonalid is a registered trade name of PFW Aroma Chemicals, Barneveld, The Netherlands. Epi Hediones is a registered trade name of Firmenich, Geneva, Switzerland.

ences. It would be shared just by a few chosen close friends. For the first time in his life, with great sadness and resignation Plato abandoned society and mankind to get close to relatively few privileged friends.

One can predict here the weakening resolve of Athens in the Peloponnesian War, the decline of Greece, the failure of the real meaning of the Greek word *demos* in democracy, so artificially used today by those governing the world. And it is precisely in this Plato—disappointed, aged and sad—where the so-called Neoplatonic schools found their support. These Neoplatonic schools lasted during the long decline of the Roman Empire until the dignity of Hellenism was finally destroyed by Christian dogma. Neoplatonism was the philosophy of Hadrian, Antoninus Pius, Marcus Aurelius, Celsius, Maximus, Jullian the Apostate (the great young Roman Emperor, who was unfortunately assassinated when he was 33, and whose life has been so extraordinarily described by the American writer Gore Vidal). These and many other wise people did not trust freedom as it was trusted before. They did not trust vitality of mankind as it was trusted before. They did not feel the strong faith in mankind as before. Because its thinking was weak, Neoplatonism could not stop the forthcoming dogma that was already looming over the horizon.

Philosophy—born from astonishment and admiration of the beauty of the universe, according to Plato—split then into three main branches: Stoicism, Epicureanism and superstition. The one finally imposed at the end of the sad fourth century AD was, unfortunately, superstition.

There followed a long period of darkness and decline, a period quite close to ours for different reasons. Why should one think? What was the meaning of being cultured there? It was enough to obey, to follow the dogmatic answers brought by the new religion. It was a period of searching "divine lights" and "celestial answers," but it was not a time for examining what they really mean for a wise mankind. There was no search for the simple truth achieved through wisdom, sensitivity, beauty, freedom, justice and culture.

No growth of culture in today's progress: We always talk about progress without really knowing the meaning of real progress. Progress is not a quantitative increase of things or ideas. Instead, it is, according to the great Spanish philosopher Don José Ortega y Gasset, just the intensity with which we feel some principal and eternal mysteries of life, such as wisdom, culture, arts, beauty, sensitivity, freedom, justice, tenderness and love. Progress is a search for truthfulness, an elusive concept that demands hard work and lasts the whole lifetime. It is a search for glory without fearing the abyss. If we do not look for something higher and purer—if we just go anywhere as Edip the Blind, always, always around the sphinx—we'd have to say we have been defeated in this game called life and perhaps we've even forgotten the rules of the game.

Today, the star of our epoch is a technified and icy-frozen society that preaches peace while promoting aggressiveness; that talks about love and culture while provoking alienation and desolation; that de-humanizes women and men and objectifies them to such an extent that they are no longer persons and have become mere consumption objects.

Today, the forming of culture has been replaced by its opposite, indoctrination. Therefore, as I said in 1986, we live in a world close to desolation: desolation of the soul, of the spirit, of mystery, of human values. It is a world where even the goal to achieve happiness through reflection and serenity is viewed as "strange," where we are increasingly less free and less sensitive. Has it not been wisely said that only through full realization, freedom and human greatness we will reach real creativity and, therefore, understanding of the Fine Arts?

Today, living this empty and sad reality, who really cares for and who really recalls the act of creating?

Feelings and olfactive beauty: Recently, while travelling through the dusty south of the Arabic peninsula, I paused for a moment to think about the far away worlds of New York and Paris with their marketing departments, evaluation boards, and "briefings" handed over to exclusively ISO 9000 companies with a request "to bring an exclusive and radical new creation, to be made within 15 days, to be sensed and loved by everybody, that will spark the sex feeling of females and therefore a touch of androstenone is needed, priced between $80 and $100, evoking the delicacy of the best flowers ever imagined in the world..."

Meanwhile, far from that world, on the shores of the Sultanate of Oman I could smell the real and natural amber gris and feel its warmth, and deeply feel it. I know I still can go where opoponax, myrrh and silver frankincense grow. Traveling east, close to the Gardens of Shalimar, I still can smell the purity of real tuberose that so lavishly grows in so many places of India and Pakistan. I can go to the eastern Indian state of Orissa and feel the exoticism of the flowers of kewra. I can see the sandalwood trees mixed with forests of ooti to the south of Mysore. There also is the yellowish champa; I love to mix it with the natural attar of saffron while experiencing the beguiling scent of the real jasmine sampac used as a perfume by many Indian girls that place the flowers on their long hair every evening when an orange sunset can be seen.

Going west, I smell the white gardenia, so abundant on the slopes descending towards the Lebanese Mediterranean coast close to the old Phoenician town of Byblos.

I still can smell the best melatti in Hue (Vietnam) on the shores of the River of Perfumes. I can smell the best roses of India in Aligarh and those of Iran in Kashan. There, after a good lunch, the moisture of its magical distilled product, natural rosewater, can be enjoyed.

And after deep reflection, I wonder why millions of Indian girls are using every day, for generations and generations, motia, champa and gul hina flowers on their hair, flowers that have such a great diffusion. Is it because they are inexpensive? There are many inexpensive perfumes in India and none succeeds, while the intense flowers are widely used. Is it impossible to do what the flowers do? Why, in places like Lahore, Pakistan, do they use flowers of

tuberose as an air freshener and not any functional product launched with a multimillion dollar advertising campaign? Why, in Beirut, do many children from both Christian and Muslim sectors sell gardenias in the streets every early evening and people have bought them for years and years?

Why do we see this faithfulness to the smell of natural flowers and this rejection of so many fragrances launched with lavish advertisements? This is a question that I would like to see answered by those who launch fragrances so frequently. Is it because the users of natural flowers are poor and have not been "brain washed" by Western marketing? If this is the answer, we should start questioning the results of our "cultured civilization," because it would mean that it brings what I said it brings: aggressiveness and desolation. However, I think the answer is a different one: olfactive beauty that is captured by the spirit of people. Nothing else.

Here is another important question. Is it wise to continue diluting fragrances with something as unstable as ethyl alcohol when the resulting fragrances need so many preservatives to keep them fresh simply for a period of a few months? Wouldn't it be better to market simple, pure fragrances, as was traditional in the Orient, and teach the consumer that the perfume is what matters, and offer good, natural-smelling fragrances that would possibly be sensed differently?

Here is yet another area of questions. Don't our perfumeries look more and more like pharmacies? All the charm is gone. Shouldn't we promote good fragrances and offer them simply for what they are: an expression of art that comes from subjective internal feelings? Shouldn't we surround them with mystery, charm and exoticism, and offer them in places that encourage consumers to forget the sad reality I described and, instead, relax with a dream and a cup of delicious fruity tea while listening to quiet music and smelling and playing with many fragrances?

Driven by an internal necessity to smell the flowers, resins or woods of the world, and trying to perceive their magic, perhaps one day I will create in my laboratory—from where I see the brightness of the Mediterranean Catalonian seashore and from where I can feel how this sea changes its colors from silver to blue and from grey to pink—the perfume of my life. But even if I do, it will just be a very good perfume. It will not be the end of the world, as advertisements pretend when launching a new fragrance.

With all these impressions on my mind, I still can work during the nights full of stars or even when the sun is pleasantly warm, trying with my thousands of accords to combine this jewel coming from the research that I describe with passion. It's not on my mind to wonder whether I need to use bergamot oil without bergaptene or a maximum 0.01% of costus, only a trace of cinnamon, no sandalwood at all, no natural castoreum, but a blend of dihydro ambrate and p-ethylphenol, no rose oil, no cinnamic alcohol, no... And I still dream of expressing something felt without wondering too much if it will sell or not, although I know my creations sell in so many countries of the world.

No, we need sadly to realize that there definitely is not much "art" in our profession any more. Art is the expression of our most sublime feelings, through odors, colors, words or notes, without expecting anything in return for this expression. We can say that, perhaps, there is "design" in our world, by which I mean something that looks shallow and artificially beautiful, quickly made, for the sake to being quickly sold. Design creates fashions. Fashions, unlike arts, are volatile, ethereal, and go with the first blow of wind. The line between art and design is the border between truth and bluff. Our Western society is based mostly in artificial, false values that go with the first wind. If we do not return to solid values that will support our society and economies, we all, sooner or later, will feel the consequences of such a sad reality.

Reality can eventually change. However, if civilization keeps going in the direction it is going now, some of us will have to follow the way of Plato, or the way of Proust when he was describing his interior life without meaning to. We will still find haven in a small town, very, very small, isolated, very isolated and very, very far away, conducted under very strict conservative thinking and totally free from external influences, shared just by a few chosen close friends, where arts, emotions, wisdom, freedom and sensitivity will be simply the only demand.

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