

A Perfumer's Training

The Heart of the Art



Fragrance is

Fragrance is

- Perfume is a creation from mixture of fragrance ingredients that together create a harmonious blend.
- Perfume comes from sense of smell from Perfumer's memory & art.
- The term of perfume comes from the Latin "Per fumum" or "Pro fumum" that is, "through smoke" or "for smoke", supposed the oldest use of fragrance mixtures, as a religious offering of the smoke of incense

Fragrance Ingredients

The Language of Fragrance

| | |
|---------------------------|---|
| Adoxal | Sweet floral waxy rosy referred to as ozone like. |
| Alcohol C - 8 | Strong fresh, orange rose like waxy and sweet odor. |
| Alcohol C - 9 | Powerful oil floral fresh like, dilution - rosy. |
| Aldehyde C - 14 | Strong peach note. |
| Aldehyde C - 16 | Strawberry sweet fruity candy like. |
| Allyl Amyl Glycolate | Strong fruity pineapple |
| Alpha Damascone | Intensely fruity reminiscent of plums and roses. |
| Amyl Cinnamic Aldehyde | Herbaceous floral material suggestive of many types of flowers. |
| Amyl Salicylate | Sweet herbaceous green slightly floral |
| Anisyl Alcohol | Mildly floral sweet odor reminiscent of vanilla |
| Applinal | Strong, sweet with a warm woody balsamic background, apple. |
| Argumen Aldehyde | Floral aldehydic hyacinth type odor. |
| Aubepine | Intensely sweet floral odor reminiscent of hawthorne. |
| Benzaldehyde | Strong sweet odor of bitter almonds. |
| Benzophenone | Powdery geranium rose Like |
| Benzyl Acetate | Powerful thin sweet fresh fruity floral odor of jasmin & other flowers. |
| Benzyl Alcohol | Faint, non descript odor, rather sweet varies. |
| Benzyl Benzoate | Faintly sweet balsamic. |
| Benzyl Propionate | Fruity sweet. |
| Benzyl Salicylate | Very faint yet sweet and floral |
| Bergamot Eco Essence | A sweet fruity odor typical of the bergamot orange. |
| Birch Tar Oil | Powerful phenolic, tarry woody smoky, leathery. |
| Bois De Rose Oil | Floral odor reminiscent of rose orange. |
| Cashmeran | Diffusive musk. |
| Cedarwood Oil of Virginia | Oily woody almost sweet mild pleasant, cedar chest like odor. |
| Cinnamic Aldehyde | Warm spicy balsamic odor suggestive of cassia, cinnamon. |
| Citronellol Oil Coeur | Fresh rosy, floral rosy. |

Fragrance Ingredients - Natural

- **Natural:** *Obtained from Plants/ Expenssive. / About 200 items*

From Plants

Flowers: Jasmine, Rose, Hyacinth, Tuberose, Ylang-ylang, Orange Flower ..

Leaves: Peppermint, Geranium, Patchouli .

Peel: Lemon Lime Orange Grapefruit, Mandarin Bergamot .

Trees: Sandalwood, Cedarwood .

Fruits : Anise, Coriander, Nutmeg

Roots: Vertiver, Orris, .

Resin: Glabanum, Myrrh, Oribanum, Balsam

From Animals

Musk , Civet, Castoreum, Ambergris ...

How can we get the Natural Ingredients?

Expression: is used exclusively for obtaining citrus oil, which is easily damaged by heat- called Cold-pressed . Orange oil, Lemon oil, Bergamot oil, Mandarin oil, Grapefruit oil.

Extraction: is proceeded by which aromatic substances are drawn or leached out of the raw material by means of solvent(petroleum, hexane, ethanol .) Included Enfleurage.

Absolute or Concrete

Distillation: is in other words evaporation and subsequent condensation of liquid.

Essential Oil

Fragrance Ingredients - Chemical

- *Chemical:*

Aroma Chemicals can be produced from natural as well as synthetic raw materials. Obtained from Petroleum and Coal.

Cheap & Easy available

For examples, Aldehyde, Galaxolide, Iso E Super, Calone 1951.

Fragrance Visualization

Costing Out a Fragrance

The Formula - Converting Pounds into Kilos

100 Lbs. Divided by 2.2046 = 45.36 Divided by 1,000 = .0453

.0453 x Parts = Grams Per Item = 1,000 Parts

Pine Fragrance - All Purpose Cleaner

| Parts | Aroma | Price Per Pound | Raw Material Impact |
|-------|---------------------------|-----------------|---------------------|
| 291 | Pine Oil Yarmor 302 | 1.03 | .300 |
| 167 | Iso Bornyl Acetate | 1.35 | .225 |
| 39 | Alpha Pinene | 2.25 | .088 |
| 18 | Eucalyptol | 5.76 | .104 |
| 3 | Camphor Powder | 2.00 | .006 |
| 27 | Galaxolide 50 | 8.75 | .236 |
| 52 | Alpha Terpineol | 1.22 | .063 |
| 26 | Benzyl Salicylate | 4.05 | .105 |
| 24 | Benzyl Benzoate | 1.60 | .038 |
| 23 | Ionone Beta Pure | 17.10 | .393 |
| 3 | Patchwood | 1.60 | .038 |
| 11 | Vertenex | 2.45 | .026 |
| 34 | Di Ethyl Phthalate | .860 | .029 |
| 19 | Hexyl Cinnamic Aldehyde | 3.00 | .057 |
| 28 | Cedarwood Oil of Virginia | 6.20 | .174 |
| 1 | Piconia | 12.80 | .012 |
| 12 | Fir Needle Canadian | 10.75 | .132 |
| 17 | Coumarin | 7.50 | .128 |
| 20 | Santalex T - Sandela | 6.50 | .130 |
| 152 | Di Propylene Glycol | .64 | .097 |

33

Terpinyl Acetate

1.80

.033

1,000

\$ 2.408

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The Composition - Pine Fragrance

| | |
|-----|-------------------------------------|
| 291 | Pine Oil Yarmor 302 |
| 167 | Iso Bornyl Acetate |
| 39 | Alpha Pinene |
| 18 | Eucalyptol |
| 3 | Camphor Powder |
| 27 | Galaxolide 50 |
| 52 | Alpha Terpineol |
| 26 | Benzyl Salicylate |
| 24 | Benzyl Benzoate |
| 23 | Ionone Beta Pure |
| 3 | Patchwood - Pfw - Fragrance Contest |
| 11 | Vertenex |
| 34 | Di Ethyl Phthalate |
| 19 | Hexyl Cinnamic Aldehyde |
| 28 | Cedarwood Oil of Virginia |
| 1 | Piconia |
| 12 | Fir Needle Canadian |
| 17 | Coumarin |
| 20 | Santalex T - Sandela |
| 152 | Di Propylene Glycol |
| 36 | Terpinyl Acetate |

1,000



BOTTOM

Basic Fragrance Families

Basic Fragrance Families

- *Aldehydic*
- *Chypre*
- *Citrus*
- *Floral*
- *Fougere*
- *Oriental*
- *Spicy*
- *Gourmand*

- ***Citrus notes***  ***Citrus + Floral***
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Representative Ingredients

Natural : Lemon Oil, Bergamote, Lime

Chemical : Citral, Dihydro Myrcenol

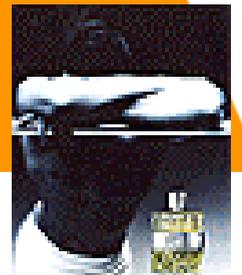
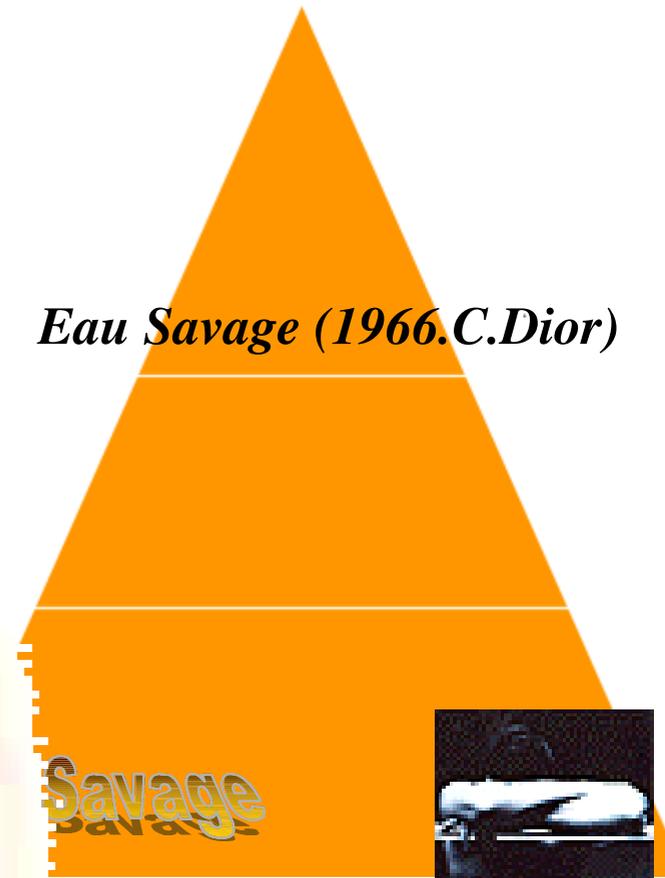
Representative

Fragrance

Line



Eau Savage (1966.C.Dior)



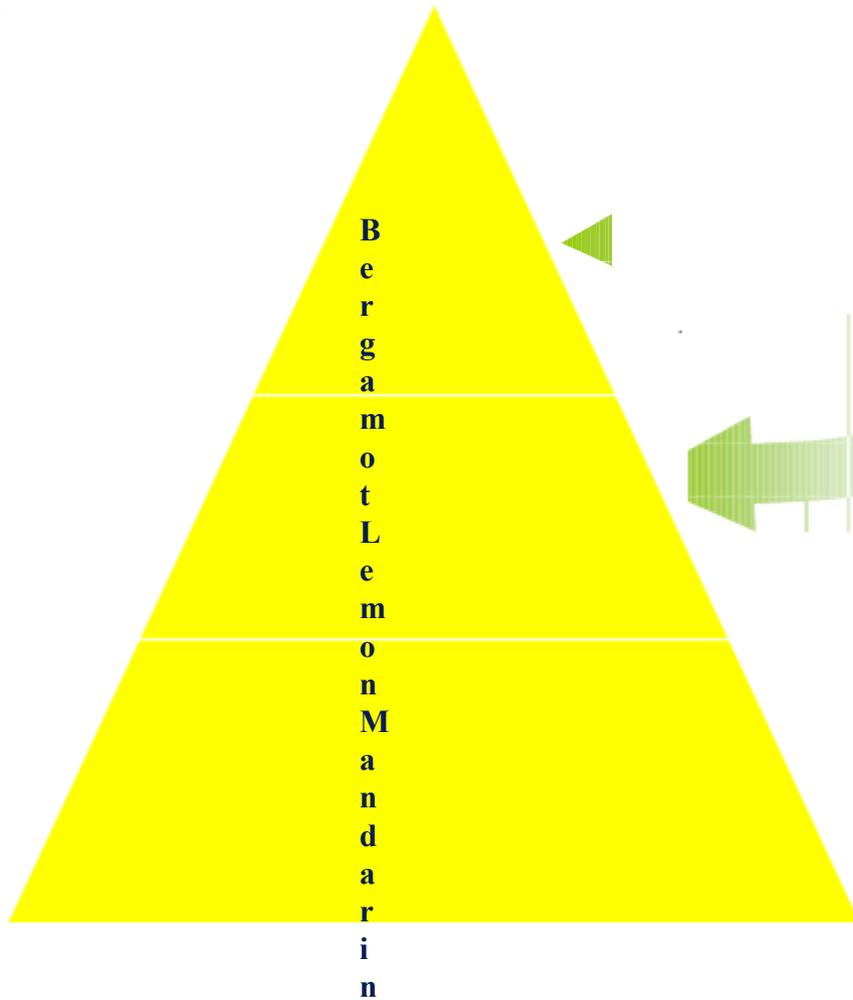
Bergamot Lemon Orange

**Rose Jasmine
Lily of Valley**

**Oakmoss Ambergris
Civet**

- *Citrus notes*

CK One



Dihydro
Myrcenol



Jasmin
Muguet

Amber
Musk
Sandalwood

Citrus Floral

Green

Amber

Woody Musk

• **Floral notes**



Floral + Floral

*Representative
Natural : Jasm
Ylang-Ylang,
Chemical : He
Benzyl Acetate*

*Representati
Fine Fragran*

*Joy (1935. Je
Patou)
Diorssimo*



JOY
Green



**Jasmine Rose
Ylang-Ylang Violet Muguet**

**Musk Sandalwood
Powdery**

Floral

Musk Woody Powdery

§

Chanel No. 5 Aldehydic notes



Floral + Aldehydic

Representative

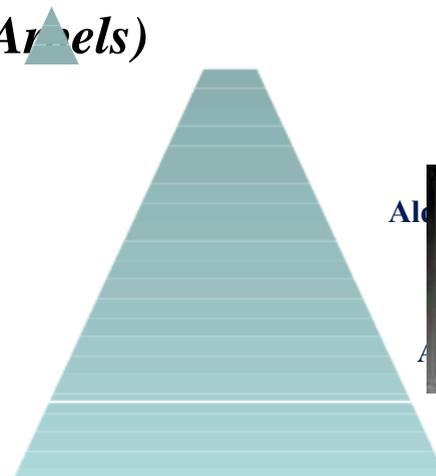
Ingredients

Natural: Not available

Chemical: Aldehyde C-11,

Aldehyde C-12.

Van Cleef & Arpels)



Aldehyde C-11 Ylang-Ylang

Carnation
Aldehyde C-12

a Sandalwood Musk



Floral

Aldehydic

Woody Powder

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• *Spicy notes*

Floral + Spicy

Representative Ingredients

*Natural: Clove Buds oil,
Pepper oil, Cinnamon oil.*

Carnation

*Chemical: Eugenol,
Cinnamic Aldehyde*

*Representative Fine
Fragrance*

L'air du Temps

(1948. Nina Ricci)

Fidji (1966. Guy

L'Arôme (1965. Laroche)

Egoist (1990. Chanel)

Bergamot Ylang-Ylang

**Carnation Jasmine Rose
Iris**

Sandalwood Cedarwood Musk

Floral



Spicy Floral

*Woody
Musk*

21

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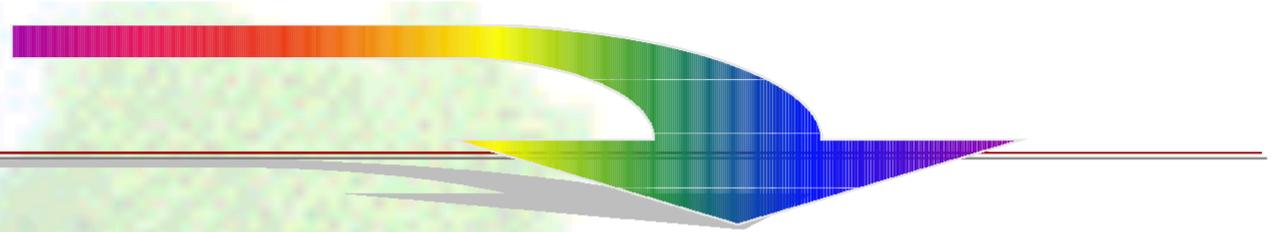


L'Air du temps



What is Chypre .?

• *Chypre notes*



Representative Ingredients

*Natural : Oak moss Abs. Vertiver,
Patchouli oil Galbanum
Cederwood, Sandalwood*

Chemical: Veramoss, Iso E Super.

Ysatis (1984. Givenchy)

Representative Fine Fragrance

Mitsouko (1919.

Guerlain) Miss Dior

(1947. Christian Dior

Coco (1984. Chanel)



**Citrus Green
Aldehyde**

**Floral (Jasmine, Rose,
Ylang)**

**Woody Mossy
Patchouli**

- *Chypre notes - Fine Fragrance*

COCO

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Galba
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Citrus Green
Aldehyde

Oriental

Floral

Amber

Woody Mossy

What is Oriental?

• *Oriental notes*

Representative Ingredients

~~*Natural: Vanilla, Tolu Balsam,
Mandarin, Cinnamon*~~

Chemical: Vanillin, Galaxolide.

*Jean Paul Gaultier (1993.
J.P. Gaultier)*

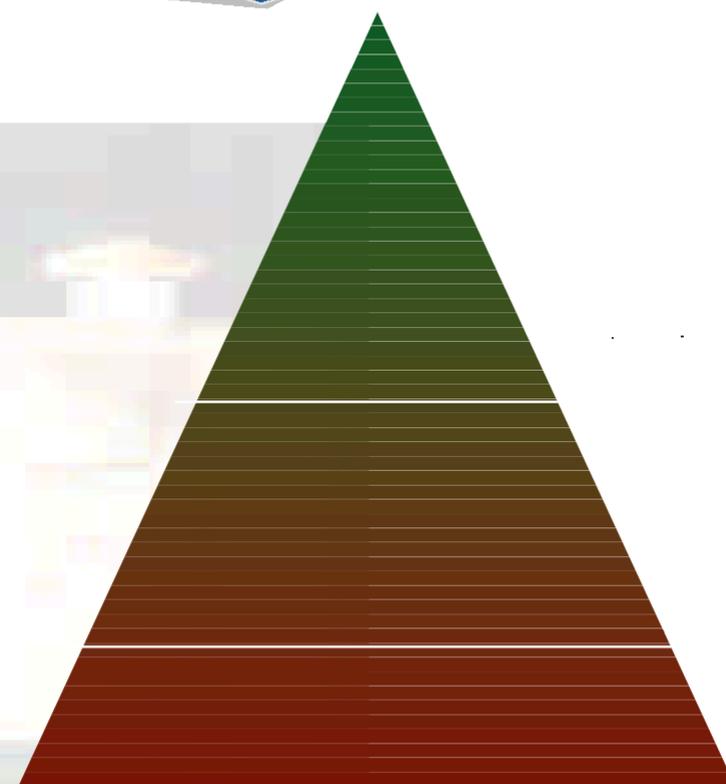
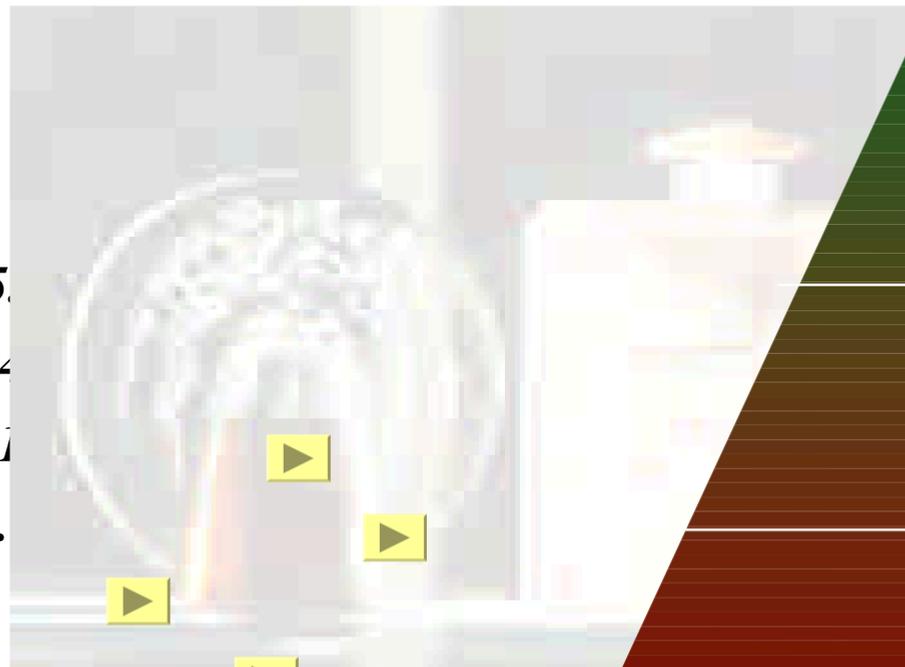
Representative

Shalimar (1925.

Obsession (1984.

Klein) Opium (1

Samsara (1989.



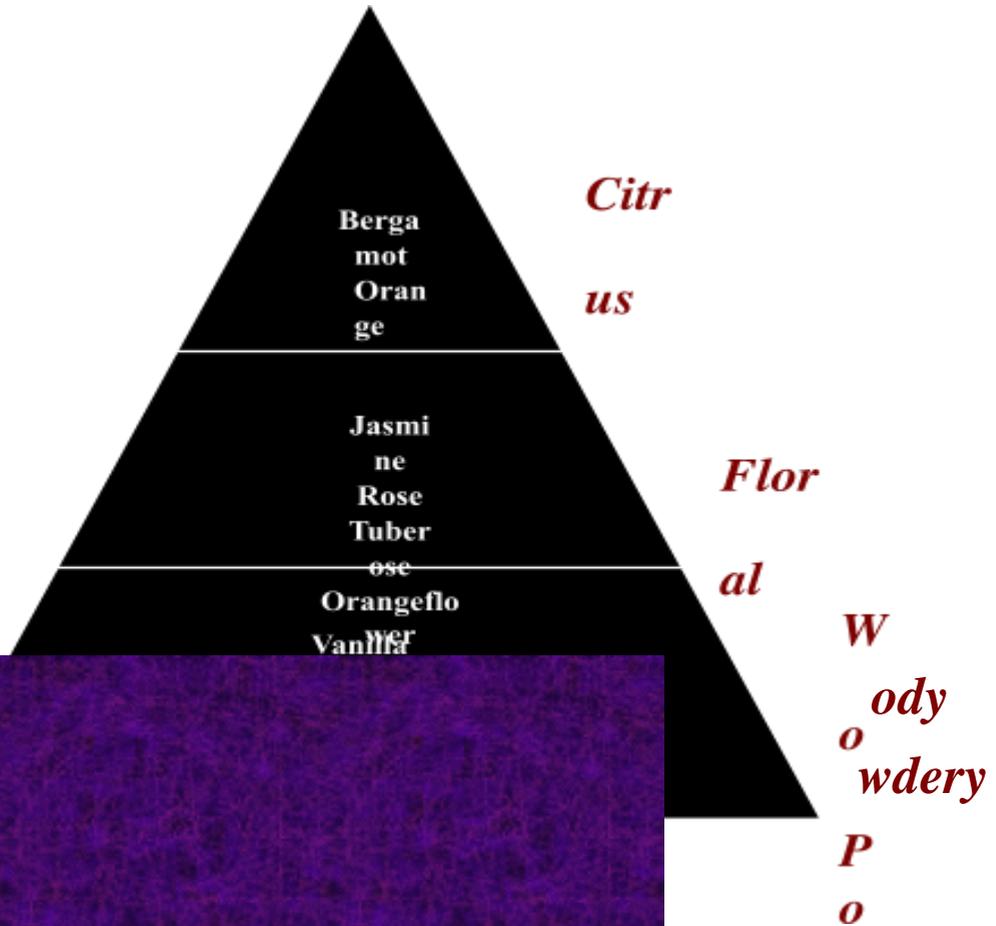
Citrus Mandarin
Lemon

Spicy(cinnamon..) Floral

Vanilla Abs.
Sweet Balsam

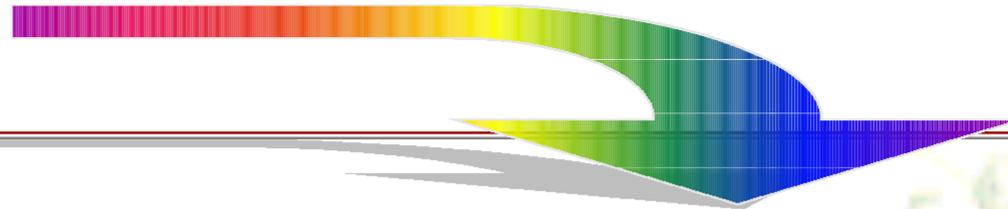
• *Oriental notes - Fine Fragrance*

Shir



What is Fougere?

• *Fougere notes*



Representative Ingredients

Natural: Lavender, Lavandin,

Eucalyptus Chemical: Lavender Spike

Oil, Carvone-L..

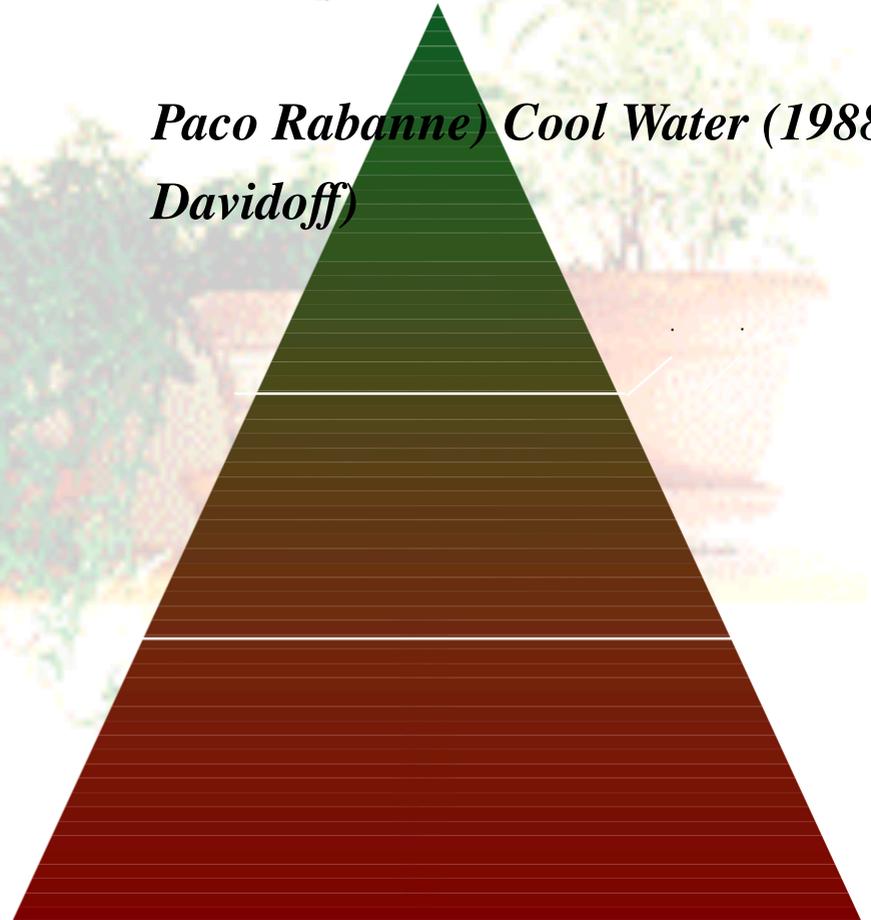
*Paco Rabanne) Cool Water (1988.
Davidoff)*

*Representative Fine
Fragrance Brut (1964.*

Faberge)

Drakkar Noir (1982. Guy

Laroche) Paco Rabanne (1973.



**Herbacious Bergamot
Lavender**

**Floral (Muguet, Geranium,
Carnation)**

**Powdery
Mossy Woody**

- *Fougere notes - Fine Fragrance*
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Herbaceous

Floral

Drakkar Noir



The Balanced Fragrance

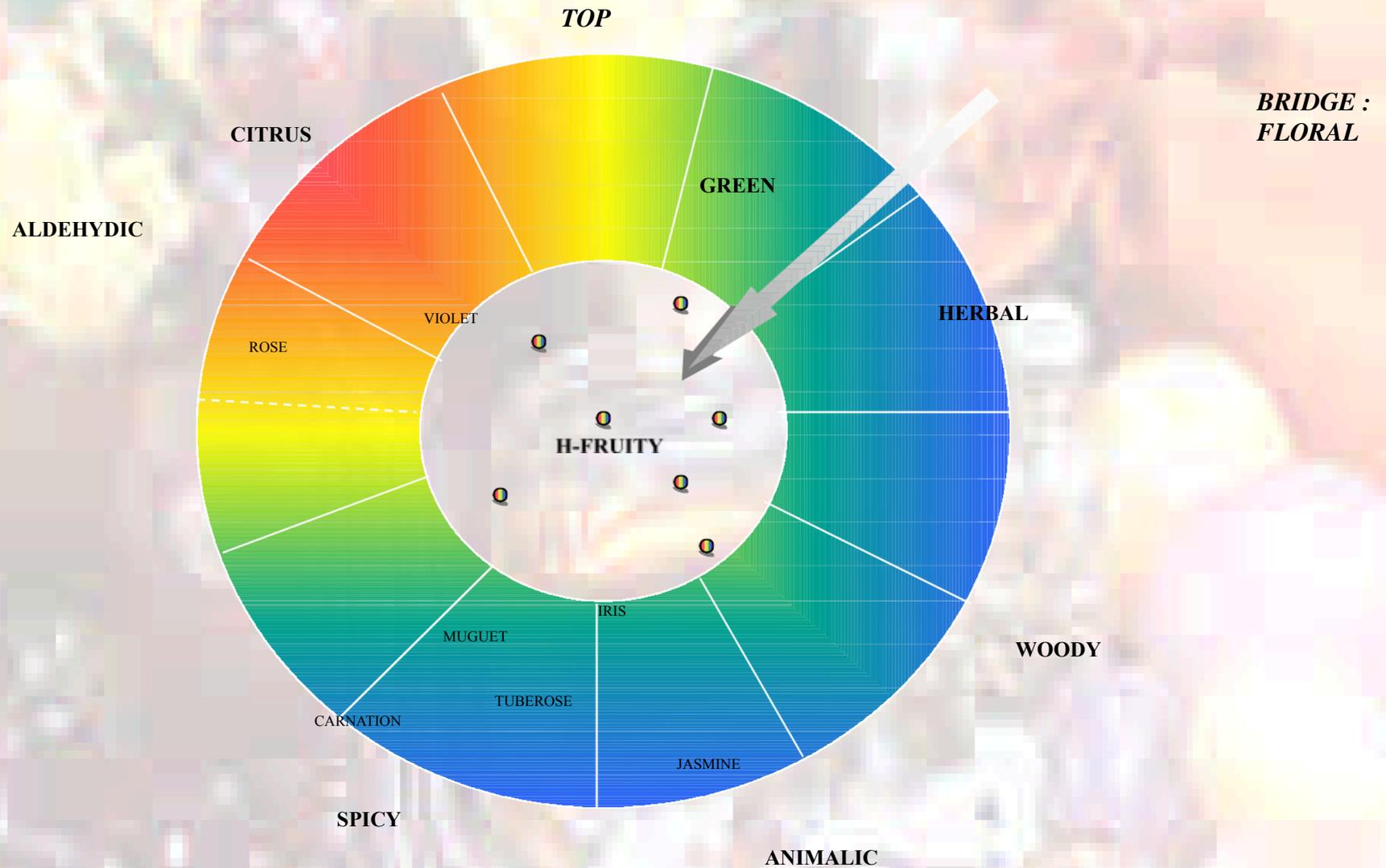
(IFRA)

*Advertising, Analytical, Chemistry,
Creative Directors, Customer Service,
Evaluation, Laboratory
Management, Marketing
Public Relations, Purchasing
Sales, Test Panels
& of course*

The Artist - Perfumer (Nose)



- *The Balanced fragrance for Evaluation*



POWDERY

MUSKY

BOTTOM

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Bibliography

- Ackerman, Diane. A Natural History of the Senses, 1990.
- Aftel, Mandy. Essences & Alchemy - A Book of Perfume, 2001.
- Arctander, Steffen. Perfume & Flavor Materials Of Natural Origin. 1960.
- Arctander, Steffen. Perfume & Flavor Chemicals, Volumes # 1 & 2.
- Bailey, L.J. Hortus, A Dictionary Of Horticulture Of North America. 1935.
- Bedoukian, Paul Dr. Perfumery & Flavoring Synthetics.
- Bedoukian, Paul Dr. Perfumery & Flavoring Materials, Articles, 1945 - 1992.
- Bedoukian Research. Distinctive Perfume & Flavor Ingredients.
- Black, Penny. The Book Of Potpourri, Fragrant Flower Mixes For The Home.
- Brechbill, Glen O. A Reference Book on Fragrance Ingredients. 2005
- Brechbill, Glen O. Fractional Steam Distillation Still, 2005
- Brechbill, Glen O. The Art of Fragrance Ingredients, Volume I, (A - H). 2007
- Brechbill, Glen O. The Art of Fragrance Ingredients, Volume II, (I - Z). 2007
- Brechbill, Glen O. The Art of Fragrance Ingredients - Addendum. 2008
- Brechbill, Glen O. Classifying Aroma Chemicals. 2007
- Brechbill, Glen O. Perfume Materials of France. 2007
- Brechbill, Glen O. Fragrance Ingredients of the World. 2006
- Brechbill, Glen O. Perfume "The Story of a Swindle." 2007
- Brechbill, Glen O. Perfume Specialties of Givaudan Quest. 2007
- Burfield, Tony. The Adulteration of Essential Oils, Globalnet.co.uk, London, 2003.
- Burr, Chandler. The Emperor of Scent, A Story of Perfume, & Obsession. 2002.
- Burr, Chandler. The Perfect Scent: A Year Inside the Scenes of the Perfume Industry in Paris & N.Y. 2008
- Bush Boake & Allen, Inc. Aroma & Terpene Products.

Calkin, Robert R. *Perfumery Practice & Principles*.
Chanel Parfums, *The Story of Coco Chanel*, 1999.
Clifford, Frank S. *Romance Of Perfume Lands*. 1881.
Cola, Felix. *Book of Perfumery*. 1947
Dana, Star W. *How To Know The Wild Flowers*. 1995.

Dictionary, *The American Heritage Dictionary Of The English Language*, 1971.
Dictionary, *Webster's Third New International Dictionary, Unabridged*.
Donato, Giuseppe & Siefried Monique. *The Fragrant Past: Perfumes of Cleopatra and Julius Ceasar* 1995.
Dorland, Gabrielle J. *Scents Appeal*.
Dorland, Rogers. *The Fragrance & Flavor Industry*. 1971.
Dragoco. *World Class Flavor Ingredients*.
Duff, Gail. *Natural Fragrances, Outdoor Scents For Indoor Use*.
Edwards, Michael. *Perfume Legends: French Feminine Fragrances*,
1998.
Fabulous Fragrances II, *A Guide to Prestige and Perfume For Women & Men*, 2001.
Firmenich, Inc. *Chemicals & Specialties*.
Fragrance Foundation. *Fragrance & Olfactory Dictionary & Directory*. 1981.
Fragrance Foundation. *The History, The Mystery, The Enjoyment of Fragrance*.
Fragrance Profiles. *Allured Publishers*.
French Society Of Perfumers. *Fragrance Classification Des Perfumes*.
Gaborit, Jean-Yves. *Perfumes - The Essences and Their Bottles*. 1988.
Gaines, Ann. *Coco Chanel*. 2004.
Genders, Roy. *Perfume Through The Ages*. 1972.
Gilchrist, Cherry. *The Elements Of Alchemy*.
Givaudan Fragrance Corporation. *Fragrance Ingredients*.
Google Search Engine. Google Inc., 1600 Amphitheatre Parkway, Mountain View, California
Grant, Junius. *Hackh's Chemical Dictionary*. 1944.
Groom, Nigel. *The Perfume Handbook*.

Gunther, Ernest Dr. The Essential Oils. Volumes # 1 & 2.
Haarmann & Reimer. Aroma Chemicals & Specialty Scents.
The H & R Books Of Perfume
1 The H & R Book Of Perfume.
2 Guide To Fragrance Ingredients.
3 Fragrance Guide.
Healy, Orla. Coty - The Brand of Visionary. 2004.
Hiscox, Gardner D. Henley's Twentieth Century Formulas, Recipes, & Processes. 1924.
International Flavors & Fragrances. Perfumers Compendium.
Irvine, Susan. Perfume - The Creation and Allure of Classic Fragrances. 1995.
Jessee, Jill. The Perfume Album. 1972.
Lawless, Julia. The Encyclopedia Of Essential Oils.
Lawrence, Brian Dr. The Journals Of Essential Oil Research. Volumes # 1 - 4.
Maron, Jan. Fabulous Fragrances II: A Guide to Prestige Perfumes for Men & Women. 2000.
Material Safety Data Sheets.
Mauer, Edward S. Perfumes & Their Production. 1958.
Miller, Alan R. The Magical & Ritual Use Of Aphrodisiacs.
Miller, Alan & Iona. The Magical & Ritual Use Of Herbs.
Miller, Alan & Iona. The Magical & Ritual Use Of Perfumes.
Moldenke, Harold & Alma. Plants Of The Bible. 1952.
Moran, Jan. Fabulous Fragrances - The Women's Guide To Prestige Perfumes. 1994.
Morris, Edwin T. The Story Of Perfume From Cleopatra To Chanel. 1984
Muller, Lamporsky. Perfume, Art, Science & Technology.
Naves, Mazuyer. Natural Perfume Materials. 1947.
Newman, Cathy, Kendrick Rob. The Art & Science of Scent. 1999.
Pickles, Sheila. Penhaligon's Scented Treasury Of Verse & Pose.
Pickles, Sheila. A Victorian Posy.
PFW Aroma Chemicals. Aroma Chemicals.
Poucher, W.A. Perfumes, Cosmetics & Soaps. Volumes # 1 - 3.

Quest International. A Compendium of Fragrance Ingredients.
Rimelle, Eugene. Book Of Perfumes. 1865.
Robertet. Natural Ingredients.
Scent, by Visionaire Publishing 2004.
Schab, Frank R. & Crowder, Robert G. Memory For Odors. 1995.
Swarthout, Doris. An Age Of Flowers, Sense & Sentiment In Victorian America.
Takasago. Aroma Chemical Compendium.
Theimer, Ernst T. Fragrance Chemistry, The Science Of The Sense Of Smell.
Thompson, C.J.S. The Mystery & Romance Of Alchemy & Pharmacy. 1932.
Thompson, C.J.S. The Mystery & Lure Of Perfume. 1927.
Todd, Pamela. Forget-Me-Not, A Floral Treasury, Sentiments & Plant Lore.
Toller, Dodd. Perfumery, The Psychology & Biology Of Fragrance.
Turin, Luca, Tania Sanchez. Perfumes: The Guide. 2008
Turin, Luca. The Secret of Scent: Adventures in Perfume & the Science of Scent. 2006
Verill, Hyatt A. Perfumes & Spices, History & Soaps, Preparation. 1940.
Worwood, Valerie A. The Complete Book Of Essential Oils On Aromatherapy.