Perfume manufacturers classify natural raw materials of plant origin according to their own specific system. The International Perfume Museum has chosen the classification system used by perfume designer Jean-Claude Ellena, creative director at Hermès perfumes. But there are others. Used as working tool by the perfumer and perfume technicians for designing a new composition, each system is based on a choice of raw materials that reflects different eras and graphic fashions.

Classifications of natural raw materials of plant origin

Certain authors have attempted to classify smells by botanical families, but this is a utopian undertaking. If we examine the cruciferae family, which is by far the most homogeneous because of its typical sulphured essential oils, we nevertheless find exceptions. Clove tree flowers, for example, have a pleasant rose-caryophyllene aroma that is nothing like the sulphurous aroma of the other cruciferae. Furthermore, simple botanical varieties, such as lilum, nymphaea, citrus and cinnamorum, can have scents that are totally different.

It would thus seem more logical to indicate only the customary botanical order and the families that supply aromatic plants, as Engler, Gildemeister and F. Hoffmann (1) have done. In Engler’s classification, which is not reproduced here, each aromatic plant is defined by:

- **Branch**
- **Class**
- **Order**
- **Family**
- **Type**
- **Species.**
Practical classification of smells by tonality or near tonality

In spite of the widespread use of perfumes among the ancient peoples of the Mediterranean basin and the many descriptions of their origins and therapeutic properties by naturalists and physicians, no one thought to compare them from an olfactory viewpoint.

Aristotle’s classification of smells, which was the reference until the time of Linnaeus, included only:
- Sweet
- Acid
- Austere
- Thick
- Acid
- Fetid

Basing his classification on the impression produced on the human body by a smell, the famous Swedish botanist Carl von Linné created seven groups:
- Fragrant: like jasmine, rose, tuberose or cassia;
- Aromatic: carnations, cloves, sweet bay, cherry laurel, etc.;
- Ambrosial: such as amber, musk, etc.;
- Garlic: pleasant for a few but disagreeable for most, including garlic, shallot and asafoetida;
- Fetid: like the goatish smell of satyrion or Chenopodium vulvaria, Androsoenum foetidum, etc.;
- Repulsive: recalling different poisonous solanaceae (hysocyamus, belladonna), poison hemlock, marigold, etc.;
- Nauseous: analogous to helleborus foetidus, Stopelia variegata, Phallus canis, etc.

Classification of smells by Karl Rimmel

<table>
<thead>
<tr>
<th>SERIES</th>
<th>TYPE</th>
<th>SECONDARY SMELLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rose-like</td>
<td>Rose</td>
<td>Geranium - eglantine - rosewood</td>
</tr>
<tr>
<td>Jasmine-like</td>
<td>Jasmine</td>
<td>Lily of the valley - ylang-ylang</td>
</tr>
<tr>
<td>Orange-like</td>
<td>Orange blossom</td>
<td>Acacia - mock orange - orange leaf</td>
</tr>
<tr>
<td>Tuberose-like</td>
<td>Tuberose</td>
<td>Lily - jonquil - narcissus - hyacinth</td>
</tr>
<tr>
<td>Violet-like</td>
<td>Violet</td>
<td>Iris - reseda - cassia</td>
</tr>
<tr>
<td>Balsamic</td>
<td>Vanilla</td>
<td>Balsam of Peru - tolu balsam - benzoin - storax - tonka bean - heliotrope</td>
</tr>
<tr>
<td>Spicy</td>
<td>Cinnamon</td>
<td>Cinnamon - nutmeg - musc - allspices</td>
</tr>
<tr>
<td>Caryophylllic</td>
<td>Clove</td>
<td>Carnation</td>
</tr>
<tr>
<td>Camphor-like</td>
<td>Camphor</td>
<td>Rosemary - patchouli</td>
</tr>
<tr>
<td>Sandalwood-like</td>
<td>Sandalwood</td>
<td>Vetiver - cedar</td>
</tr>
<tr>
<td>Citrusy</td>
<td>Lemon</td>
<td>Orange - bergamot - citron</td>
</tr>
<tr>
<td>Herbaceous</td>
<td>Lavender</td>
<td>Aspic - thyme - wild thyme - marjoram</td>
</tr>
<tr>
<td>Mint-like</td>
<td>Peppermint</td>
<td>Wild mint - basil - sage</td>
</tr>
<tr>
<td>Anise-like</td>
<td>Anise</td>
<td>Star anise - caraway - dill - fennel - coriander</td>
</tr>
<tr>
<td>Almond-like</td>
<td>Bitter almond</td>
<td>Laurel - walnut - nitrobenzene</td>
</tr>
<tr>
<td>Musky</td>
<td>Musk</td>
<td>Civet - abelmosk</td>
</tr>
<tr>
<td>Amber-like</td>
<td>Ambergris</td>
<td>Oak moss</td>
</tr>
<tr>
<td>Fruity</td>
<td>Peach</td>
<td>Apple - pineapple - quince</td>
</tr>
</tbody>
</table>

Another Classification by Smell

- Jasmine
- Orange blossom
- Tuberose or narcissus
- Lilac
- Honey
- True rose
- Rose, Geranium or Green rose
- Violet or Iris
- Lemon or Verbena
- Citrus peel
- Cinnamon
- Clove, Carnation and Nutmeg Caryophylllics
- Vanilla or Balsamic Vanilla
- Anise
- Umbelliferous with Cuminol and Cymene or with Linalool and Pinene
- Umbelliferous with Apiole combined with Alpha-Pinene
- Juniper and pepper
- Cedar
- Mint with Thymol, Cymene and Carvacrol
- Mint with Menthol
- Cineole or Eucalyptol
- Camphor or Borneol
- Rue, Boronia or Methyl Nonyl Ketone
- Dry grass
- Fresh greenery
- Mushroom
- Wintergreen Salicylates
- Cyanics and Bitter Almonds, Almond Pits, Hydrocyanic Acid Alone or combined with Benzaldehyde
- Sandalwood, Cedar and Vetiver
- Patchouli and Capery
- Opopanax
- Clover or Orchid
- Sulphurous
- Amber
- Animal Musk with Muscone, Plant Musk, Artificial Musk
- Skatols and Civet
- Diverse Fruits
- Pyrogetic
- Products with neutral or very weak smells

From: Cerbelaud, René; Formulaire de parfumerie (Perfume Formulas); Ed. René Cerbelaud, Paris, 1936, Vol. 1
**INTRODUCTION**

**How?**
The flower pickers fill their large fabric aprons before placing the petals in a large basket. The entire yield is then weighed.

A good flower picker harvests between 5 and 8 kg of rose petals per hour but rarely exceeds 3 kilos of jasmine in 6 hours. Each individual flower picker is paid according to the weight of the flowers she picks.

When were flowers picked?
Picking was a long, delicate, manual process. Flowers were picked during the dry seasons, roses in May and up jasmines up to mid-October. Morning is the ideal time for picking, before it becomes too hot and when the flowers are not fully open. The flowers are fresh and saturated with dew, which perceptibly increases the weight of the yield.

What happened to the yield?
To obtain the precious essences, plants were initially sorted by hand before being placed in extractors or stills, depending on the materials being processed and the desired outcome. Stills were set up in the countryside in order to start this process directly in the flower fields, as in the case of lavender. The essences obtained were then placed in drums known as «estagnons» prior to shipment. These various handling procedures required a large, skilled workforce.

**What was cultivated in Grasse?**
The main plants grown in Grasse were jasmine, rose and tuberose with broom and mimosa in Esterel. The rose fields at Pégomas, a small town next to Grasse, continue to supply Chanel to this day. Here, the flowers are still picked by hand just as they were long ago.

In 1930, 800 hectares of jasmine were planted in Grasse. Fifty years later, only 42 remain for the production of 100 tonnes.

Cultivation of the rose increased from 200 tonnes in 1845 to 500 tonnes in 1856.
Tracing these substances through trade and trends

Rome began to use musk and civet musk especially for therapeutic indications and as a sexual stimulant. For this reason, musk was linked to Venus in the pantheon of the gods. The European supply of animal materials began with the development of trade with Asia during the 15th century. During the perfume craze that gripped 17th century society, these materials yielded strong, long-lasting scents, which became fashionable alongside benzoin, storax, balm, nut grass, nutmeg and labdanum. The 18th century showed a preference for lighter notes as opposed to these fragrances, which were considered unpleasant. The continued use of musk in the treatment of certain ailments shored up their waning popularity in the perfumery sector.

Protected species

Today, synthetic products replace materials of animal origin. This is due not only to cost but also because the animals from which these substances are obtained are protected, as in the case of musk, or because the breeding or sampling techniques used are not compatible with current requirements for animals protection. Although products of animal origin are not prohibited, they are used only infrequently.

The main materials used are musk (or Tonkin Musk), civet musk, ambergris and castoreum.

The civet
is a carnivorous mammal that lives in Ethiopia and resembles the marten. It marks its territory with a fragrant, glandular secretion contained in an external pouch, which it loses.

Ambergris
is often confused with the yellow amber used in jewellery and ambrette, a seed that is also used in perfumery. Ambergris is produced by the sperm whale and is used to protect the animal’s stomach from injury caused by the sharp beaks of cuttlefish which are eaten by the whale. These secretions are naturally eliminated and can be found floating on the surface of the sea or washed up on the shores.

Musk
is the fragrant secretion of a gland approximately 5 cm long, which is found in the stomach of the male musk deer – a small member of the deer family originating from Eastern Asia. This pouch contains between 10 and 20 g of secretion. Musk deer, which do not produce musk in captivity, are protected by the Washington Convention.

Castoreum as its name suggests, comes from the beaver. It is a substance secreted from two anal glands situated under the animal’s flat, scaly tail. Castoreum is used to make the beaver’s fur impermeable and to mark its territory.
May the purest incense burn from your altars, earning the favour of your immortal gods. May an abundant libation be poured again when daylight flees or dawn appears once more.

Hesiod (8th-7th century B.C.), Theogony

The Orient - the Birthplace of Perfumery

Historians recognize the Far East as the birthplace of perfumery and acknowledge the major role played by Egypt in the development and influence of perfumes. The perfumes used in Rome and Athens were bought in this part of the world, where the mastery of numerous extraction techniques was unprecedented. The refinement of perfumed products in Egypt can be mainly attributed to the use of fragrances, especially in religion, as opposed to a natural wealth of raw materials. Furthermore, the Egyptians opened up numerous commercial routes in their quest to find ingredients.
A Look at History

Numerous extraction techniques

The priests had veritable laboratories in which to prepare their products. They obtained fragrances mainly using the expression technique. This involved extracting the sap from plants by twisting both ends of a bag containing the crushed fibres of leaves, buds, fruits, berries and rhizomes (roots). The juice was left to decant before extracting the oily part loaded with essences. Other techniques used during this era are described in the works of Theophrastes and Pliny.

A massive swing towards importing

Most of the fragrant substances used by Egyptian priests in the preparation of ointments, oils, cones, lozenges and products for fumigation came from abroad. The Middle East and the eastern Mediterranean provided styrax, nard, labdanum, saffron, terbenthene resin, incense and mastic. The by-products of cypress and juniper, gum ammoniac, galbanum and opoponax came from the northeast whilst East-Central and the Southeast Asia were the source of costus, cardamom and cinnamon. Lastly, myrrh or ânti, was imported from the South.

Materials guaranteeing immortality

Although the Egyptian elite used scented preparations for their personal hygiene, fragrant materials were mainly reserved for religious purposes. Incense was the ideal substance to accompany offerings to the gods: the disappearance of its smoke, which was released during the three daily ritual fumigations, confirmed that it was consumed by the gods, unlike food. The sacred virtues attributed to certain materials are best expressed in embalming. When wealthy people died, gum resin was used to treat the internal organs, which were stored in vases. Wine and palm oil were used to purify the abdominal cavity that was filled with myrrh, cinnamon and other aromatic substances. The body was then salted, washed after 70 days and wrapped in gum-coated strips of linen.

Seven unctions of oils and ointments were used in succession to produce the fragrant odour that transformed the deceased into a “perfumed” body, i.e. a god. Fumigations accompanied interment where aromatic substances, a crown and garlands of flowers were placed on the deceased.

Eye make-up for men and women

From the outset, the Egyptians paid particular attention to the eye, as can be seen on all pictorial representations from this era. Green powder or udju, obtained from malachite, was replaced by medesmet at the dawning of the Ancient Empire. This is still used today under the name of kohl. Produced from galena, a natural lead sulphide, it was more opaque and oilier. It was used as eye make-up by both men and women. An outline was broadly drawn towards the temples to accentuate the eyes. In addition to its cosmetic properties, it also protected the eyelid against the effects of the sun and possessed antiseptic properties.

Women’s make-up was not limited to the eyes, especially on celebration days. Their make-up look resembled a painting: red on the cheeks, white for the complexion, crimson on the lips, blue to highlight the veins and lastly red-orangeenna for the palms of the hands.
**Development of the art of bottling**

In all Greek towns, trade in fragrant materials became as important as the wine trade; wines were also perfumed. In Athens, there were not only perfume merchants, but a true perfume market known as the *myropôleion*. Trading areas like these called for the development of containers for both storage purposes and to highlight and differentiate the contents. This led to the appearance of higher quality containers for specific uses. **Aryballos, alabaster jars, lecythes, pitchers, askos and amphorae** were produced in large quantities. Here, a narrow-necked container enables drop-by-drop application and there, a wide, rounded aperture facilitates ointment application. Shapes varied: some were fashioned like the heads of soldiers or in the shape of animal bodies. A ceramic container indicated a product at the lower end of the market whilst porcelain and alabaster were reserved for perfumed oils of a superior quality. Thus, we owe the development of the art of bottling to the Greeks.

An odour craze gripped Ancient Greece that was fuelled by conquests in Asia, the discovery of the spice and herb trail, and body worship. The development of the secular use of perfumes resulted in the gradual desacralisation of fragrant materials and an increase in sophistication.
A Look at History

Antiquity - Greece

**Perfumed oil deemed indispensable for all**

The Greek beauty ideal was scented.

At a time when the body became an object of worship, regardless of gender, oil was used in the city and in the stadia, not only for its fragrance but also for the shiny effect it produced on the skin. Oils, which were applied to the thighs and breast, had an erotic connotation and were exchanged as gifts between lovers. Fragrances also played a crucial role in banquets. **Perfume burners, ewers filled with perfumed water, footbaths, crowns of fragrant flowers and leaves, and bottles of nard** all bore testimony to the hospitality of hosts.

This craze was not, however, without a certain sacred connotation, since perfume was believed to be the human equivalent of divine ambrosia. Although it did not confer immortality, it nonetheless brought mankind closer to the gods by giving them access to an immaterial dimension.

---

*Aryballos*

With a globular or piriform shape, narrow neck and wide rim.

*Aryballos-style lecythus*

This is a type of lecythus from the Classical era which combined the bulging shape of an aryballos with the neck of a lecythus.

*Lecythus*

Pitcher or jug with a more or less cylindrical body and a foot. This type of container was covered with a white kaolinite coating and was very widely used as a funeral vase in the 5th century B.C.

*Pyxis*

A box for makeup and ointments which was made in different shapes and had a lid.

*Diadumenos*

5th century B.C., Greece
Marble
National Archaeological Museum, Athens
© All rights reserved

*Alabaster*

Perfume vase with a cylindrical shape, narrow neck and wide rim.
A Look at History

Was the Roman taste for perfume one of the effects of the successive conquests of the Roman Empire? In maintaining commercial links with Egypt, Greece and the Far East, Rome had unhampered access to perfumed products. The use of perfume reached a greater highpoint here more than anywhere else up to this point. The divinities, of course, were not forgotten and a perfume was attributed to each of them: benzoin and cassia to Jupiter, costus to Saturn, aloe to Mars, musk to Juno and ambergris to Venus.

Although Rome was not especially innovative in terms of fragrance, it revolutionised perfume transportation with the use of blown glass.

Glass: inspiration and innovation from the Romans

The discovery of the glass-blowing technique during the 1st century B.C. marked a starting point for the rapid, large-scale, inexpensive production of standard glass. This material soon became accessible to all. Although delicate, it offered two essential advantages for “major consumer products” like perfume. It was light and did not become impregnated with the odour of the substance it contained. Having spread rapidly across the Mediterranean and the Middle East, this technique was improved by glass manufacturers in the Middle and Far East. Glass components were able to reach the melting point because of ovens that heated to higher temperatures.

This resulted in the manual production of objects that were not only malleable but also transparent. Metallic oxides were added to stain the glass. The Romans adopted and mastered these techniques. During the 2nd century A.D., 100 million items of glass were said to leave the Roman glass workshops every year to supply a population of 54 million people.

We owe to Rome the creation of new forms such as balsamic jars, small glass vials and other beautiful vials reserved for the wealthy classes.
ROMAN BEAUTY …
BEAUTY TIPS

Roman women devoted a great deal of
time to their appearance. The art of
bathing flourished, and baths were
scented with jasmine, violet or rose oil.
After drying with swan’s-down,
beautiful women massaged
themselves with ointments.

BEAUTY MSAKS
Extremely demanding
with regard to their
complexion, they
invented the beauty
mask. Women wore
it all night long, even
though the recipe is
rather unappetizing:
bean and dried snail
broth sprinkled with
olive or sesame oil.
Facial blemishes were
removed with calf
droppings mixed with
oil before applying
make-up. Finally, the
complexion was
lightened using white
lead.

EYELIDS AND EYEBROWS
Eye shadows were
typically a mixture of
saffron tincture, greasy
soot and powdered lead
galena. The eyebrows
were darkened by
coating them with ants’
eggs crushed with dead
flies...

HAIR CARE
Before being curled with
irons, hair was darkened
using a mixture of
mastic tree, maidenhead
fern and sage or
lightened with quince
and privet juice. The
final touches were
applied by the slave who
filled her mouth with
perfume before
applying it in a fine spray
over the hair of her
mistress.

HAIR REMOVAL
Facial, armpit, arm, leg
and even pubic hair
were removed with
substances containing
pitch (tar), resin and the
ashes of bats and
hedgehogs.
In the Middle Ages, because of a co-existence between religious austerity, which prohibited the secular use of perfume and the major epidemics, fragrant raw materials were greatly sought after but rarely used for their powers of seduction. The monks, crusaders and great explorers played a vital role in the development of perfumery between the 11th and 17th centuries – the former as guardians of the well-being of body and soul; the latter by bringing back herbs and spices to enrich the pharmacopoeia, culinary art and religious rites.

Apharmacopoeia based on magic and botany

During the Middle Ages, medicine was one of the branches of Physica – the basis of everything metaphysical. Doctors treated the soul, as well as the body. Science thus sought refuge in the monasteries and, with it, the ancestral knowledge of the power of herbs to cure illness.

The study of medicinal plants was the basis for pharmaceutical teaching based on the number four: four humours (blood, bile, lymph and black bile) corresponding to the four elements (water, air, earth and fire) and to the four states: wet, dry, cold and hot. Diseases occurred as a result of an imbalance between one or more of these humours.

Odours and contagion in the time of major epidemics

In 1348, the Black Death struck Europe. From that point on, epidemics would decimate the population up until the 18th century. The Faculty of Medicine in Paris recommended avoiding contact with sick people who had a foul smell, since they were suspected to be contagious carriers. Odour was suspected to such an extent that huge fires were lit to purify the air in the streets. In an attempt to keep diseases at bay as much as to cure them, doctors recommended the inhalation of rose and sandalwood, sweet gum balm and nutmeg. On coming into contact with patients, doctors would disinfect their mouths with wine flavoured with pepper, cinnamon, musk, clove and mace. The walls were sprayed with vinegar and in the rooms, the floor was strewn with aromatic plants and rosemary and juniper berries were burned. Eau de Darnas, which contained herbs, musk and civet musk, was considered an effective remedy against the plague.
The "jardin des simples" or medicinal herb garden

As far back as Charlemagne, horticulture was encouraged in convents and religious schools. The medicinal herb garden, which used plants as nature had intended, developed within the confines of monasteries and abbeys. In addition to the active substances mentioned in ancient manuscripts, plants were prescribed on the basis of their colour or shape according to the "signature theory." Since God had created analogies in nature, yellow plants, for instance, were indicative of bile of the same colour. Apothecaries and doctors therefore prescribed remedies made from these plants to treat liver disorders. Similarly, the shape of borage leaves was reminiscent of that of the lungs, whereas cumin seeds resembled the kidneys. The one treated chest disorders and the other possessed diuretic properties.

And then came the Renaissance

THE RENAISSANCE: DEMOCRATISATION AND REFINEMENT

Although only the nobility and the privileged few used perfumes during the Middle Ages, by the Renaissance the use of perfumes had spread to the rest of the population, who finally discovered the pleasure of fragrance. But bathing, which was a common practice during the Middle Ages, was abandoned and the fear of water as a source of infection became widespread. Therefore, up to the 18th century, aromatic substances replaced water and hygiene and outward appearance replaced personal cleanliness. Water was in short supply with limited quantities for washing and cleaning roads and drains.

NEW AROMAS FOR THE TABLE

According to medieval texts, the common diet was not especially varied, but there was an abundance of flavours. The tables of the wealthy were laden with spices such as pepper, cardamom, nutmeg, saffron, clove, coriander, thyme, mustard (either in the form of seeds or powdered), marjoram, mint and fennel. Used to season starchy foods (chickpeas and beans) and meats, they aided digestion. Although the medical function took precedence over culinary pleasure, the two goals were associated for a very long time.

THE CHURCH ADOPTS INCENSE AND RENOUNCES EMBALMING

Once Catholicism was recognised as a separate religion, the use of certain fragrant substances such as incense became inextricably linked with worship. This resin, which is widely used in different religions, delimits sacred ground.

Embalming, which was common practice during the first few centuries of our era, was discontinued in the early Middle Ages. The deceased was washed in a bath of fragrant plants and then wrapped in leather or a linen cloth. This ritual was revived by royalty in the 16th century.

THE BATTLE AGAINST FOUL-SMELLING ODOURS

From the 16th century on, a more or less general stench became widespread. Perfume fragrances fixed with alcohol now had to combat this foul odour. The battle was not without refinement. Around 1530, the fashion of perfumed gloves gained ground throughout Europe under the influence of Catherine de Medici. Other accessories were not overlooked: belts, doublets, underwear... everything was perfumed including wigs, which were powdered with violet or cyprus.

AROMATIC JEWELLERY

The Renaissance period saw the emergence of fragrant jewellery, such as sachets of red roses, aloes or sandalwood, which were inserted between garments. Bezoar, a bluish concretion found in the digestive organs of certain animals, was extremely popular because of its very strong odour. Combined with incense, it was believed to afford protection against poison.
The eighteenth century marked a transition between two epochs: one where perfume and fragrant materials were the main weapon against an evil-smelling atmosphere and one that rediscovered the benefits of water, bathing and pleasant smells. Until this time, perfume was meant to keep others at a distance, as well as to stave off the menace of possible contagion that this represented. Now, it became a means of bringing others closer. The era of seduction had begun.

As an accomplice to libertine flirtations, fragrance became a valued attribute, the trump card that would allow a dandy to reveal his soul. Volatile, subtle and voluptuous, perfume incarnated an ideal of the fleeting moment. It reflected the ephemeral quest of the hedonistic spirit. Refinement could at last be expressed, including in accessories, bottles – made of crystal and porcelain – and in grooming.

**Potpourri**
Always on the lookout for bad odours and fearful of the miasmas they were said to convey, the eighteenth century reached new heights of creativity in the art of making the air people breathed more pleasant, particularly indoors. In polite society, it was considered in good taste to affirm one’s “personality” through the smell of one’s house, as well as with one’s personal perfume. Potpourri, whose origins are unknown, fulfilled this role. Everyone had his or her recipe for preparing this fermented mix composed of a broad variety of petals, leaves, powders and different fragrant ingredients. It was so widely used that it gave its name to the container that held it. Originally in stone, it, too, came under the influence of the century’s quest for refinement and would eventually be made in the most precious of materials.
A Look at History

Eighteenth-century perfumes

A propitious time for bottles

The discovery of the secret of porcelain at Meissen in 1709 and of lead crystal in England in 1750, along with the existence of a demanding clientele, gave tremendous impetus to the fashion for bottles. Shapes were infinitely diverse, miniatures rivalled in precision, and mountings became increasingly luxurious. It was no longer enough to shine with one’s fragrance alone; the fragrance container must be just as elegant and refined.

Fragile femininity and vinaigrettes

In addition to gloves, people wore small containers of odorous substances like vinaigrette. A small sponge imbued with fragrant vinegar and elegantly hidden behind an openwork lattice enabled ladies to avoid smelling an unpleasant odour in the environment or bring them back to consciousness when the fashion of tightly laced bodices caused them to faint.

Perfumed gloves

In the century of perfume, no object was too modest to be scented, not even clothing accessories in leather. Accordingly, gloves, which were the quintessential aristocratic item symbolising the privilege of not having to work with one’s hands, were freed of a rather rancid odour that came from tanning. They were perfumed and offered by the dozens. They brought great wealth to Grasse. It should be noted that the master glove makers guild, which was officially recognized by Colbert in 1656, later gave birth to the perfumers guild.

A perfume a day under Louis XV

In order for Louis XIV to have earned the title of “sweetest-smelling king” (bestowed by none other than his personal perfumer, Sir Barbe), perfumes needed to have acquired an “odour of sanctity” at the court. Under Louis XV, courtiers greeted each day wearing a new scent. The olfactory revolution of the eighteenth century saw the animal notes of musk, civet and amber, so highly valued under Louis XIV, go out of style and be replaced by a fresh, floral wave.

Was it because Queen Marie-Antoinette liked the smell of roses, lilies, violets and carnations? Or was it because the perfumer’s palette was enriched with new raw materials imported by the East India Company? A number of technical revolutions should also be taken into account. Enfleurage on a frame finally enabled extracting the olfactory humour of flowers that were too fragile to be distilled. The finest and most concentrated essences, obtain by rectification, could be kept for up to two years. Thus, it was possible to be free of the tyranny of seasons. It was the triumph of floral fragrance.
Eighteenth century travelling accessories became increasingly popular excuses for luxury and refinement. There was no way comfort would be sacrificed when on the move! Everything was packed into travel cases and boxes, including perfumes. Some items were miniaturised, and everything was made with the finest workmanship using the most sophisticated materials. The manufacture of these items called for a wide variety of skills, including those of goldsmiths, cutlers, mirror manufacturers, and craftsmen in porcelain and wood.
Marie-Antoinette’s travel case

This is a rectangular case made from mahogany and copper. The inner surface of the lid served as a writing desk, and an oval plaque on the lid bears the monogram ORG in a crown. It was made by Jean-Philippe Palma, a table and cabinet maker in Paris during the reign of Louis XVI. The travel case had two levels and could store about fifty objects made from crystal, silver, ivory and ebony (toiletry bottles, boxes of powder and jars of pomade), as well as decorated porcelain table pieces made in Paris from 1786 onwards by Outrequin de Montarcy, whose patron was the Duke of Orléans.

Silver objects made in 1782 by master silversmith Jean-Pierre Charpentier (who died in 1806) include place settings, a mirror and all the essentials needed for a light meal, writing, sewing and personal hygiene and grooming.

In 1955, the Department of Decorative Arts at the Louvre Museum acquired a very similar travel case dating from around 1789. This was one of the travel cases ordered for the royal family’s journey to Varennes in June 1791.

Here are some of the items contained in the travel case:

- Ebony case
- Ivory case
- Mirror with a silver frame and handle in turned ivory
- Porcelain ointment jar
- Ebony box
- Silver box
- Porcelain spittoon
- Crystal medicine bottle, vermeil stopper cover; hand-written ink inscription: Sydenham Mild Drops
- Crystal bottle and stopper, vermeil stopper cover
- Crystal bottle and stopper, silver stopper cover, three-fourths filled with a methylene blue liquid. The bottles contained “smelling waters,” oils, dyes, liquors, etc.
- Crystal bottle and stopper, vermeil stopper cover
- Crystal bottle and stopper, silver stopper cover
- Crystal bottle with screw neck and silver stopper
- Silver sugar bowl
- Silver bouillon goulash with handle and knob in ebony
- Straight-sided porcelain cup
- Silver ewer
- Silver warmer for wine spirits
- Silver bed warmer with a turned ivory and ebony handle
- Porcelain teapot
- Silver basin
- Bell in chiselled silver
- Silver candleholder
- Silver mortar
- Seal in ebony and silver
- Silver powder box
- Silver chocolate pot
- Porcelain sugar bowl
- Silver coffee spoon
- Large silver spoon
- Porcelain saucers
- Metal tray
- Inside of lid used as a support for writing

Objects that are not visible:
- Chocolate skimmer in ebony and ivory
- Porcelain saucers
- Metal tray
A Look at History

Make-up to the present day, here and elsewhere

The art of make-up and marking has almost existed since the beginning of humanity. Certain codes became universal: red is widely used for the lips and cheeks even if the pallor of the complexion varies underneath. Black accentuates the eyes in most societies. The reasons for make-up styles differ over time and space, and the products vary depending on the raw materials available.

Colour on display during the 18th century

In 18th century Europe, make-up was rather demonstrative and toward the end of the Regency period denoted one’s status. Women used Eau de Mouron or Eau de Venise to revitalise their complexion. Then they applied Saturn white or ceruse (white lead) mixed with an ointment to conceal any blemishes. They highlighted cheekbones with carmine, brazilwood and sandalwood reds, or with alkanet, which they applied with a brush. Conversely, the sickly look became fashionable during the 19th century before returning to a more natural appearance towards the end of the 20th century.
A LOOK OF HISTORY

Indian woman
20th century, India © Corbis

DIFFERENT DESIGNS...

In India, the bindi is a dot painted on the forehead indicating status: red for married women in the north of the country or striped with three white lines for male worshippers of Shiva. According to New Caledonian traditions, a complexion reddened with lo’a indicates that a woman is looking for a husband. Make-up is also used to conceal the passage of time, and increasingly so in the western world. Sometimes it has other properties: the Fali ethnic group in Cameroon covers itself with palm oil and ochre for protection from the sun and insects and to benefit from the power associated with red. In North Africa, henna is applied to certain areas of a child’s body for good luck. Finally, in many societies, make-up forges a link with divinity.

The coded use of beauty spots

The wearing of beauty spots was the ultimate sign of transformation through make-up for elegant 18th century women. Made from sticking plaster, they accentuated the pallor of the skin and restored radiance to the face. They were so fashionable that they were widely used, even in convents. Whether in the shape of a crescent moon, a star or a flower, each one conveyed a different meaning depending on where it was placed: mischievous on the lips, impudent on the nose, majestic on the forehead, courteous on the cheek, cheerful on the laughter lines and discreet on the lower lip… But beware of any beauty spots near the eye as this implied a murderous mood!

Current European legislation

The use of chemical products is currently subject to regulations issued by the European Parliament and the Council of the European Union. The system for the registration, evaluation and authorisation of chemicals (REACH) aims to protect human health and the environment by prohibiting the use of hazardous chemical substances within the European Union. To do this, it places the burden of responsibility for proving the safety of the chemical products on the manufacturer, who must show that the substance used is not dangerous for humans and nature. The REACH system thus obliges manufacturers and importers to investigate the potential risks associated with new chemical compounds before the latter are launched on the market or used.

A CHANGE IN BASES

The bases used in face creams have changed since the 19th century: alkaline stearates, which were difficult to apply, were replaced by glycol stearates. Silicones subsequently brought smoothness and silkiness, and were easier to spread. As for powder, Teflon powders create an optical effect with a blurring that minimises skin relief. Alpha-hydroxy acids are used as anti-ageing treatments and vitamins, particularly vitamins A, B5 and E, have been incorporated in creams since 1995. This chemistry does not prevent certain traditional products such as aloe vera, ginkgo, acerola, annatto or even guarana from coming back with a vengeance in current make-up products.

... AND MATERIALS TOO

Highly toxic materials such as ceruse (white lead) cinnabar or even minium (red lead), were widely used as make-up by 18th century European women. In addition, substances were often extracted from plants to be used as make-up: turmeric was used in Oceania, roucou in Amazonia and New Guinea, henna in Islam countries and ochre wherever it was found.
A Look at History

Hygiene

HAMMAM,
MORE THAN MERE CLEANLINESS

“Cleanliness is next to godliness,” said the Prophet. Although the Turkish bath is annexed to the mosque where ablutions for Friday prayers are carried out, it is also a social venue for chatting and discussion. Because of its religious origin, the Turkish bath never mixes men and women.

FROM THE 16TH CENTURY

In the Mediterranean Basin, public baths underwent major development from the 16th century because of the Ottoman Empire’s civil architecture policy. In Istanbul, certain aristocratic houses already had a private Turkish bath. And, around 1660, the explorer Albertus Bobovius reported that inside the Topkapi Palace, the baths were used daily by the staff involved in running the imperial palace. They included pages, eunuchs, falconers and treasurers, among others.
The evening bath in Japan

In Japan, the daily bath must transcend physical cleanliness. Taken in the evening, it washes the body but also dispels any feelings of daytime bitterness. It soothes people and puts them in the right frame of mind for the next day.

For centuries, there have been three types of bath in Japan: the furo, private; the sento, public; and the onsen, which are natural outdoor hot springs where the Japanese gather on weekends to enjoy their beneficial water. The sento originates from the steam bath installations offered to the population by monks during the Edo period. During the second half of the 19th century, they became public and there were many of them. According to tradition, taking an early evening bath provided a break between work and rest. Sentō and furo are carried out according to the same procedures. Seated on a small stool in front of a tap, the Japanese sprinkle themselves with water using a small tub and, after washing; immerse themselves in steaming hot water just for the pure pleasure of it.

The sauna – over two thousand years old

The sauna, where no one washes, arrived in Finland from Russia over two thousand years ago. Its practice was associated with the worship of fire.

Like the Russian bath, the sauna was constructed near the main dwelling in a wooden cabin. A venue for hygiene and social exchange

During the era of Sultan Murad IV (17th century), each Istanbul district had its own Turkish bath. In terms of layout, it was organised along the lines of the Roman model. A waiting room overlooked a cloakroom, which then led to a temperate room reserved for massages and hair removal.

A warm room provided the transition to the hot room – a huge open area lit by daylight. It was a place for social exchange with benches and pools as well as quiet recesses where hair removal or shaving was carried out. There was generally a platform in the centre of the room for washing or having a massage.

The buckets (stil or tas) used to pour water on the body were also used by women to carry combs, scrubs, soap, oils, hair-removal products and towels, etc.

A meeting place for women

Although the hammam represents bathing as a consummate art, it is also synonymous with “taking time out.” In traditional Arab culture, it continues to weave powerful social ties. Small secrets are exchanged and marriages are planned. Since women consider the bath as a place of total relaxation, they bring along baskets of fruits and candies to enjoy.

Marriage preparations

During festivities linked with marriage, the Turkish bath welcomes the bride-to-be and female members of her family to prepare her body and dye her fingers, toes and heels with henna, thus protecting the visible extremities of the body with this precious powder laden with prophylactic properties.

A Look at History
In France ever since the time of Ambroise Paré, confusion tied to the promiscuity of public baths, which had become places of debauchery, resulted in their closing and led to the discrediting of water for personal hygiene. To stay clean, underwear was changed or a “dry” bath was taken. This consisted in rubbing the skin with lotions and vinegars.

Hygiene is rehabilitated in the homes and at public baths

The hygienist revolution, which originated in 18th century England, brought back the use of water. Bathing became fashionable. Louis XV had a sumptuous bathroom installed in Versailles in 1766. The fashion also spread to the streets and public baths were gradually opened. In Paris, establishments along the banks of the Seine offered swimming pools, cold baths, hot baths, warm baths and hair removal...
A Look at History

Hygiene

People start to brush their teeth

During the 17th century, people drank elixirs to “be beautiful inside” but still did not wash. Eau de la Reine de Hongrie, a rosemary distillate produced in Montpellier, was believed to confer health and beauty. During the 18th century, people cleaned their teeth with an American formulation containing burned bread or a preparation containing dragon’s blood, cinnamon and alum. The use of these powders did not become widespread, however, until the 19th century.

The craze for hair powder

A perfumed powdery wind blew across France from the end of the 17th century. In the 18th century, once hair had been backcombed and oiled, it was powdered on the landing to prevent the powder from entering an apartment. Hairstyles became increasingly extravagant. In the words of Madame Campan, the first lady-in-waiting to Marie Antoinette, “Hairstyles are so high that some women find it difficult to travel by carriage unless they put their head out the window.”

Anointing the skin

Moisturising the skin with creams and ointments developed along with refinement in personal care. Following a curative role in the Middle Ages and an obsession with seduction in the 18th century, perfumery became more diversified. Skin care products for men and women acquired increasing importance on dressing tables and, later, in bathrooms.
From the Middle Ages on, Grasse developed an enviable business sense and two activities – tanning and flower growing – which would make it the perfume capital of France. Before long, its reputation would spread even further.

During the 11th century, still a village
Grasse was not mentioned in texts until the mid 11th century when it was described as a fortified dwelling on a small volcanic summit, or puy. High above an ancient commercial thoroughfare, Grasse dominated the flat, open countryside, and ensured the safety of its inhabitants. This strategic aspect was coupled with the convenience of a source of water to the northeast that would condition economic development, in particular the settlement of tanners. During this time, traffic between Castellane and Nice abandoned the high road passing through the Roman metropolis of Vence and opted for the Grasse road. The primitive village comprising a lordly tower, a church and a few houses quickly expanded and spread over the hillside, protected by a defensive wall.
At the beginning of the industrial era, the perfumers in Grasse had to redefine their profession: would they make finished products or raw materials? Competition from Paris led them to choose the production and trading of raw materials. By 1850, the city's vocation had completely changed. From this point on, Grasse had a near monopoly on production and controlled the trade of natural products and essences used in perfumery.

**Between the 12th and 15th Centuries: The City Grows**

In the 12th century, Grasse, which had been an independent consulate since 1138, dealt directly with the towns of Genoa and Pisa. The village developed at the foot of the hill and to the north. A new settlement appeared around the market square. A second wall was constructed in the 13th century. The city was surrounded by a long rampart with gateways defended from the towers. At this time, the city's wealth was based on trading cloth, fur and leather. Grasse already benefited from an exceptional microclimate and substantial livestock, which allowed the town to specialise in tanning from the 14th century onwards.

Under the influence of this developing business, noble dwellings were constructed in the streets: on Rue de l’Oratoire, Rue Tracastel and Rue Mougins-Roquefort. The town limits continued to expand at the end of the Middle Ages. They took in the convents and the grain threshing areas, which were initially located on the outskirts of the city, the latter became the Place aux Aires.

**During the 17th Century: The Foundations for Perfumery Are Laid**

The 17th century was a beneficial period for the city. The middle classes prospered, the use of perfume developed and the demand for raw materials increased. This was undoubtedly the period when the cultivation of scented plants became established in Grasse. Benefiting from the microclimate and abundant water supply, jasmine, orange trees, roses, tuberose, cassis and other plants grown in southern Italy were cultivated here in the open fields. The fashion for perfumed gloves, which made full use of leather and fragrant plants, the town’s two major assets, contributed to further expansion. Private mansions were built along the main roads and at trading points. The surrounding countryside was dotted with several country houses, one of the finest examples of which is the Villa Fragonard. In 1684, the “Cours” square was added to the south of the city. New religious congregations settled in the city and the cathedral was expanded. Baroque religious art also appeared here.

**During the 18th Century: Perfumery Prevails Over Tanning**

In the early 18th century, perfumers separated from pharmacists and tanners. They began to form a homogeneous social and professional group in Grasse. In 1729, they were awarded official status as glove maker-perfumers, which they kept until the French Revolution.

**The Industrial Era Approaches**

At the beginning of the industrial era, the perfumers in Grasse had to redefine their profession: would they make finished products or raw materials? Competition from Paris led them to choose the production and trading of raw materials. By 1850, the city’s vocation had completely changed. From this point on, Grasse had a near monopoly on production and controlled the trade of natural products and essences used in perfumery.
The transition from a traditional approach to genuine modern industrial manufacturing occurred following the discovery of several processes at Grasse. They culminated in making the city the world capital of perfume.

**Essential know-how**

From 1853 on, a new process was used. It was based on the extraction of fragrant active substances, which were dissolved in ether, and brought about a revolution in perfumery. However, it was not until 1870 that the industrial production of benzene was sufficiently mastered (benzene was discovered in 1825 but its use is now prohibited). It thus became an affordable option producing a yield of suitable quality.

In 1873, Claude Roure, a perfumer from Grasse, used this new process to create concrete essences. His essences were widely acclaimed at the Vienna Exhibition and he was awarded a gold medal. In 1899, Léon Chiris was one of the first to apply this technology on an industrial scale. The process was developed and finally prevailed over enfleurage – a prohibitively expensive technique. Grasse industrialists also developed distillation by direct injection of steam toward the end of the 19th century. Until then, distillation had been carried out over an open flame that heated water in the boiler to the boiling point. This modernised approach saved time and provided regular heating, both of which were greatly appreciated.

In the years between the two World Wars, industry in Grasse also pioneered greater understanding of essential oils in particular and of natural products in general. Widely acclaimed chemists contributed to this body of knowledge, including Y.R. Naves and L.S. Glichitch, who carried out their research at the Chiris company.
From transformation to creation and formulation

A series of changes occurred after the Second World War when Grasse was cut off from both its overseas production sources and part of its clientele.

Like all European towns with an extensive, single industry, Grasse had to face new competition that challenged its monopoly.

Over the years, local flower growing had also become increasingly less profitable because of the combined impact of higher labour costs and pressure on land. Grasse underwent a significant change from a transformation industry to an industry of creation and formulation, in perfumery as well as in the food flavourings sector, which currently accounts for 50% of turnover in the Grasse industrial basin.

A flair for trading since the Middle Ages

Because of its capacity for trade, Grasse has always been a rich town. During the Middle Ages, local tanners were already obtaining skins from the Mediterranean Basin and local pharmacists were importing herbs from the Near East, Asia, North Africa and the Far East. Later, perfumers from the town would venture over land and sea to set up production units and sell their fragrant products around the world.

In the 19th century, the development of industry in Grasse went hand in hand with the globalisation of supply and the discovery of foreign markets. Thus, Roure became established in Central Europe, in particular in Russia, where he opened the House of Rallet in 1845.

Raw materials had been imported ever since the days of the so-called “Colonial Empire.” Companies in Grasse received raw materials from tropical countries such as Madagascar and the Comoro and Reunion Islands, as well as Mediterranean countries such as Tunisia, Morocco and Algeria, which supplied Chiris from 1836 onwards.

To obtain products consistent with their quality requirements, Grasse industrialists built local distillation and extraction plants. They continued this strategy for years and currently have branches around the globe.

Grasse benefits from the development of the French Riviera

Stimulated by the English desire to discover new territories, Grasse became a holiday resort in the 19th century. Its microclimate and mild winters soon won Grasse international acclaim as a “year-round” destination.

In the early 20th century, rest homes and sanatoriums were opened for numerous patients, who enjoyed the benefits of the winter sunshine in this region. These establishments were followed by hotels, casinos and theatres. Annual paid holidays, which were instituted in 1936, would create a summer season that followed the winter one.

The plant visit: taking advantage of local attractiveness

Queen Victoria’s visit to Grasse in 1891 sparked a new activity: plant visits. Combining the town’s touristic and industrial facets, these visits took commercial advantage of the town’s appeal.

The Fontaines Parfumées Pélissier-Aragon appears to be the first company to follow this trend. In the 19th century other companies like Fragonard and Galimard soon did the same, opening their doors to welcome visitors. A visit to today’s plants, however, is not nearly as poetic.
Traditional Grasse perfumeries are handed down from one generation to the next, and bonds are sealed between families through marriage. Management of the plant passes from the father to the eldest son as soon as the latter has gained sufficient experience or, if this is not feasible, to an authorised representative. The fact that businesses remain “within the family circle” has had a lasting impact on the social organisation of Grasse.

**FROM CHRISTMAS GIFTS TO A WORKERS’ COOPERATIVE**

In the 19th century, Grasse managers were held in high esteem by their staff. They created numerous charities, often through their wives, and provided assistance and facilities for employees and their families, ranging from a simple present at Christmas to a cooperative where groceries could be purchased at lower cost.
A Look at History

Grasse

Characteristic paternalism from the first industrial revolution

In Grasse, as elsewhere, paternalism characterised the first industrial revolution. Since public authorities refused to be involved in providing staff facilities, paternalistic companies therefore managed canteen services, retirement and medical care.

Whole families at the service of perfumery

All those who live in Grasse have a family member or close friend who either worked or is still working in the perfume industry. From the 18th century onwards, this business was so diversified that it provided employment for most of the population and for entire generations. Although the situation has now changed considerably, the perfume industry continues to employ over 3000 people in the Grasse Basin. By facilitating the transmission of know-how, the family recruitment system allows workers to be trained in such a way as to ensure high productivity and foster company loyalty.
Whereas in the 18th century Grasse was characterised by the transition from glove manufacturing to perfumery, the 19th century witnessed a change in this activity, which developed from an essentially craftsman-like approach to a powerful, industrial-scale business. From this point on, the town underwent a marked transformation. Going far beyond an initial focus on traditional craftsmanship, Grasse acquired the status of an industrial city. The various changes resulted in a significant modification of the urban landscape.

**Industrialists take over the convents**

After the French Revolution, perfumers who carried out their activity in the confined premises previously occupied by tanners, gradually acquired the monasteries and convents that had been repossessed from the clergy. They set up their businesses in more spacious surroundings on the outskirts of the town where they developed pioneering industrial techniques, thus improving both production and yield. Chiris set up business in the Capucins Convent, Foucard Niel in the Visitandines Convent, Hugues Aîné in the Saint-Jacques Hospital and Dominicains Convent, and Bruno Court in the Cordeliers Convent.
During the 19th century – installation of the first plants
The increasing success of perfumes generated greater demand for fresh raw materials of plant origin. The construction of irrigation channels would thus change the appearance of the countryside surrounding Grasse. Vines and olive trees were cut down, leaving room for the cultivation of flowers. Within a few years, the surrounding countryside was covered with fragrant blooms and processing plants were built. The first monumental chimneys appeared.

Until 1945, however, smaller factories and imposing plants existed side by side and developed simultaneously. The smaller urban plants filled the districts bordering the former town centre and the larger ones benefited from the vast expanses of agricultural land in the Grasse countryside, which provided an ideal location for sprawling industrial installations.

The Southern Factories
In the 18th century, the southern rampart of the town and the lower region of the Vallon du Rossignol housed numerous windmills, soap manufacturers, tinplate plants and perfumers. Starting in the second half of the 19th century, their presence was strengthened by the arrival in often pre-existing premises of companies like Muraour Frères (Brothers), V. Toussan, Bernard Escoffier, Pilar Frères, H. Euzière, Robertet & Cie, L. T. Piver and Hugues Frères.

Rarely exceeding more than two buildings, these plants resembled houses. Only the chimneys gave the clue to their real activity.

The plants expand
The new plants were characterised by their imposing size and, before long, by a succession of annexes. Architectural features specific to the industry, such as water tanks installed on tiered roofs, appeared towards the end of the 19th century. They became generalized after World War I and were built in distinct geographical regions. The greatest concentration of plants began at the foot of the “manufacturing district” and extended along the main roads as far as the Vallon de Rastigny. From north to south, we find the Bertrand Frères and Lautier Fils plants and the Chiris and Roure Bertrand sites, the Cavallier Frères, R. Sornin and Tombarel Frères plants on both sides of the Avenue de la Gare (currently known as Avenue Pierre Sémard), the Robertet plant and, finally, in a more easterly direction, the Payan-Bertrand and Schmoller and Bompard plants together with the Union Coopérative Florale and La Marigarde cooperatives.

A second, more off-centre group of buildings was built during the same period along Avenue Sainte Lorette and Boulevard Victor Hugo (where some factories were originally located), and included the Méro & Boyveau factory and the Sozio & Camilli and Albert & Laloue sites.

Peripheral annexes
From the 1920s onwards, companies that were by now well-established and prosperous built annexes that were located even further from the town (in the Grasse plain and Saint Claude District). This marked the last significant change prior to the creation of the current industrial zones.

From an industrial to a residential landscape
Today due to increasing foreign competition, the development of synthetic materials and housing pressure on the French Riviera, the cultivation of fragrant plants has virtually disappeared. The former fields have been transformed into residential areas. The Grasse countryside has changed from an agricultural to a residential environment surrounded by the vestiges of an industrial past.
All Kinds of Bottles

Room 15

Manufacture and Distribution

Glass and bottling
the birth of an art

It was not until the second half of the 19th century that perfumes were sold in specially designed bottles. This marked the beginning of the major perfume houses. Constant innovation in the perfume sector forged close links between the creator and the glassmaker.

Glass and its secrets

From Damascus in the early Middle Ages to Venice in the 16th century and to Bohemia in the 17th century, the history of glass and its luxury version, crystal, is a tale of secrecy, sudden developments and espionage... until crystal carved its niche in Eastern France - the home of great traditional crystal manufacturers, such as Saint-Louis, Baccarat, Daum and Lalique.

Before 1984, which saw the arrival of automatic bottle manufacturing plants, crystal had been produced entirely by hand. Many designs are still produced manually to this day.

From banal bottle to the art of bottle design

The packaging of perfumes as we know it today did not exist in the early 19th century. Essences were sold in simple vials that were poured into precious containers. Only the label identified the contents.

Which ambassador: the bottle or the label?

A new clientele gradually emerged. It purchased fragrances contained in moulded bottles produced by the newly created glass manufacturing industry. Masses of embossed blown-glass bottles were produced at low cost and in large quantities from 1824 onwards.

The label, which was the sole indicator of bottle contents, became increasingly complex and detailed, whereas the bottles themselves had a uniform appearance.
The Birth of an Art
As a reaction to these simply designed containers, Art Nouveau introduced a totally different style. Finally, in the 20th century, when the major fashion houses, couturiers and jewellers decided to launch their perfume brands, a genuine revolution occurred in the bottling sector. Bottling became an art. Lalique, the master glass maker, was the first to recognise the need for consistency between the bottle and its contents. Since then, the two components – the perfume and the bottle – have been inextricably linked, ensuring the eternal appeal of a perfume and serving as the witness to an era.

Eau de Cologne
In 1806, Jean-Marie Farina set up his perfume shop on the rue Saint-Honoré in Paris. Very soon the quality of his preparations, his business acumen and the support he received from the major names in perfume culminated in his success. Balzac once said of him that, “His reputation is such that he needs no advertising”. Napoleon and his mother and sisters adored Farina’s Eau de Senteur. The Emperor even announced that he enjoyed a Farina “canard” to help him relax: a sugar cube soaked in what had become a genuine elixir!

Orientalism
After a long period marked by a rather conventional olfactory landscape, Ambre Antique and Origan by Coty introduced the huge family of “amber” perfumes in 1905. These are now known as the “Orientals.” They were an intrinsic element in a wider movement characterised essentially by a passion for all things Egyptian, which pervaded the Parisian way of life and influenced the decorative arts during the twenties. The discovery of Tutankhamen’s tomb in 1922 only fuelled existing interest. Piver packaged The Valley of the Kings in an obelisk-shaped crystal column whilst in 1898, Lubin revamped his perfume, Enigma, which had already been associated with the image of the sphinx, in an Egyptian-style bottle.

Perfumes with a Historical Connotation
In the early 19th century, perfumers used bottles made from ordinary grey or greenish glass for inexpensive perfumes, but the public proved more difficult to win over and advertising was born. Merchants demanded glassware in original or amusing shapes. Hence some perfume vials were fashioned along the lines of the Emperor’s hat whilst others took on the appearance of the Vendôme Column, the Imperial Eagle or Napoleon himself.
Between the end of the Second Empire and the Great War, major scientific, technological and industrial progress revolutionised perfumery in terms of both the formulation and presentation of perfumes. It heralded the beginning of synthesis and new extraction and manufacturing processes.

**More notes at a more affordable price**

Organic synthesis revolutionised perfumery from 1874 onwards when a German scientist succeeded in obtaining the main ingredient of the vanilla pod using synthetic methods. This process first allowed imitating or enhancing natural fragrances and then provided perfumers with unprecedented notes that were later made available at less expensive prices.
From the workshop to large-scale production

In 1860, steam was used to mechanise production. Totalling 12 million francs in 1836, French production increased to 73 million francs by 1889. Perfumery began to develop into a genuine industry. The Grasse region confirmed its position as a centre for the production of raw materials for this rapidly expanding sector whilst Grasse industrialists introduced revolutionary raw material extraction techniques with a high yield.

Close managerial control

Prior to the 20th century, family-owned factories were usually run by an industrial manager with a strong personality who controlled every aspect of the business, from supplies to sales. As a genuine entrepreneur, he often travelled abroad to create numerous subsidiaries. Only his authorised representative – a man of experience who could be trusted – could take over the reins in his absence.

Unskilled workers, labourers and staff

The factory workforce included unskilled workers, labourers and staff. The first two categories of personnel were found in various production workshops (distillation unit, enfleurage room, etc.) and in marketing (packaging and shipping etc.) as well as in departments such as the linen room or carpentry workshop, where they were supervised by a foreman.

There were not many staff members: mainly the accountant and his assistant, sales representatives responsible for sales abroad and the handler-creator in charge of perfume design with the company head.
Because of its history and a concentration of powerful industrial establishments specialising in the production of aromatic raw materials, Grasse became the perfumery capital of the world. Since it was not always possible to automate the transformation of raw materials into an essence, know-how was necessarily passed on from one generation to the next. Today, although flowers are sometimes processed in their country of origin, the resulting products are transformed in Grasse. This is an extremely subtle and delicate step.

**Cold enfleurage**

This process, which is based on the ability of fats to absorb fragrant materials, was particularly suitable for fragile flowers such as jasmine or tuberose; a heat treatment would destroy their perfume. The process has now virtually disappeared and is no longer used except for rare compositions, since it requires a large workforce and meticulous attention to detail. It involves placing fresh flowers on glass frames coated with a prepared compound. Depending on the species used, the flowers are replaced every 3, 5 or 7 days over a 60-day period until the fat is saturated. One by one, the frames are then gently tapped to make the flowers fall off.

It takes approximately 100 days for each kilo of fat to become saturated with the required quantity of flowers; i.e., 2.5 kg for jasmine and 2 kg for tuberose. The fragrance-saturated fat is removed from the frame with a metal scraper. Thus perfumed and mixed with alcohol, it is used to produce pomades, which are incorporated as is into cosmetics or "exhausted" using alcohol to make the balm absolute used in perfumery. The flowers removed from the frame are then treated with petroleum ether. The product thus obtained is washed with alcohol to obtain a frame absolute.
Manufacture and Distribution

**Techniques**

**Distillation**

A still is used for distillation, which relies on water vapour to "draw out" most of the fragrant molecules. Unlike fresh flowers or leaves, which are loaded as is, the plant material is first prepared. Roots and herbs are cut into small pieces, dried plants and fruits are ground, seeds are crushed, and wood and rhizomes are ground. The products to be distilled are then loaded into the "boiler" over a perforated grid, with five times their weight in water. Water was brought to the boiling point by heating over an open flame until Grasse industrialists developed distillation by direct injection of steam. Steam that comes into contact with the extraction material is loaded with essence. This blend of water and essential oil is condensed inside a refrigerated condensing coil and then collected, at the condenser outlet, into essence jars, also known as "Florentine vases.”

Separation takes place automatically according to variation in density, since these two liquids are immiscible. The aromatic water obtained through this decanting process is used undiluted under names like rose water or orange blossom water. The essential oil yields vary depending on the plant and the part treated. Distillation times also differ: 450 kilos of sandalwood require 80 to 100 hours of distillation, whereas a mere half-hour will suffice to distil the same quantity of lavender.

Rectification distillation involves distilling an essential oil under reduced pressure. The product is removed from the essence jar at different times throughout distillation to produce, in the following order: a "head", a “heart” (the noble part) and a “tail.”

**Extraction using volatile solvents**

This process, which was first used in 1870 by Louis-Maximin Roure in Grasse to obtain concrete pomade essences which are freely soluble in alcohol, is based on the ability of certain volatile liquids to quickly remove the fragrance from flowers. The technique is simple: when flowers are washed repeatedly in an extractor, the solvent becomes loaded with their perfume. Once saturated, it passes into decanters where the water and various impurities are eliminated, and then into a concentrator, where it is partially distilled.

On the one hand, a perfumed, coloured, more-or-less solid material, known as the “concrete” is collected; on the other, there is the solvent, still laden with the perfume. The solvent is returned to the manufacturing cycle, whereas the concrete is mixed with alcohol, mashed, filtered, frozen between -12 °C and -15 °C, and then filtered to separate it from plant waxes that are non-soluble in alcohol. A final concentration, under reduced pressure, yields the pure essence known as the absolute. Gums (such as incense, storax and myrrh), which produce highly scented and much sought-after resinoids, are also processed in this way.

**Today**

Since 1986, a new technique enables obtaining extracts that have a fragrance which is very similar to that of the raw material and is free of organic solvents. It is known as the supercritical CO2 method.

How does it work? When pressurized, atmospheric carbon gas becomes a liquid. Subjected to pressure above 73.8 bars and a temperature higher than 31 °C, it changes into a supercritical state with excellent dissolution properties, which are used by perfumers. The equipment used generally includes an extractor, one or more separators, a high-pressure pump, a heat exchanger, a cold exchanger, a liquid-state solvent reserve, an external reservoir for storing liquid CO2 and pressure-regulating valves. The technique may vary, depending on whether solids or liquids are being processed.

**Diagram of Extraction with CO2**

© Patrick Pellerin
From advertising to marketing
Manufacturing and Distribution

The beginnings of marketing

As the perfume market developed and spread, the places where perfumes were sold and the means used to promote them were transformed.

From herbalists to department stores

At the start of the 19th century, the perfumer’s shop still competed with the herbalist and the apothecary. It also had to contend with the first large department stores, such as Le Bon marché or Les Grands magasins du Louvre which inspired Zola to write a novel: Au Bonheur des dames.

[...] At the top, there is a perfume shop. I must go there. This section, which was created just yesterday, is located next to the reading room. To avoid the crowd on the stairs, Madame Desforge suggested taking the elevator, but they were forced to give up the idea because of the queue in front of the machine. Finally, they arrived and passed in front of the public buffet, where the confusion was such that an inspector was obliged to temper appetites by letting the hungry clientele enter only in small groups. And from the buffet, the ladies began to smell the perfume section, a penetrating odour of closed sachets that embalmed the gallery. Visitors fought over a bar of soap, “Happiness” soap, the house speciality. On the glass counters and crystal shelving were rows of pomade and paste jars, boxes of powder and blushes, vials of oils and toilet water, while fine brushes and combs, scissors and pocket flasks filled a special cabinet.

The sales ladies had cleverly decorated the area by spreading out all their white porcelain jars, all their clear glass vials. The most ravishing touch was found at the centre: a silver fountain with a shepherdess standing on a mound of flowers, from which flowed a continuous trickle of violet water tinkling musically into a metal basin. An exquisite fragrance poured forth. As the ladies passed by, they dipped their handkerchiefs in it [...]
The label, long a herald of perfume

For many years, the label played a major role in promoting perfume. While bottles remained discreet or, as in the mid-nineteenth century, took on a more exuberant shape, although one that was not yet specific to a particular perfume house, the label provided the means to “sell” the precious liquid inside the container. Thus, for a long time talented illustrators and typographers used this small surface to evoke the scent of the perfume.

From advertising to posters

Although the early 19th century saw the birth of advertising and the poster, the true beginnings of advertising were at the end of the century, when a marketing revolution accompanied the industrial revolution, in particular for the range of perfumed products. Posters appeared around 1830, when some of the first perfume posters were printed. By 1870, communication techniques were no longer amateurish and were meant for an international market.

In France, communication was adapted to new display areas on walls and columns. Posters were printed for outdoor use in increasingly larger formats and were made to withstand rain.

Around 1910, perfume advertising diversified and the poster disappeared for nearly a century, yielding to press advertisements designed by famous illustrators.

Illustrators, then photographers, contribute to perfume

In the fifties, when perfume products became democratized, women became part of advertising visuals. This trend intensified in the sixties and seventies during the era of the great fashion photographers.

During this time, the advertising spot began to act as a relay for the press ad after the introduction of advertising to television in 1968. The poster came back in full force in the early eighties.
In Japan, the use of incense is steeped in ancestral traditions.

In Japan, Koh-do ("the way of incense"), follows rituals as refined as those used for tea ceremonies or floral art. Since the perfumed woods used in the ceremony had to be imported from India or Southeast Asia, they were rare, expensive products. They were introduced into Japan around the 6th century with the arrival of Buddhism.
Koh-do Ceremony

Around the second half of the 7th century, perfumed woods were used to scent the home (soradaki) and perfume clothing (ikō). For this purpose, incense (nerikō) was prepared by blending ground perfumed wood, aromatic products of animal origin and honey, according to a process of Chinese origin. Everyone had his or her own formula, which was jealously guarded. From this, a type of competition known as takimono-aware developed. The winner was the person who created the highest-quality mixture.

The incense ceremony became a social event with gambling games. Soon, however, lovers of perfume, literature and culture devoted themselves to raising standards by selecting the best aromatic woods and linking them to literary culture. Increasingly refined, these games culminated in the introduction of Koh-Do, “the way of incense,” which reached its peak during the Edo period (1600–1868). It fell into disuse until sparking enormous interest in recent years amongst the Japanese aristocracy.

Manufacture and Distribution

1 Box for holding small sticks 薬代 (やくたい) Fuda-Zutsu Box for holding the small sticks used for random drawing of the names of participants. Lacquered wood Inv. 04 30

2 Stick presentation box 札袋 (ふだづつ) Fuda-Zutsu Box for presenting and drawing the small sticks. Lacquered wood Inv. 04 30

3 Box for holding charcoal 香炭 (こうたん) Kō-Tadon Box containing a set of perfumed woods. Lacquered wood Inv. 04 30

4 Perfume burner 香炉 (こうろ) Kō-Ro Ash-covered charcoal is put on the bottom. Perfumed wood is placed on the mica plate lying on top of the pile of ashes. Ceramic Inv. 04 30, 04 31

5 Charcoal sticks 火筋 (きょうじ) Koji Sticks for covering the charcoal and drawing symbolic patterns on the ashes. Metal, ivory Inv. 04 30, 04 31

6 Spatula for arranging ashes 重香合 (じゅうこうごう) Kyō-Ji Sticks used to place perfumed wood on the mica plates. Ivory Inv. 04 30, 04 31

7 Rod 灰押 (はいおし) Kō-Saji The rod provides a duct through the ashes all the way to the charcoal. It also enables maintaining in place the envelope that contains the perfumed wood put into the perfume burner. The envelope is stuck on the point, which courtiers compared to a nightingale (Uguisu) on a branch.

Metal Inv. 04 30

8 Feathers 羽根 (はね) Hō-Bōki Used to remove traces of ash on the rim of the perfume burner. Metal, wood, feather Inv. 04 30

9 Mica tweezers 灰筋 (きょうじ) Ginō-De Plate Tweezers for placing the mica inside the perfume burner. Metal Inv. 04 30

10 Box of perfumed woods 香合 (こうごう) Kō-Saji Box containing a set of perfumed woods. Lacquered wood Inv. 04 30

11 Envelopes 香封 (こうふ) Kō-Zutsu Envelopes containing the perfumed woods chosen at the beginning of the ceremony. Lacquered wood Inv. 04 30

12 Trays 香盤 (こうば) Kō-Ban Trays for holding the perfumed woods. Gilded wood Inv. 04 30, 04 31

13 Sticks for perfumed woods 香筋 (きょうじ) Kyō-Ji Sticks used to place perfumed wood on the mica plates. Ivory Inv. 04 30, 04 31

14 Spoon for perfumed woods 香匙 (きょうさじ) Kō-Sa Chi Spoon for serving perfumed woods. Metal, ivory Inv. 04 30, 04 31

15 Box of perfumed woods 重香合 (じゅうこうごう) Jou-Kōgo Small, three-level box with a cover. Non-used mica plates (Ginō) are placed in the bottom level. The top level holds the mica plates and perfumed woods used. Lacquered wood Inv. 04 30

16 Game box and game tiles 香札 (こうふ) Kō-Fuda Tiles for proposing an answer after having smelled the perfumed mixture. Lacquered wood Inv. 04 30

17 Slips 紙札 (ししこのうち) Nanori-Gami These are nomisative answer slips that can be used instead of the game tiles (Kō-fuda). At the start of the ceremony, participants sign their name on the outside of the slip and write their answer on the inside.

18 Nanori-Gami tray 手授歴 (てきろう) Kō-Fuda-Bōn Gilded wood Inv. 04 30

19 Nanori-Gami envelopes 折授歴 (おりすえ) Kō-Fuda Envelopes containing the nomisative answer slips that can be used instead of the game tiles (Kō-fuda). At the start of the ceremony, participants sign their name on the outside of the slip and write their answer on the inside.

Japanese paper Inv. 04 30

20 Results sheet 記録紙 (きろくし) Kō-Bako Sheet used by the record keeper (Shippitsu) to note the proper answers, names of participants and date. Japanese paper Inv. 04 30

21 Table of combinations for the “Tale of Genji” 覚夢録 boxing (げんじこ うのず) The “Tale of Genji” is a legendary novel written around the year 1001 by Shikibu Murasaki, a courtier at the court of Heian. This novel tells about the adventures of Hikaru Genji, the emperor’s son. Participants in the game try to visualise the hero’s actions and scenes from the 54 chapters with the help of perfumes that are proposed to them.

Japanese paper Inv. 04 30

22 Kō box 香箱 (こうばこ) Kō-Bako Box for storing all the utensils needed for the Kō-Dō ceremony. Lacquered wood Inv. 04 30

23 Cup 香脍 (きょうばし) Kiroku-Shi Cup for insulating the game tiles (Kō-Fuda). Japanese paper Inv. 04 30

24 Game board mat 記録盆 (てきろくぼん) Kō-Bako Silk mat for protecting the game board. Cardboard Inv. 04 31

25 Game board mat 打数 (うちし) Uchi-Shiki Silk Inv. 04 31

Koh-Do TAKASAGO 20th century, Japan Inv. 04 30
Perfumes and traditions from elsewhere

Manufacture and Distribution

In Algeria, the fragrant necklace (ssxab) is one of the oldest traditional items of jewellery. It is composed of fragments of a scented paste that women make from clover, nutmeg, various fragrant seeds (qemha), civet musk, benzoin (resin of Styrax benzoin) or even ambergris. The paste composition varies from one region to the next, but the main goal is to obtain a perfume that lasts several years.

Its elegance depends on length, the number of silver patterns, the beauty of the coral and the scent of the qemha. It is reserved for married women, who wear it only in the presence of their husbands because of the aphrodisiac properties attributed to it.

In our era of globalisation, two movements currently exist side by side: respect for perfume-related ancestral traditions and a westernised approach that tends to harmonise the perfume offer in major cities. In this context, some regions of the world perpetuate specific olfactory preferences, which generate specific markets (in the Middle East and Japan, for instance). This section of the booklet is intended to provide an insight into the customs and traditions associated with the use of fragrance.

The art of extracting and blending fragrant substances has been practised by all civilisations, from China to Cordoba, from Ancient Greece and Rome to the Mogul Dynasty in India. The diversity of routes taken by this art shows that complex preparations are not always needed to produce a long-lasting fragrance.

In Sudan, it is not uncommon for a fireplace to be built into the kitchen floor for burning aromatic wood that permeates women’s skin and clothing. Essences are sometimes added to the wood, which, when burned, release a yellow smoke that colours the skin. In West Africa, chourai – a blend of fragrant bark – is used for fumigation. Fumigation can also have a purifying function. According to an Australian aboriginal tradition, holding a baby in the fragrant smoke protects its head and lungs.

The fragrant necklace in Algeria

In Algeria, the fragrant necklace (ssxab) is one of the oldest traditional items of jewellery. It is composed of fragments of a scented paste that women make from clover, nutmeg, various fragrant seeds (qemha), civet musk, benzoin (resin of Styrax benzoin) or even ambergris. The paste composition varies from one region to the next, but the main goal is to obtain a perfume that lasts several years.

Its elegance depends on length, the number of silver patterns, the beauty of the coral and the scent of the qemha. It is reserved for married women, who wear it only in the presence of their husbands because of the aphrodisiac properties attributed to it.

In our era of globalisation, two movements currently exist side by side: respect for perfume-related ancestral traditions and a westernised approach that tends to harmonise the perfume offer in major cities. In this context, some regions of the world perpetuate specific olfactory preferences, which generate specific markets (in the Middle East and Japan, for instance). This section of the booklet is intended to provide an insight into the customs and traditions associated with the use of fragrance.

The art of extracting and blending fragrant substances has been practised by all civilisations, from China to Cordoba, from Ancient Greece and Rome to the Mogul Dynasty in India. The diversity of routes taken by this art shows that complex preparations are not always needed to produce a long-lasting fragrance.

In our era of globalisation, two movements currently exist side by side: respect for perfume-related ancestral traditions and a westernised approach that tends to harmonise the perfume offer in major cities. In this context, some regions of the world perpetuate specific olfactory preferences, which generate specific markets (in the Middle East and Japan, for instance). This section of the booklet is intended to provide an insight into the customs and traditions associated with the use of fragrance.

The fragrant necklace in Algeria

In Algeria, the fragrant necklace (ssxab) is one of the oldest traditional items of jewellery. It is composed of fragments of a scented paste that women make from clover, nutmeg, various fragrant seeds (qemha), civet musk, benzoin (resin of Styrax benzoin) or even ambergris. The paste composition varies from one region to the next, but the main goal is to obtain a perfume that lasts several years.

Its elegance depends on length, the number of silver patterns, the beauty of the coral and the scent of the qemha. It is reserved for married women, who wear it only in the presence of their husbands because of the aphrodisiac properties attributed to it.

In our era of globalisation, two movements currently exist side by side: respect for perfume-related ancestral traditions and a westernised approach that tends to harmonise the perfume offer in major cities. In this context, some regions of the world perpetuate specific olfactory preferences, which generate specific markets (in the Middle East and Japan, for instance). This section of the booklet is intended to provide an insight into the customs and traditions associated with the use of fragrance.

The art of extracting and blending fragrant substances has been practised by all civilisations, from China to Cordoba, from Ancient Greece and Rome to the Mogul Dynasty in India. The diversity of routes taken by this art shows that complex preparations are not always needed to produce a long-lasting fragrance.

In our era of globalisation, two movements currently exist side by side: respect for perfume-related ancestral traditions and a westernised approach that tends to harmonise the perfume offer in major cities. In this context, some regions of the world perpetuate specific olfactory preferences, which generate specific markets (in the Middle East and Japan, for instance). This section of the booklet is intended to provide an insight into the customs and traditions associated with the use of fragrance.
Rubbed on the skin
In many parts of the world, plants are simply rubbed on the skin to release their smell. In the Philippines, women apply fragrant leaves to their armpits. In Cameroon, women do the same using half a lemon, and in Oceania, they use coconut milk or pulp.

Rubbed into the scalp
Not long ago, women in the Near East wove fragments of myrrh into their braids. Vietnamese women follow the same tradition with pieces of ginger or vetiver, whilst in Madagascar, vanilla pods or telomio flowers are used.

Piercing the body
Roots, leaves or flowers may be pierced through the body to perfume it: Pigmy women pierce their earlobes and the Mayas of Mexico insert small pieces of fragrant wood into the nasal septum. In North Africa it is not unusual for men to place sprigs of mint in their nostrils and for women to pierce them through the outer rim of their ear.

Worn like a jewel
In the Pacific, the flowers of the frangipani tree, jasmine flowers and the leaves of the false gardenia and lemon grass are often worn in a crown placed on the head or woven into bracelets and necklaces. The Papuans wear bracelets of bark to hold moss or leaves next to their skin, whilst in the Brazilian forest, the Yanomamis customarily place necklaces made from fragrant seeds around the necks of children.

Small fragrant bundles
Fragrant plants are also be carried in small sachets worn on the body. In some parts of North Africa, the sachets are made from a knotted cloth and attached to the belt or hooked on the clothing. Some women still rub their armpits with powdered lime and the alum that it contains. The Maori tradition in New Zealand places aromatic herbs in small sachets.

Liquid perfumes
Since many oils, such as those from coconuts, the fruit of the oil palm tree or whitish henna flowers, are naturally perfumed, they are used pure. Many people, however, have discovered that oil is easily impregnated by nearby odours. Thus, they intensify the oil’s natural aroma by infusing it with various aromatic ingredients.

In Oceania, for instance, cocoa oil is used to perfume the skin. This is known as monoï in Tahiti when it is perfumed with tiare flowers. In the Fiji Islands, cocoa flavourings are blended with those of sandalwood. Palm oil, which is widely used in Africa, has provided a base for perfumed ointments since the dawn of time. In Sudan, it is still flavoured by marinating it with resins, incense wood, flowers or spices.

Bottle and case
Early 20th century, Bombay
Glass, wood, paper
Inv. 87 322

Kumu Titi made with different flowers from fragrant plants
20th century, Ua Pou, Marquesas Islands
© P. Ottino-Garanger
The growing importance of labels at the start of the 20th century led to a certain uniformity in glass containers that would continue until Art Nouveau research brought about a stunning renewal of shapes.

This trend met with resounding success at a time when perfume was becoming democratised. It was characterised by an abundance of ornamentation, an enhancement of nature, a love of asymmetry, a taste for Oriental and Japanese designs, curved lines representing a new cult of the feminine and systematic adoption of the arabesque – a symbol of Eastern and Far Eastern spirituality. **Guimard**, an architect, sculptor and interior designer, and Lalique were its leading creators. The 1900 World’s Fair in Paris was the occasion for unveiling Guimard’s design for the perfumer Millot. It was a moulded glass bottle with sinuous, asymmetrical lines and an entirely novel appearance. A few years later, **Lalique** joined forces with **François Coty**, who greatly modified the traditional perfume approach (see inset). Art deco developed later in reaction to the baroque, lyrical shapes of Art Nouveau, giving rise to streamlined, somewhat geometrical models.
**Coty-Lalique: An Exceptional Partnership**

As far back as 1907 with L’effleurt, perfumer François Coty collaborated with jeweller-glass maker René Lalique. He completely revamped the design of the bottle, using it for high-quality perfumes, the cost of which was low enough to be within everyone’s reach.

The research and work of René Lalique in the glass sector led him to discover a technique whereby work of a high artistic quality could be produced using mechanical processes. By reducing the cost of luxury glass in this way, Lalique made such products widely affordable.

Won over by his designs, Coty proposed that René Lalique devote his technical mastery and talent to the perfume industry in order to set in motion, according to Coty, “a great business venture, the likes of which the world has never seen”.

Through the artist’s skill and inspiration, the bottles, which were produced on an industrial scale, became real works of art. This success story considerably exceeded even Coty’s expectations. The two men had undertaken a technological and commercial revolution, whose impact is still felt today.
The 19th and early 20th centuries marked the beginning of chemical research applied to perfume. Small research organisations were already in existence but it was still not possible to speak of research and development. The laboratories of the time brought together a number of different skills.

The turning point of the 1960s
The sixties marked a turning point with the democratisation of universities and greater access to advanced studies. The Roure Research Centre with Paul Teisseire was created at this time, and the Lautier Laboratory of Applied Chemistry was opened. Authentic fundamental research was carried out in Grasse during this period.

The advent of R & D
Today, perfume plants feature numerous services, including Research and Development, which focus on new perfume products, innovative extraction methods, biotechnology and new compounds. They also provide valuable data to Quality Control departments, perfumers, chemists specialising in aromatic compounds, appraisers and others.

The analysis of odours using headspace technology
The term “headspace” refers to a technique used to capture the most volatile ingredients of fragrant materials. This process involves passing an odourless gas over the plant to pick up its fragrance molecules. These molecules are then concentrated and trapped in an appropriate adsorbent, such as active charcoal or an organic polymer. The fragrant molecules thus obtained are analysed and identified in the laboratory using chromatography and mass spectrometry, which allows the subsequent reproduction of the smell of the flower or fruit. The headspace technique can be used, for instance, to produce a high-quality fragrance concentrate from cut lilac flowers that closely resembles the scent of the living flower. The advantage of this method lies in the fact that it can be applied anywhere, particularly outdoors, and does not damage plants. This makes it easier to work with rare or protected species.
Basic research contracts with universities
The trend in favour of development and the demand for research skills and resources led leading industrialists to seek contracts with universities in order to carry out basic research programmes rather than undertake these programmes within the companies, especially since they generally belonged to international groups. Each site was, therefore, organised around specific skills in order to rationalise processes and optimise profitability.

A strong, environmentally friendly commitment
In an era of sustainable development, the Grasse heritage must be considered from the environmental point of view. Cultural and social aspects must not be overlooked, as well as economic impact, safety (in terms of risk to health and the environment) and ecology (in terms of the relationship between nature, the air, soil and water and associated eco-engineering). Companies in Grasse are also committed to implementing an Environmental Management System, which was awarded ISO 14001 certification. This international standard is based on the key principles of environmental protection, continuous improvement in environmental performance and compliance with current legislation.

The advent of synthesis and changes in plant laboratory processes
The advent of industrial organic synthesis, using petroleum and its derivatives, provided perfumers with substances at extremely interesting prices. In 1874, German scientist Wilhelm Haarmann reproduced the main component of the vanilla pod using coniferin from the spruce tree – heralding the advent of vanillin. Coumarin (1878), ionones, methylvionones and nitrated musks soon followed (1888).

Houbigant and Guerlain pave the way
Coumarin, a synthetic material, was first used in perfume composition in Fougère Royale, by Houbigant in 1882, but synthetic products were still not widely accepted at that time. The latter did not come into their own until 1889 when Jicky was launched by Guerlain. Vanillin, which was combined with natural products, namely civet musk and bergamot orange, was added to coumarin.

Later, partial or total replacement
It took several decades for the changes to have a significant impact – the industry needed time to develop formulations and perfumers had to adapt to this abundance of creativity. Although information relating to the formulations of this era is scant, it is highly likely that technical and financial reasons gradually justified the partial or total replacement of certain products such as iris powders by ionones and gums, of raw plants (iris, vanilla and Tonka bean) by extracts obtained with volatile solvents and of natural musk by artificial musk.

Coty’s intuition
In the world of perfume in the early 20th century, though vast was not particularly remarkable and was cluttered with many conventional fragrances, the change would come from a genius, François Coty. His idea was to methodically combine natural fragrances with beautiful, synthetic scents to develop abstract perfumes that were different from those taken from the plant kingdom, which was the fragrance reference. Was this just commercial intuition or a real change? Legend or reality? It led to the creation in 1905 of the unusual fragrance of Origan.

The success of this perfume generated many imitations. But it was, in particular, Coty’s extraordinary Chypre, created in 1917, that marked the historical starting point of many new fragrances.
The aroma industry began to grow toward the end of the fifties. Until then, only a handful of soluble aromas used to flavour fruit drinks and lemonades were available on the market. The development of industrial food processes was accompanied by a new demand for standardised products that would always be available and consistent in terms of quality and concentration. Flavourings added to foods may be of natural origin or entirely synthetic. It all depends on the raw materials used. Synthetic flavourings can be combined to imitate or accent natural flavourings.
Creating an “authentic” aroma

The creation of flavourings is a scientific and technical process that requires artistic intuition. Although assisted by a research department that provides analytical data, aroma specialists rely on their individual talent. Based on their experience, they must draw on their inspiration to create an “authentic” aroma. Numerous tests are often required. The aromas are initially smelled and tasted in a simple medium like water, then in food products related to the project. Here again, we find the three notes contained in a perfumed composition. The base is made up of the “base notes;” next come the “middle notes,” conveyed by key aroma molecules that are released in the mouth and enter the retronasal passageway. The last touch of fragrance comes from the “top notes,” which produce an odour and therefore influence first impressions. A typical example is acetic aldehyde, which is used to evoke the aroma of freshly squeezed orange juice in the industrial product.

Working on flavours

Depending on the application, additional know-how is required to create blends of aromatic and sapid substances. The product used to flavour crisps is a good example of the typical aromatic agents employed for this purpose. It contains not only a specific aromatic part (a complex composition created by the flavourings expert or a natural extract like an essential oil), but also powdered vegetables, spices and cheese, taste enhancers (such as glutamate), salt, sugar, acids, diverse ingredients providing “substance” and sometimes colouring agents and dehydrated plants to improve the appearance of the finished product.
1900-1909

THE END OF THE VICTORIAN ERA

The first ten years of the 20th century were marked by the arrival of electricity. A new scientific and technical era was unfolding. Madame Curie investigated uranium radiation, the first Zeppelin took to the skies and Caruso made his first records. A living legend disappeared: Queen Victoria, who had had such a marked influence on the previous century, died in 1901.

The middle-class dress code continued to be very “Victorian”: straight, dark trousers and high-buttoned jackets for men, and dark, loose-fitting, long dresses and corsets for women.

What was happening in the world when Caron created Narcisse Noir and Coco Chanel launched Chanel No. 5? What influence did perfume creators have in the aftermath of the Second World War? What fragrances were women wearing when man first set foot on the Moon? What perfumes were fashionable when the Berlin Wall was torn down?

On the perfume side

Traces of jasmine or violet from the previous century were still found, but single floral perfumes increasingly came into their own, producing genuine scents like Rose Jacquemimot by Coty, Narcisse Noir by Caron and Quelques Fleurs by Houbigant. They marked the advent of original floral compositions.

A new era dawned in 1905: François Coty laid the foundations of modern perfumery and innovated at every step in perfume design. In 1907, Coty joined forces with glassmaker René Lalique to reinforce the message that a bottle must be a genuine work of art and reflect the quality of its contents. Together, they marketed Ambre Antique.

With Origan, Coty introduced the huge family of “amber” perfumes, today known as the “orientals.”
1910-1919
THE FIRST WORLD WAR
In 1914, the European powers entered into conflict, followed by their colonies and the United States of America. In total, World War I claimed 8 million lives. The first laws relating to female employment were passed in the decades preceding the war. The war years saw the mass entry of women into factories. As men battled along the front, women worked alongside highly specialised employees and manual workers from the colonies to produce armaments. In Germany, women were given the right to vote in 1918.

On the perfume side
1911 marked the arrival of the couturier-perfumers. Paul Poiret imposed perfume as an integral part of the feminine attire and launched Les Parfums de Rosine. He personally supervised the design of bottles and the production of packaging. In 1919, another couturier, Maurice Babani, followed in his footsteps. L’Heure Bleue by Guerlain (1912) sounded the knell of a bygone era. Creations such as Tabac Blond by Caron started to appeal to women fond of warm, sensual perfumes. In 1917, even through the term “chypre” had been known to perfume for centuries, Chypre by Coty laid the foundations for the family of perfumes bearing the same name and based on oak moss and patchouli chords.
In 1919, after four years of austerity, many newcomers flooded the market including Mitsouko by Guerlain, a highly spiced fragrance inspired by an Orientalism that owes much to Madame Butterfly. Both were to inspire a range of classical creations for decades.

1920-1929
THE ROARING TWENTIES
Peace treaties shaped new countries. In France, the conflict had taken its toll on the younger generations. Industry, agriculture and trade had been dealt a harsh blow. America blossomed with its skyscrapers and musical comedies and was already afraid of Communism. The horrors of the “war to end all wars” and the rigid moral austerity of earlier decades were succeeded by the jazz era and excessiveness. The audacity and freedom of this period were expressed in female fashions and boyish haircuts.

On the perfume side
Perfumes reflected the blend of luxury, exoticism and eroticism typical of the decade. All manner of provocative fragrances with suggestive names appeared. Trends were so varied and excessive that they defy any attempt at classification. In 1921, No.5 by Gabrielle Chanel marked the end of Paul Poiret’s domination and the confirmation of the career of the couturier-perfumers. In association with the Wertheimer family, Miss Chanel created her perfume company in 1924, whilst Jean Patou, who launched twenty fragrances in ten years, and Jeanne Lanvin, who created Arpège in its famous black crystal ball, called on remarkable perfumers and celebrated artists. Rivalry between two companies was sharp. Jeanne Paquin, who invented shows, proposed fifteen fragrances, Lucien Lelong more than forty and Jacques Guerlain about fifty, including his famous Shalimar in 1925. François Coty, combined several talents, including those of glass manufacturer, René Lalique, and mosaic designer Draeger, to revolutionise the art of presentation.

1930-1939
THE FINANCIAL CRISIS
The international financial crisis of 1929 hit France in 1931 and slowed the production of French luxury goods. Dealing a fatal blow to many newcomers, it spared the major couture houses and the most famous French perfumers such as Lubin, Guerlain and Roger & Gallet. With the introduction of the paid holidays in 1936, the Popular Front allowed the French to discover holidays and to tour their country by bicycle.
The first major consumer products also appeared: shampoos, suntan oils and the first washing powders. Elsewhere in Europe, nationalist movements were on the increase.

On the perfume side
The pre-war olfactory landscape was filled with intense, oriental notes, as well as magnificent floral creations. The archetype of oriental perfume was Shocking (1937) by Elsa Schiaparelli, who, as an admirer of Dadaists and surrealists, upset Art Deco classicism with a bottle in the shape of the female bust created by Léonor Fini. Tabou by Dana and Cuir de Russie by Chanel soon followed this trend of voluptuous, lingering fragrances. On the floral side, Joy, created by Jean Patou in 1929, enjoyed considerable prestige and a reputation as the world’s most expensive perfume.
America was already making its presence felt through the influence of Elizabeth Arden and her unusual figurative bottles, whilst the fragrances created by Worth, including Je Reviens in 1932, evoked the dream perpetuated by big cities and Hollywood fantasy.
Finally, Pour un homme by Caron made its debut in 1934 as the first masculine fragrance.
The world changed dramatically in four years. The Yalta agreements divided the world into two ideological rival blocks: East and West. In 1947, Europe accepted American aid through the Marshall Plan. In France, the creation of Social Security offered new guarantees to employees from 1945 onwards.

After the war, the New Look was enthusiastically received: loose-fitting, floating, calf-length (midi) garments brought back a feminine silhouette. The Italian Vespa scooter was chosen by the overwhelming majority of a young generation that preferred be-bop to waltzes and jazz to Lily Marlene.

1940-1949
The Second World War and reconstruction

On the perfume side

The post-war period was marked both by a demand for luxury and an economic situation that hampered access to it. But who cared? Lacking the means to purchase fashionable creations, women nonetheless treated themselves to high-fashion fragrances.

A fresh wind of financial resurgence began to blow with the green notes of Vent Vert by Balmain and the increasingly sophisticated cyprus notes of Miss Dior and Ma Griffe from the young House of Carven. Such success stories were fuelled by the marriage of perfume and fashion.

Marcel Rochas, a major designer, made his mark. His reputation was ensured with the arrival of Femme, sold by subscription to the elite of Parisian society in 1944 and followed by a public launch in 1945.

Pierre Balmain added a perfume bearing his telephone number, Elysée 64.83, to his first perfume collection. Others preferred to celebrate the return to peace. Patou launched L’Heure Attendue, Nina Ricci created Coeur Joli and Elsa Schiaparelli confirmed her anti-conformist approach with a bottle designed by Salvador Dali for Le Roy Soleil.
1950-1959
THE COLD WAR AND THE ECONOMIC BOOM

The two powers arising from the Second World War engaged in a new type of conflict: an ideological confrontation opposing two models of society. A movement in favour of co-operation and free trade emerged in European countries like France, Germany, the Benelux countries and Italy.

The television and transistor radio penetrated living rooms, and Hollywood stars dominated magazine covers. This heralded the beginning of the star system and mass culture. Elvis Presley triumphed and, with him, rock’n’roll.

On the perfume side

This decade was marked by Christian Dior, who knew better than anyone else how to harmonise his tastes and his fashion and perfume creations. Dior’s enamelled crystal bottles in the form of amphorae reflected the elegance and classicism of his world. Nina Ricci did the same by adopting a romantic style for bottles by Lalique. The fifties heralded the triumph of youthful values and confirmed femininity. In France, Brigitte Bardot launched the first celebrity perfume. Fragrances became more assertive with the carnal chypre and floral notes of Intimate by Revlon and Cabochard by Grès. An oriental version of this trend, Youth Dew by Lauder (1953), was an outstanding success in the United States. Men began to have their very own scents, as illustrated by the three vetiver fragrances by Carven, Givenchy and Guerlain.

Perfumers were employed in specialised raw material companies, such as the Roure company in France, American International Flavors and Fragrances (I.F.F.) and the Swiss companies Firmenich and Givaudan.

1960-1969
THE ADVENT OF THE CONSUMER SOCIETY

The American way of life gained ground with an army of refrigerators, washing machines and blenders. In 1963, Carrefour inaugurated the first mass consumption temple at Sainte-Geneviève-des-Bois. Men set foot on the moon, and women liberated themselves with tights, jeans and the mini skirt launched by Mary Quant. As a new “anti-fashion” wave emerged, haute couture focused on luxury “ready-to-wear” garments with Yves Saint-Laurent, Daniel Hechter, Paco Rabanne and Cacharel.

On the perfume side

Whilst the rebellious younger generations discovered oriental philosophies and meditation techniques amidst a cloud of musk and incense, traditional perfumery developed striking floral compositions. Guy Laroche created Fidji, with a light appeal that captivated European noses, whilst Revlon launched Norell for the American market. The aldehyde notes introduced by Chanel No. 5 were exalted in the rose-scented notes of Madame Rochas by Rochas and in Caleche by Hermès, with an incense component recalling chypre. In 1966, Edmond Roudnitska, who created Femme (1944) and Moustache (1949) for Rochas, composed Eau Sauvage for Dior, which paved the way for “fresh waters” that were feminine, masculine and unisex. The formula included methyl dihydrojasmonate (or hedion), which was developed by Firmenich in 1962.

On the perfume side

The 1970s saw the launch of the first perfume created by a jeweller. First by Van Cleef & Arpels, developed a trend towards cyprus fragrances with emphasis on fresh, floral accords. Ellipse by Fath, Empreinte by Courrèges and Sikkim by Lancôme soon followed. Green notes gained ground, as illustrated by Lauder’s Alliage and the success of Chanel No.19. Mystère by Rochas appeared, coupling a new style of aldehyde-based fragrance with a pungent, woody base; it was matched on the woody, powdery side by Climat from Lancôme, Calandre by Paco Rabanne and Rive Gauche from Yves Saint-Laurent. Yves Saint-Laurent stood out from the crowd in 1976 with a considerable advertising budget devoted to the launch of Opium. It illustrated a new approach: perfumers no longer merely sold what they produced. They first analysed consumer motivation in an attempt to design products that met their expectations. The influence of marketing was everywhere. It made Opium into a provocative creation reminiscent of drugs, depicting women as strange creatures and perfumes as having mysterious, magical and sacred connotations. Perfume was no longer associated with luxury: Anais Anais by Cacharel was sold at Prisunic in 1978 and Choc by Pierre Cardin at Carrefour. Sumptuous extracts were no longer sacred and women changed their eau de toilette as often as their appearance.

1970-1979
TOWARDS A SOCIETY OF LEISURE?

By 1974, the work week was only 43 hours long. This led to the introduction of the new concept of free time, which led to a surge in tourism and, to an even greater extent, in sports. Following the example of tennis, sports took on an international flavour and won new popularity.

On the perfume side

The television and transistor radio penetrated living rooms, and Hollywood stars dominated magazine covers. This heralded the beginning of the star system and mass culture. Elvis Presley triumphed and, with him, rock’n’roll.

On the perfume side

This decade saw the launch of the first perfume created by a jeweller. First by Van Cleef & Arpels, developed a trend towards cyprus fragrances with emphasis on fresh, floral accords. Ellipse by Fath, Empreinte by Courrèges and Sikkim by Lancôme soon followed. Green notes gained ground, as illustrated by Lauder’s Alliage and the success of Chanel No.19. Mystère by Rochas appeared, coupling a new style of aldehyde-based fragrance with a pungent, woody base; it was matched on the woody, powdery side by Climat from Lancôme, Calandre by Paco Rabanne and Rive Gauche from Yves Saint-Laurent. Yves Saint-Laurent stood out from the crowd in 1976 with a considerable advertising budget devoted to the launch of Opium. It illustrated a new approach: perfumers no longer merely sold what they produced. They first analysed consumer motivation in an attempt to design products that met their expectations. The influence of marketing was everywhere. It made Opium into a provocative creation reminiscent of drugs, depicting women as strange creatures and perfumes as having mysterious, magical and sacred connotations. Perfume was no longer associated with luxury: Anais Anais by Cacharel was sold at Prisunic in 1978 and Choc by Pierre Cardin at Carrefour. Sumptuous extracts were no longer sacred and women changed their eau de toilette as often as their appearance.
1980-1989

Hyper-consumption and insecurity

As the third industrial revolution – the computer era – consolidated its position, the Western world was hit head-on by unemployment and insecurity.

The eighties were paradoxical years combining provocation and uniformity; they abandoned the unisex approach of the previous decade and emphasized shapes and vibrant colours.

The quest for a new spirituality was expressed in the vitality of sects and in new ideals based on safeguarding human rights, defending against racism and exclusion and protecting the planet.

On the perfume side

Clothing brands for children, such as Tartine et Chocolat, Jacadi and Agnès B, opened up the market for children’s fragrances. New creators drew inspiration from street trends for their collections: Claude Montana incorporated black leather items, Thierry Mugler looked at Hollywood fads and Jean-Paul Gaultier showed outrageously accessorized runway models.

This aggressiveness was also expressed in Giorgio by Beverly Hills (1981), Poison by Christian Dior and Obsession by Calvin Klein.

The taste for “clean,” which had developed from familiarity with the molecules used to scent detergents and fabric softeners, made these substances totally acceptable as part of perfumes and colognes. This simple olfactory message was conveyed by Davidoff’s Cool Water (1988) in Europe and Eternity for Men (1989) in the United States.
1990-1999

Financial globalization

Information technology became widespread, starting in the United States. Towards the late 1990s, the Internet made a sensational entrance into homes as well as into most aspects of social life in western countries, removing boundaries and upsetting traditional business modes. Now we speak of a knowledge and information society and of cultural globalization.

On the perfume side

Perfumery global marketing

Perfumery became international, with ten groups holding sixty percent of the market. Formulations were similar and singularity was rare. An abundance of brand names fuelled this phenomenon of mass creation and production. Raw materials were fewer in number and defined to meet olfactory standards so that they would produce and reproduce the same quantity and quality, year after year, in the most economical way.

Although every creative company set its own standards, rationalisation harmonised the use of perfume materials. Through the influence of fashion, perfumes were used more frequently but had an increasingly shorter life cycle.

In 1990, Lancôme brought out a new Trésor dedicated to women of achievement. Dune was the antithesis of Poison and the female counterpart of Fahrenheit.

Whereas the archetype of the “clean” American fragrance arrived on the scene in 1994 with CK One by Calvin Klein, a gustatory current emerged that incorporated fruity (strawberry, coconut, red fruits, green apple, etc.) or even chocolate and caramel notes in perfumes. Trés Jourdan by Charles Jourdan was reminiscent of peach, Dalissime by Salvador Dali of blackcurrant, Deci-delé by Nina Ricci of plum, Hot Couture by Givenchy of raspberry, Boss by Hugo Boss of cooked apples and cinnamon, and Rock in Rio by Escada of pina colada.

Thierry Mugler paved the way for delicious oriental perfumes with Angel. For the first time, delicious fragrances, such as cotton candy and caramel, appeared in dominant notes. In reaction to market dominance, a small group of perfume houses, including Annick Goutal, Serge Lutens, Dyptique, The Different Company and L’Artisan Parfumeur, focused their talent on the perfume itself and developed daring formulations. This was the advent of niche perfumes and perfumes that chose a particular olfactory orientation; unlike mass marketing, they did not seek to obtain consumer consensus.

Finally, gender-specific or unisex perfumes became popular. CK One by Calvin Klein was followed by Hops Code from Comme des Garçons, L’Eau d’Hadrien by Annick Goutal and L’Esprit du Roy by Penhaligon.

2001-2010

A pragmatic, paradoxical consumer

The 21st century began with suicide attacks on the World Trade Center and the entry of America and its allies into war on several fronts, notably in Iraq and Afghanistan, but the 21st century consumer proved to be increasingly aware and realistic, independent and individualistic, pragmatic and paradoxical. After an era of protest, society took pleasure in consuming (the no-guilt era) but was unable to hide from latent issues tied to the globalisation process (unemployment), uniformity, urbanisation (insecurity) and harmful effects on the environment (pollution).

Factors like these drove consumers on a virtually obsessive quest for identity and reassurance coupled with a healthy lifestyle, well-being and harmony with the elements (Feng Shui).

On the perfume side

The increasingly global market (in 2006, over ten masculine and feminine fragrances out of the top thirty were found on both the American and European markets) was also characterised by the abundant, even confusing, range of products available.

There were approximately 200 launches in 2000 and over 400 in 2007. The olfactory trends of the feminine fragrance market were highlighted by the explosion of fruity, floral perfumes such as Be Delicious by Donna Karan, Nina by Nina Ricci, Promesse by Cacharel; a return to chypre notes (citrus and woody base) notes with Coco Mademoiselle and Chance from Chanel, Narciso Rodriguez by Narciso Rodriguez; and flowery white floral scents with Pure Poison from Dior or Juicy Couture from Juicy. The florients carved a niche in the international market with Hypnose by Lancôme and Armani Code by Armani. Certain perfume houses explored the woody floral scents, including Hermès with Kelly Calèche, Dolce and Gabbana with Light Blue, and Jil Sander with Jil Sander Style.

The masculine side was characterised by an explosion of woody notes in My by Yves Saint Laurent, Armani Code by Armani and Dior Homme by Dior, with major success stories based on citrus notes (Aqua pour Homme by Bulgari, Unforgivable by Sean John and Polo Blue by Ralph Lauren).

Hypnose from Lancôme, Antidote from Victor and Rolf and L’Homme by Yves Saint Laurent heralded a return to classic, aromatic fern fragrances whilst Gucci Man II by Gucci and Les Fleurs du Mal by Jean Paul Gaultier marked the advent of floral fragrances.

Cuirs

The Different Company

Jean-Claude Ellena, perfumer

Design, Thierry de Baschmakoff

2000, France

Glass, leather

© All rights reserved
The bottle is the undisputed link between the fragrance itself and the promises and dreams that advertising weaves around it. Designers call on a variety of skills to create the bottle: artistic sensitivity, aesthetic culture and mastery of the technical, industrial and financial constraints linked to manufacturing.

**TRANSLATING DREAMS**

“I am the one who translates the dreams, ideas and imagination of fashion stylists. I am also responsible for making them into concrete objects.”

Pierre Dinan, one of today’s major Bottle designers, thus sums up like no other the delicate task of the designer. Above all, it consists in decoding what makes each brand a unique aesthetic whole.

The bottle must represent and accentuate this. It is a form of expression in itself.

By the sheer artistic value of its design, the imagination devoted to its shape and the often noble materials from which it is produced, the bottle shows that what it contains is also a true artistic creation.
Creating a complex technical object

In addition to artistic requirements, a good designer does not forget that, above all, the bottle contains a fragrance. It must be hermetically sealed and should prevent evaporation. It must possess neutral chemical and physical attributes so that it will not interact with alcohol and fragrant substances. It must be easy to hold and able to stand upright.

Moreover, using automated production, it must be possible to manufacture the bottle on an industrial scale at a reasonable cost. It should also be suitable for use on automatic or semi-automatic bottling lines.

The designer must, therefore, be both a visual artist and a highly skilled technician. This is why most design agencies are genuine research laboratories with a team of creators from different backgrounds, including the industrial designer, product designer, graphic designer, fashion designer and 3D designer.

Several months’ work

Development of a fragrance design now takes months and costs several hundred thousand euros. However, the creators of luxury perfumes know that they cannot save on the bottle. The bottle, in fact, plays an essential role. On the market, it transposes a design and guarantees the success of a perfume. For a client, it translates all the magic of the fragrance and instils pride and pleasure from having a beautiful creation.

The various stages in the creation of a bottle

The designer starts work from a client brief. This document generally provides aesthetic, technical and financial details or cultural and historical factors to be taken into account. Thus begins the creative work.

The designer initially “forgets” technique, and lets his imagination take flight, free of all constraints. Three-dimensional (3D) techniques are used to give substance to this initial design. The aesthetic approach and the shape of the object can then be appreciated, understood and shared.

Engineers check up the object’s manufacturing feasibility allowed to their technical constraints into account. This stage sometimes accounts for up to 70% of development time because the object must comply with the initial creation. Most of this work is carried out in conjunction with the client’s packaging development team.
From the outset and throughout his career, a perfume creator perceives and enriches his inventory of fragrances by appreciating new odours. This olfactory culture gives him a range of innumerable materials that can be used in endless combinations. However, perfume is not only a blend, it is a composition, which, if harmonious and original, becomes a work of art.

The perfumer’s nose is a tool – an instrument for control and analysis. His brain is capable of selecting, classifying and measuring the ingredients that will strike the desired chord. The perfume is indelibly etched in the perfumer’s mind.

Creation workshop, Lautier factory
Ca 1935, Grasse

Olfactory Composition

Creating a perfume
a matter of olfactory culture

Do perfumers have a more developed sense of smell than other people, allowing them to transform this sense into a profession? Above all, they are extremely sensitive to odours around them, enabling them to fine-tune their perceptions. Just as a writer has to master words before experimenting with them, or a musician has to be familiar with notes in order to harmonise chords, the perfumer must memorize the various olfactory tones and their combinations.

From the perfume organ to the laboratory
In the early 20th century, perfumers sat surrounded by bottles in front of a perfume organ and composed using vials, graduated burettes and pipettes. Natural resinoids, absolutes, essential oils and infusions were used, as well as numerous synthetic products. Today, the perfume composer can be independent, attached to a brand name or, more generally, part of a company producing raw materials, he works in a well-lighted room, far from the test laboratory and protected from any odours that may disturb him. He uses an extensive range of synthetic and natural products.

On his desk are dozens of small bottles containing tests that are currently underway, paper, a pencil to record his formula, a computer to control technical or financial parameters and long, thin strips of blotting paper, which he uses to evaluate and track his olfactory compositions over several days.
From the brief to the composition

Since the perfume composer has an excellent memory of scents acquired over the years, he can smell, compare, imagine, choose, combine and test dozens of fragrant components to create a perfume. He must generate an emotion but, at the same time, meet the expectations of the client who will have informed him in advance of the direction that the perfume must take. This is what is known as the brief.

The perfumer will have different responses depending on whether he works for himself, for a target population, for the general public or for an identified competitor.

Similarly, his creation will take into account the strategy of the brand for which he is creating. This brand may, for example, want to achieve immediate profit or, on the other hand, may have a long-term plan.

The choice of raw materials and the mode of expression he recommends are essential factors in olfactory proposals, which he will submit to brand representatives.

Perfume follows a three-note range: top, middle and base

How can you describe the magic of a perfume? How can you designate the immediate, intermediate and long-lasting sensations that follow in succession when you come into contact with a perfume? Perfumers refer to top notes, middle notes and base notes.

As the more volatile elements fill the air, the perfume gives off its top or starting notes, which are neither too transient nor aggressive, and which last several minutes. These can emanate from sources like hesperidia (citrus fruits), thyme, lavender, tarragon and rosewood. They are followed by the middle or body notes released over several hours. Forming the heart of the composition, they set the tone of the perfume. These are often more tenacious products, such as essences of rose, jasmine, geranium, verbena and galbanum. Finally, the persistent substances are released. These base notes determine fragrance wake and its harmony. These are the notes that linger after the top and middle notes have evaporated. They remain in memory. These are the fixing agents: oak moss, sandalwood, vetiver, civet musk or musk.

Depending on cultures, middle notes are more greatly refined, as in Europe, or the perfume trail is heightened, as in the United States.

To each his "eau"

The terms "eau de cologne," "eau de toilette," "eau de parfum" and "extract" refer to the various modes of expression of a perfume, and not simply to different concentrations. Éau de cologne is generously applied to evoke vibrant, immediate pleasure and is often associated with sporting activities. Eau de toilette, which is more sensual, reveals a subtle yet perceptible fragrance in its wake. Éau de parfum leaves behind an opulent, lingering fragrance. Finally, the extract is the most intense form of perfume and the one that lasts the longest.

In France, sales of eau de toilette account for 50% of feminine fragrances and 90% of masculine fragrances.

A question of concentration

As globalization tends to harmonize tastes, perfume concentrations determine product choice even more. Schematically speaking, Asia and Japan prefer perfumes with weak concentrations that will not mask the odour of the skin. The United States opts for strong concentrations. Northern Europe has tastes similar to those of North America, whereas Southern Europe expects a perfume to have an aesthetic function with moderate concentrations. Concentrations vary depending not only on where they were manufactured but also on traditions and consumer habits. Éau de cologne contains between two and four percent of perfume concentrate, eau de toilette 5% to 20% and an extract between 15% and 35%.

Describing or evoking memories — what name should be given to a perfume?

Traditional perfumery preferred rather literal names to describe fragrances like violet water, orange blossom water and jasmine.

However, when the perfumer's palette was enriched, especially under the influence of organic synthesis, fragrances became more complex and the choice of name changed.

Conjuring up poetic images rather than providing a description, perfume names conjure an image of curiosity.

Thus literality became abstract. Consequently, perfume names changed. Literality became abstract. Some names conjure an image of phantasmagorical worlds (Poisson by Dior, Aphrodisia by Faberly, Maple by Lancôme, Spellbound by Estée Lauder and Sortilège by Le Galion), whilst others are reminiscent of a certain era (Calèche or Héritage by Hermès, Quadrille by Balenciaga and Royal Regiment by Max Factor), specific materials (Crêpe de Chine by Milot, Anthracite by Jacomo, Or noir by Morabito, Chrome by Azzaro), a particular place (Byzance by Rochas, Ténéré by Paco Rabanne, Laguna by Dall, Tuscanby by Aragonis or Samarcande by Yves Rocher), a given moment (Après l'Ondée by Guerlain, Nocturnes by Caron, Weekend for Men by Burberry) or even imaginary characters (Cabotine by Grès, Câline by Patou, Insolent by Dior, Insolence by Jourdan, Farouche by Nina Ricci and Loulou by Cacharel).
How is a perfume made?

Perfume concentrates to start with

Perfume concentrates are usually created by the fragrance industry, except in the case of the perfume houses of Chanel, Hermès and Patou, which have an in-house perfumer and guarantee the creation, manufacture and production of their perfumes.

To produce a concentrate, products of natural origin are purchased after harvesting, often on the production sites. If they are not manufactured by the company producing the perfume concentrate, synthetic products are purchased as required. All materials are subject to numerous controls.

The perfume concentrate is manufactured using an automated system that follows the formula created by the perfumer. This automatic device can accurately weigh from a few grams to several tonnes of product to the nearest milligram, within a very short time.

Once manufactured, the perfume concentrate is supplied to perfume houses that subsequently produce the perfume and launch it on the market.
The perfume launch protocol

The perfume house draws up a launch protocol for putting the perfume on the market. Validated by marketing, financial and industrial directors, as well as head management, this protocol contains all of the information relating to product manufacture, down to the slightest details, and the various anticipated costs.

The conditions under which a perfume is manufactured and controlled are subject to specific procedures known as Good Manufacturing Practices (or GMP). They precisely describe the logical sequence of industrial operations that will guarantee product compliance.

Perfume manufacture

The second phase concerns perfume manufacture (eau de toilette, eau de parfum, extract, etc.). This operation begins with the production of a small quantity of perfume, known as the pilot, that enables checking and specifying, if necessary, the materials used, the mixing temperature, maturation and maceration times, and cooling and filtration conditions.

The manufacturing process is launched after the perfume concentrate has matured over several days and the blend of synthetic and natural materials has harmonized from an olfactory standpoint. The perfume concentrate is left to macerate in alcohol from one week to over a month to stabilise the perfume.

The control procedure

When the manufacturing process is completed, a sample is collected and sent to the control laboratory, which is responsible for batch approval. This control procedure is documented. During the bottling process, each bottle is given a manufacturing-related code. This code indicates the batch number and the month and year of manufacture, thus allowing the batch to be traced.

All of these procedures are entered into a computer and a record of each manufactured perfume is kept in a file that is stored for three to five years. Once the manufacturing batch is registered, bottling procedures begin. Controls, such as bottle appearance, stoppering and packaging, are carried out on the production line throughout this phase to guarantee flawless product quality.

Approval of ingredients

The first phase involves checking and approving all the ingredients used in the finished product (bottles, sprays, labels, alcohol, water and perfume concentrate, etc.). These control procedures are carried out on the manufacturing site in accordance with the specifications laid down by Quality Control. All ingredients are managed through computer programs.
Perfume and Memory

does literature have a nose?
“Disliked by the major philosophers, most of whom considered it to be an inferior sense, excessively linked to animal instincts and pleasure, and too subjective to be a genuine tool of perception, the sense of smell has long been undervalued. This discredit was extended to fragrances, which were stripped of any cognitive, artistic or ethical value. (...) Literature, on the other hand, has warmly received odours and fragrances and from the Song of Solomon to the present day, there is a long list of works by writers and poets that have been catalogued as “olfactory.” The exceptional ability of the sense of smell to describe atmospheres, kindle memories and create dream-like states has been and still is widely used.

In recent times, two subjects in particular have captured the attention of novelists – the first being personality disorders expressed via an olfactory theme, and the second focusing on the beneficial or evil properties attributed over the centuries to odours and perfumes and which nowadays still prove fascinating. Smell by the Indian Radhika Jha, Musk by Percy Kemp and Perfume by Patrick Süskind cleverly illustrate the close links that can exist between identity crises and olfactory sensations.

The rediscovery of extraordinary, magical, deadly or therapeutic properties attributed in bygone eras to odours and perfumes is also an abundant source of inspiration for contemporary authors. With Le parfum perdu, René Laruelle introduced a hero in search of sonteranti, a mythical perfume from the days of the Egyptian pharaohs and shrouded in evil spells. In Son Parfum, Frédéric Ploton imagines a perfumer composing a fragrance on the basis of a rare South American flower with a bewitching scent that can restore sight. But, once again, Patrick Süskind’s novel provides the most striking example of a return to olfactory sources with the obsessive quest of his hero, Jean-Baptiste Grenouille, and his desire ‘to tear the fragrant soul from things’ (...) »

Extracts from the article by Annick Le Guerer, published in “The International History of Perfumes” (Ed. Somology, Art editions)
In the era of globalisation

**Key Figures for the Perfume Market**

2005, Hygiene and beauty, consumption per inhabitant:
- **India**, €2.40
- **France**, €239

2006, strong growth of exports in Eastern Europe and Asia
- +41% in the Czech Republic,
- +43.7% in Russia and Asia
- +39.5% in China

2009, France, **143,000 bottles sold daily**
2009, France, **72.73% of consumers are women, 27.27% are men.**

2006, France, perfume and cosmetics sales:
- **15.2 billion** euros
2006, France, national sales:
- **6.5 billion** euros
2006, France, exports:
- **8.7 billion** euros,
  the equivalent of 430 TGVs or 145 Airbus airplanes

In France, **400 to 500** new perfumes are launched each year;
90% disappear within three years.

Perfumes and cosmetics, **fourth-ranking export sector,**
after aeronautics, automobiles and alcoholic beverages (and excluding arms)

Positive trade balance: **6.9 billion** euros,
= one-fourth of France’s petroleum bill
A rapidly expanding international market

We are currently living in the golden age of perfumery. Never before has perfume had such a following, from both men and women, and never before have consumers worn so many different perfumes.

This market obviously favours the French perfume industry, which, in 2006, witnessed its fortieth consecutive year of growth and a boom in exports, particularly to Russia, Eastern Europe and China. The “Made in France” label has a secure reputation on the international stage, which explains why French brands are available in 202 countries.

International turnover in this sector reached 15.2 billion euros in 2006, including sales amounting to 6.5 billion euros in France, where average expenditure on perfume and cosmetics has risen to 205 euros per inhabitant per year.

Each year, 400 to 500 new perfumes are launched in France, 90% of which will disappear in three years.

The high end is on a roll in the United States and Europe

Faced with a relative uniformity of products, the American market and some European markets, such as Hungary and the United Kingdom, tend to favour top-of-the-range products or luxury niche perfumes. Across the Channel, for example, perfumes with limited distribution are available from retailers and fashion boutiques enjoy considerable success.

In the U.S., Barneys department store stands out from the crowd by emphasizing specific niche products.

Expansion of the Russian market

On the Russian market where competition with new, essentially Russian products is observed, the sale of French perfumes and cosmetics showed 43% growth in 2006, which suggests how the sector has perked up in this part of the world. Consumption is guaranteed by a very curious and demanding middle class and a very wealthy minority who enjoy the prestige of the “Made in France” label and collection products. Here, the average rate of growth in the cosmetics and perfumes market has increased by more than twenty percent in seven years and specialized chain stores are sprouting up like mushrooms.

Promising markets in India and China

India is one of the world’s youngest countries and its domestic market represents potentially more than a billion consumers. In addition, the purchasing power of the middle class is constantly increasing. Finally, Indian behaviour in foreign countries suggests a strong attraction to luxury products. In short, everything augurs well for perfume in a market familiar with the world of fragrance, where perfume is readily applied.

Consequently, growth in this sector is expected to increase by 25% in India by 2010.

In China, although the income of the more privileged classes and city dwellers is rapidly increasing, most of the population remains extremely poor. However, the growth in cosmetic sales, which is on the order of 20% per year, suggests that perfumes could experience a significant increase in popularity, even in a country with no pre-existing culture in this domain. Image and price continue to play a major role.