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## INDIAN HISTORY OF PERFUME, ITS EVIDENCES AND EVOLUTION FROM DIFFERENT ERA

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**Abstract:** India has a vast history of perfume and aromatic scents; it has been in use for ages. In India perfumes and scented articles were in use from pre - vedic and vedic periods for religious practices, social customs, and domestic rituals and later gradually became essential part of human life. Its evidences have also been found in various Indian literatures such as Brihat Samhita, various kind of formulas are written by Varahamihira, which is also considered as one of the oldest text of India. Many of the scented materials were also mentioned in ancient Ayurvedic texts. In Charaka Samhita, Susruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha etc., many scented materials and perfumes were used for improving the complexion and also as deodorant. Kautilya's Arthashastra have the descriptions of many fragrant drugs, which were used in cosmetics like Sandalwood, Agaru (*Aquilaria agallocha Roxb.*) and Taila Parnika (Eucalyptus) Perfumes were also used in cosmetics and beauty aids. Medicinal values of many perfumes were well known to ancient Indians and were used in both rituals and to treat various ailments. Medicated fumigation (Dhupan) was an advanced method for medicinal purposes. Perfumes were also anointed in various body parts (Anulepan). Chewing betel leaves along with fragrant material like nutmeg, mace, etc. (Tambulam) was used with a view to rendering mouth clean and fragrant. Usage of scented oils to massage body (Abhyanga) which keeps the skin smooth, healthy and invigorating; Udvartanam, massaging various body parts; Udgarshanam, scrubbing; Utsadanam rubbing with scented powders etc., were some of the health protective and disease eliminating procedures. Scented drugs and perfumes enhance the quality, activity and pleasantness of these processes.

**Index Terms/ keywords – Cosmetics, Ittar, Perfume, Scented articles, Indian history, and Indian texts**

### I .INTRODUCTION

The word perfume is derived from Latin word "*per fumus*," meaning *through smoke*. India has a prosperous history of perfume and scented articles. With a land mass of over 3.287 million km<sup>2</sup> and an abundance of fragrant trees and flowers. India has always spiritually connected to perfume and scented article. In India perfume is the pathway to attained spirituality and wellbeing. We offer perfume to our Hindu god in the form of incense stick, fragrant water, and fragrant flowers. It is believed that every god has its own favorite perfume for example Lord Ganesha like grassy scent of durva grass. It is said to be symbolic of determination and the red Hibiscus offered to Lord Ganesha and its constant scent is associated with balance.

The Vedic era was intimately linked to the Yagnas or fire sacrifices. Oblation consisting of various aromatic and medicinal herbs, resin, barks, leaves, exudates, twigs, roots, seed along with food and ghee were offered to Agni, the god of fire. This was done to please the gods for showering prosperity or evading misfortunes. This yagnas are still in practice in many Hindu households especially during festivals or puja. In Vedic era it was mostly performed by Brahmins. As India is rich in its diversity so it was not only in Hinduism but also in other religion such as in Islam, Christianity, Buddhism, Jainism , Perfume plays a vital role to connect people together, in all religion one thing is common that is the perfume they are offering to their gods.

Studies have shown that the brain integrate smell with information about space and time to form episodic memories. Researcher hypothesized that the exceptional ability that smells has to trigger memories known as Proust effect. Perfume not only brings back certain good memories but also stressed on the bad memories. It was also believed that the bad scent of humans can represent the sinful nature of humanity. Therefore in various Hindu scripture it was written the importance of bathing with flowers and other fragrant herbal paste like Sandalwood and Rose water paste with a pinch of Turmeric also called as “Ubtan” Perfume evoke an emotional response through senses. [1, 2]

Mandu in Madhya Pradesh has a history filled with pursuits of pleasure in the form of a book called “The Ni’ Matnama or the book of Delights shared by William Dalrymple in his talk show titled “Scent and sensuality in India” at The Desert Museum Perfume and perfumery also existed in Indus civilization, which existed from 3300 BCE to 1300 BCE. One of the earliest distillations of Ittar was mentioned in the Hindu Ayurvedic text “Charaka Samhita” and “Sushruta Samhita”. The perfume references are part of a larger text called Brihat-Samhita written by Varahamihira, an Indian astronomer, mathematician, and astrologer living in the city of Ujjain. He was one of the ‘nine jewels’ in the court of the Maharaja of Malwa. Different types of perfumed articles, their natural sources, method of preparation, etc., have been treated in this text under the heading “Gandhayukti”, a term which stands for the art and science of perfumery. The perfume portion mainly deals with the manufacture of perfumes to benefit ‘royal personages and inmates of harems’. The text is written as Sanskrit shlokas with commentary by a 10th-century Indian commentator Utpala.

According to a 1975 report, archaeologist Dr Paolo Rovesti found a terracotta distillation apparatus in the Indus valley together with oil containers made of the same material, carbon dated to 3000 BCE.

Many evidences and scriptures mentioning the importance and use of fragrant material as perfumes and scents since ages in Indian culture and tradition have been reported.

This article highlights that the art and science behind the perfume and scented articles is not new to India, and that perfumery had developed as a science in ancient India and our country has contributed nothing less to this branch of science which now has reached a very advanced stage.

## II . USE OF PERFUMES IN VEDAS, PURANAS, AND IN CONTEMPORARY INDIAN LITERATURE

### 2.1 Vedas

The Vedas are the earliest literary records of the Aryans. Since our main source of information about the Aryans is Vedic literature, this period is also called the Vedic age. The early Vedic period extends from 1500 BC to 1000 BC. There are four Vedas: the Rig Veda, the Yajur Veda, the Sama Veda and the Atharva Veda [3,4]

#### 2.1.1 Evidence of perfumes and scented materials in Vedas

The Vedas are generally admitted to be the source of Indian philosophical thought, religious practices, social customs, professions and functions of different social classes. In short Vedas are considered as almost all spiritual and secular conventions, observations and pursuits. Varied usages of perfumes along with individual beautification and medicinal purposes can be seen in Vedic literatures.

In Rigveda-Srak is used for flower garlands and Aswins were called as Pushkarasrajau, wearing garlands of Lilies.

*Om Tryambakam yajamahe sugandhim pushtivardhanam |  
Urvaarukamivabandhanaan mrutyormukshiya maamrutat ||  
(Rigveda. 59.12.1)*

**(The word Sugandhi is used for Agni (the god of fire), well-wisher of men, who carries the oblations with his redolent-mouth. The fragrant mouthed Agni was also considered as augments of material prosperity and ensures of immortality through divine grace)**

In Rig-Veda collyrium (Anjana), perfumed unguents (Punya gandha or Surabhi), beautiful garments and flower garlands (Suvasah) were mentioned. The word Punya gandha was also mentioned in Atharvaveda. [5]

*Striyo yah punyagandhastahsarahsvapayaamsi |  
(Rigveda.55.8)*

**(In Rig-Veda, un-widowed dames were advised to use kohl and unguent to become free from sorrow) [5]**

In Atharvaveda use of fragrant drugs like licorice (*Glycyrrhiza glabra* Linn.), Kushta (Saussurealappa C.B. Clarke ); Nalada (*Vetiveria zizanioides* Linn.) etc. were mentioned. In Atharvaveda, Kushta (Saussurealappa C.B. Clarke - a scented rhizome) was mentioned in many hymns as an important drug to relieve many diseases and to provide eternal life. [4]

## 2.2 Puranas

Purana is a vast genre of Indian literature about a wide range of topics, particularly about legends and other traditional lore. Several of these texts are named after major Hindu deities such as Vishnu, Shiva, Brahma and Shakti. The Puranic genre of literature is found in both Hinduism and Jainism.

The Puranic literature includes diverse topics such as cosmogony, cosmology, genealogies of gods, goddesses, kings, heroes, sages, and demigods, folk tales, pilgrimages, temples, medicine, astronomy, grammar, mineralogy, humor, love stories, as well as theology and philosophy. The content is highly inconsistent across the Puranas, and each Purana has survived in numerous manuscripts which are themselves inconsistent. The Hindu Maha Puranas are traditionally attributed to "Vyasa".

### 2.2.1 Evidence of perfumes and scented materials in Puranas

#### a. Valmiki Ramayana

Valmiki Ramayana Dasaratha's (the king of Ayodhya) dead body was kept in a special tailadroni (a wooden tub filled with oil processed in medicines and aromatics) to protect the body from decay. In another reference dead body of a Brahmin was also preserved in tailadroni filled with medicated and scented oils.

In cremation of Dasaratha's dead body, Chandana (Sandal wood), Sarala (*Pinus roxburghii*Sarg), Padmaka (*Prunus cerasoides*D.Don), Agaru (*Aquilaria agallocha*Roxb.), Devadaru (*Cedrus deodara* (Roxb.) Loud) etc. were used. Sandal paste was used to anoint the body. It was described that when Bharata went to the forest with his army to see his brother Rama, the path was perfumed with sandal water and flower

In another reference, during nights when the king Ravana desired to see Seetadevi, the paths were lit with many lamps filled with perfumed oils.

Many other scattered references of the use of perfumed water, scented waters, scented oils, scented powders and other cosmetics can be observed in Valmiki Ramayana.<sup>[6]</sup>

#### b. Mahabharata

In Mahabharata three types of Dhupas (incense) were mentioned.

1. Dhupa (fumes) by burning Nirryasa (aromatic resin exudation from trees) like Guggulu (*Commiphoramukul*Engl), Shallaki (*Boswellia serrata* Roxb.) etc. is considered as dearer to Gods and Goddesses.

2. Dhupa by burning of leaves of trees like Sara (*Pinus roxburghii*Sarg), Agaru (*Aquilaria agallocha*Roxb), Shallaki (*Boswellia serrata* Roxb) etc. is dearer to Yakshas and Rakshasa

3. Kritrima (artificial) Dhupa produced from fermented substances like Molasses etc. is dearer to Daanavas, (demons) Bhutas (ethereal beings) and men.

During these periods lamps were filled with perfumed oils; fragrant powders were used for face and body; bed sheets were variegated and scented; arrows and weapons were worshiped by applying sandal paste and decorating with flower garlands.

In the Mahabharata, Duryodhan mentions the wealth of aloe wood, sandalwood and perfumes he heaped on as a tribute.<sup>[7]</sup>

#### c. Vishnu Dharmottara Purana (450-650 A.D)

This is the second part of Vishnu Purana and it has Sixty fourth chapter of second Khanda of Vishnu Dharmottara Purana has the chapter Gandhayukti, in which eight phases of manufacturing perfumes were described. They are

1. Sodhanam
2. Vaasanam
3. Virechanam
4. Bhaavanam
5. Paaka
6. Bhodanam
7. Dhupana
8. Vaasana.

Gandhataila( Fragrant oil ), Gandhajala( Fragrant Water ), Dhupa, Varnakaradravya, Mukhavaasas and karnapatra were also described.<sup>[8]</sup>

#### d. Buddhist Purana

In pre Buddhist period, people were trained in sixty four arts. Gandhayukti (The art of blending perfumes) is one among them. Lalitavistara mentioned that the young Bodhisattva had excelled in sixty four arts. Five Sikkhapadas of Khuddaka Pada contain few restrictions for Buddhist monks. The monks are prohibited from use of pomade (Perfume oil), perfumes and anointing the body.

In another Buddhist text in Pali, namely, Brahmajala sutta, a list of procedures for bedecking, dressing, Uccaadana (anointing with perfumes), MaalaaVilepana (applying pomade and anointing and wearing flower garlands), Mukhacunaka (applying fragrant talcum powder to face) etc. were described.<sup>[9, 10]</sup>

### e. Kalika purana

In the Kalika purana describes in detail about ten types of Gandhadravayas according to the smells viz.

1. Isthagandh: Pleasant smell like musk, sandalwood etc. is considered as Isthagandha
2. Anisthagandha: unpleasant smell like carcass (dead body) is considered as Anisthagandha
3. Madhuragandh: sweet smell of flowers etc is Madhuragandha
4. Amlagandha: sour smell of Citrus fruits etc. is Amlagandha
5. Kathugandha: pungent smell of pepper etc. is Kathugandha
6. Nirharigandha: spreading smell of asafetida etc is Nirharigandha
7. Samhatgandha: mixture of many perfumes is Samhatgandha
8. Snigdhagandha: sweet oily smell of ghee etc. is Snigdhagandha
9. Rukshagandha: pungent oily smell of mustard oil etc. is Rukshagandha
10. Vishadagandha: fermented rice etc. smell is considered as Vishadagandha<sup>[11]</sup>

## 2.3 Contemporary Indian Literature

### a. Kautilya's Arthashastra

Kautilya's Arthashastra is an ancient Indian Sanskrit treatise. The term 'Arthashastra' means textbook of Statecraft, economic policy, and military strategy. The text is likely to be the work of several authors over centuries. Composed, expanded and redacted between the second century BCE and third century CE, the Arthashastra was influential until the twelfth century, when it disappeared. It was rediscovered in 1905 by R. Shamasastri, who published it in 1909. The first English translation was published in 1915.

Arthashastra has the descriptions of many fragrant drugs, which were used as cosmetics like Sandalwood, Agar (Aquilaria agallocha) and TailaParnika (Eucalyptus).

Chandana (Sandalwood) was used as Anulepana (external application) and as beauty aid and fragrant material. Qualities of Sandalwood were mentioned as light, soft, moist (Asyana, not dry) as greasy as ghee, pleasant smell, adhesive to the skin, absorptive of heat, and comfortable to the skin.<sup>[12, 13]</sup>

Various types of Sandal wood used and their characteristics are mentioned in table 1

Table 1: Various types of Sandal wood and their characteristics<sup>[12,13]</sup>

Types of Sandalwood	Characteristics
Satana	red and smells like the earth
Gosirshaka	dark red and smells like fish
Harichandana	color of the feathers of the parrot and smells like tamarind or mango
Tarnasa, Grameruka	red or dark red and smells like the urine of a goat
Daivasabyeya	red and smells like a lotus flower
Aupaka (Japaka), Jongaka and Taurupa	red or dark red and soft
Maleyaka	reddish white
Kuchandana	black as Agar (Aquilaria agallocha) or red or dark red and very rough
Kosakaraparvataka	black or variegated black, bud shaped
Sitodakiya	black and soft, and smells like a louts flower
Nagaparvataka	rough, possess the color of Saivala (Vallisneria)
Sakala	brown

Agaru was a precious fragrant wood which is used to make incense as well as in the perfume industry. It can be used alone or mixing with other medicinal herbs known for its anti-microbial agent. It can be beneficial for other health related problems like Joint inflammation, Fever, Giddiness, Asthama, headache and in various skin diseases like Eczema, Blisters, Inflammation, Itchiness and Bleeding. Agar was said as heavy, soft, greasy, smells far and long, burns slowly, gives out continuous smoke while burning, is of uniform smell, absorbs heat, and is so adhesive to the skin as not to be removable by rubbing.

Various types of Agarū (Aquilaria agallocha) and their characteristics were mentioned in table 2

Table 2: Various types of Agarū (Aquilaria agallocha) and their characteristics<sup>[12,13]</sup>

Types of Agarū (Aquilaria agallocha)	Characteristics
Jongaka	black or variegated black and is possessed of variegated spots
Dongaka	black
Parasamudraka	variegated color and smells like cuscus or like Navamalika(jasmine)

Taila Parnika was known for its minty camphorous scent and due to its antibacterial and deodorant nature it can be used as a natural air purifier. It was used as Anulepana (external application) and as beauty aid and fragrant material.

Various types of Taila Parnika (Eucalyptus) and their characteristics were mentioned.<sup>[12, 13]</sup>

Table 3: Various types of Taila Parnika (Eucalyptus) and their characteristics

Types of Taila Parnika	Characteristics
Asokagramika	color of meat and smells like a lotus flower
Jongaka	reddish yellow and smells like a blue lotus flower or like the urine of a cow
Grameruka	greasy and smells like a cow's urine
Sauvarnakudyaka	reddish yellow and smells like Matulunga ( <i>Citrus medica Linn</i> )
Purnadvipaka	smells like a lotus flower or like butter
Bhadrasriya and Paralahityaka	colour of nutmeg, smell like Kushtha ( <i>Saussurealappa</i> )
Antaravatya	color of cuscus, smell like Kushtha ( <i>Saussurealappa</i> )
Kaleyaka	yellow and greasy
Auttara-parvataka (a product of the north mountain)	reddish

### b. Ayurvedic literature

Many of the scented drugs, those used in contemporary literatures, were also mentioned in ancient Ayurvedic texts. In Charaka samhita, Susruta samhita, Ashtanga hridaya, Ashtanga sangraha etc., many scented drugs and perfumes were used for improving the complexion and as deodorant. These were used as ingredients in the preparation of oils, powders, collyriums, tablets (Vatis), Vartis (sticks) etc. Sugandha tailas (scented oils) were used to anoint body in many skin diseases. Dhupas (incenses) were used for disinfecting the body or the room. Various scented powders were used for Udvartanam (massage with dry powder in the opposite direction of hair follicle). Sugandha Paniya (Scented waters) was used for Pariseka (sprinkling of medicated liquid over body surface). Peculiar descriptions regarding perfumes and scented articles in ancient literatures Sharangdhara Samhita mentioned that by drinking the fragrant waters with Sandalwood, Cardamom, Usira (*Vetiveriazanioides Linn.*) and Tagara (*Valerianawallichii DC.*) one's body becomes redolent. Drugs which give the body the smell of Champaka (*Micheliachampaka Linn.*) flowers; incense that destroys reptiles, mice, bugs and lice in the house were also described. In this text preparation of various incenses dearer to gods and kings were described. In Bhaishajyaratnavali purification of aromatics by washing (Kshalana) in the juice or decoction of Pancapallavas (five shoots or tender leaves of *Amra Mangifera indica Linn.*; *Jambu-Syzygiumcumini Skeels T*; *Kapittha- Feronia elephantum Correa*; *Bijapuraka- Citrus medica Linn*; *Bilwa- Aegle marmelos Corr.*) was mentioned.

In Rasaratnakara of Nityaananda siddha, special procedures were described to make sandal from the root of Nimba-*Azadirachta indica A. juss* (probably to change the qualities of Nimba root to that of the sandal). This is called as Chandanakaranam; In the same way making camphor from boiled rice is called as Karpurakaranam; Making Kasturi from Panasa- *Artocarpus* or Madhuka- (*Madhuca indica*) oil etc. is called as Kasturikaranam; Making Saffron from Palasha (*Butea monosperma (Lam.) Kuntze*) flowers or Coconut is called as Kumkumakaranam.<sup>[14,15, 16]</sup>

Now, move forward to witness various marked evidences of perfume from different era starting from Indus valley civilization to Nawab era.

### III. EVIDENCE OF PERFUME FROM DIFFERENT ERA

Indus valley civilization is considered as an origin for Perfumes in India, which existed from 3300 BCE to 1300 BCE. On the basis of things found during excavation, it can be said that the social life of people during the Indus Valley civilization were excellent. Both men and Women had great interest in different cosmetics such as lipstick, perfumes, soot, powder, etc. The custom of fragrance remained well perched beginning right from the Sindhu valley civilization to the Gupta period up to the Mauryan periods. Brisk trade was carried on with countries of South East Asia, China, Rome in the west, during Gupta period. India exported pearls, stones, perfumes, spices indigo, drugs, gold, silver, tin etc.<sup>[17]</sup>

There are different origins we can find to prove the existence of perfumes in ancient India, even the great poet Kalidas has mentioned about different fragrances used by heroine. In his work, 'Abhigyanashakuntalam'. The heroin of Kalidas used to fragrant her hair and dresses using fragrances made up with Sandalwood, Kasturi, Jatamasi etc.<sup>[18]</sup> During the Kushan periods; gold embedded perfume boxes were found.<sup>[19]</sup> Maha Kavi Vatsayan has also made mentions of the Indian tradition of fragrances. He also mentioned in his famous book 'Kamasutra' that the female feel hypnotic attraction from the scent emanating from the male body and this smell creates attraction. This emanating smell of the male's body has of late been named as 'Sex Aroma'.<sup>[20]</sup>

### 3.1 Indus valley civilization (3300 BCE - 1300 BCE):

Archaeologists believe that the art of making perfumes began in India during the Indus Valley civilization. They found a distillation apparatus made out of terracotta which dated back into 3000 BCE. Terracotta vessels were discovered that had plugged orifices and woven material that could be squeezed out to isolate the fragrant oils. <sup>[17, 21]</sup>

### 3.2 Gupta era (Mid to late 3<sup>rd</sup> century CE – 543 CE):

During Gupta era, Brihat Samhita was written by Varahamihira in sixth century, is classified as Jyotisha literature, also known as Indian astronomy. Preparation of perfumes (Gandhayukti) is described in seventy seventh chapter of Brihat-Samhita. In this chapter there is a mention of different substance such as Tagara, Manjistha, Myrrh, sukta, Turuska and many more. Different formulas are also mentioned in Brihat-samhita. <sup>[22]</sup>

Kautilya's Arthashastra was also written during this era, has mentioned various fragrant herbs like chandan, Agar, Tailaparnika. <sup>[23]</sup>

### 3.3 Mughal era (Early 16<sup>th</sup> to mid 18<sup>th</sup> century):

In the Mughal period, perfumes were called 'Itra', 'Ittar' or 'attar' and, were used in huge amounts in the harems of the royals.

Court historian Abu'l-Fazl ibn Mubarak chronicled Mughal emperor Akbar's regular usage of attar and incense sticks in the Ain-e-Akbari (Constitution of Akbar) – a sixteenth century detailed document. According to historians, the popular Mughal emperor Akbar had a whole department of perfumery.

Mughal emperor Jahangir, who is credited as the first patron of the industry because his wife, Empress Noor Jahan was a connoisseur of Itra and used to bathe in water perfumed with rose petals. During this period, Queen Noorjahan is rumored to have created a customized 'Itra' using over fifty different rose essences and five kinds of sandal wood oils. Mughal emperors and their queens were fond of attar fragrances and this led to the discovery and development of attars in India. <sup>[24]</sup>

However, historical researchers say that it was indeed the discovery of her mother Asmat Begum, who is from Persia.

Trade during these times flourished and made sure that Indian fragrances reached far and wide to lands like Iran, Egypt, Turkey, Arab and Afghanistan.

The ruler of Awadh, Ghazi-ud-Din Haidar Shah used to prepare fountains of Attar around his bedroom. <sup>[25]</sup>

The fondness for Ittar during Mughal periods reached its acme; the Mughal had settled the Gandhies (experts in making Ittars) and sanctioned Zamindaries to them and allowed them to make the different varieties of Ittars.

### 3.4 Nawab era (18<sup>th</sup> to 19<sup>th</sup> century):

After the decline of the Mughal dynasty in the eighteenth century, the Nawabs governed Awadh and became its rulers. The late Nawab, Wajid Ali Shah, was a kathak dancer. The arts and crafts scene had flourished in Lucknow, the capital of India's Awadh province during the Nawab era. It is said that he sweated a lot during his dance practice, so he would wear the Henna attar. And Awadh promoted the cultivation and Ittar craftsmanship, which is continued till date. <sup>[26]</sup>

## IV. ANCIENT FORMULAS OF PERFUME

In Brihat Samhita, various types of formulations are given for the preparation of perfumes (Gandhayukti) in table no 4 to 11 as follows:

Table 4: Formula for Fragrant Paste

Ingredients	Method of Preparation
Woody cassia, Costus, Renu, Nalika, sprkka, Tagara, Valaka, Kesara and Patra	Mix together equal quantities of these ingredients and grind them on a stone forming them into a paste.

Table 5: Formula for Champakagandhi oil

Ingredients	Method of Preparation
Powder of Manjistha, Vyaghranakha, Sukta, Cinnamon, Kustha and Myrrh+ Any oil	Mix all the powder ingredients in the oil + heat the mixture in the sun

Table 6: Formula of Perfume

Ingredients	Quantity	Method of Preparation
Satapuspa	1/4 <sup>th</sup> Part	Mix together and grind them well and expose the mixture to the smoke of Guda and Nakha. This will produce an excellent perfume
Kunduruka	1/4 <sup>th</sup> Part	
Nakha	1/2 Part	
Turuska	1/2 Part	
Sandal	1 Part	
Priyangu	1 Part	

Table 7: Formula of Perfume

Ingredients	Method of Preparation
Jatamanshi, Valaka, Turuska, Nakha and Sandal	Grind together equal quantities of these ingredients and expose it to the smoke of Bdellium, Balaka, Lac, Musta, Nakha and Sarkara

Table 8: Formula of Vakulagandha

Ingredients	Method of Preparation
Patra, Turuska, Vala and Tagara and Priyanguka	Grind together equal quantities of these ingredients and expose it to the smoke of Katuka and Hingulika and will get a perfume known as vakulagandha

Table 9: Formula of Utpalagandha

Ingredients	Method of Preparation
Patra, Turuska, Vala, Tagara, Priyanguka and Kustha	Grind together equal quantities of these ingredients and expose it to the smoke of Katuka and Hingulika and will get a perfume known as Utpalagandha

Table 10: Formula of Champaka-gandha

Ingredients	Method of Preparation
Patra, Turuska, Vala, Tagara, Priyanguka, Kustha and sandalwood	Grind together equal quantities of these ingredients and expose it to the smoke of Katuka and Hingulika and will get a perfume known as Champaka-gandha

Table 11: Formula of Kopacchada (Destroyer of anger)

Ingredients	Quantity	Method of Preparation
Sita	4 part	Mix all the ingredients and grind them all on a stone with honey and add camphor to this mixture and will get a perfume known as Kopacchada
Saila	4 Part	
Musta	4 Part	
Sri	2 Part	
Sarja	2 Part	
Nakha	1 Part	
Bdellium	1 Part	

It was also mentioned in the book that out of sixteen substances such Ghana, Valaka, Saileyaka, Karpura, Usira, Nagapuspa, Vyaghranakra, Sprkka, Agar, Madanaka, Cola and Sandal, any four mixed in proportion of one, two, three and four parts will form a perfume. As the number of four substances out of sixteen is large and as each of the four substances may be mixed from one to four parts, the number of mixtures will be very large. The process is known as "Gandharṇava-ocean of perfumes". [27, 28, and 29]

## V. TRADITIONAL INDIAN METHOD OF PERFUME MAKING

### 5.1 Perfume capital of India

Kannauj, Uttar Pradesh is known as the Perfume capital of India and Kannauj perfume, is known as Kannauj Ittar or traditional Indian perfume. Kannauj perfume has a long historical background and had perfume trading for thousands of years. Kannauj is globally recognized for its attars and essential oil distillation. Due to the key role of perfume production in Kannauj, the city is known as "the perfume capital of India" and "Kannauj is to India what Grasse is to France". An expert in the region says, "Kannauj has been the perfumery town of the country for thousands of years". [30]

### 5.2 Traditional equipment's for Perfume making:

The apparatus and equipment used to manufacture attar or Indian perfumes are quite flexible with a certain degree of efficiency. The traditional Deg and Bhapka process has been used for centuries in Kannauj and it is in use even now with following traditional equipments. [25, 31]

1. **Deg:** Deg is a copper still in to which the floral, herbal roots etc. are put. The degs can hold between 10 kilograms to 160 kilograms of materials.



Fig.1: The Deg [32]

2. **Sarpos:** It is the lid at the top of the deg. It has openings to connect to receivers. There is usually one bhapka but sometimes, there are two bhapka.
3. **Bhapka:** It is the receiver which is also made of copper. It is connected to the deg by the chonga, i.e. to the still by a hollow bamboo pipe, which act as a condenser.



**Fig.2: The Bhapka** <sup>[33]</sup>

4. **Chonga:** A hollow pipe made out of bamboo wrapped with twine for insulation. It acts as a condenser. The chonga connects the still to the receiver, i.e. the deg to the bhapka.



**Fig.3: The Chonga** <sup>[34]</sup>

5. **Gachchi:** It is the cooling water tank. It is in the gachchi where bhapka is kept to cool the distillate from the deg.



**Fig.4: The Gachchi** <sup>[35]</sup>



6. **Kuppi:** A kuppi is a leather bottle in to which the attar is poured for sedimentation. The leather in the kuppi absorb moisture, allows water to evaporate, thus, leaving behind only the attar.

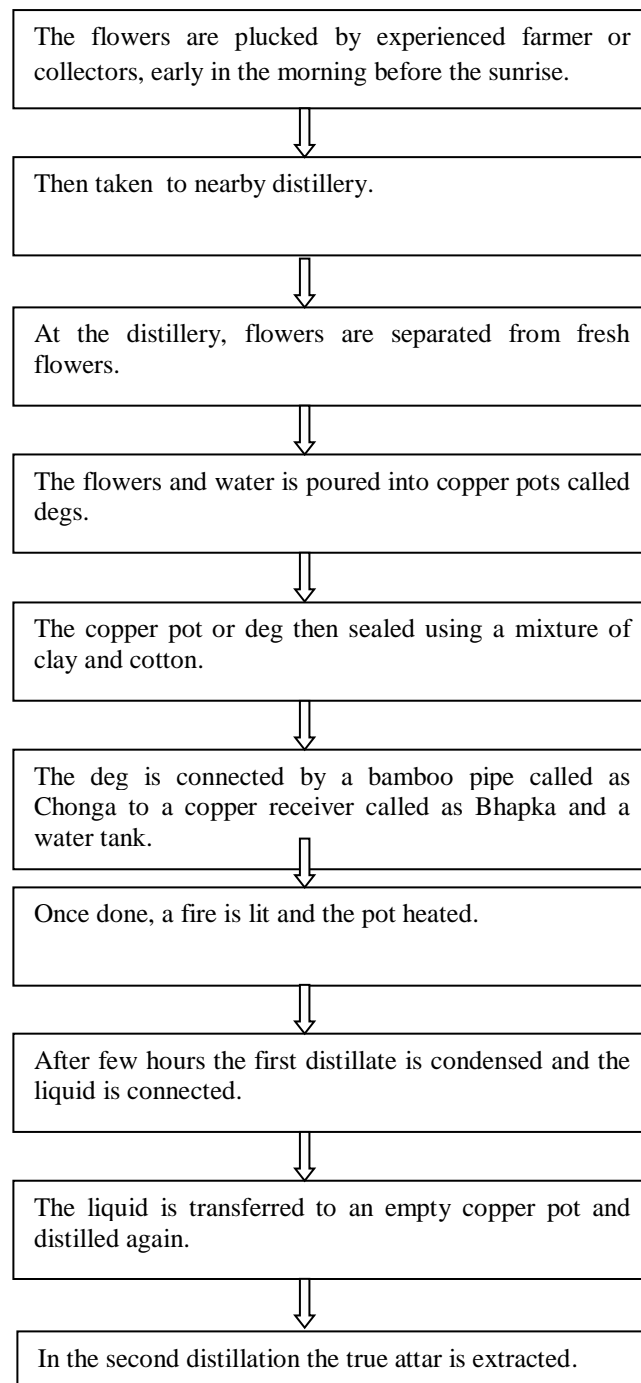


**Fig.5: The Kuppi** <sup>[36]</sup>

7. **Bhatti:** This is a traditional furnace which is heated by wood or cow dung cakes.

#### Manufacturing Process:

Here is the step wise manufacturing process of making traditional perfume (attar) by using traditional hydro-distillation method. <sup>[24, 25]</sup>



There are hundreds of aroma distilleries running throughout the year in Kannauj and its nearby areas. Even after the easy access of modern equipment they still prefer to use the traditional distillation for making perfumes because they still believe that it is the only way to collect the true essence of plant materials.<sup>[30]</sup>

## **VI.DECADENCE AND MEASURES TO PROTECT INDIAN PERFUME**

### **6.1 Decline of Indian Perfume**

The Indian independence movement was a series of past events with the ultimate goal of ending the British rule in India. It was during this period that the flourishing industry of Indian perfume making took a back seat to the question of freedom and escape from the clutches of poverty. The art of perfume making withered and lay ignored.

While it is still popular with natural-fragrance enthusiasts, Indian perfumes or attars are increasingly shunned by India's brand-conscious consumers, who have become used to foreign products since economic reforms in the 1990s opened up the country's markets. Rising raw material costs, particularly of oil which must be imported because of limited production in India, and the rising cost of sandalwood oil and ban on the cutting of the sandalwood tree (the oil of which formed the base of attar) are major reasons for the ostracization of this perfume. Chemical alternatives and paraffin based perfumes are much cheaper to make so it makes business sense to switch to these. The city of Kannauj boasted nearly 700 distilleries up until the late 1990s which have now reduced to some 150-200 distilleries.<sup>[37, 38]</sup>

### **6.2 Initiative taken by Government of India**

Certain initiatives have been undertaken to preserve the traditional technology of perfume making in India and boost the attar industry through the foundation of the "Fragrance & Flavour Development Centre (FFDC)" at Kannauj in the year 1991 by the Government of India with the assistance of UNDP/UNIDO and the Government of Uttar Pradesh. FFDC aims to serve as an interface between the essential oil, fragrance and flavour industry and the R & D institutions both in the field of agro and chemical technology. The main objective of the center is to serve, sustain and upgrade the status of farmers and industries engaged in aromatic cultivation and processing, so as to make them competitive in both local and global markets. Also, R & D support for the cultivation of aromatic plants is generated through the Central Institute of Medicinal and Aromatic Plants (CIMAP) with its headquarters at Lucknow.

In 2014, the Intellectual Property Rights Day, Kannauj perfume, one of the 14 items unique to various locations in the country, was awarded the Geographical Indications (GI) tag. Moreover, the former Uttar Pradesh Government came up with a visionary plan in the year 2015 of a possible 'Kannauj-Grasse pact', a mutual agreement between the two towns famous for their perfumes and Ittar (attar), respectively, and for giving Kannauj's traditional business a leg up. The pact, which is expected to facilitate technology exchange, ingredient sourcing and partnership among perfume manufacturers of the two cities, is also expected to revive and modernize the struggling indigenous perfume industry and give it international presence.<sup>[39, 40]</sup>

## **VII.RECENT SCENARIO**

The modern India belonged to the youth. New and modern perfumes enticed their senses. The palates of Indian consumers evolved to include the more sophisticated and popular scents of the western cultures. Since then, Indian perfume has molded itself not just according to Indian tastes but also to the senses of the people around the world who have desired it.

The rich legacy of ancient Indian aromas has continued into the modern times of today. Indian fragrances are counted to be amongst the best and are considered to be some of the most unique smells world-wide. As the tastes of modern India evolved, the Indian perfume industry accepted and took modern smells into their folds.

Today, we see a pack of new age and foreign perfumes in the Indian market. It is also observed that the celebrities endorse and come forth with a new line of fragrances every other day. We often tend to give into the new fashioned commotion of perfumes. But at the same time, we must remember to hold our age old tradition of perfume making.

## **VIII.DISCUSSION AND CONCLUSION**

The Indian history of perfume is rich and multilayered to it. It is a thousand years old tradition followed by our ancestors and connects us to our country's diversity and culture. Among the vast literature on perfumes and scented products, it is mentioned that how ancestors used perfumes and scented articles on daily basis for performing rituals.

It is not an exaggeration, that in olden days, use of perfumes and scents was very prevalent to maintain mental, psychological and physical health. From time immortal perfume has a spiritual connection with God. Various evidences from ancient literature that explains the importance of perfume and various fragrant ingredients such as aromatic herbs, resin, barks, leaves, exudates, twigs, root and seed. Perfume is also considered as a method of communication between distant people. Back in medieval age kings used perfume to deliver secret messages to their spy.

Researchers also state the exceptional ability of perfumes. Studies shows that the brain integrates smell with information about space and time to form episodic memories.

In Brihat Samhita, Varahamihira explained about different formulations of perfumes and its importance.

Indus valley civilization is considered one of the written origins of perfume in India. There are many evidences found from various ancient texts such as Brihat Samhita, Sushrut Samhita, etc. Different era marked the journey of Indian perfume right from Indus valley civilization to Nawab era. During Mughal period, Akbar had a whole department of perfumery. Trade during these times flourished

and made sure that Indian fragrances reached far and wide to lands like Iran, Egypt, Turkey, Arab and Afghanistan. Mainly, Awadh promoted the cultivation and Ittar craftsmanship, which continued till date.

Kannauj is considered as the perfume capital of India because it is a traditional Indian perfume manufacture and it is still known for its traditional way of perfume making by using deg and bhapka method. But now people are more into modern perfume so the distilleries in Kannauj are decreasing day-by-day. The government had taken various steps to protect the Kannauj perfume. It has been protected under the Geographical indication of the agreement on trade related aspects of intellectual property rights agreement and it is listed at item 157 as “Kannauj perfume”.

Since after 2017, it has been seen that there is a continuous depletion of distilleries in Kannauj therefore it is the moral resp[onsibility of concerned authorities to come up with some solutions for uplifting of the distilleries.

So, as a citizen of India it is our responsibility to support our own Indian perfume (attar) rather than investing our hard earned money on modern perfume.

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