

Revolution of Cosmetics

Revolution of Cosmetics:

Cosmeceuticals

Edited by

Niharika Lal and Rosaline Mishra

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CHAPTER 1

HISTORY OF COSMETICS

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Abstract

The pursuit of beauty through the ages: A historic perspective on Cosmetics from “Antiquity to Modern Times”. This exploration delves into the development of cosmetics over millennia, from ancient rites to modern elegance. It examines how beauty standards, ingredients, and applications have transformed over time, revealing the cultural, social, and economic influences that have shaped the cosmetics industry. Cosmetics have long been a part of human society, transcending time and location. We analyse the numerous practices of cosmetics in several civilizations, including ancient Egypt, Greece, and China, where makeup was not just a technique for adornment but also had cultural and spiritual importance. By delving into ancient Egypt’s use of kohl and the significance of cosmetics in Mesopotamia, we uncover the beginnings of cosmetic traditions. As we move through the Renaissance era with the emergence of skin whitening products, we witness the global spread of cosmetics and the complex dynamics of power, colonization, and influence. The modern era showcases rapid advancements in cosmetic technology, including the rise of skincare, mass production, and the impact of social media on beauty ideals. Cosmeceuticals, which combine cosmetics and medications, have a long history. Plant extracts were employed for cosmetics by ancient civilizations such as the Egyptians and Greeks. Scientific breakthroughs in the twentieth century resulted in the development of cosmeceuticals, which contained active substances for therapeutic skin benefits. They now provide a comprehensive selection of products for improved skin health

and attractiveness, bridging the gap between beauty and healthcare. This chapter not only elucidates the changing role of cosmetics but also underscores their significance as a mirror reflecting society's evolving values and perceptions of beauty. The move from natural components to chemically produced cosmetics in the twentieth century was a watershed moment in the business, ushering in new products and beauty standards. This abstract summarizes the history in cosmetics, providing a fascinating trip through the realm of beauty and self-expression.

Keywords: Cosmetics, History, Cosmeceuticals, Beauty, Healthcare, Ancient, Modernism.

1. Introduction

The history of cosmetic chemicals, application techniques, and beauty standards illustrates a complex web of cultural, social, and economic influences that have shaped the cosmetics industry. From prehistoric societies to contemporary societies, cosmetics have not only adorned the human form but also dynamically signified shifts in social mores and cultural norms. The progression of beauty standards, from Renaissance extravagance to modern minimalist design, mirrors the always shifting landscape of cultural perspectives. The choices of ingredients for cosmetics have changed to reflect developments in science, societal issues, and business needs. Modern formulae seamlessly incorporate technology, sustainability, and a multitude of cultural influences, reflecting the worldwide nature of the beauty industry. Moreover, the development of application methods highlights how beauty practices align with both personal expression and societal norms. In this vibrant journey, makeup transcends space and time to become cultural artifacts that convey the complex interactions between tradition, innovation, and social realities. Within this complex web of evolving beauty standards and cosmetics, the cosmetics industry has adapted over centuries to changing social mores, rapid technology advancements, and an increasingly worldwide consumer base. From the splendor of ancient civilizations to the minimalist aesthetics of today, beauty standards have always served as a window reflecting the dominant cultural values of the day. Cosmetics are more than just decoration; they are the core of customs, society expectations, and personal expression.

2. Evidence of use in Pre-Historic Times

Enhancing one's appearance through cosmetic procedures has a long and varied history that goes back to recorded civilization. Prehistoric societies used elements from their environment to make cosmetics when practicing the art of ornamentation in different parts of the world. Each culture evolved its own techniques for showcasing and enhancing its qualities, ranging from colors to oils. This investigation will look at the evidence of cosmetic usage in prehistoric periods, looking at various locations and the materials used to improve appearance. It will also take into account the socio-cultural and spiritual aspects that gave these practices a deeper significance.

Africa

Ochre and Clay Jewelry Ochre and clay ornaments have been discovered at archeological sites throughout Africa, providing evidence of prehistoric cosmetic practices dating back tens of thousands of years. Natural earth pigments like ochre were employed for their aesthetic value but also had symbolic and ceremonial meaning. Ochre combined with animal fat was used by several African tribes and societies to create elaborate body designs that denoted important life events and signified tribal identity. Additionally, clay was shaped into intricate face patterns that demonstrated the inventiveness and cultural variety of these prehistoric communities.

Ancient Egypt - Cosmetic procedures achieved an unprecedented level of expertise in ancient Egypt. Applying kohl, a mixture of crushed minerals, around the eyes had a dual purpose of shielding the area from the sun's glare and improving appearance. Not only were perfumed oils, sometimes infused with fragrant botanicals, utilized for cosmetic purposes, but they also served as a social status symbol. These cosmetic procedures were firmly embedded in Egyptian culture and had religious overtones, reflecting the complex views of the Egyptians on beauty and the afterlife.

West Africa - Intricate body painting and scarification were common cosmetic procedures in West Africa, especially among the Yoruba and Fulani peoples. Skin was painted with natural dyes, such henna and indigo, to create intricate designs that represented social standing and cultural identity. Intentional skin scarring, or scarification, had ceremonial as well as cosmetic uses, with each mark signifying a person's courage, social position, or ancestry.

Asia

Ancient Asia, encompassing the Indian subcontinent and the Middle East, boasts a rich tapestry of cosmetic practices.

India - India has a long and illustrious history of using cosmetics, going back thousands of years. Indian culture has a strong emphasis on personal grooming and appearance; historical writings, archeological discoveries, and artistic depictions all contain references to cosmetic procedures. Henna, a natural dye made from the *Lawsonia inermis* plant, is one of the most well-known and longstanding cosmetic practices in India. Long used for generations to make elaborate and beautiful designs on the hands and feet, henna, also known locally as "mehndi," is especially useful during festivities and special events. The traditional Indian medical system known as Ayurveda has had a big impact on cosmetic procedures. There is a plethora of knowledge on using natural products for skincare and beauty in Ayurvedic scriptures. Because of their medicinal qualities, a variety of herbs and substances, including amla, neem, turmeric, and sandalwood, were included in beauty rituals. For example, the antibacterial and anti-inflammatory properties of turmeric were used topically to treat skin problems and improve skin vibrancy. Sandalwood was crushed into a paste and used as a skin cooling and cosmetic. Sandalwood was treasured for its pleasant perfume. Ancient Indians were skilled at using metals and minerals for beauty reasons in addition to herbal medicines. Not only was kohl, a combination of lead and other materials, put around the eyes for cosmetic purposes, but it also served as protection against sun glare and eye diseases. The elaborate practice of applying bindis, which are beautiful dots worn on the forehead, is another example of how important cosmetics are to Indian culture. Frequently crafted from sandalwood or vermilion paste, the bindi represents commitment and married status and is more than just a decorative piece with social, cultural, and religious connotations. Indian literature, art, and sculptures from a variety of eras all reveal the usage of makeup, demonstrating the value that has always been put on beauty. The Kama Sutra, an ancient treatise on love and aesthetics, talks about applying fragrances and ointments and emphasizes the sensuous and artistic elements of using cosmetics.

China: The idea of yin and yang had a significant effect on cosmetic procedures in ancient China. The face was massaged with jade rollers to encourage balance and circulation. For their alleged restorative properties, herbal elixirs including ginseng and pearl powder were administered.

These methods demonstrated a comprehensive view of beauty that placed equal emphasis on one's physical and mental health.

Japan - The geisha culture in Japan profoundly influenced cosmetic procedures. White cosmetics, derived from rice powder, was used by geishas as a sign of elegance and purity. To draw attention to particular characteristics, natural hues like red and black were used. Applying cosmetics precisely was an artistic and cultural statement as well as a means of beauty.

Europe

In prehistoric Europe, during the Paleolithic era, evidence points to the use of pigments such as red and yellow ochre, as well as charcoal, for body painting.

Greece: The Greeks were known for appreciating beauty, and they used cosmetics on a regular basis. Due to its abundance in the area, olive oil was a basic element in cosmetics and was used for both hair and skincare. The Greeks' holistic view of health and beauty was supported by the usage of herbal baths, which were not only purifying but also considered beneficial when infused with fragrant flowers and herbs.

Celtic Tribes - European Celtic tribes, including the prehistoric Britons, had unique beauty customs. Body painting was done with woad, a blue dye made from a flowering plant that was used to create elaborate designs. Hair was dyed with herbal mixtures made from plants like as madder and heather, which added to a vivid and personalized feeling of decoration.

North America

The indigenous peoples of North America, including various Native American tribes, engaged in elaborate cosmetic rituals involving the use of natural pigments derived from the environment.

Hopi Tribe - Turquoise was pulverized into a powder by the Hopi people in the southwest and used as a cosmetic pigment. Symbolic face paint, which frequently included animals or other spiritual symbols, was essential for establishing connections between people and their spiritual beliefs as well as the natural environment in ceremonial and ritualistic settings.

Iroquois Confederacy - Using natural colors, the Iroquois Confederacy in northeastern United States engaged in body painting and tattooing. In addition to being just ornamental, tattoos had great cultural importance, signifying accomplishments, ties to the afterlife, and membership in a clan. Both cosmetic and ceremonial uses were made of natural colors like red ochre and crushed berries.

South America

In the lush rainforests of South America, particularly in the Amazon basin, prehistoric cosmetic practices were manifested through vibrant body painting and the use of natural ornaments.

Inca Empire - Gold Dust and Decorative Jewels Cosmetic procedures under the Inca Empire were a reflection of the splendor and luxury of the society. During important occasions, gold dust—a sign of wealth—was sprinkled to the skin to improve its appearance. Individuals' look was further enhanced by ornamental jewelry, which was frequently crafted from expensive metals and jewels and represented their social standing and spiritual ties.

Tupi-Guarani Tribes - Feather Adornments and Annatto Seed Paint Anistato seeds were used by the Tupi-Guarani people of modern-day Brazil to make crimson body paint. Peacock feathers, plucked from the colorful birds of the area, were used for body art and hairstyles. These customs honored the Amazon rainforest's biodiversity in addition to being just aesthetic.

Oceania

The islands of Oceania, including Polynesia and Melanesia, have a rich history of prehistoric cosmetic practices centered around tattooing and the use of plant extracts.

Maori Culture - Maori people in New Zealand considered face tattoos, or moko, to be more than merely cosmetic; they had significant cultural and ancestral meaning. In order to create dynamic and expressive hairstyles, feathers and other ornamental components were attached to hair using kauri gum, a resin derived from native plants.

Papua New Guinea - In Papua New Guinea, diverse indigenous communities engaged in face painting using natural pigments derived from local plants.

Shell ornaments, intricately crafted and worn as facial adornments, added a unique cultural flair to individual appearances. The symbolic use of colors and patterns conveyed social status, initiation rites, and connections to ancestral spirits.

Middle East

In the ancient Middle East, including regions like Mesopotamia and the Levant, cosmetic practices were integral to daily life.

Persia - Noted for their highly developed civilizations, the ancient Persians were also noted for their love of expensive makeup. Rose water was used as a perfume and toner when it was extracted from fragrant roses. Perfumes made from jasmine, which are produced by laborious distillation techniques, gave both men and women an air of refinement.

Sumerians - Cosmetic procedures were highly developed in Sumer, an ancient culture that is regarded as one of the oldest in history. Black kohl was applied around the eyes with reed pens to accentuate their attractiveness. Kohl was used for cosmetic purposes, but it also had mystical and protective meanings; it was thought to fend off bad spirits and the intense desert heat.

Central Asia

Nomadic cultures in Central Asia, including the Scythians and Mongols, engaged in prehistoric cosmetic practices that reflected their nomadic lifestyles.

Mongol Empire - Fabrics and clothing were colored under the great Mongol Empire using natural dyes made from indigenous plants. The use of horsehair braids, embellished with vibrant threads and beads, into hairstyles demonstrated a fusion of functionality and artistic expression reminiscent of a nomadic lifestyle.

Scythian Tribes - Known for living a nomadic existence on the Eurasian steppes, the Scythian tribes used tattoos as a cosmetic enhancing technique. Women with extensive tattoos were viewed as more beautiful, and their extravagant haircuts and outfits were enhanced by gold jewelry like as necklaces and earrings.

East Asia

In East Asia, ancient cosmetic practices were influenced by the elegant traditions of geishas in Japan and unique rituals in Korea.

Korea - Red ginseng was a common component of the natural materials used in Korean cosmetic traditions. Skincare regimens with red ginseng were thought to encourage energy and brightness. Hanbok dyes, which are made from plants like indigo and safflower, gave traditional Korean garments more color and visual appeal.

Tang Dynasty (China) -Vibrant lip rouges derived from natural colors like cinnabar and crushed flowers were quite popular in the Tang Dynasty of China, and were worn by both men and women. A sophisticated and polished image was enhanced by elaborate hairstyles that were embellished with ornate combs and accessories, reflecting social position and personal flair.

Australia

The Indigenous peoples of Australia engaged in prehistoric cosmetic practices centered around body paint and ochre ceremonies.

Yolngu People -The Yolngu people of Northern Australia used ochre body paint for ceremonial and cultural purposes. Clan affiliations, familial relationships, and ceremonial involvement were all represented by certain patterns and hues. The transmission of cultural identity and the art of storytelling depended heavily on these activities.

Tiwi Islanders -The Tiwi Islanders, who lived off Australia's northern coast, performed complex body-painting Pukumani rites. Intricate patterns of white ochre were applied, signifying the world of the ancestors, rebirth, and grieving. Natural paints were used to emphasize the carved totems and accessories that complemented the ceremonial clothing.

Scandinavia

Viking Ornamentation and Herbal Infusions In ancient Scandinavia, including regions inhabited by the Vikings, evidence suggests the use of herbal infusions for cosmetic purposes.

Viking Societies - Infusions of Birch Bark and Metal Accents The inherent astringent qualities of birch bark were used by Scandinavian Vikings as birch bark infusions for cosmetics. Brooches, necklaces, and rings adorned with metal decorations made of bronze and silver added to the distinctive and elaborate Viking style.

Saami People -The Saami people, who are native to northern Scandinavia, dressed in traditional garb that was heavily beaded and embroidered. Natural plant dyes, such as those found in lichens and berries, were utilized to color textiles, resulting in visually arresting clothing that expressed both natural harmony and cultural identity.

Sub-Saharan Africa

In regions of Sub-Saharan Africa, such as among the Mursi people of Ethiopia, unique cosmetic practices involved the use of lip plates.

Mursi Tribe - Lip stretching and the usage of lip plates were practices of the Mursi people, who were distinguished by their unique jewelry. The young ladies' lips were gradually stretched until they reached a specific length, at which point ornamental plates were implanted. Intricate scar patterns on the body also served as a means of expressing messages about social standing, age, and life experiences.

3. The Renaissance Era

In the history of makeup and personal grooming, the Renaissance, which approximately spanned the 14th through the 17th century, was a significant turning point. During this age of European intellectual and cultural renewal, which was marked by a resurgence of interest in humanism, literature, and the arts, beauty standards and cosmetic procedures underwent a significant shift. The Renaissance was a time of travel, individualism, and the rediscovery of ancient knowledge. These factors combined to create a thriving cosmetics culture that went beyond simple vanity and became an essential component of social identity.

The global mosaic of Renaissance cosmetic evolution provides a particularly obvious example of the interplay between colonization, influence, and power. In addition to being solely aesthetic choices, the era's cosmetic choices also conveyed financial disparities, cultural supremacy, and social customs. Fads in cosmetics mirrored the Renaissance's obsession with light complexion, which represented a broader shift in

societal values and aspirations. This phenomenon illustrates the complex dynamics of international power structures as well as how beauty standards may affect how people express their identities on an individual basis. They can also function as historical narrative reflectors and shapers. As the Renaissance wore on, the landscape of cosmetics became more and more dramatic as colonial and influential forces came to play out, inspiring beauty traditions that have endured to this day.

Throughout the Renaissance, ancient Greco-Roman aesthetics had a significant impact on the general perception of beauty. The concepts of cleanliness, health, and beauty were reexamined as a result of the resurgence of ancient writings, such as those by Hippocrates and Galen. In addition to inciting an intellectual awakening, this renaissance established the groundwork for a methodical approach to cosmetic procedures. The Renaissance poet Horace introduced the idea of "ut pictura poesis," or "as is painting, so is poetry," which stressed the artistic and visual components of both language and appearance.

The use of lead-based cosmetics, particularly Venetian ceruse, was one of the distinguishing characteristics of Renaissance beauty. The desired pale skin, signifying nobility and refinement, was achieved by using this whitening paste, which was made by mixing lead and vinegar. However, because lead poisoning and skin damage might result from its usage in cosmetics, there were serious health hazards associated with it. The desire for an idealized look persisted in spite of these risks, and women in the Renaissance frequently went to considerable measures to acquire the stylish pallor connected to the highest classes of society.

Novel treatises on beauty and makeup also were popular throughout the Renaissance. "De Ornatu Mulierum" (On the Dressing of Women), written by the Italian surgeon and physician Michele Savonarola, is one famous example. This treatise, which was published in 1470, provided a thorough advice on women's beauty, including subjects like makeup application, hair care, and skincare. Savonarola's book, which combined medical knowledge with beauty techniques, represented the rising interest in cosmetics as a form of self-care and personal betterment. Hairdressing played a crucial role in Renaissance grooming practices, as ornate hairstyles and wigs gained popularity. Both men and women were wearing hairpieces, curls, and intricate braids. The elaborate preferences of the era were reflected in the frequent use of ribbons, gems, and even feathers to embellish hair. People started using hairstyling as a medium for creative

expression, attempting to create ornate coiffures that would demonstrate their social standing and riches.

During this time, perfumery also saw a resurgence in popularity. The exotic spices, herbs, and oils that were brought from the East by trade routes contributed to the obsession with smells. Not only were perfumes intended to cover up offensive smells, but they were also seen as a luxury and a status symbol. Florence, in Italy, became a major hub for the creation of perfumes, with well-known perfumers like Caterina Sforza crafting custom fragrances for the wealthy.

Applying cosmetics has evolved into an art form, with a focus on striking a balance between face characteristics. The idealized and young appearance attained by the meticulous application of cosmetics was referred to as the "mask of youth," a term that cosmetic practitioners originated during the Renaissance. The goal was to produce a perfect complexion evocative of ancient sculptures by using lead-based foundation and using rouge to highlight the lips and cheeks.

Although the wealthy accepted cosmetics, there were negative societal views on their usage. For example, the Church had doubts on the morality of altering one's natural look using cosmetics. But cosmetics' appeal won out, and society and cultural conventions grew to heavily influence how they were used.

A move toward a more realistic aesthetic in terms of beauty standards also occurred throughout the Renaissance. With the beauty of the human form highlighted by Renaissance painters such as Leonardo da Vinci and Raphael, there was a rising awareness for the elegance and uniqueness that each person had by nature. This change promoted the use of cosmetics more subtly, emphasizing the enhancement of natural traits as opposed to their total concealment.

Apart from the mere application of makeup, the Renaissance promoted the growth of an analytical and philosophical perspective on beauty. Baldassare Castiglione popularized the term "sprezzatura" in his book "The Book of the Courtier," which highlighted the art of unforced grace and organic beauty. This idea also applied to grooming habits, pushing people to cultivate a look that seemed natural and effortless.

The influence of the Renaissance on makeup spread from Italy to other European aristocracies. Under Catherine de' Medici's influence, the French court adopted Italian cosmetic traditions, which helped spread the use of

elaborate hairstyles and lead-based cosmetics. Another factor in the development of France as a hub for the creation of fragrances was the French queen's support of perfumers.

4. Industrial Revolution

Cosmetics underwent significant modifications as a result of the Industrial Revolution, an era of tremendous social and economic development that lasted from the late 18th to the early 19th century. This period ushered in a new era of mass production and consumption by replacing conventional, small-scale production methods with large-scale mechanical manufacturing. The Industrial Revolution had a profound effect on the cosmetics business, changing accessibility, product formulation, packaging, and even the definition of beauty.

The automation of manufacturing processes was one of the major innovations of the Industrial Revolution. Before this time, apothecaries would create cosmetics in tiny amounts or handcraft them by local artists. The mass manufacture of cosmetics was made possible by the development of technology that was first driven by steam engines and then by electricity. Due to this change, there were more cosmetics on the market, increasing the accessibility of beauty items for the growing middle class.

Another important advance was the standardization of cosmetic compositions. Standardized recipes were developed as a result of industrialization's need for uniformity in the quality and presentation of products. In addition to guaranteeing product dependability, this uniformity made large-scale duplication simpler. Cosmetics that were formerly exclusive to particular areas or individual artists might now be mass-produced and disseminated in large quantities. During this time, cosmetic packaging saw a revolution. Cosmetics were once frequently kept in elaborate, handcrafted containers. As mass manufacturing increased, packaging emerged as a key component of product marketing. Manufacturers used materials like glass, metal, and subsequently plastics, embracing creative package designs. This prolonged the shelf life of cosmetics and added to their visual attractiveness, making them more appealing to consumers and influencing their purchasing decisions. The way that cosmetics were marketed and perceived also changed during the Industrial Revolution. As a result of improved manufacturing capacities, cosmetics were no longer considered an elite perk. Mass-produced cosmetic items become available to a wider range of people due to their low cost. There were a ton of advertisements that

spread the notion that self-care and beauty were not just for the wealthy. The democratization of cosmetics has played a role in altering the way society views personal maintenance and appearance. The variety of cosmetic goods has increased significantly due in large part to advances in chemistry. The Industrial Revolution was accompanied by advances in our knowledge of the chemical makeup of different substances. By using this information to the cosmetics industry, novel product compositions and ideas were created. Preservatives, emulsifiers, and synthetic dyes became essential parts of cosmetics, enabling a greater variety of hues and textures in skincare and makeup. During the Industrial Revolution, department shops and pharmacies proliferated, which expedited the accessibility of cosmetics. These stores developed as shopping destinations for a wide variety of cosmetics. Beauty counters gave customers the opportunity to try on and engage with items before making a purchase, a practice that still influences the cosmetics industry's retail environment today. The Industrial Revolution's growth of the beauty business had an impact on society and culture. The increased accessibility of makeup has led to a change in the perception of what is beautiful. Social expectations surrounding personal hygiene and self-presentation increased as beauty products became more widely available. The cosmetics business had an impact on how people portrayed themselves in public and shaped ideas of femininity.

5. Victorian Era

During Queen Victoria's reign, the Victorian Era (1837–1901) saw significant changes in society as seen by rigid moral standards, social expectations, and a unique perspective on fashion and beauty. Victorian perceptions of cosmetics mirrored the time's dominant ideals, which combined ideas of social standing, humility, and the Industrial Revolution.

Social conventions throughout the Victorian era valued moral rectitude and virtue. The general consensus was that overusing makeup might be seen as immodesty or moral weakness. This conservative outlook was especially noticeable in the higher classes, when having a natural, modest appearance was seen as a sign of sophistication. Victorian society's wealthy women frequently sought an airy and delicate appearance, highlighting their fair skin, flushed cheeks, and delicate features. Victorian women were supposed to be pure and graceful, and makeup was used to meet this idealized standard of beauty.

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Rouge was a common cosmetic in Victorian beauty kits, used to impart color to the lips, cheeks, and perhaps even the ears. Nonetheless, care was used when applying rouge in order to preserve the illusion of natural modesty. Ladies would apply a little color to their cheeks to get a soft, subtle blush. Lip color was used sparingly to provide a soft, pink tint. It was frequently created from crushed flowers or berries.

Scented cosmetics also became popular during the Victorian era, a reflection of the general obsession with sweet and flowery scents. In a time when washing was less common, perfumes and scented oils were used not just for cosmetic purposes but also to cover offensive smells. A subtle scent was thought to be a crucial element of a woman's allure.

Although Victorian women used cosmetics as part of their beauty ritual, there was a contradictory mindset around their use. There is a stigma associated with cosmetics among the middle and upper classes because of the association of heavy makeup with actors and women in the entertainment business. Instead of making a strong statement, makeup was frequently applied subtly and was meant to give the impression of natural beauty.

Victorian beauty standards included haircuts and accessories in addition to cosmetics. Women favored elaborate hairstyles that were frequently accessorized with combs, ribbons, and flowers. Wigs and hairpieces were used to create voluptuous looks that emphasized femininity and sophistication. With her hourglass form, high-collared gowns, and painstakingly styled hair, the Gibson Girl—an iconic symbol of the idealized American lady in the late Victorian and early Edwardian eras—embodied these beauty ideals.

The Victorian era's fixation on propriety and modesty permeated the fashion industry as well. Dresses with high necklines, long sleeves, and full skirts hid the feminine figure, highlighting a modest and dignified demeanor. The corset, a common undergarment during the period, was

seen to be a necessary component of a woman's wardrobe as it shaped the perfect hourglass figure. In addition to being a statement of style, wearing a corset reflected society's focus on self-control and constraint.

Significant developments in the cosmetics sector occurred during the Victorian era, partly due to the Industrial Revolution. Because beauty goods could now be found everywhere thanks to mass manufacture, women from all socioeconomic backgrounds could now afford cosmetics. A wide range of beauty products, including scented soaps, hair accessories, and powders and lotions, were introduced by department shops and catalogs. As cosmetics became more widely available, society's perceptions changed as beauty items got increasingly integrated into daily life.

6. Mid-20th Century

The globe saw enormous sociocultural and economic changes in the middle of the 20th century, which had a big effect on the cosmetics business. During this critical era, the aftermath of World War II, the emergence of consumerism, and the introduction of new technology all influenced the standards of beauty, new product development, and marketing tactics. The 1950s saw a break from the rigors of wartime privation following World War II. The beauty sector saw a rebirth after being subject to limitations on output and resources throughout the conflict. The classic "New Look" of Christian Dior, which debuted in 1947 and was defined by voluminous skirts and nipped waists, served as the model for a comeback of goddess and glitz. This change in aesthetics had an impact on cosmetic trends, emphasizing the enhancement of characteristics through careful application. In the United States, the 1950s witnessed the rise of renowned beauty icons like Marilyn Monroe, whose glitzy makeup and trademark red lips came to symbolize the Hollywood appeal of the time. Beauty standards were also influenced by the image of the "perfect" American housewife. Women were expected to keep up a flawless look, and using makeup became necessary to meet this expectation. Profiting on this trend, companies like Revlon and Max Factor launched a line of makeup that claimed to accentuate natural beauty while upholding the principles of refinement and glamor. The 1960s saw a profound change in society norms and ideals, which was reflected in the beauty business. As a result of the counterculture movement's challenges to conventional norms, a looser, more organic style evolved. Influential people like Brigitte Bardot and Twiggy promoted the disheveled hairstyle and doe-eyed expression, which marked a change from the carefully

manicured image of the previous decade. Cosmetics changed with the times to reflect a more free-spirited aesthetic, with the classic cat-eye liner, softer eyeshadows, and lighter foundations characterizing the makeup trends of the time. The trend of valuing uniqueness and self-expression persisted until the 1970s. The hippy movement brought about a shift away from heavy makeup and a rise in interest in natural goods. Earthy hues, simple styles, and an emphasis on skincare became popular. In response, the cosmetics industry released goods that emphasized a more effortless, natural beauty. To meet the changing demands of the modern woman, this century also saw the introduction of novel formulas including long-wearing lipsticks and oil-free foundations. The beauty business reflected the opulent mood of the times as the globe entered the 1980s, an age marked by extravagance and grandeur. Vibrant lip colors, strong blush tones, and eyeshadows all took center stage in the makeup world, along with dramatic and daring styles. Pop idols like Madonna shaped cosmetic trends and encouraged color and style experimentation, and the fashion and entertainment industries were key in shaping the standards of beauty. Cosmetic technology also saw significant developments in the late 20th century. Airbrushing methods, waterproof makeup, and long-lasting ingredients altered the longevity and application of makeup. The advent of computer technology has even more effects on the business, allowing for the creation of virtual makeup simulations and influencing standards of beauty through the use of digitally altered imagery in advertisements. Throughout this time, aspirational beauty and lifestyle branding became more prominent in cosmetic marketing methods. Celebrities began to represent a given brand of goods, lending glamour and attractiveness to the story. Furthermore, a more democratic approach to beauty emerged with the advent of makeup artists and beauty influencers in the late 20th century, as people tried to duplicate professional techniques at home.

7. Late 20th to 21st Century

The cosmetics business underwent a significant transformation in the late 20th and early 21st centuries, propelled by breakthroughs in technology, shifting customer tastes, and a worldwide market. Significant advancements in this era changed people's perspectives on skincare and beauty, which resulted in a paradigm shift in the production, distribution, and use of cosmetics.

Scientific discoveries in the late 20th century brought to a revolution in skincare and makeup. The creation and incorporation of alpha hydroxy

acids (AHAs) and beta hydroxy acids (BHAs) in skincare formulations was one of the most important turning points. These fruit-based and salicylic acid-based chemical exfoliants provided good remedies for problems including acne, uneven skin tone, and hyperpigmentation. This led to the development of exfoliating toners, serums, and peels, which are now essential elements of contemporary skincare regimens.

Strong antioxidants like vitamin C and retinol were created at the same time as advances in dermatology and cosmetics occurred. These components were crucial in the creation of anti-aging treatments that addressed wrinkles, fine lines, and sun damage. Retinoids, which are derived from vitamin A, were well-known for their ability to rejuvenate skin. This led to the creation of retinoid formulations with prescription strength as well as over-the-counter retinol solutions.

Minimally invasive cosmetic treatments also saw a boom in popularity in the late 20th century. In 2002, the FDA approved the use of Botox, a neurotoxin produced from the bacterium *Clostridium botulinum*, for cosmetic purposes. Its capacity to prevent muscular spasms and so momentarily lessen the appearance of wrinkles transformed the anti-aging field. In a similar vein, hyaluronic acid-based dermal fillers gained popularity as a means of improving face features and adding volume. By providing non-surgical substitutes for conventional cosmetic surgery, these injectables helped make cosmetic improvements more widely available.

The late 20th century witnessed the development of novel product offers and inventive formulas in the cosmetics industry. The use of mineral cosmetics became fashionable, with formulas free of conventional components like talc and preservatives. The trend toward more skin-friendly and cleaner formulas appealed to customers looking for makeup that looks natural. Furthermore, the development of airbrush makeup devices allowed for the public adoption of professional-grade application techniques that resulted in a perfect and durable finish.

The cosmetics business was significantly influenced by the digital revolution that occurred in the 21st century. The emergence of social media platforms and virtual beauty communities has revolutionized the ways in which customers find, interact with, and buy beauty goods. Influencers and beauty bloggers developed into influential figures who shaped consumer preferences and trends. In order to adjust to this change, beauty businesses used direct-to-consumer marketing strategies, internet

platforms, and even augmented and virtual reality technology to create virtual product try-ons. A notable divergence from traditional notions of beauty was the emergence of inclusiveness and diversity in the beauty industry. In order to accommodate a wider range of skin tones, beauty manufacturers started broadening their hue selections. In addition to recognizing the variety of beauty, this inclusion appealed to customers who wanted authenticity and representation in the goods they choose.

The emergence of customized beauty emerged as a key characteristic of the cosmetics industry in the twenty-first century. Thanks to technology, people may now have customized skincare regimens and cosmetics formulas made to fit their unique skin type, problems, and preferences. In order to assist customers in navigating the bewildering assortment of items and choosing the ones that best matched their particular needs, brands have started to provide virtual consultations and diagnostic tools.

In the 21st century, sustainability and environmental consciousness emerged as major concerns in the cosmetics sector. Growingly conscious of environmental concerns, consumers wanted cruelty-free procedures, ecologically friendly packaging, and openness in sourcing. In response, brands emphasized ethical ingredient sourcing, implemented waste reduction strategies, and adopted sustainable packaging. With an emphasis on formulas devoid of potentially hazardous substances, the clean beauty movement grew in popularity and attracted customers looking for safer and more ecologically friendly products.

References

- [1] Lawrence, Parish. 1988. "Cosmetics: A historical review". *Clinics in Dermatology*, 1-4. [https://doi.org/10.1016/0738-081X\(88\)90024-7](https://doi.org/10.1016/0738-081X(88)90024-7).
- [2] Roger, McMullen.2023. "History of Natural Ingredients in Cosmetics". *Cosmetics*. <https://doi.org/10.3390/cosmetics10030071>.
- [3] SK, Chaudhri. 2009. "History of cosmetics". [*Asian Journal of Pharmaceutics*], 3.<http://dx.doi.org/10.4103/0973-8398.56292>.
- [4] Leek, F. (1967). The Practice of Dentistry in Ancient Egypt. *The Journal of Egyptian Archaeology*, 53(1), 51-58. <https://doi.org/10.1177/030751336705300109>.
- [5] Draelos, Zoe. 2000. "Cosmetics and skin care products: A historical perspective". *Dermatologic clinics*, 18: 557-9. 10.1016/S0733-8635(05)70206-0.

- [6] Bin, Han. 2021. "The rise of the cosmetic industry in ancient China: Insights from a 2700-year-old face cream". *Archaeometry*, 63. <http://dx.doi.org/10.1111/arc.12659>.
- [7] Manjula, Nayak. 2014. "History of cosmetics in Egypt, India, and China." *Journal of Cosmetic Science*, 3: 164-167. <https://doi.org/10.22377/ajp.v3i3.260>.
- [8] González, Minero. 2018. "The use of plants in skin-care products, cosmetics and fragrances: Past and present." *Cosmetics*, [Edition (if applicable)]. [https://doi.org/10.1016/0738-081x\(88\)90024-7](https://doi.org/10.1016/0738-081x(88)90024-7).
- [9] Kuo-Hsien, Wang. 2006. "Cosmetic applications of selected traditional Chinese herbal medicines." *Journal of ethnopharmacology*, 106: 353-359. <https://doi.org/10.1016/j.jep.2006.01.010>.
- [10] Kunda, Patkar.2008. "Herbal cosmetics in ancient India". *Indian Journal of Plastic Surgery*,41: 134-137.<https://doi.org/10.1055/s-0039-1700484>.
- [11] Sumit, Kumar. 2012. "Herbal cosmetics: used for skin and hair". *Inventi Rapid: Cosmeceuticals*, 4: 1-7. https://www.researchgate.net/profile/Ashish-Baldi/publication/235944029_Herbal_Cosmetics_Used_for_Skin_and_Hair/links/09e4151497b76aa3c5000000/Herbal-Cosmetics-Used-for-Skin-and-Hair.pdf.
- [12] Roger, Forshaw. 2009. "The practice of dentistry in ancient Egypt". *British Dental Journal*, 206, 481–486. <https://doi.org/10.1038/sj.bdj.2009.355>.
- [13] A. Hardy. 2006. "Egyptian eye cosmetics ("Kohls"): Past and present." *Physical techniques in the study of art, archaeology and cultural heritage*, 1: 173-203. [https://doi.org/10.1016/S1871-1731\(06\)80006-0](https://doi.org/10.1016/S1871-1731(06)80006-0).
- [14] J. Mwinga.2019. "Botanicals used for cosmetic purposes by Xhosa women in the Eastern Cape, South Africa.". *South African Journal of Botany*, No. 126: 4-10. <https://doi.org/10.1016/j.sajb.2019.03.038>.
- [15] Jugreet, Sharmeen. 2021. "Essential Oils as Natural Sources of Fragrance Compounds for Cosmetics and Cosmeceuticals." *Molecules* 2021, 26. <https://doi.org/10.3390/molecules26030666>.
- [16] Schafer, H. 1956. "The Early History of Lead Pigments and Cosmetics in China.". *T'oungPao*,44(1): 413-438. <https://doi.org/10.1163/156853256X00135>.

- [17] Frank, Ursin. 2019. "Dermatology in Ancient Rome: Medical ingredients in Ovid's "Remedies for female faces". *Journal of Cosmetic Dermatology*, 19(6): 1388-1394.
<https://doi.org/10.1111/jocd.13151>.
- [18] Blanco, Dávila. 2000. "Beauty and the Body: The Origins of Cosmetics." *Plastic and Reconstructive Surgery*, 105(3): 1196-1204. <https://journals.lww.com/plasreconsurg/toc/2000/03000>.
- [19] Goli, Prasad. 2008. "Historical perspective on the usage of perfumes and scented Articles in ancient Indian literatures.". *AncSci Life*, 28(2): 33-39.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3336354/>.
- [20] Deep, Chanchal. 2008. "Novel approaches in herbal cosmetics." *Journal of Cosmetic Dermatology*, 7(2): 89-95.
<https://doi.org/10.1111/j.1473-2165.2008.00369.x>

CHAPTER 2

CLASSIFICATION OF COSMETIC AND COSMECEUTICALS PRODUCTS

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Abstract

Now a day's Cosmeceuticals have undoubtedly taken over the personal care industry across the globe. The concept of Cosmeceuticals is to provide medicinal and beautification properties as well as therapeutic benefits. Cosmeceuticals are used to minimize the cosmetic related problems like large pores, cellulite, hyper pigmentation, anti-ageing signs like wrinkles, sun damage and loss in skin tone and elasticity by improving hydration and texture of skin, reducing wrinkle formation, and countering pigmentation. Cosmeceuticals are best for the treatment of the deeper layer of skin as well as for the surface treatment, whereas cosmetics will temporarily improve the appearance and exfoliate the skin. Recently latest trends are added in Cosmeceuticals to maximize the therapeutic effect on skin like Nanotechnology prepared with several polymers in the cosmetic industry creating a major differences in the cosmetic treatment omitting the various toxic effects created by various traditional cosmetics. Polymers have been used in the formulation of cosmetics such as fixatives, film-formers, rheology modifiers, thickeners, emulsifiers, conditioners etc.

Currently, a plethora of nanostructured materials are used in the delivery of Cosmeceuticals formulations including nanocapsules, dendrimers, nanoemulsions, liposomes, solid lipid nanoparticles, nanostructured lipid carriers, niosomes, ethosomes, cubosomes, silver or gold nanoparticles which increase the drug entrapment, absorption onto the skin and provides

superior pharmaceutical efficacy by enhancing the stability of the formulation. Hair serums, hair sprays, face mist sprays, face serums, lip tints, lip stains, etc. are some of the newly formulated cosmetic products which are taking the cosmetic industry to a new era. As the interest in these newly formulated cosmetic products have been increasing day by day, it is also very important to evaluate the efficacy and possible adverse side effects of the active ingredients used in these products to make the cosmetic industry reach new heights.

Keywords: Cosmeceuticals, nanocapsules, dendrimers, nanoemulsions, liposomes, solid lipid nanoparticles, nanostructured lipid carriers, niosomes, ethosomes, cubosomes, silver or gold nanoparticles, fullerenes, Nanotechnology

1. Introduction

The word cosmetic has been derived from a Greek word Kosmeticos (adorn) which means to take care by adding some ornamental substances to a person. Cosmetics can be defined as any substance that is used to rub, pour, spray or used on the human skin or in any part of the human body for the purpose of beautifying, cleansing or to promote attractiveness or enhancing the appearance. Cosmetics are the kind of external pharmaceutical preparations which can be used to enhance the peripheral appearance of the body by directly contacting the several parts of the body like skin, hair, nail, lips, teeth and the mucous membrane. Cosmetics also help in preventing the body odor. With the growing recognition since 3 to 4 decades, cosmetics has become the integral part of life in both male and females as they not only make people attractive but also make them feel psychologically confident. There are so many cosmetic preparations in the market but the most used cosmetics are hair dyes, powders and creams. (11, 42, 64)

Cosmetics have been used for various purposes like (43)

- Cleansing, moisturizing and beautifying agent.
- Improves the attractiveness of the body.
- Protects the body from harmful UV rays and cure the sunburn.
- Treats skin blemishes like Acne, wrinkles, dark circles.
- Treat skin illness.