

## TECHNICAL ARTICLE

# Flowers through time: exploring their cultural and historical significance from Antiquity to the presents

Flores ao longo do tempo: uma exploração de seu significado cultural e histórico da Antiguidade à atualidade

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## Abstract

Throughout history, from ancient civilizations to the contemporary world, flowers have always been present, in various contexts, such as cultural, symbolic or even economic. Thus, through the consultation of books, scientific publications and collections of art museums, this text addresses the symbologies of flowers in different civilizations and times, highlighting their social, cultural, religious and artistic importance. In Antiquity, the utilization of flowers was already multifaceted, including the offering to the gods, such as the lotus in Egypt, as evidenced in murals painted by this civilization. The Greeks and Romans used them to crown heroes of the arts and sports, while in Asia, especially for the Chinese and Japanese, species such as the chrysanthemum and the rose became important symbols. Among the Aztecs, unique flower gardens played a central role in religious rituals. During the European Middle Ages, flowers were fundamental in religious and medicinal functions, and in the Renaissance, they became a recurring inspiration for artistic expressions. In the nineteenth century, the Victorian Era highlighted floriography, in which bouquets expressed feelings determined by floral codes. In Brazil, indigenous and African peoples also attributed symbolism to flowers, being linked to nature and spirituality. With the Portuguese colonization, they reinterpreted these meanings and inserted them into the Christian narrative. In the Imperial period, flowers represented social distinction, but it was only from the 1950s, with the influence of Japanese and Dutch immigrants, that Brazilian floriculture began a process of expansion, becoming an important commercial activity. Currently, flowers, although no longer bearing the strong symbolism of previous eras, still express sensitivity and convey affection through their inherent beauty and aesthetic appeal, intertwining tradition and contemporaneity across different cultures.

**Keywords:** Floriculture, history, symbolism, society.

## Resumo

Ao longo da história, das civilizações antigas ao mundo contemporâneo, as flores sempre estiveram presentes, em diversos contextos, como culturais, simbólicos ou ainda, econômicos. Assim, por meio da consulta em livros, publicações científicas e acervos de museus de arte, neste texto são abordadas as simbologias das flores em diferentes civilizações e épocas, destacando sua importância social, cultural, religiosa e artística. Na Antiguidade, o uso das flores já era variado, incluindo a oferta aos deuses, como o lótus no Egito, conforme evidenciado em murais pintados por essa civilização. Os gregos e romanos as utilizavam para coroar heróis das artes e esportes, enquanto que na Ásia, especialmente para os chineses e japoneses, espécies como o crisântemo e a rosa tornaram-se símbolos importantes. Entre os astecas, jardins exclusivos de flores desempenhavam papel central em rituais religiosos. Durante a Idade Média europeia, as flores eram fundamentais nas funções religiosas e medicinais, e, no Renascimento, tornaram-se inspiração recorrente para as expressões artísticas. No século XIX, a Era Vitoriana destacou a floriografia, em que os buquês expressavam sentimentos determinados por códigos florais. No Brasil, os povos indígenas e africanos também atribuíam simbolismo às flores, estando ligadas à natureza e à espiritualidade. Com a colonização portuguesa, estes reinterpretaram estes significados e os inseriram no imaginário cristão. No período Imperial as flores representavam distinção social, mas somente a partir da década de 1950, com a influência de imigrantes japoneses e holandeses, a floricultura brasileira iniciou um processo de expansão, tornando-se uma importante atividade comercial. Atualmente, as flores, embora não tenham em si o forte simbolismo das eras anteriores, ainda guardam a expressão da sensibilidade e proporcionam afeto pelas características inerentes a sua beleza e atração estética, entrelaçando tradição e contemporaneidade em diferentes culturas.

**Palavras-chave:** Floricultura, história, simbolismo, sociedade.

## Introduction

In the history of humanity, the use of flowers does not have a clearly determined and documented point of origin, but there is evidence of their symbolic and decorative use in various artistic and cultural manifestations of ancient civilizations. Representations of flowers can be seen in the arts, such as ceramics, cave paintings, tombs, Inca and Aztec temples, Greek pillars, and Roman frescoes (Hunter, 1994; Maree and Van Wyk, 2010).

Over the centuries, flowers have become central themes in the arts and literature. Painters such as Claude Monet and Vincent Van Gogh immortalized species such as water lilies, sunflowers, and irises in their works, recording the beauty and importance of these species in garden design (Soares, 2002). Some flowering species have acquired symbolic value in specific cultural contexts, such as roses in Europe, peonies in China, chrysanthemums and cherry blossoms in Japan, and lotuses in India. Floral beauty and symbolism also feature prominently in literary records, such as in William Wordsworth's poem "I Wandered Lonely as a Cloud", which celebrates *Narcissus* and expresses the deep emotional connection between nature and poetic imagination (Fogden and Fogden, 2018).

In the Middle Ages, the symbolism of flowers was reinterpreted with the growth of Christianity, taking on meanings linked to virtue, purity, and martyrdom. Thus, roses and lilies reemerged with great value and were related to the Virgin Mary and Catholic saints. In the Renaissance, flowers reappeared in artistic expressions as aesthetic and allegorical elements, with meanings referring to beauty, fertility, and the ephemerality of life. In the 19<sup>th</sup> century, specifically in the Victorian era, floriography, or the "language of flowers," became established as a form of nonverbal communication, in which each flower had different meanings and conveyed specific messages through bouquets (Von Baeyer, 2010; Van Tuyl et al., 2014).

In Brazil, indigenous and African peoples used plants to cure illnesses and in religious rituals. However, with the arrival of Portuguese colonizers, flowers were reinterpreted within Christian logic, and during the Imperial period, growing flowers indicated social status (Lima and Silva, 2014; Castro et al., 2015; Machado, 2022). However, the consolidation of flower production as an economic activity only occurred in the second half of the 20th century, as a result of the influence of Japanese and

Dutch immigrants, who also drove the implementation of new production technologies (Castro, 2010).

Given this diversity of uses and meanings of flowers throughout human evolution, the objective was to analyze the different symbolisms attributed to flowers in different civilizations and eras, as well as to identify their importance in the social, cultural, religious, and artistic spheres, in addition to their expression in collective memory and identity.

### The origin of the appreciation and symbolism of flowers

#### Origin

The “first flower” identified in the world is the species *Montsechia vidalii* (Zeiller, 1902; Teixeira, 1954), discovered in Spain, aquatic in habit and with unisexual flowers, without sepals and petals (Gomez et al., 2020). The fossil dates back to the Barremian Age, which occurred about

130 to 125 million years ago, during the Lower Cretaceous Period, and is the oldest angiosperm discovered (Gomez et al., 2015).

#### Antiquity

The practice of cultivating flowers dates back to different civilizations of Antiquity, for which flowers and plants had aesthetic and religious significance, as well as medicinal value. In Egypt, considered the birthplace of horticulture (6000 BC), fruit, medicinal, aromatic, and ornamental species, especially aquatic ones, were cultivated in the gardens of houses (Paiva, 2008). In addition to meeting food demands, some species, such as papyrus and lotus, a sacred flower representing the goddess Iris, were used for rituals and offerings (Hunter, 1994). Flowers and foliage were used on banquet tables, in temples, as adornments (Fig. 1), in religious or royal events, and as offerings in honor of other people (Von Baeyer, 2010; Van Tuyl et al., 2014).



**Fig. 1.** Mural painting of women at a banquet wearing headbands with lotus flowers. Nina de Garis Davies.

Source: The Metropolitan Museum of Art, New York, 2025 (<https://www.metmuseum.org/art/collection/search/557739>).

In Greece (1600 BC), flowers were valued more for their fragrance than their color. In gardens, cultivation was discreet, and after being harvested, flowers were used as ornaments in temples and to honor gods, as well as in the composition of crowns and garlands awarded to heroes, artists, athletes, soldiers, and scientists (Hunter, 1994; Paiva, 2008; Von

Baeyer, 2010; Van Tuyl et al., 2014). Flowers were also themes in jewelry, being used to make earrings, necklaces, and other personal adornments, as well as weapons such as swords and daggers, which were decorated with floral motifs in gold (Guerra, 2025) (Fig. 2).



**Fig. 2.** A) Gold necklace with rosette-shaped beads and B) Gold belt with rosettes. Objects found in the Tholos Tomb, part of the collection of the Archaeological Museum of Athens, Athens, 2016.

Source: Personal archive of Patrícia D. O. Paiva.

The Romans inherited and expanded many Greek practices, incorporating flowers into gardens, decorating social events, and making heavy, elaborate garlands with fragrant, vibrantly colored flowers (Hunter, 1994). Other notable Roman traditions include “*Dies Rosationis*,” in which roses were used to honor the graves of the deceased, and “*Sub Rosa*,” in which roses were hung from the ceilings of meeting rooms and everything said beneath them was secret and confidential (Von Baeyer, 2010; Van Tuyl et al., 2014). This practice was inspired by the myth of the god of silence, Harpocrates, who was bribed with roses not to reveal Venus’s lovers (Géczi, 2008). Roses and petals were also used on banquet tables, in the streets, and on lakes during festivals and ceremonies (Hunter, 1994).

In Greco-Roman mythology, flowers are used as symbols to represent deities, metamorphoses, and human emotions, being associated with narratives of love, death, and rebirth. In Roman mythology, the goddess Flora (Fig. 3) was the deity of flowers, spring, and fertility, symbolizing the blossoming and abundance of life (Worthen, 1979; Margaris, 1999; Berrens, 2019). It is noted that many flowering species were named after mythological tales, such as the narcissus, linked to the myth of Narcissus and his love for himself, and the iris, derived from the messenger of the gods and goddess of the rainbow (Margaris, 1999).



**Fig. 3.** Fresco of the Roman Goddess Flora found at Villa Arianna, Stabiae. Author unknown. Source: Museo Archeologico Nazionale Di Napoli, Naples, 2025 (<https://museoarcheologiconapoli.it/affreschi/#gallery-4>).

In the pre-Columbian civilizations (Aztecs, Mayans, and Incas) of Central and South America (8000–2000 BC), no large landscape features were created, but spaces were set aside for gardens with ornamental, aromatic, and medicinal plants, which symbolized gods and myths and were used in rituals. For the Aztec civilization of Mexico, flowers were valued as religious and political symbols. The gardens of Montezuma, built in the Aztec capital of Tenochtitlán, were cultivated exclusively with ornamental plants due to the importance of flowers in religious rites and for their connection with divine powers (Von Baeyer, 2010). The name Xochimilco, in the Nahuatl language, means flower plantation or flower seedbed (Fig. 4). Inhabited since prehistoric times, this locality was located in the southeast of Mexico City and was notable for the cultivation of food and flowers, due to the existence of artificial islands and water channels called “chinampas.” An important agricultural center for the Aztecs, it was considered a veritable orchard, and flowers were its symbol, associated with the goddess Xochiquetzalli (Guzmán, 2005).



**Fig. 4.** Flower carved in stone representing the city of Xochimilco. National Museum of Anthropology, Mexico City, 2019. Source: Personal archive of Patrícia D. O. Paiva.

In ancient Asia, starting in the 6<sup>th</sup> century BC, Chinese horticulture evolved with the cultivation of roses and chrysanthemums due to the beauty of the flowers and also their medicinal and aromatic properties. In Japan, the chrysanthemum was introduced in the 4<sup>th</sup> century AD and became a national symbol, while floral art reflected cultural and spiritual values (Maree and Van Wyk, 2010; Von Baeyer, 2010).

Beginning in the 7<sup>th</sup> century, the traditional Japanese art of flower arranging, called Ikebana, which means “giving life to flowers,” was introduced. This practice uses natural elements to create arrangements that seek to connect the sky, the earth, and human beings, valuing the lines, contrasts, and asymmetries of the composition, without losing harmony and creativity. More than a representation of beauty, in Ikebana, flowers are a way of connecting humans to nature (Kopytin and Zhou, 2021).

#### Medieval Period

In the Middle Ages, Greco-Roman botanical knowledge was recovered and preserved by monks, who cultivated medicinal gardens and developed and transmitted therapeutic knowledge about plants. With urban and agricultural expansion in Europe between the 11<sup>th</sup> and 13<sup>th</sup> centuries, flowers, herbs, and vegetables began to be traded rather than exchanged (Von Baeyer, 2010; Van Tuyl et al., 2014). This interest in medicinal plants was fundamental to the creation of the first botanical gardens, linked to medical schools (Naviner, 2005).

In the medieval period, flowers became commonplace, being used in religious and ceremonial celebrations, such as weddings, funerals, and church decorations. Flowers became a symbol of various Christian representations. The passion flower, for example, is used to represent the suffering and sacrifice of Christ, with each part of the flower representing a different event in the Passion of Christ. The white lily or lily of the valley (*Lilium candidum*) represents purity, chastity, and virginity, and is a symbol of the Virgin Mary in the Catholic Church (Hunter, 1994; Husti and Cantor, 2015; Loy, 2019). In the Holy Bible, flowers are also mentioned and related to specific meanings. Lilies (*Lilium spp.*) represent purity (Song of Songs, 2 and 6) and simplicity (Matthew 6:28-30). The rose of Sharon (*Hibiscus syriacus*) is the expression of perfection (Song of Songs, 2). Saffron (*Crocus spp.*) illustrates beauty blossoming in a desolate place (Isaiah 35:1) and Hyssop (*Hyssopus officinalis L.*) was used in purification rituals (Exodus 12:22).

#### European periods

The art of floral design was influenced by European periods, which were divided into the Renaissance, Baroque, Dutch-Flemish period, French period, English-Georgian period, and Victorian Era, during which different styles were developed (Hunter, 1994).

#### Renaissance

From the 14<sup>th</sup> century onwards, during the Renaissance, with the resurgence of the arts, diversity in flower cultivation expanded, reflected both in the creation of mixed bouquets and in artistic representations, with great emphasis on symbolism. Species such as daffodils, roses (symbol of sacred or profane love), carnations, lilies, anemones, bells, irises, lupins, poppies, and tulips were cultivated for use in floral arrangements, which featured established patterns and symmetry (Hunter, 1994; Van Tuyl et al., 2014). Flowers were also represented in paintings, such as in The Annunciation (Fig. 5), painted between 1472 and 1475 by Leonardo da Vinci and Andrea del Verrocchio, which depicts the archangel Gabriel kneeling before the Virgin Mary, offering her a lily, a symbol of chastity associated with her (Van Tuyl et al., 2014).



**Fig. 5.** Oil on canvas “The Annunciation,” by Leonardo da Vinci and Andrea del Verrocchio.  
Source: Uffizi Gallery, Florence, 2025 (<https://www.uffizi.it/en/artworks/annunciation>).

#### *Baroque*

Following the Renaissance, is the Baroque period, in centuries XVII and XVIII. In this period the floral design art was not only for religious purposes and nobility, tuning available to the Middle Class. Many painters represented floral arrangements now with asymmetric patterns (Hunter, 1994).

Floral patterns are found in paintings and Baroque architectural elements, such as churches and monasteries. Among the flowers used are lilies, acanthus, and chrysanthemums, as well as vines, poppies, orchids, and roses (Jasprica et al., 2023).

#### *Dutch Flemish style*

In the same period of Baroque, was influenced by religious reform and concentrated on the Netherlands and Flanders (Belgium). The bouquets and also the representation by painters, present a great variety of flowers, including tulips, roses, peonies, iris, lilies, and poppies. They explored the asymmetric shapes and the arrangements were performed on vases made in different materials, some imported from China, in porcelain white and blue. To reduce the price and make it accessible, a Dutch artisan developed a cheaper container named Delft (named due to the Dutch city) (Hunter, 1994).

Still life paintings by Flemish and Dutch artists in the 18<sup>th</sup> century depicted bouquets of tulips, daffodils, roses, and physalis in porcelain vases. Gradually, breakfast tables decorated with the flowers depicted in the paintings came to be seen as a sign of good taste in neighboring European countries (Vladimirovna, 2019).

#### *French Period*

A period marked by classic forms, refinement, and elegance. Arrangements were used indoors for decoration, created on a large scale, but without overlapping or vibrant colors. Among the flowers, roses, tulips, daffodils, lilies, and many others predominated (Hunter, 1994).

#### **English-Georgian Period**

Period that occurred during the 18<sup>th</sup> century, of the George Kings in England. In bouquets of this era, fragrance was a prerequisite, as it was believed that it could cleanse the air of infectious diseases. For this purpose, it was common to carry a small nosegay made with fragrant flowers on a daily basis. This trend grew, and women began to wear flowers in their hair, around their necks, on their shoulders, and on their dresses (Hunter, 1994).

#### **Victorian Era**

The Victorian Era (1837-1901) stood out as one of the most influential periods in the appreciation of the everyday use of flowers in Europe (Nelson, 2009; Santana and Senko, 2016; Range, 2022). It was a period of great enthusiasm for flowers, plants, and gardening. At that time, holders were created to hold nosegays, and it was discovered that keeping flowers in a little water increased their longevity (Hunter, 1994). Queen Victoria’s marriage to Prince Albert in 1840 played a central role in consolidating floral symbols associated with marriage. The queen wore a crown adorned with orange blossoms, making it popular as a bridal emblem, although it was already a tradition in Egyptian, Roman, and Greek culture. The use of a veil, as well as a bouquet of small white flowers, introduced by Queen

Victoria, also became a traditional practice in Western weddings (Nelson, 2009; Santana and Senko, 2016; Range, 2022).

Around 1700, the notion of *sélam*, a Turkish symbolic language that attributes meanings to flowers and objects, was introduced in Europe. This tradition, called floriography, spread during the Victorian Era (1837-1901) in Europe and North America, as a result of an intercultural migration of concepts from civilizations such as China, Japan, Turkey, Greece, and Rome (Loy, 2019). In Turkey, this movement was known as “Turquerie” and the concept was “saying it with flowers,” expressing ideas and emotions through flowers (Tansuğ, et al., 2005).

During the Victorian era, floriography became a popular form of nonverbal communication, in which species and floral arrangements conveyed specific messages, and even the gesture of receiving flowers with the right hand (affirmation) or left hand (denial) had meaning (Van Tuyl et al., 2014). Although part of this code has been lost, associations such as red roses with romantic love, white roses with purity, and marigolds with sadness still persist (Maree and Van Wyk, 2010).

#### **Artistic expressions with flowers**

Flowers were also used to decorate objects, which was common during the reign of Sultan Suleiman the Magnificent in Turkey (1520-1566). At that time, fabrics, ceramics, and metal, marble, or woodwork featured various floral motifs, including roses, hyacinths, carnations, and tulips (Fig. 6). Walls and ceilings were also adorned with flowers (Wadood and Panayotidi, 2014).



**Fig. 6.** Detail of flower-themed tiles decorating the Tomb of Sultan Ahmed, Istanbul, 2018.  
Source: Personal archive of Patrícia D. O. Paiva.

In the 18<sup>th</sup> century, there were several expeditions in which naturalists searched for new species, which were used to enrich European botanical gardens (Soares, 2002; Naviner, 2005). The first expedition took place in 1768, led by naturalist and botanist Joseph Banks, who left England bound for Oceania (Ferguson, 2008). Together with his fellow botanist, Dr. Daniel Solander, Banks collected 1,300 new species and 110 new genera, including the genus *Banksia* (named in his honor), and was responsible for introducing eucalyptus and acacia trees to the Western world (Ferguson, 2008; Connor, 2020). In addition, he published “*Florilegium*”, a collection of engravings of the plants collected on the expedition printed on copper plates (Ferguson, 2008).

#### Contemporary period

The 20<sup>th</sup> century marked a global expansion in the commercialization of flowers, which are used to celebrate everything from births to weddings, or to express condolences at funerals (Frevert et al., 2020). Flower cultivation has also become a significant industry, with advanced technologies for growing and preserving species (Dröscher, 2021).

Various cultures around the world celebrate flowers as symbols of beauty, renewal, spirituality, and tradition. In Japan, the Hanami festival marks the arrival of spring with the contemplation of cherry trees, a symbol of universal beauty (Salazar, 2022). In India, during Diwali, lotus flowers are used to honor the goddess Lakshmi and symbolize prosperity and spiritual purity (Khin, 2020). In this country, the theme of flowers was also incorporated into the decoration of important monuments through marble inlays, using a technique developed by the Mongols (Fig. 7).



**Fig. 7.** Wall decoration at the Taj Mahal with marble inlays and a floral theme. Source: Personal archive of Patrícia D. O. Paiva.

In Mexico, *Día de los Muertos* uses the colors and scents of marigolds to honor the dead and guide their souls, representing the transition between life and death (Estrada et al., 2025). In Thailand, the Loy Krathong festival celebrates gratitude to the waters with boats decorated with flowers, candles, and incense (Thadaniti, 2014). The flower battles during the Nice Carnival in France and the Bloemencorso in The Netherlands value the cultural and floral heritage of their regions through parades with floats decorated with flowers (Dubois, 1979; Dudkiewicz and Pogroszewska, 2014). In Brazil, Expoflora, the largest exhibition of flowers and ornamental plants in Latin America, marks the arrival of spring, and the shower of petals is the most eagerly awaited attraction, as it is believed that catching a petal in the air will make your greatest wish come true (Paiva et al., 2020b).

#### Flowers in Brazilian history: uses, cultivation, and meaning

For indigenous peoples, plants were used as food, in religious rituals, in healing and treating illnesses, and as pigments for painting bodies and objects. The cycles of nature, marked by flowering, were used to indicate the time for performing rituals or tasks (Gaudêncio et al., 2020; Silva et al., 2014).

With colonization, Jesuit missionaries introduced flowers such as roses and lilies, which are symbolic in the Catholic religion. The first mention of flower cultivation in Brazil refers to José de Anchieta, a Jesuit missionary who planted the first roses between 1560 and 1570 in the village of Piratininga, now São Paulo city, for use in religious ceremonies (Stumpf and Barbieri, 2005). As well as roses were used in ceremonies, the white

lily (or lily of the valley) was often associated with the image of the Jesuits as a symbol of purity and chastity (Lima and Silva, 2014; Machado, 2022).

Until the 17<sup>th</sup> century, references to Brazilian flora were found only in works of art. Frans Post and Albert Eckhout, members of Count Maurício de Nassau's entourage, created several paintings depicting Brazilian plants and landscapes. In the work “*Mulher Mameluca*” [Mameluca Woman], a cabocla carries a basket full of flowers, and next to her are a heliconia and a cashew tree (Fig. 8). Biologist and cartographer Georg Marcgraf, also a participant in the Dutch expedition, documented Brazilian fauna and vegetation, which greatly assisted botanist Linnaeus in classifying South American species in the 18<sup>th</sup> century (Knippel et al., 2025; Scharf, 2017).



**Fig. 8.** Oil on canvas, “Mameluke Woman,” 1641, Albert Eckhout. Collection of the National Museum of Denmark, Copenhagen. Source: Art Renewal Center, 2025 (<https://www.artrenewal.org/artworks/mameluca-woman/albert-eckhout/102076>).

After the arrival of the Portuguese royal family in Brazil in 1808, King João VI created the Rio de Janeiro Botanical Garden to acclimatize plant species brought from abroad, such as spices from the East, including vanilla, cinnamon, and pepper. This stimulated the development of botanical and agricultural studies for the adaptation of plants to the Brazilian climate and soil (Domingues, 2001; Bediaga et al., 2008; Paiva, 2008).

Later on, in 1829, Dom Pedro I established the Order of the Rose, an honorary order to perpetuate the memory of his marriage to Princess Amelia of Leuchtenberg. The insignia of the order were adorned with roses, the princess's favorite flowers, and presented to people who stood out for their loyalty to the emperor and their services to the nation (Lima, 2020). Encouraged by the creation of the Order of the Rose, the cultivation of rose bushes in public gardens began (Petry, 2000).

When talking about landscaping in Brazil at that time, it is impossible not to mention Auguste Glaziou, director of Parks and Gardens of the Imperial House during the regency of Emperor Dom Pedro II in 1869. In addition to numerous landscaping projects, Glaziou conducted botanical studies of Brazilian flora and promoted the introduction of native plants in his gardens, exerting a great influence on Roberto Burle Marx (Hetzl and Negreiros, 2011).

The popularization of gardens was fundamental to the establishment of the floriculture industry in Brazil. Flowers were grown on small farms, as well as in the gardens and backyards of wealthier people. In addition to beautifying gardens, flowers were used for decoration or as gifts (Castro et al., 2015).

Throughout the 19<sup>th</sup> century, there was also an appreciation of native medicinal species and their applications for the treatment of diseases and use in religious rituals, especially by people of African origin (Pimenta, 2022). By replacing the plants previously used to cure diseases with

similar ones found locally, Africans contributed greatly to the knowledge of native medicinal plants (Almeida, 2011). For these peoples, plants played a dual role: sacred in religious rites and functional in celebrations and healing processes, in which herbal teas and baths were accompanied by prayers, songs, and dances (Almeida, 2011; Camargo, 2006).

With the growth of the abolitionist movement in the late 19<sup>th</sup> century, the white camellia became its symbol due to its connection with the Quilombo do Leblon (Fig. 9) (Silva, 2003). In addition to being produced in quilombos and used as a source of income, the flower was also used as a code to identify abolitionists, including Princess Isabel, as a symbol of resistance and hope (Veloso, 2025).



**Fig. 9.** Former slaves from Quilombo do Leblon bow to Princess Isabel with camellias. Source: Fundação Casa de Rui Barbosa, 2025.

In contrast, for the nobility of the imperial period, flowers came to symbolize declarations of love with the arrival of the book “Le language des fleurs” [The Language of Flowers] by Charlotte de La Tour (1819) in Brazil. In the form of a quick reference dictionary, each flower represented a romantic word or phrase to woo suitors. For example, the white rose meant “*I will never stop loving you*” while the yellow carnation represented the word “*contempt*” (El Far, 2022). Flowers held upside down represented the opposite of what they meant (Pickles, 1992).

Until the early 20<sup>th</sup> century, floriculture was still an insignificant economic activity, restricted to domestic cultivation (Oliveira and Brainer, 2007). Growth only occurred with immigration, mainly from Japan and the Netherlands, as well as Germany and Italy. In 1970, about 60% of the floriculture market in the country was managed by these immigrants or their descendants (Castro, 2010).

Japanese immigration took place from 1908 to 1989, with the exception of the period between the two World Wars. The Japanese settled mainly in cities near São Paulo, such as Atibaia, Mogi das Cruzes, Ibiúna, and Cotia. In 1940, in addition to establishing an instruction manual for flower production in São Paulo, they began marketing flowers through the Cotia Agricultural Cooperative. From 1954 onwards, production became larger and more professional, with the cultivation of carnations and chrysanthemums in Atibaia (São Paulo State) standing out (Tsuboi and Tsurushima, 2009).

In 1948, seeking new opportunities after World War II, Dutch immigrants arrived in Brazil, the only country to accept large groups of Catholic immigrants. Sent to the region of Jaguariúna (São Paulo State), the group developed agricultural activities and founded the Holambra Agricultural Cooperative (CAPH). Over time, they established a new city, Holambra - a name formed from the combination of Holland, America, and Brazil. Today, it stands out in the production and commercialization of flowers, making the city a national reference in this sector. After CAPH went bankrupt in 1995, the Veiling Holambra Cooperative emerged, followed later by Cooperflora (1999) (Neves and Pinto, 2015). Today, these cooperatives, together with Ceafflor and the CEAGESP units in Campinas

and São Paulo, form the largest centers for the commercialization of flowers and ornamental plants in the country (Paiva et al., 2024).

Since the 1990s, there has been significant growth in the flower market, while discussions about sustainability and urban population growth, which highlighted the need to reconnect with nature. In addition, the decoration sector has also expanded. With the development of production, retail, and consumption, flowers became part of the daily lives of different social classes (Aki and Perosa, 2002).

Currently, the consumption of flowers and ornamental plants in Brazil reflects patterns typical of developing countries, such as low per capita rates and concentration of demand on commemorative dates, such as Mother’s Day, Christmas and New Year, All Souls’ Day, International Women’s Day, and Valentine’s Day (Junqueira and Peetz, 2017). In Brazil, flowers are still associated with women, who represent the majority of the consumer market (Paiva et al., 2020a). Women have a preference for orchids and roses, which are the most commonly given flowers to show affection, romance, and flirtation (Anacleto et al., 2022; Anacleto and Scheuer, 2023). At Christmas, poinsettias and thujas stand out, while chrysanthemums are most commonly used on All Souls’ Day (Junqueira and Peetz, 2017). On New Year’s Eve, the Afro-Brazilian tradition involves wearing white clothes, jumping over seven waves, and throwing flowers into the sea, which can represent different wishes depending on the color of the flower chosen, such as prosperity (yellow), peace (white), and love (red) (Junqueira and Peetz, 2017; Valladome, 2020).

## Conclusions

The symbolism of flowers has changed significantly over the centuries, but some traditional associations remain. Flowers are an integral part of human life, being used in celebrations, events, and cultural and religious practices around the world. By recognizing the symbolic, social, and economic meanings attributed to flowers, it is also possible to understand the characteristics, demands, and agricultural practices applied to floriculture.

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## Author Contribution

**HSM:** Conceptualization, Data Curation, Investigation, Methodology, Visualization, Writing – Original Draft. **PDOP:** Conceptualization, Data Curation, Investigation, Methodology, Supervision, Validation, Visualization, Writing – Review & Editing.

## Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data Availability Statement

All the research data is contained in the manuscript.

## Declaration of generative AI and AI-assisted technologies in the writing process

The authors declare that the use of AI and AI-assisted technologies was not applied in the writing process.

## References

- AKI, A.; PEROSA, J.M.Y. Aspectos da produção e consumo de flores e plantas ornamentais no Brasil. **Ornamental Horticulture**, v.8, n.1, 2002. <https://doi.org/10.14295/rbho.v8i1.304>
- ALMEIDA, M.Z. Plantas medicinais: abordagem histórico-contemporânea. **Plantas medicinais**, v.3, p.34-66, 2011.
- ANACLETO, A.; OLIVEIRA AGUIAR, S.; PRAZERES, A.S.G.; MORO, S.C.; ROSÁRIO, C.L. Comércio varejista de flores: uma análise do perfil e comportamento da mulher consumidora de flores com objetivo de presentear. **Revista da Micro e Pequena Empresa**, v.16, n.1, p.68-81, 2022. <http://dx.doi.org/10.48099/1982-2537/2022v16n1p6881>

- ANACLETO, A.; SCHEUER, L. Between flowers and loves: the profile and behavior of the consumer with the purpose of seduction. **Ornamental Horticulture**, v.29, n.4, p.480-488, 2023. <https://doi.org/10.1590/2447-536X.v29i4.2634>
- ART RENEWAL CENTER. **Mameluca Woman**. Available at: <<https://www.artrenewal.org/artworks/mameluca-woman/albert-eckhout/102076>>. Accessed on: 10 July 2025.
- BEDIAGA, B.; LIMA, H.C.; MORIM, M.P.; BARROS, C. Da aclimação à conservação: as atividades científicas durante dois séculos. In: **Jardim Botânico do Rio de Janeiro: 1808-2008**. Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, 2008. 250p.
- BERRENS, D. The meaning of flora. **Humanística Lovaniensia**, v.68, n.1, p.237-249, 2019. <https://doi.org/10.30986/2019.237>
- CAMARGO, M.T.L.A. Os poderes das plantas sagradas numa abordagem etnofarmacobotânica. **Revista do Museu de Arqueologia e Etnologia**, n.15-16, p.395-410, 2006. <https://doi.org/10.11606/issn.2448-1750.revmae.2006.89745>
- CASTRO, C.E.F. História da floricultura brasileira: organização e evolução. **Magistra**, v.21, n.4, p.233-252, 2010.
- CASTRO, C.E.F.; GONÇALVES, C.; TUCCI, M.L.S. History and development of Brazilian floriculture. **Acta Horticulturae**, v.1060, p.17-21, 2015. <https://doi.org/10.17660/ActaHortic.2015.1060.1>
- CONNOR, M. Sir Joseph Banks: eco hero or eco zero. In: **Using the Visual and Performing Arts to Encourage Pro-Environmental Behaviour**, p.445, 2020.
- DOMINGUES, H.M.B. O Jardim Botânico do Rio de Janeiro. In: **Espaços da ciência no Brasil: 1800-1930**. Rio de Janeiro: Editora Fiocruz, p.27-56, 2001.
- DRÖSCHER, A. The sweeping power of horticulture. In: **Plants and Politics in Padua during the age of Revolution, 1820-1848**. Palgrave Studies in the History of Science and Technology. Palgrave Macmillan, Cham. Springer International Publishing, p.201-215, 2021. [https://doi.org/10.1007/978-3-030-85343-3\\_8](https://doi.org/10.1007/978-3-030-85343-3_8)
- DUBOIS, J. Carnaval: fête, révolte, spectacle. **Etudes Françaises Montréal**, v.15, n.1-2, p.15-34, 1979. <https://doi.org/10.7202/036678ar>
- DUDKIEWICZ, M.; POGROSZEWSKA, E. Flower Corso ("Flower Parade") in the Circle of Culture. **Architektura Krajobrazu**, v.4, p.52-61, 2014.
- EL FAR, A. **A linguagem sentimental das flores: e o namoro às escondidas no Rio de Janeiro do século XIX**. Editora UNESP, 2022.
- ESTRADA, D.L.; CHANG, W.; HEINRICH, M. From "traditional" to modern medicine: A medical and historical analysis of *Tagetes erecta* L. (Cempasúchil). **Journal of Traditional and Complementary Medicine**, v.15, n.1, p.6-14, 2025. <https://doi.org/10.1016/j.jtcm.2024.08.001>
- FERGUSON, A.R. The 2008 Banks Memorial Lecture: Sir Joseph Banks and the transfer of crop plants. **New Zealand Garden Journal**, v.11, n.2, p.9-15, 2008.
- FOGDEN, M.; FOGDEN, P. **The natural history of flowers**. Texas A&M University Press, p.1-8, 2018. <https://muse.jhu.edu/book/60702>.
- FREVERT, U.; HILLARD, D.; LEMPA, H.; SPINNEY, R. A. The emotional language of flowers. **Feelings Materialized: Emotions, Bodies, and Things in Germany, 1500-1950**, v.21, p.202, 2020.
- FUNDAÇÃO CASA DE RUI BARBOSA. **Revista Ilustrada**, ano/livro n. 78, página 507 [imagem]. Available at: <[http://www.memoriaescrivadao.rb.gov.br/estante\\_digital/revista\\_ilustrada/revil78\\_507.JPG](http://www.memoriaescrivadao.rb.gov.br/estante_digital/revista_ilustrada/revil78_507.JPG)>. Accessed on: July 10<sup>th</sup>, 2025.
- GALLERIA DEGLI UFFIZI. **Annunciation**. Available at: <<https://www.uffizi.it/en/artworks/annunciation>>. Access on: July 10th, 2025.
- GAUDÊNCIO, J.S.; RODRIGUES, S.P.J.; MARTINS, D.R. Indígenas brasileiros e o uso das plantas: saber tradicional, cultura e etnociência. **Khronos**, n.9, p.163-182, 2020. <https://doi.org/10.11606/khronos.v0i9.171134>
- GÉCZI, J. The Roman rose. An anthropological approach. **Iskolakutúra Online**, v.2, p.1-66, 2008.
- GOMEZ, B.; DAVIERO GOMEZ, V.; COIFFARD, C.; BARRAL, A.; MARTÍN CLOSAS, C.; DILCHER, D.L. *Montsechia vidalii* from the Barremian of Spain, the earliest known submerged aquatic angiosperm, and its systematic relationship to *Ceratophyllum*. **Taxon**, v.69, n.6, p.1273-1292, 2020. <https://doi.org/10.1002/tax.12409>
- GOMEZ, B.; DAVIERO-GOMEZ, V.; COIFFARD, C.; MARTÍN-CLOSAS, C.; DILCHER, D.L. *Montsechia*, an ancient aquatic angiosperm. **Proceedings of the National Academy of Sciences**, v.112, n.35, p.10985-10988, 2015. <https://doi.org/10.1073/pnas.1509241112>
- GUERRA, M.F. Goldworking in Mycenaean Thessaly: Technological study of the gold objects from the four tholos tombs in the Bay of Volos. **Journal of Archaeological Science: Reports**, v.64, 105129, 2025. <https://doi.org/10.1016/j.jasrep.2025.105129>
- GUZMÁN, O.A. Xochimilco: Aspectos histórico-culturales. **Decires**, v.7, n.7, p.119-139, 2005.
- HETZEL, B.; NEGREIROS, S. **Glaziou e as raízes do paisagismo no Brasil**. Rio de Janeiro: Manati, 2011.
- HUNTER, N.T. **The art of floral design**. Albany: Delmar Publishers Inc., 1994. 566p.
- HUSTI, A.; CANTOR, M. Sacred connection of ornamental flowers with religious symbols. **ProEnvironment Promediu**, v.8, n.21, 2015. <http://journals.usamvcluj.ro/index.php/promediu>
- JASPRICA, N.; LUPIS, V.B.; DOLINA, K. Botanical analysis of the Baroque Art on the Eastern Adriatic Coast, South Croatia. **Plants**, v.12, n.2080, 2023. <https://doi.org/10.3390/plants12112080>
- JUNQUEIRA, A.H.; PEETZ, M. Brazilian consumption of flowers and ornamental plants: habits, practices and trends. **Ornamental Horticulture**, v.23, n.2, p.178-184, 2017. <https://doi.org/10.14295/oh.v23i2.1070>
- KHIN, H.M. A study of Hindu concepts about gods and goddess. **Dagon University Research Journal**, v.11, p.58-64, 2020.
- KNIPPEL, P.; GIBALDI, D.; SÁ, M.R.; COSTA, J. A primeira obra de história natural do Brasil (1648): Uma análise histórica e de preservação. **Museologia e Patrimônio**, v. 18, n.1, 2025. <https://doi.org/10.52192/1984-3917.2025v18n1p13-42>
- KOPYTIN, A.; ZHOU, T.Y. From ikebana to botanical arranging: Artistic, therapeutic, and spiritual alignment with nature. **Ecopoiesis: eco-human theory and practice**, v.2, n.1, p.33-40, 2021. <https://doi.org/10.24412/2713-184X-2021-1-33-40>
- LIMA, F.M.S. A Imperial Ordem da Rosa entre as Ordens Honoríficas do Brasil Imperial (1822-1889). **Pesquisa & Educação a Distância**, n.7, 2020.
- LIMA, L.F.S.; SILVA, B.C.P. A presença do Novo Mundo na iconografia da morte e dos sonhos de São Francisco Xavier: a missão jesuítica e as partes e gentes do Império Português. **Varia História**, v.30, p.407-441, 2014. <https://doi.org/10.1590/S0104-87752014000200005>
- LOY, S. Spread of flower symbolism: From the Victorian language of flowers to modern flower emoji. In: **Handbook of the changing world language map**. Cham: Springer, 2019. p.1-24.

- MACHADO, J.A.G. Inácio de Loyola - Construção de uma Iconografia. In: **“Ver novas todas as coisas” - Da Conversão à Canonização de Inácio de Loyola**. Museu de São Roque, Lisboa, 2022. [https://doi.org/10.1007/978-3-030-02438-3\\_59](https://doi.org/10.1007/978-3-030-02438-3_59)
- MAREE, J.; VAN WYK, B. **Cut flowers of the world**. Portland: Timber Press, 2010.
- MARGARIS, N.S. Flowers in Greek mythology. **Acta Horticulturae**, v.541, p.23-29, 1999. <https://doi.org/10.17660/ActaHortic.2000.541.1>
- MUSEO ARCHEOLOGICO NAZIONALE DI NAPOLI. **Affreschi**. Available at: <<https://museoarcheologiconapoli.it/affreschi/#gallery-4>>. Access on: July 10<sup>th</sup>, 2025.
- NAVINER, B. **Indigene ou exotique?** Les contradictions des jardins sauvage ou l’oubli du premiers voyage. In: *Plantes et animaux voyageurs*. Actes des Congrès Nationaux des Sociétés Historiques et Scientifiques. La Rochelle, Paris, 2005, p.130-11. Paris: Editions du CTHS, 2010, p.112-123.
- NELSON, E.C. Victorian royal wedding flowers: Orange, myrtle, and the apotheosis of white heather. **Garden History**, v.37, n.2, p.231-236, 2009. <https://www.jstor.org/stable/27821599>
- NEVES, M.F.; PINTO, M.J.A. **Mapeamento e quantificação da cadeia de flores e plantas ornamentais no Brasil**. São Paulo: OCESP, 2015.
- OLIVEIRA, A.A.P.; BRAINER, M.S.C.P. **Floricultura: caracterização e mercado**. Banco do Nordeste do Brasil, 2007.
- PAIVA, P.D.O. **Paisagismo: Conceitos e Aplicações**. Lavras: Editora UFLA, 2008. 603p.
- PAIVA, P.D.O.; CASTRO, A.C.R.; GEEST, A.P.S.L.V.D.; VIEIRA, G.F.R.; HUMMEL, M.; LOPES, H.D.S.; COSTA, J.L.D.S. Diagnosis of the production chain of flowers, turfgrass, and ornamental plants: proposal for an innovation agenda. **Ornamental Horticulture**, v.30, p.e242792, 2024. <https://doi.org/10.1590/2447-536X.v30.e242792>
- PAIVA, P.D.O.; REIS, M.V.D.; SANT’ANA, G.S.; BONIFÁCIO, F.D.L.; GUIMARÃES, P.H.S. Flower and ornamental plant consumers profile and behavior. **Ornamental Horticulture**, v.26, n.3, p.333-345, 2020a. <https://doi.org/10.1590/2447-536X.v26i3.2158>
- PAIVA, P.D.O.; SOUSA, R.D.B.; CARCAUD, N. Flowers and gardens on the context and tourism potential. **Ornamental Horticulture**, v.26, p.121-133, 2020b. <https://doi.org/10.1590/2447-536X.v26i1.2144>
- PETRY, C. **Plantas ornamentais: Aspectos para a produção**. Passo Fundo: Editora Universitária, 2000. 155p.
- PICKLES, S. **A linguagem das flores** - Penhaligon’s tesouro perfumado em prosa e verso. São Paulo: Melhoramentos, 1992. 111p.
- PIMENTA, T.S. Curas, rituais e amansamentos com plantas entre escravizados e libertos no Rio de Janeiro, entre as décadas de 1810 a 1850. **Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas**, v.17, n.1, p.e20210076, 2022. <https://doi.org/10.1590/2178-2547-BGOELDI-2021-0076>
- The Royal bridal bouquet: From wedding accessory to royal remembrance. **The Court Historian**, v.27, n.2, p.162-181, 2022. <https://doi.org/10.1080/14629712.2022.2093482>
- SALAZAR, G.M. The cherry blossom and its influence on Japanese culture. *Japanese Society and Culture*, v.4, n.1, p.12, 2022. Available at: <https://gensoken.toyo.ac.jp/japanese-society-and-culture/vol4/iss1/12>
- SANTANA, L.W.A.; SENKO, E.C. Perspectivas da Era Vitoriana: sociedade, vestuário, literatura e arte entre os séculos XIX e XX. **Revista Diálogos Mediterrânicos**, n.10, p.189-215, 2016. <https://doi.org/10.24858/209>
- SCHARF, C.P. Ilustração científica no Brasil Holandês: a natureza retratada nos desenhos, pinturas e gravuras dos viajantes no séc. 17. **Colóquio do Comitê Brasileiro de História da Arte**, v.37, p.428-442, 2017. <https://doi.org/10.24978/mod.v4i2.4554>
- SILVA, E. As camélias do Leblon e a abolição da escravatura. **Fundação Casa Rui Barbosa**. 2003.
- SILVA, L.V.M.; ATHIAS, R. M.; ALVES, J. A. **Nossos Saberes: arte, cultura e histórias indígenas no alto Rio Negro**. Manaus: Reggo Edições, 2014. 104p.
- SOARES, C.B.L.V. **O livro de ouro das flores** - as cem variedades mais belas, suas características e histórias. Rio de Janeiro: Ediouro, 2002. 271p.
- STUMPF, E.; BARBIERI, R. Origem, evolução e história das rosas cultivadas. **Current Agricultural Science and Technology**, v.11, n.3, 2005.
- TANSUĞ, S.; JIROUSEK, C.A.; DENEL, S. The Turkish culture of flowers. **The Fabric of Life: Cultural Transformations in Turkish Society**, p.249, 2005.
- TEIXEIRA, C. La flore fossile des calcaires lithographiques de Santa María de Meyá (Lérida, Espagne). **Boletim da Sociedade Geológica de Portugal**, v.11, p.139-152, 1954.
- THADANITI, S. Learning the greatness of mother nature festival tourism: A case of Loy Krathong water festival in Thailand. In: **SHS Web of Conferences**. EDP Sciences, p.01050, 2014. <https://doi.org/10.1051/shsconf/20141201050>
- TSUBOI, N.; TSURUSHIMA, H. **Introdução à história da indústria de flores e plantas ornamentais no Brasil**. São Paulo: Lip Gráfica, 2009. 276 p.
- VALLADOME, A. **Iemanjá: mãe dos peixes, dos deuses, dos seres humanos**. Rio de Janeiro: Pallas Editora, 2020.
- VAN TUYL, J.M.; ARENS, P.; MILLER, W.B.; ANDERSON, N.O. The role of ornamentals in human life. **Horticulture: Plants for People and Places, Volume 1: Production Horticulture**, p.407-433, 2014. [https://doi.org/10.1007/978-94-017-8578-5\\_11](https://doi.org/10.1007/978-94-017-8578-5_11)
- VELOSO, W.P. Entranhas do direito e da arte. **Associação de Letras Jurídicas de Montes Claros**, v.6, n.1, p.220, 2025.
- VLADIMIROVNA, S.O. Still-Lifes of “The Lesser Dutches” as Primary Sources “The German Flowers” Motifs in Porcelain Ware of European Countries. **Journal of Danubian Studies and Research**, v.9, n.1, 2019.
- VON BAEYER, E. **The development and history of horticulture**. Oxford, United Kingdom: Eolss Publishers, 2010.
- WADOOD, A.M.; PANAYOTIDI, M. The Floral and Geometrical Elements on the Ottoman Architecture in Rhodes Island. **Egyptian Journal of Archaeological & Restoration Studies**, v.4, n.2, 2014.
- WORTHEN, T. Poussin’s paintings of Flora. **The Art Bulletin**, v.61, n.4, p.575-588, 1979. <https://doi.org/10.1080/00043079.1979.10787705>
- ZEILLER, R. Sur quelques empétes végétales du Kimméridgien de Santa Maria de Meyá, province de Lérida en Catalogne (Espagne). **Memorias de la Real Academia de Ciencias y Artes de Barcelona**, v.2, p.1-27, 1902.