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# Botanical Tour of Christian Art at the National Museum of Ancient Art (Lisbon, Portugal)

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Christian works of art, from the middle XIV to early XIX centuries, were studied in order to contribute to a new perspective of the cultural history of plants in Portuguese and European art displayed at the National Museum of Ancient Art (NMAA). The symbolic use of trees, leaves, flowers and fruits in painting, sculpture and tapestry were compared with theological data from the Bible, Apocrypha Gospels and codes of symbols from the XVII to XX centuries, as well as pictorial data from academic literature and photographic databases. We found 40 botanical taxa used as symbols that aimed to reinforce moral teachings and theological allegories. This information makes the NMAA an extraordinary place to promote scientific culture and interdisciplinary studies on the role of plants in art and allowed the creation of a botanical tour of the collections. The data of our research can be used to create botanical tours in other museums as well as be helpful to those who guide visits in art museums. Thus, our research proposes a new agenda for art museums, highlighting routes that can be created by recovering the ancient symbolic meaning of plants. Decoding these hidden symbols can reveal significative messages to those engaged in religious tourism and pilgrimage.

**Key Words:** symbolism, botany, Christian art, religious plants, botanical tours

## Symbolism of Plants

Signs are meaningful units that stand for something else. They are found in the form of words, sounds, images, or objects, and have no intrinsic meaning, becoming signs only when users invest them with a meaning according to a recognised code. This code is a system of conventions for correlating the signifier (the form of the sign) and the signified (the mental concept) in specific domains and provides the framework within which signs make sense to an interpretative community who share it. The symbol is a key concept in many areas, such as art, anthropology, theology, philosophy, or psychoanalysis, and in its narrowest sense, a symbol

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is a classification within signs (Nöth, 1995; Mendonça de Carvalho, 2011). A symbol is an object or a living being which stands for a concept or an abstract quality often endowed with a larger dimension. Knowing the meaning of symbols allows us to interpret art with a deeper understanding and puts us in touch with the mind-set of artists and societies that developed codes of symbols over hundreds of years. Symbolism grew out of societies that strongly believed life had a spiritual dimension and to whom symbols provided reassurance, group solidarity or moral inspiration (Tresidder, 2004; Mendonça de Carvalho, 2011). Symbols are also the second language of the church as they illustrate the correspondence between the natural and spiritual realms and the interconnectedness of life.

Plants are the most reliable and available elements in the natural ecosystem, and from the earliest times played symbolic roles that reflected our cultural needs. Their physical forms and life cycles present them as materials for earthly manifestations of divine forces that used plants to interact and communicate with humans (Alcorn, 1995). Although plants have had a plethora of symbolic meanings, they frequently embody positive achievements, virtues, and abstract concepts that reveal the best characteristics of nature, gods, and humans (Seaton, 1995; Mendonça de Carvalho, 2011).

Since the early stages of what we now call Western Art, artists have depicted trees, flowers, and fruits in paintings, sculptures and tapestries ranging widely in purpose and subject. Plants are included in portraits, religious images of saints and episodes related with the Holy Scriptures, myths, and secular history. The use of botanical imagery proliferated especially in the fifteenth and sixteenth centuries, as Italian and Flemish artists became increasingly interested in the realistic depiction of objects and Nature. Plants were depicted with a symbolic meaning or associated to the subject of the painting, and could be depicted either as an attribute, giving clues to the identity of the subject (such as in saints) or providing an ethical or philosophical annotation (Meagher, 2000). Plant symbolism often served to appeal to the learned humanist and to the cultured elite, both able to interpret these emblems and read their hidden meanings.

In the literature of antiquity, such as the *Odyssey* and *Iliad* (Forster, 1936; Baumann, 1996; Homer, 2003; Homer, 2005), the *Natural History* (Pliny, 1945; Pliny, 1950) or the *Metamorphosis* (Ovid, 1955) plants were often used in connection to gods and goddesses as well as metaphors or allegories for human virtues or vices.

In the *Metamorphosis* (Ovid, 1955), we read how plants emerged from the transformation of humans into plants, such as: the laurel (*Laurus nobilis* L.) in the Daphne and Apollo myth; the narcissus (*Narcissus* L.) in the homonymous youth myth; the pheasant-eye (*Adonis annua* L.) or the anemone (*Anemone coronaria* L.) from the blood of Adonis; the cypress (*Cupressus sempervirens* L.) from Cyparissus; and the hyacinth (*Hyacinthus* L.) from the moribund Hyacinth. Some plants were also symbols of gods and goddesses, such as: grapes for Bacchus (Dionysus), god of wine; wheat for Ceres (Demeter), goddess of agriculture; pomegranate for Proserpine (Persephone), daughter of Ceres and ruler of the underworld and; myrtle for Venus (Aphrodite), goddess of love.

The Renaissance was a period of revived interest in classical texts, so many of these associations were brought to the flourishing arts of painting, sculpture, and tapestry (Meagher, 2000). Plants associated with major gods in the pagan tradition were later adapted as Christian symbols, for example, the oak tree (*Quercus* L.), sacred to Zeus (Jupiter) became an attribute of Jesus Christ, and roses (*Rosa* L.), sacred to Aphrodite (Venus) became associated with the Virgin Mary (Ferguson, 1989; Graves, 1993; Grimal, 1996).

Religious texts, such as the Bible and the Apocrypha Gospels, provided a wealth of plant symbolism as they contain many references to trees, flowers, and fruits in moralising episodes and parables. Christian writers from the early medieval period through the Renaissance used botanical imagery to explain and interpret religious texts. For example, the legend of the shamrock used by St. Patrick in his preaching to explain the Christian doctrine of the Trinity to the Irish, in the 5<sup>th</sup> century. The legend tells that St. Patrick used the shamrock leaf to answer to those who asked him: *how can one be three?*. The Venerable Bede, a Benedictine monk (673-735), compared the Virgin Mary to a white lily, in which the petals symbolise her pure body and the golden anthers her radiant soul; Saint Bernard (1090-1153) described Mary as the violet of humility, the lily of chastity, the rose of charity. Plant attributes are often depicted in scenes related to the life of the Virgin, especially the Annunciation (Haig, 1913; Meagher, 2000, Chwalkowski, 2016).

Another source for plant symbolism were the medieval herbals, which described plants according to their properties, such as shape, colour, taste, fragrance, and season of blooming. Artists linked this information to moral connotations, such as representations of purity,

love, evil or death (Harvey, 1981; Meagher, 2000). Based on the wealth and variety of material resources, a single plant often had various and sometimes conflicting meanings ascribed to it. Examples of these multiple meanings are: the apple, which symbolises both sin (Tree of Knowledge of Good and Evil) and salvation (when accepted by the Child Jesus); the carnation that represented both maternal love (Virgin Mary to the Child Jesus) and martyrdom (when accepted by the Child Jesus); the pomegranate, a symbol of the Blood of Christ and of the union of men under the same faith and; ivy which augurs marital fidelity, attachment and undying affection but also death (Ancona, 1977; Ferguson, 1989; Meagher, 2000).

Plant organography was also a source of inspiration for Renaissance artists, such as the five petals of the Rosaceae family, seen as the five wounds of Jesus Christ on the Cross or, later, in the seventeenth century, the flowers of the passion vines (*Passiflora* L.), a genus native to the New World that became closely associated with the instruments used in the martyrdom of Jesus Christ (Haig, 1913; Ancona, 1977)

Plant symbolism has been studied within different art periods: Renaissance Italian botanical symbolism (Ancona, 1977), Portuguese 17<sup>th</sup> century art (Azambuja, 2009), the late Middle Ages and Early Renaissance *millefleur* tapestry (Freeman, 1976), botanical art by a single artist, such as Leonardo da Vinci (Emboden, 1987), or a compendium of plant uses in Europe (Cleene & Lejeune, 2002). In Portugal, studies of plant symbolism and their meaning within the Christian faith goes back to the book *Tratado das Significações das Plantas, Flores e Frutos* by Frei Isidoro de Barreyra, published in Lisbon (1698), in which the author explains the symbolism of 108 plants and their structures.

People travel around the world for purely religious and pilgrimage motives or within programmes that include both religious and secular motives. This growing religion-based tourism is an increasing trend recognised by international agencies, such as the World Tourism Organization (WTO), and so, new experiences and agendas can be created in order to enhance the experience of those engaged in these programmes (Griffin & Raj, 2017).

Humans may satisfy their need for a religious and spiritual bond to God, or to any another spiritual being, through religious tourism or pilgrimage, which, for Christians, includes the discovery and enjoyment of material and immaterial Christian heritage. The route

we propose in the National Museum of Ancient Art, is both touristic and religious; it has a rich spiritual meaning with a body of codified symbolism, hidden in a botanical language.

### National Museum of Ancient Art

The National Museum of Ancient Art (Museu Nacional de Arte Antiga) is the most important art museum in Portugal and has its origins in the need to safeguard the art brought to the State after the abolition of religious orders and the confiscation of their properties. The Museum was formally founded in 1884 and occupies the former palace of the Counts of Alvor and the adjacent Carmelite Convent of Saint Albert, the latter was acquired in 1940. The collection includes paintings, sculptures, tapestries, and decorative arts from the Middle Ages to the early nineteenth century.

### Material and Methods

In undertaking this paper, we studied 309 religious works of art (214 paintings, 94 sculptures and 1 tapestry) included in the NMAA permanent collection - Level 1 (European Art) and Level 3 (Portuguese Art - from the middle fourteenth century to the early nineteenth century). Within this group, we selected 181 works of art (151 paintings, 29 sculptures and 1 tapestry) because they depict plants, although some (mainly trees) could not be identified because they lack morphological details. All works of art were studied *in situ* and photographed. We made a worksheet for each painting, sculpture and tapestry, recording the: (1) NMAA inventory number, (2) name of the work of art, (3) name of the author, (4) date when it was created, (5) plants represented in the work of art, (6) plants used with a symbolic meaning, (7) context in which plants were used as symbols, (8) photos, (9) raw materials used in the work of art (wood, canvas, oils), (10) bibliography, and (11) other data.

The identification of plants was based on scientific botanical databases, and images were compared with data from art libraries; for comparative studies, our research included visits to other European art museums.

We valorized pictorial diversity over quantity and as an example, we attributed the same research value to the eleven paintings with palm leaves as symbol of martyrdom (NMAA Inv. 52, 71, 1226, 1462 AR, 1462 BR, 1466, 1608, 1643, 1784, 1876, 58.145.2), ten paintings with lilies in the Annunciation (NMAA Inv. 9, 30, 677, 883, 932, 1170, 1279, 1501, 1769, 2205),



**Figure 1: *The Assumption of the Virgin* Altarpiece of *Madre de Deus* (detail) by Jorge Afonso (1515)**



Oil on oak panel. NMAA Inv. 1278 PINT

seven paintings with apples offered to Child Jesus (NMAA Inv. 205, 546, 1065, 1277, 1479, 1813, 2159) or one painting with flowers of sweet violets (NMAA Inv. 1242).

In our findings, all verses of the Bible are from the translation made by the New York Bible Society ([www.biblica.com](http://www.biblica.com)), unless otherwise stated, and all images are from works of art displayed at the National Museum of Ancient Art (acronym NMAA). The list of plants is organised alphabetically by common English name, and includes the scientific name(s), in addition to family or other taxonomic level, according to the Missouri Botanic Garden Database ([tropicos.org](http://tropicos.org)).

## Results

### *Almond*

[*Prunus dulcis* (Mill.) D.A.Webb, Rosaceae]

Almonds are a symbol of divine approval or divine favour after the interpretation of the Book of Numbers 17:8, which explains how Aaron was chosen to be the priest of God, through the miracle of the budding rod

**Figure 2: *The Holy Trinity* (detail) by Garcia Fernandes (1537)**



Oil on oak panel. NMAA Inv. 680 PINT

*The next day Moses entered the tent and saw that Aaron's staff, which represented the tribe of Levi, had not only sprouted but had budded, blossomed and produced almonds.*

This Bible verse is used to attribute almonds to the Virgin Mary, who is often represented inside a *mandorla*. The *mandorla* (Italian name for almond) is an extended aureole that encloses the Virgin Mary, such as in *The Assumption of the Virgin* (Figure 1), and can also be limited by doves or angels such as in the *mandorla* that includes Christ, God Father and the Holy Spirit in *The Holy Trinity* (Figure 2).

### *Apple*

[*Malus* Mill., Rosaceae]

The fruit of the Tree of the Knowledge of Good and Evil was usually depicted as an apple, although the Bible does not support this tradition, nor identify the tree itself, Genesis 2:9

*The Lord God made all kinds of trees grow out of the ground - trees that were pleasing to the eye and good for food. In the middle of the*

**Figure 3: *Virgin and Child* by Hans Memling (c.1480-1490)**



Oil on oak panel. NMAA Inv. 1065 PINT

*garden were the tree of life and the tree of the knowledge of good and evil.*

The apple also appears by name in the Bible, with positive meaning in the Songs of Songs 2:3

*Like an apple tree among the trees of the forest is my beloved among the young men. I delight to sit in his shade, and his fruit is sweet to my taste.*

This verse is commonly interpreted as an Old Testament allusion to Jesus Christ, a symbol which is repeated in the Songs of Songs 2:5

*Strengthen me with raisins, refresh me with apples, for I am faint with love.*

As apples are native to Central Asia and require cool growing conditions only found at higher elevations in the Middle East, where sustained low temperatures are present, some authors believe that probably apricots (*Prunus armeniaca* L.) and not apples were the fruits first identified with the tree of the knowledge of good and evil (Moldenke & Moldenke, 1952; Juniper & Mabberley, 2009). Among the Romans, the word *malum* was used for apple (also known as *pomum* - the

**Figure 4: *Altarpiece of the Madre de Deus* (detail) by Jorge Afonso (1515)**



Oil on oak panel. NMAA Inv. 1632 PINT

Latin goddess of fruit was Pomona), and the same Latin word was used for evil (*malum, malus*) (Gaffiot, 1934). This may be the origin for the apple being considered the fruit of the Tree of the Knowledge, who brought the fall of man from Paradise, although no conclusive evidence supports this claim.

In the galleries of the NMAA, there are several paintings in which apples take a central role linking the Virgin Mary and the Infant Christ, as Mary offers Christ an apple that is accepted, such as *Virgin and Child* (Figure 3). This is based on the theological interpretation that Christ is the new Adam who takes away the sin of the world, as in 1 Corinthians 15:45

*So it is written: The first man Adam became a living being; the last Adam, a life-giving spirit*

So, within this context, the apple is a symbol of salvation and redemption. The traditional role of the apple, as a symbol of sin, can be seen in the central painting of the *Altarpiece of the Madre de Deus* in which Adam holds an apple (Figure 4).



Figure 5: *Virgin and Child* (detail) by an unknown Flemish master (c.1520)



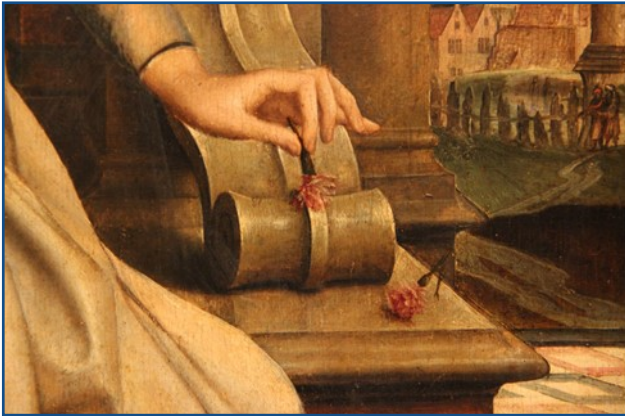
Oil on oak panel. NMAA Inv. 2159 PINT

Figure 6: *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown Master (possibly



Oil on oak panel. NMAA Inv. 1072 PINT

Figure 7: *Virgin and Child with an Angel* (detail) by Circle of Quentin Metsys. (c.1510-1520)



Oil on oak panel. NMAA Inv. 546 PINT

Figure 8: *Mystic Marriage of St. Catherine* (detail) by The Master of the Embroidered Foliage (c.1480-1500)



Oil on panel. NMAA Inv. 1468 PINT

### Carnation

[*Dianthus caryophyllus* L., Caryophyllaceae]

The carnation is a symbol of the Passion of Christ, although it can also symbolise love (red carnation), marriage (pink carnation), purity and promise (white carnation) (Ancona, 1977; Ferguson, 1989; Impelluso, 2004). In the paintings of the NMAA, carnations take a central role in the future of Christ, as a symbol of sacrifice or union between mother and child, such as in the *Virgin and Child* (Figure 5), *Virgin and Child with*

*St. Anne, St. Joachim and a Donor* (Figure 6), *Virgin and Child with an Angel* (Figure 7) or as a symbol of marriage as depicted in the *Mystic Marriage of St. Catherine* (Figure 8).

### Cedar

[*Cedrus libani* A.Rich., Pinaceae]

All cedars mentioned in the Bible, especially in the Old Testament, are native trees from Lebanon (Moldenke & Moldenke, 1952). The First Temple, built by King

**Figure 9: *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown Master (possibly Flemish) (c.1550)**



Oil on oak panel. NMAA Inv. 1072 PINT

Salomon, was made with cedar wood, as stated in 1 Kings 9:10-11

*At the end of twenty years, during which Solomon built these two buildings - the temple of the Lord and the royal palace - King Solomon gave twenty towns in Galilee to Hiram king of Tyre, because Hiram had supplied him with all the cedar and juniper and gold he wanted.*

These trees were associated with majesty due to the stately form of the adult trees and their strong and aromatic wood, and also as symbols of integrity, as in the Psalms 92:12-13

*The righteous will flourish like a palm tree, they will grow like a cedar of Lebanon planted in the house of the Lord, they will flourish in the courts of our God.*

In the Old Testament, cedars were compared to the Messiah and His Kingdom, as in Ezekiel 17:22-23

*This is what the Sovereign Lord says: I myself will take a shoot from the very top of a cedar and plant it; I will break off a tender sprig from its topmost shoots and plant it on a high and lofty mountain. On the mountain heights of Israel, I will plant it; it will produce branches and bear fruit and become a splendid cedar. Birds of every kind will nest in it; they will find shelter in the shade of its branches.*

**Figure 10: *The Virgin and Child Enthroned* (detail) by Master of Lourinhã (c.1515-1518), part of the Monastery of Almeirim Altarpiece**



Oil on oak panel. NMAA Inv. 25 PINT

The painting *Virgin and Child with St. Anne, St. Joachim and a Donor* includes a cedar that although not depicted with botanical accuracy (true cedars may have been unknown to the painter) has a text attached in which we can read CEDRVS EXALTATA (Figure 9), referring to Book of Ben Sirach (Book of Ecclesiasticus) 24:17 ‘*quasi cedrus exaltata sum in Libano et quasi cypressus in monte Sion*’ (Weber and Gryson, 1994), this words being an attribute to the Virgin Mary.

### **Cherry**

[*Prunus avium* (L.) L., Rosaceae]

Red cherries represent a sweet character that arises from good works and so they are usually connected with the fruits of Paradise and to the delights of the blessed (Ferguson, 1989). When they are linked with the Child Jesus, as seen in *The Virgin and Child Enthroned* (Figure 10) they may allude to the Holy Blood shed by Jesus Christ on the Cross, this interpretation is reinforced as they share the same plate as a violet blue plum which is also a symbol of the Passion of Jesus (Ancona, 1977; Impelluso, 2004).



### Chestnuts

[*Castanea sativa* Mill., Fagaceae]

Eadmer of Clare wrote in the *Tractatus de Conceptione S. Mariae* that chestnuts were a symbol of Mary and her virtue because like her, chestnuts were surrounded by sins (the bracts) but were not touched by them (Eadmerus, 1904). As chestnuts were an attribute of the Virgin Mary, they were represented in a glazed terracotta rim that surrounds the *Virgin and Child* sculpture made in the Florentine Della Robbia workshop (Figure 11a).

### Cucumber

[*Cucumis sativus* L., Cucurbitaceae]

Cucumbers were a symbol of sin, but when represented by the Virgin Mary they alluded to the sins that were absent from the body and soul of the Immaculate Virgin. This interpretation is based on Isaiah 1:8

*Daughter Zion is left like a shelter in a vineyard, like a hut in a cucumber field, like a city under siege.*

The besieged city was Mary, surrounded by sins but untouched by them. In the Italian language, the word for cucumber is *cetriolo*, which sounds very close to *cedro* (cedar), and as the latter was an attribute of the Virgin Mary, so cucumber may have found its place in the iconography of Mary due to this reason (Ancona, 1977). Cucumbers are represented in the glazed terracotta rim that surrounds the *Virgin and Child* sculpture made in the Florentine Della Robbia workshop (Figure 11b).

### Cypress

[*Cupressus sempervirens* L., Cupressaceae]

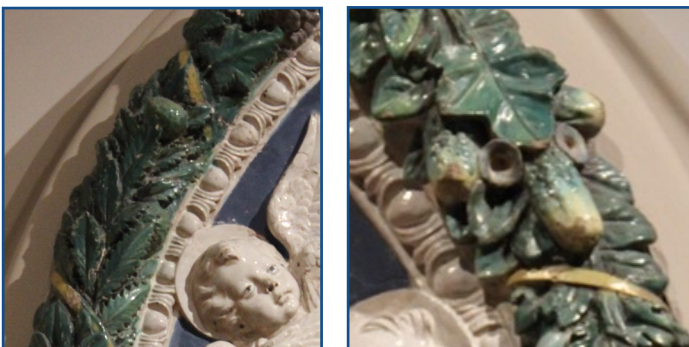
The cypress has a very long association with death (Ferguson, 1989) and it is still commonly planted in Southern Europe's cemeteries. In the *Metamorphoses* (Book 10: 106-142) Ovid explains this connection with the legend of young Cyparissus who, after accidentally killing a sacred stag, asked the gods to let him mourn for all eternity. His request was granted, and he was transformed into a tree (the cypress) that ever since that day is planted near graves as a symbol of eternal loss and inconsolable grief (Ovid, 1955). The association with the Virgin Mary and Jesus Christ probably originates from the habit of the tree - a conic crown directed toward the celestial kingdom, and also from the tradition that the Cross of Christ was partially made from cypress wood (Ancona, 1977; Impelluso, 2004). In the NMAA painting *Virgin and Child with St. Anne, St. Joachim and a Donor* (Figure 12) the

Figure 12: *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown Master (possibly Flemish) (c.1550)



Oil on oak panel. NMAA Inv. 1072 PINT

Figure 11(a&b): *Virgin and Child* (detail) by Della Robbia workshop (Florence) (XV-XVI centuries)



Glazed terracotta. NMAA Inv. 677 ESC



**Figure 13: *St. Joseph with Child Jesus* (detail) by Josefa de Óbidos (c.1670)**



Oil on canvas. NMAA Inv. 1854 PINT

**Figure 14: *Triptych of the Holy Family with Angels St. Catherine and St. Barbara* (detail) by Unknown Dutch Master (c. 1520-1525)**



Oil on oak panel. NMAA 1479 PINT

cypress has a text attached in which we can read CIPRESVS IN MONTE SION, referring to Book of Ben Sirach (Book of Ecclesiasticus) 24:17 ‘*quasi cedrus exaltata sum in Libano et quasi cypressus in monte Sion*’ (Weber & Gryson, 1994), this words being an attribute to the Virgin Mary.

### **Daisy**

[Anthemideae Cass., Asteraceae]

Small white and yellow daisies, especially those of the genus *Anthemis* L., were used to represent the same virtues attributed to the Madonna Lily (*Lilium candidum* L.), such as innocence and purity, but were seen as more appropriated to be depicted with the infant Jesus (Ancona, 1977; Ferguson, 1989). In *St. Joseph with Child Jesus* (Figure 13) we see the Madonna lily and daisies used for the same symbolic purpose, the former in the left hand of St. Joseph and the latter near the feet of Jesus.

### **Dandelion**

[*Taraxacum* F.H.Wigg., Asteraceae]

Dandelions were supposed to be one of the ‘bitter herbs’ described in the Book of Exodus 12:8

*That same night they are to eat the meat roasted over the fire, along with bitter herbs, and bread made without yeast.*

They are also alluded to in the Passion of Christ. It is probably with this meaning that the dandelion is represented in the *Triptych of the Holy Family with Angels St. Catherine and St. Barbara* (Figure 14). This interpretation is reinforced by the fact that near this plant are also depicted a plant with four petals, in the form of a cross – the greater celandine (*Chelidonium majus* L.).

**Figure 15: *The Flight into Egypt*, Altarpiece of Paraíso (detail) (c.1523) by Gregório Lopes**



Oil on oak panel. NMAA Inv. 14 PINT

### *Dates*

[*Phoenix dactylifera* L., Arecaceae]

Dates represent peace, abundance, faith, and hospitality based on an episode referred to in the apocryphal Gospel of Pseudo-Matthew (verses 20-21). It tells us that during the flight into Egypt, and upon a sign of Child Jesus, a palm tree lowered its fruits and offered them to the Holy Family:

*Then the child Jesus, with a joyful countenance, reposing in the bosom of His mother, said to the palm: O tree bend thy branches, and refresh my mother with thy fruit. And immediately at these words the palm bent its top down to the very feet of the blessed Mary; and they gathered from it the fruit with which they were all refreshed (Coxe et al., 1886; Horne, 2010).*

This is depicted in the painting *The Flight into Egypt* (Figure 15). A similar symbolism is attributed to dates in the painting *Saint Anthony, the Abbot, and the Satyr* (Figure 16) which represents the meeting of the saint with a hybrid creature, that the saint thought was the devil, but this beast calmed him, offering dates as a sign of peace and asking the saint to intercede for the salvation of those of his species. This can also be a tribute of the old religions to the new emerging Christian faith (Ancona, 1977).

**Figure 16: *Saint Anthony, the Abbot, and the Satyr* by Gregório Lopes (c. 1540)**



Oil on oak panel. NMAA 1137 PINT



**Figure 17: *St. Augustin Defeating the Heresy* (detail) by Vieira Lusitano (1736)**



Oil on canvas. NMAA Inv. 119 PINT

### *Ferns*

[Polypodiales]

**Figure 18: *Baptism of Christ* (detail). Bruxelles (c.1500-1520)**



Wool and Silk. NMAA Inv. 28 TAP

Ferns were symbols of grace and beauty, and because their charms are only understood by an honest searcher, they also symbolised humility, sincerity, and honesty (Ferguson, 1989). In the painting *St. Augustin Defeating the Heresy* (Figure 17), fire will destroy the books that are crushing the ferns (probably from *Polypodium* genus). This was certainly a warning to those who defied the power of the Catholic Church with non-authorized religious ideas or scientific doctrines. In the tapestry, *The Baptism of Christ* (Figure 18), the deer fern [*Blechnum spicant* (L.) Roth] alludes to the humility of Jesus.

### *Figs*

[*Ficus carica* L., Moraceae]

Fig trees were common in the Holy Land and figs were an important source of food and wealth such as referred in 1 Kings 4:25

*During Solomon's lifetime Judah and Israel, from Dan to Beersheba, lived in safety, everyone under their own vine and under their own fig tree.*

Nevertheless, within Christian art, fig leaves were a symbol of sin, lust and shame mainly due to the event described in the Book of Genesis 3:7, in which Adam and Eve used fig leaves to cover their nudity (Figure 4), after eating the fruit from the Tree of the Knowledge of Good and Evil:

*Then the eyes of both of them were opened, and they realized they were naked; so they sewed fig leaves together and made coverings for themselves.*

Due to this reference, the Tree of the Knowledge was sometimes depicted as a fig tree. A medieval legend tells that Judas hanged himself in a fig tree for having sold Jesus for thirty pieces of silver, adding strength to the negative connotation of this plant (Ancona, 1977). The painting *The Virgin and Child with Angels* (Figure 19) includes an angel holding a basket of figs that are being offered to Child Jesus, who accepts them. By doing this, Jesus accepts the role of a new Adam - the Messiah that takes away the sin of the world, based on an interpretation of 1 Corinthians 15:45

*So it is written: The first man Adam became a living being; the last Adam, a life-giving spirit.*

Within this context, figs allude to salvation (Impelluso, 2004).

### **Flax**

[*Linum usitatissimum* L., Linaceae]

Linen is the fabric produced with flax fibres and it is often referred to in the Bible. It was used to make the robes of the Hebrew priests, as stated in Ezekiel 44:16-17:

*They alone are to enter my sanctuary; they alone are to come near my table to minister before me and serve me as guards. When they enter the gates of the inner court, they are to wear linen clothes ....*

It was the fabric ascribed to angels, according to Daniel 10:5-6

*I looked up and there before me was a man [angel] dressed in linen, with a belt of fine gold from Uphaz around his waist. His body was like topaz, his face like lightning, his eyes like flaming torches, his arms and legs like the gleam of burnished bronze, and his voice like the sound of a multitude,*

and to the celestial armies, as written in Revelation 19:14

*The armies of heaven were following him, riding on white horses and dressed in fine linen, white and clean.*

Linen was also a symbol of the righteousness and purity of the saints - Revelation 19:8

*Fine linen, bright and clean, was given her to wear. Fine linen stands for the righteous acts of God's holy people.*

**Figure 19: *The Virgin and Child with Angels* (detail) by Frei Carlos (c.1520-1530)**



Oil on oak panel. NMAA Inv. 1179 PINT

The four Gospels reveal that a man called Joseph of Arimathea asked for Jesus' body and wrapped it in linen:

*Joseph took the body, wrapped it in a clean linen cloth (Matthew 27:59).*

*So Joseph bought some linen cloth, took down the body, wrapped it in linen, and placed it in a tomb cut out of rock. Then he rolled a stone against the entrance of the tomb (Mark 15:46).*

*Then he took it down, wrapped it in linen cloth and placed it in a tomb cut in the rock, one in which no one had yet been laid (Luke 23:53).*

And

*Taking Jesus' body, the two of them wrapped it, with the spices, in strips of linen. This was in accordance with Jewish burial customs (John 19:40).*

In the NMAA, the painting *The Ecstasy of St. Francis* (Figure 20) represents the lifeless Body of Christ being lowered from the Cross, and partially wrapped in a linen shroud. The most famous Catholic relic of Christ is a shroud made with linen and kept, since 1578, in the Cathedral of Saint John the Baptist in Turin, Italy (Fanti & Malfi, 2016).



Figure 20: *The Ecstasy of St. Francis* (detail) by Luca Giordano (c.1665)



Oil on canvas. NMAA Inv. 179 PINT

### Gourd

[*Lagenaria siceraria* (Molina) Standl., Cucurbitaceae]

The gourd is linked with the Book of Jonah 4:6

*Then the Lord God provided a leafy plant and made it grow up over Jonah to give shade for his head to ease his discomfort, and Jonah was very happy about the plant.*

This leafy plant is usually identified as a gourd. Because of this, gourds became a symbol of salvation. When depicted with an apple, they serve as an antidote against evil or death (Ancona, 1977; Ferguson, 1989). The gourd was used by pilgrims and travellers to carry water, as in the painting *Rest on the Flight into Egypt* (Figure 21). It was attributed to Jesus on the road to Emmaus, to St Joseph in the Flight into Egypt and to St. James, the Great. This latter saint has a major shrine in the Cathedral of Santiago de Compostela, located in north-western Spain. In medieval Europe, Santiago de Compostela was the destination for pilgrims who travelled via the Way of St. James, a set of routes that crossed Western Europe; the gourd is still a common symbol or souvenir for these pilgrims.

Figure 21: *Rest on the Flight into Egypt* (detail) by Circle of Gerald David (c. 1500-1525)



Oil on oak panel. NMAA Inv. 205 PINT

**Figure 22: Triptych of the Temptations of St. Anthony Abbot (detail) by Hieronymus Bosch (c.1500)**



Oil on oak panel. NMAA Inv. 1498 PINT

### Grapes

[*Vitis vinifera* L., Vitaceae]

Grapes allude to the wine of Holy Communion and are a symbol of the Blood of Christ (Ferguson, 1989). When grapes are offered to the Child Jesus, they represent the acceptance of his future martyrdom on the Cross, as in the *Virgin and Child with St. Anne, St. Joachim, and a Donor* (Figure 6). Wine, made with fermented grape juice, is central in the Eucharist, a rite instituted after the three Synoptic Gospels (Matthew 26:26-29, Mark 14:22-25, Luke 22:17-20) and the First Epistle to the Corinthians 11:24-27. A detail on the masterpiece *Triptych of the Temptations of St. Anthony Abbot* by Hieronymus Bosch (Figure 22) recalls an episode written in the Book of Numbers 13:23, about a Hebrew expedition to Canaan

*When they reached the Valley of Eshkol, they cut off a branch bearing a single cluster of grapes. Two of them carried it on a pole between them, along with some pomegranates and figs.*

### Incense

[*Boswellia* Roxb. ex Colebr., Burseraceae]

This oleo-gum-resin is harvested from several species of the genus *Boswellia*, the most valuable being from *Boswellia sacra* Flueck, a small tree from Oman, Yemen and northern Somalia, that yields a very fragrant and bright white incense (frankincense). In the Natural History XII Book (Chapters 30-32), Pliny, the Elder, summarised all available knowledge concerning incense trees, including the harvesting and trade of this exotic commodity, during the I century AD (Pliny, 1945). In the Bible, incense is one of the most cited

**Figure 23: The Adoration of the Magi (detail) by Gregório Lopes (1520-1525)**



Oil on oak panel. NMAA Inv. 5 PINT

plant products, especially in the Old Testament, although sometimes it probably refers to a mixture of aromatic plants products and not necessary to the pure frankincense oleo-gum-resin from *Boswellia* trees (Smith, 1878). It was used to praise God and to create a fragrant white smoke that linked prayers to heaven, such as written in Psalm 141:1-2

*I call to you, Lord, come quickly to me; hear me when I call to you. May my prayer be set before you like incense.*

In Christian art, incense is usually depicted within the Nativity context, such as in the *Adoration of the Magi* (Figure 23). This painting alludes to the Gospel of Matthew 2:11

*On coming to the house, they saw the child with his mother Mary, and they bowed down and worshiped him. Then they opened their treasures and presented him with gifts of gold, frankincense and myrrh.*

The gift of incense is a symbol of the divine nature of Jesus Christ.

### Iris

[*Iris* L., Iridaceae]

The iris alludes to the sorrow of the Virgin Mary during the Passion of Christ, probably due to the shape of its leaves that evokes a sword and the pain caused by it, as depicted in the painting *Virgin of Sorrows* (Figure 24). It may also allude to the Gospel of Lucas 2: 34-35, when Simeon said to the Virgin Mary

*This child is destined to cause the falling and rising of many in Israel ... and a sword will pierce your own soul too.*



**Figure 24:** *Virgin of Sorrows* (detail) by Quentin Metsys. Altarpiece of the Virgin of the Sorrows from Madre de Deus Church (c.1510)



Oil on oak panel. NMAA Inv. 1275 PINT

**Figure 25:** *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown Master (possibly Flemish) (c.1550)



Oil on oak panel. NMAA Inv. 1072 PINT

The iris was adopted as an attribute of the Virgin Mary, as Queen of Heaven, and to her Immaculate Conception (Ferguson, 1989) and sometimes replaces the lily in the Annunciation, especially in Dutch paintings. This is probably due to a misinterpretation caused by the fact that the iris was called *fleur-de-lys* (the flower of King Louis VII of France or even an earlier king) a name phonetically close to lily (genus *Lilium* L.) (Ancona, 1977; Impelluso, 2004). The painting *Virgin and Child with St. Anne, St. Joachim and a Donor* (Figure 25) represents an iris with the motto SIC LILIV INTER SPINAS, which is based on a medieval interpretation of the Songs of Songs, verse 2:2

*Like a lily among thorns is my darling among the young women.*

This interpretation links these words to the Immaculate Conception of the Virgin Mary.

### Ivy

[*Hedera helix* L., Araliaceae]

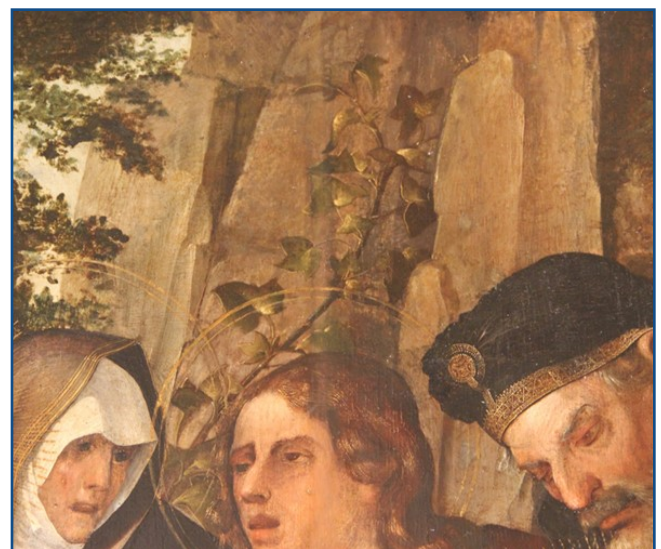
The Catholic Bible refers to ivy in the following verse from 2 Maccabees 6:7

*People were driven by harsh compulsion to take part in the monthly ritual meal commemorating the king's birthday; and when a feast of Dionysus occurred, they were forced to wear ivy wreaths and walk in the Dionysiac procession* (Wansbrough, 1999).

Ivy was an attribute of the Greek maenads – female followers of Dionysus, and in Christian iconography it was linked to death and immortality because of its

perennial green leaves (symbol of fidelity and eternal life). As it climbs over a support and is strongly secured to it, ivy can be a symbol of attachment and undying affection (Ferguson, 1989). In the painting *The Entombment* (Figure 26), ivy represents the eternal life of Christ as well as the strong links that unite Christ with those who surround him: The Virgin Mary, the saints and the faithful.

**Figure 26:** *The Entombment* (detail) by Cristóvão de Figueiredo (c.1521-1530)



Oil on oak panel. NMAA Inv. 849 PINT

**Figure 27: *Pelican* (detail) by Della Robbia workshop (Florence) (1501-1525)**



Glazed terracotta. NMAA Inv. 628 ESC

### **Lemon**

[*Citrus × limon* (L.) Osbeck, Rutaceae]

Lemons are not cited in the Bible, but, in Christian art they became symbols of fidelity in love, often associated with the Virgin Mary (Ferguson, 1989). They were curative fruits and a potent antidote to poisons; based on this belief and because the tree grows in full sunlight, lemons were also connoted with the salvation brought by Christ (Ancona, 1977; Impelluso, 2004). In the NMAA we find lemons in two glazed Florentine terracotta medallions. One of them depicts a pelican (Figure 27), which, according to the legend, pierces the breast to feed its offspring with its own blood (Friedmann, 1980). Because of this legend, the pelican came to symbolise Christ's redemptive sacrifice on the Cross, and this is the reason why pelicans' nests are sometimes shown on the top of the Cross of Christ. In the painting *Still Life* (Figure 28) which alludes to the Body (wheat/bread) and the Blood (grapes/wine) of Christ, the yellow fruits probably represent a lemon-citron hybrid because the outer skin of the fruits and the winged leaves do not correspond to a single citrus species.

### **Lily**

[*Lilium candidum* L., Liliaceae]

The Madonna lily (*Lilium candidum* L.) was a symbol of purity and virginity, although other species of the

**Figure 28: *Still Life* by Jasper Geeraerts (c. 1625-1650)**



Oil on copper. NMAA Inv. 1342 PINT

genus *Lilium* L. could also be used. The verse of the Songs of Songs 2:2 states

*Like a lily among thorns is my darling among the young women.*

This was interpreted as an allusion to the Immaculate Conception of Virgin Mary - a symbol of bright purity amid the sins of the world. In the Late Middle Ages and the Renaissance, artists like Lippo Lippi, Fra Angelico, Titian, Murillo, Botticelli and Correggio, all painted the Madonna lily within a religious context, especially in representations of the Annunciation (Cotes, 1904). The Venerable Bede, a Benedictine

**Figure 29: *The Annunciation* (detail) by André Gonçalves (c.1750)**



Oil on canvas. NMAA Inv. 2205 PINT



**Figure 30: *The Annunciation* (detail) by Frei Carlos (1523)**



Oil on oak panel. NMAA Inv. 677 PINT

monk (c.673-735), associated the Virgin Mary with a white lily, in which the petals symbolise her pure body and the golden anthers her radiant soul

*... ipse lilium, quia velut auri fulgorem in candore divinitatem habet in nomine. Et pulchre in lilio prius se candor exterior paulatim aperit, et sic demum aurei coloris, quae latebat intus, gratia patescit ...* (Venerable Bede, 1844).

The lily may be held by Archangel Gabriel, such as seen in *The Annunciation* (Figure 29), placed in a vase between Gabriel and Mary or somewhere near Mary, as in *The Annunciation* (Figure 30). The lily can also represent chastity and it is attributed to several saints, such as St. Joseph (Figure 13).

### ***Lily-of-the-valley***

[*Convallaria majalis* L., Asparagaceae]

The lily-of-the-valley is mentioned in the Song of Songs 2:1

*I am a rose of Sharon, a lily of the valleys.*

although this is not the same plant known today as lily-of-the-valley (*Convallaria majalis* L.) because this species is not native of the Holy Land and was never introduced there. There is no consensus about which plant species could be the biblical lily-of-the-valley, and several names have been proposed, such as *Cota palaestina* Reut. ex Unger & Kotschy (Rosenberg, 1934) or *Narcissus tazetta* L. (Musselman, 2012). The former name of *Convallaria majalis* L. was *Lilium convallium* (literally, lily-of-the-valley) (Bauhin, 1623; Linnaei, 1753) and this species was associated to the biblical plants probably due to the whiteness of the corolla (purity), sweet scent (alluding to the fragrances of Heaven), corolla facing down (humility) and early blooming (symbol of the Saviour's Advent). In the NMAA, the lily-of-the-valley is depicted in the tapestry *Baptism of Christ* (Figure 31) alluding to the advent of Jesus' public ministry and also in the painting *Virgin and Child with Saints* (Figure 32) where it is located very close to Virgin Mary, as one of her attributes and a symbol of her Immaculate Conception.

**Figure 31: *Baptism of Christ* (detail). Bruxelles (c.1500-1520)**



Wool and Silk. NMAA Inv. 28 TAP



Figure 32: *Virgin and Child with Saints* (detail) by Hans Holbein, the Elder (1519)



Oil on panel. NMAA Inv. 1466 PINT

### **Manna**

There is no consensus about the origin of the biblical manna referred in Exodus 16:4

*Then the Lord said to Moses, I will rain down bread from heaven for you. The people are to go out each day and gather enough for that day. In this way I will test them and see whether they will follow my instructions,*

And in Numbers 11:6-9

*we never see anything but this manna! The manna was like coriander seed and looked like resin. The people went around gathering it, and then ground it in a hand mill or crushed it in a mortar. They cooked it in a pot or made it into loaves. And it tasted like something made with olive oil. When the dew settled on the camp at night, the manna also came down.*

Some botanists have suggested that manna may have been composed, at least partially, of lichens of the genus *Lecanora* Ach., especially *Lecanora esculenta* (Pall.) Eversm or even of *Nostoc* algae, that can grow rapidly during the night (Moldenke & Moldenke, 1952; Donkin, 1980), but as the lichens from the genus *Lecanora* are not native from Sinai, other authors have suggested that manna could be the sweet exudations of *Hammada salicornica* (Moq.) Iljin, a widespread plant

in southern Sinai or even the exudations produced by small scaly insects (*Trabulina mannifera* or *Najacoccus serpentina*) feeding on the branches of *Tamarix nilotica* (Ehrenb.) Bunge (Danin, 1972; Zohary, 1982). In the NMAA, manna is represented in *The Gathering of Manna* (Figure 33) which was part of a major altarpiece.

Figure 33: *The Gathering of Manna* (detail). Altarpiece of São Francisco de Évora by Francisco Henriques (c.1508-1511)



Oil on oak panel. NMAA Inv. 92 PINT



## Myrrh

[*Commiphora myrrha* (T.Nees) Engl., Burseraceae]

This oleo-gum-resin is obtained from a small tree native of southern Arabia, Ethiopia and Somalia, and was used as incense in religious ceremonies as well as in medicine (Groom, 1981). Myrrh is often cited in the Bible, such as in the Songs of Songs 5:13

*His cheeks are like beds of spice yielding perfume. His lips are like lilies dripping with myrrh.*

Or in the Gospel of Mark, when describing the agony of Jesus, 15:23

*Then they offered him wine mixed with myrrh, but he did not take it.*

In Christian art, myrrh is commonly depicted within the Nativity context, but not always actually shown, such as in the *The Adoration of the Magi* (Figure 23). This painting alludes to the Gospel of Matthew 2:11

*On coming to the house, they saw the child with his mother Mary, and they bowed down and worshiped him. Then they opened their treasures and presented him with gifts of gold, frankincense and myrrh.*

Myrrh was a symbol of suffering and alluded to the human nature of Jesus.

## Narcissus

[*Narcissus* L., Amaryllidaceae]

Narcissus represents selfishness, indifference and coldness due to the Greek myth of Narcissus who fell in love with his own image when he saw it in the water - he became mad in love and died. His dead body was transformed into a plant that permanently looks for its lost image in the waters, as wrote Ovid in Book 3: 474-510 of the *Metamorphoses* (Ovid, 1955). Within Christian art, this flower represents the triumph of divine love, sacrifice and eternal life over death, selfishness, and sin (Ferguson, 1989). The painting *St. Anthony Preaching to the Fishes* (Figure 34), brings together episodes of Saint Anthony's life, and the narcissus probably alludes to the heretics of Rimini, who were indifferent to the preaching of the saint.

Figure 34: *St. Anthony Preaching to the Fishes* (detail) by Garcia Fernandes (c.1535-1540)



Oil on oak panel. NMAA Inv. 1768 PINT

## Oak

[*Quercus* L., Fagaceae]

In Europe, oaks were among the most widely venerated trees, such as in Epirus (Greece), a region famous for its violent storms, where dendromancy (the ability to decipher celestial advice using trees) was practiced at the Dodona oracle. There, Zeus was said to speak through the voices of the priestesses who would interpret the rustlings made by the sacred Valonia oak leaves (*Quercus ithaburensis* Decaisne subsp. *macrolepis* (Kotschy) Hedge & Yalt.) (Thanos, 2005; Herodotus, 2008). The Bible often mentions oaks, especially oaks from Bashan, a region located in southern Syria, very well-known during Antiquity due to its oaks, such as in Isaiah 2:12-13

**Figure 35:** *Virgin and Child* (detail) by Della Robbia workshop (Florence) (XV-XVI centuries)



Glazed terracotta. NMAA Inv. 677 ESC

**Figure 36:** *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown



Oil on oak panel. NMAA Inv. 1072 PINT

*The Lord Almighty has a day in store for all the proud and lofty, for all that is exalted (and they will be humbled), for all the cedars of Lebanon, tall and lofty, and all the oaks of Bashan.*

In Christian art, the oak tree was an attribute of Christ and the Virgin Mary - an emblem of the stability of faith and virtue and resistance against adversity. In some paintings, the trees that are depicted near Christ or the Virgin may be oaks but their morphology (especially the leaves) does not allow a clear identification. In the NMAA, oak leaves and acorns are represented in the glazed terracotta rim that surrounds the *Virgin and Child* sculpture (Figure 35).

### **Olive**

[*Olea europaea* L., Oleaceae]

This Mediterranean tree was an attribute of the Virgin Mary and we can see a representation of an olive in the painting *Virgin and Child with St. Anne, St. Joachim, and a Donor* (Figure 36), where the tree has attached the words *oliva speciosa*, which refers to the Book of Ben Sirach (Book of Ecclesiasticus) 24:19 ‘*quasi oliva speciosa in campis*’ (Weber and Gryson, 1994).

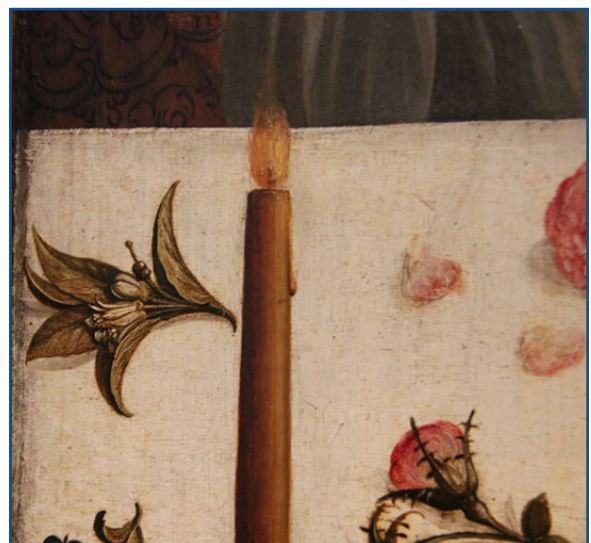
### **Orange**

[*Citrus × sinensis* (L.) Osbeck; *Citrus × aurantium* L., Rutaceae]

The orange tree is not cited in the Bible. In Christian art it became a symbol of purity and chastity, occasionally depicted near the Virgin Mary. When

included in representations of Paradise, an orange tree alludes to the Tree of the Knowledge of Good and Evil and the Fall of Man, although the orange may also symbolise redemption, as with apple. Its fragrant white flowers suggest purity of body and soul and were traditional ornaments of brides (Ferguson, 1989; Impelluso, 2004). In the painting *The Presentation of the Child in the Temple*, we see, among other flowers, an orange blossom as an attribute of the Virgin Mary (Figure 37).

**Figure 37:** *The Presentation of the Child in the Temple* (detail) by Garcia Fernandes (1538)



Oil on panel. NMAA Inv. 1068 PINT



**Figure 38: *Altarpiece of St. Auta* (detail) by Unknown Master (c.1522-1525)**



Oil on panel. NMAA Inv. 1462BR PINT

**Figure 39: *The Virgin and Child with Angels* (detail) by Gregório Lopes (c.1536-1539)**



Oil on oak panel. NMAA Inv. 30 PINT

## **Palm**

[*Phoenix dactylifera* L., *Arecaceae*]

In Greco-Roman civilisation, palm leaves were symbols of triumph as the Greek writer Pausanias wrote in his *Description of Greece* 8.48.2-3

*At most games, however, is given a crown of palm, and at all a palm is placed in the right hand of the victor. The origin of the custom is said to be that Theseus, on his return from Crete, held games in Delos in honor of Apollo, and crowned the victors with palm. Such, it is said, was the origin of the custom.*

In the Bible, we find this symbolical use in the Gospel of John 12:12-13

*The next day the great crowd that had come for the festival heard that Jesus was on his way to Jerusalem. They took palm branches and went out to meet him, shouting, 'Hosanna! Blessed is he who comes in the name of the Lord! Blessed is the king of Israel!'*

Christian martyrs were often depicted with palm leaves as a symbol of their triumph over sin and death, such as in the *Departure from Cologne of the Relics of St. Auta* (part of the *Altarpiece of St. Auta*) (Figure 38). The apocryphal Gospel of Pseudo-Matthew (20-21) also claims that because a palm tree was so generous to the Holy Family in the flight to Egypt, Jesus declared that

*one of thy branches be carried away by my angels, and planted in the paradise of my*

*Father. And this blessing I will confer upon thee, that it shall be said of all who conquers in any contest, You have attained the palm of victory ... And while He was thus speaking, behold, an angel of the Lord appeared, and stood upon the palm tree; and taking off one of its branches, flew to heaven with the branch in his hand ... Do you not know that this palm, which I have caused to be transferred to paradise, shall be prepared for all the saints in the place of delights, as it has been prepared for us in this place of the wilderness? (Coxe et al., 1886; Horne, 2010).*

This is probably the answer to why the saints and blessed who entered Paradise hold a palm leaf in their hands.

Based on an interpretation of the Songs of Songs 7:7-8, the palm tree was also an attribute of the Virgin Mary

*Your stature is like that of the palm, and your breasts like clusters of fruit. I said, I will climb the palm tree; I will take hold of its fruit.*

This species is often represented in paintings with the Virgin Mary, such as in *The Virgin and Child with Angels* (Figure 39). There is also the apocryphal gospel *The Assumption: Narrative by Joseph of Arimathea Mariae* (1-4) which begins with

*Before the Passion the Virgin asked Jesus to certify her of her death on the third day before it, and to receive her with his angels. He promised that this should be so ... In the second*

Figure 40: *The Virgin and Child with Angels* (detail) by Gregório Lopes (c.1536-1539)



Oil on oak panel. NMAA Inv. 30 PINT

year after the ascension she was constantly praying. On the third day before her death an angel [Gabriel] came and gave her a palm and told her of her departure (James, 1924).

We can see a palm leaf over the tomb of the Virgin Mary in *The Assumption of the Virgin* (Figure 1).

### **Pear**

[*Pyrus* L., Rosaceae]

The pear is a symbol of Christ's love for mankind and it appears in *The Virgin and Child with Angels* (Figure 40) where a pear is being offered to the Child Jesus. This fruit had a positive symbolism and its sweetness is linked to Psalm 34:8 that invites people to taste and admire how generous God is

*Taste and see that the Lord is good; blessed is the one who takes refuge in him* (Ferguson, 1989; Impelluso, 2004).

### **Pine**

[*Pinus halepensis* Mill., Pinaceae]

Some traditions include pine wood as one of those used in the Cross of Christ. The Eastern Orthodox Church has a prayer, used during Lent, that refers to the wood used in the Cross

*Let us venerate the Cross of the Lord, offering our tender affection as the cypress, the sweet fragrance of our faith as the cedar, and our sincere love as the pine; and let us glorify our Deliverer who was nailed upon it* (Mary and Ware, 1978).

Theologians interpret the verse in Isaiah 60:13, as a reference to the Cross of Christ

*The glory of Lebanon will come to you, the juniper, the fir and the cypress together, to adorn my sanctuary; and I will glorify the place for my feet.*

In some versions of the Bible, such as in the English Standard Version, this verse is translated as

*The glory of Lebanon shall come to you, the cypress, the plane, and the pine ...* (Crossway Bibles, 2016).

In the NMAA we find works of art representing the Cross, such as the *Salvator Mundi* (Figure 41), and pinecones and leaves in the glazed terracotta rim that surrounds the *Virgin and Child* sculpture (Figure 35).



**Figure 41: *Salvator Mundi* (detail) by Pedro Alexandrino de Carvalho (1778)**



Oil on canvas. NMAA Inv. 1816 PINT

**Figure 42: *The Entombment* (detail) by Cristóvão de Figueiredo (c.1521-1530)**



Oil on oak panel. NMAA Inv. 849 PINT

### **Plantain**

[*Plantago* L., Plantaginaceae]

Plantain is a lowly ruderal genus that represents the sets of actions that leads to Christ and the leaves represent the seven gifts of the Holy Ghost (Ancona, 1977, Ferguson, 1989). In the NMAA it is represented in several paintings, such as *The Entombment* (Figure 42).

### **Plum**

[*Prunus domestica* L., Rosaceae]

Plum is usually a symbol of fidelity, but it can assume different connotations depending on the colour of the fruit. The dark violet plum (probably the species *Prunus spinosa* L.) alludes to the Passion and Death of Jesus as in the painting *The Virgin and Child Enthroned* (Figure 10). According to Berchorius (1609) in his *Reductorium Morale*, the different colours of the plums symbolises distinct virtues of Christ: the yellow plum refers chastity, the red plum is a symbol of charity and the white plum represents humility.

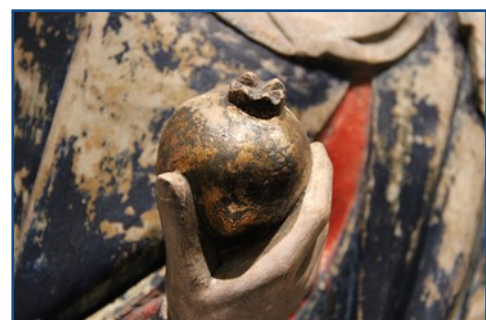
### **Pomegranate**

[*Punica granatum* L., Lythraceae]

Pomegranate, with its numerous seeds, was a symbol of fertility, although it also represented the union of the

faithful under the same god. The red juice was a symbol of the blood of Christ and the salvation it brought to Christians (Ferguson, 1989). In the sculpture *The Virgin and Child* (Figure 43), Mary holds a pomegranate that represents the future Passion and Resurrection of Christ. The pomegranate also symbolised the hope in immortality and in the resurrection, probably derived from the Greco-Roman symbolism, in which this fruit represented the return of Spring and the rejuvenation of the Earth, and was an attribute of Persephone (Proserpina) and her eternal return to her mother, the goddess Demeter (Ceres) who ruled over the fertility of the fields and crops (Claudian, 1922, Ovid, 1955; Baumann, 1996).

**Figure 43: *The Virgin and Child* (detail) by João Afonso (c.1460)**



Polychrome limestone. NMAA Inv. 1001 ESC

**Figure 44: *Franciscans Martyrs of Morocco* (detail), Altarpiece of São Francisco de Évora by Francisco Henriques (c.1508-1511)**



Oil on oak panel. NMAA Inv. 89 PINT

### **Poppy**

[*Papaver rhoeas* L., Papaveraceae]

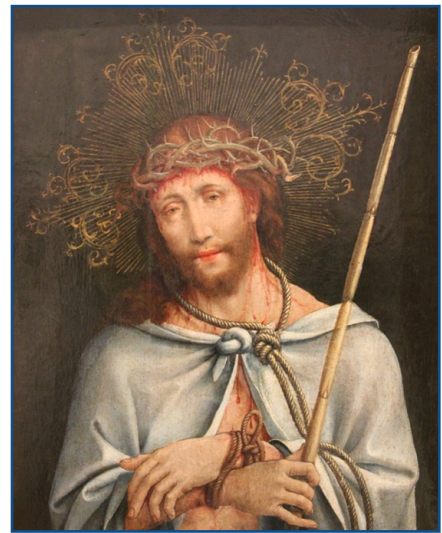
In Christian art, poppies allude to the Passion of Christ and sometimes are represented in paintings of the Crucifixion. As it grows in fields of cereals it is also a symbol of the Eucharist (Impelluso, 2004). Due to their bright red colour, like the colour of blood, poppies also allude to sleep and death (Ferguson, 1989), as in the *Franciscans Martyrs of Morocco* (Figure 44).

### **Quince**

[*Cydonia oblonga* Mill., Rosaceae]

Some scholars suggest that the *golden apples* kept in the Garden of the Hesperides were quinces (Impelluso, 2004). In Greco-Roman civilisation, these fruits were symbols of love and fertility - an attribute of goddess Aphrodite (Venus) (Baumann, 1996). In his *Natural History* (Book 17: 13), Pliny (1950) wrote that quinces were used as antidote to poisons and that a branch from the tree, if cut and planted, will originate a new tree. This may be one of the reasons why quinces later became a symbol of the Resurrection of Christ. These fruits also substitute apples in representations of the Virgin Mary accompanied by the Child Jesus (Impelluso, 2004). In the NMAA, quinces are represented in the glazed terracotta rim that surrounds the *Virgin and Child* sculpture (Figure 35).

**Figure 45: *Ecce Homo* (detail) by Frei Carlos (c.1520-1530)**



Oil on oak panel. NMAA Inv. 2184 PINT

### **Reeds**

[*Arundo donax* L., Poaceae]

In the Holy Land, during the biblical period, reeds were extensively used in everyday life, and were also grown in the gardens; the biblical reeds could be the species *Phragmites australis* (Cav.) Trin. ex Steud. (Zohary, 1982) or the species *Arundo donax* L. (Musselman, 2012). Due to their hollowness, reeds symbolised weakness and fragility, as referred in 2 Kings 18:21

*Look, I know you are depending on Egypt, that splintered reed of a staff, which pierces the hand of anyone who leans on it! Such is Pharaoh king of Egypt to all who depend on him.*

In the Gospel of Matthew 27:29 we can read how the reed staff was used to humiliate Jesus

*and then twisted together a crown of thorns and set it on his head. They put a staff in his right hand. Then they knelt in front of him and mocked him. Hail, king of the Jews! They said'.*

We can see this representation in the painting *Ecce Homo* (Figure 45).



**Figure 46: *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown Master (possibly**



Oil on oak panel. NMAA Inv. 1072 PINT

### Rose

[*Rosa* L., Rosaceae]

In Greco-Roman civilisation, roses were the flower of love and victory, and were an attribute of Aphrodite (Venus) (Baumann, 1996), although they also had funerary connotations, such as in the Roman *Rosalia* celebrations (Impelluso, 2004). In Christian Art, roses were sacred to the Virgin Mary who was called ‘*a rose without thorns*’ because of the traditional dogma that she was exempt from the consequences of Original Sin. A rose held by the Virgin also alludes to her role as the Bride of Christ, personification of the Church, Queen of Heaven, and intercessor for the salvation of humankind (Meagher, 2000; DMATC, 2001). The red rose was a symbol of martyrdom and the thorns (aculeus) allude to the torments of the martyrs; if Child Jesus holds a red rose, it refers to his future Passion (Ancona, 1977). The white rose symbolised purity of body and soul, as in the painting *Virgin and Child with St. Anne, St. Joachim and a Donor* (Figure 46), where the inscription *Plantatio Rose* refers to the Book of Ben Sirach (Book of Ecclesiasticus) 24:18

*et quasi palma exaltata sum in Cades et quasi plantatio rosae in Hiericho* (Weber & Gryson, 1994),

and is an attribute of the Virgin Mary. In Renaissance art, wreaths of roses often alluded to the rosary of the Virgin and if worn by angels, saint or humans were a sign that they felt the divine blessings of heavenly joy (Ferguson, 1989). Saint Ambrose wrote that roses originated in Paradise and only after the Fall of Man did they take their thorns (aculeus) to remind humans of their sins

*Mingling formerly with the flowers of the earth and without thorns, the rose, most beautiful of*

**Figure 47: *Virgin and Child with Saints* (detail) by Hans Holbein, the Elder (1519)**



Oil on panel. NMAA Inv. 1466 PINT

*all flowers, displayed its beauty without guile; afterwards, the thorn fenced around this charming flower, presenting, as it were, an image of human life in which what is pleasing in our activities is often accompanied with the stings of anxieties which everywhere surround us ...* (Saint Ambrose, 1961).

The original Rose of Jericho may have been the species *Nerium oleander* L. which is an abundant shrub along watercourses throughout western Asia and in the Mediterranean region; unlike most shrubs, this species can bloom almost any time of the year (Musselman, 2012).

### Strawberry

[*Fragaria vesca* L., Rosaceae]

Strawberries were an emblem of the works made by the righteous man and a symbol of a fruitful spirit. When shown accompanied by violets, they suggest that truly spiritual achievements are always humble (Ferguson, 1989). The strawberry is not mentioned in the Bible and its symbolism probably derives from a passage of Ovid’s *Metamorphoses* that refers what the fruits men ate during the Golden Age

*Contented with food that grew without cultivation, they collected mountain strawberries ...* (Ovid, 1955).

The three leaflets of the plant’s compound leaves were used to allude to the Trinity (Father, Son, Holy Spirit), the little white flowers were interpreted as a symbol of innocence (as the small white and yellow inflorescences of daisies) and the fruit’s red colour suggested the Blood and Passion of Christ (Impelluso, 2004). The red fruits were often represented near Jesus and Mary as in the *Virgin and Child with Saints* (Figure 47).

**Figure 48: Triptych of the Temptations of St. Anthony Abbot (detail) by Hieronymus Bosch (c.1500)**



Oil on oak panel. NMAA Inv. 1498 PINT

### **Thistles**

[no specific botanical species]

The thistles represented in the NMMA are in the *Triptych of the Temptations of St. Anthony Abbot*, in the head of a hybrid creature (Figure 48), and allude to those included in the Tribe Cardueae (Asteraceae). These plants are symbols of earthly sorrow and sin because of the curse pronounced against Adam by God in the Book of Genesis 3:17-18

*Cursed is the ground because of you; through painful toil you will eat food from it all the days of your life. It will produce thorns and thistles for you, and you will eat the plants of the field.*

Thistles also symbolised work, which became man's lot after the loss of Paradise (Ferguson, 1989; Impelluso, 2004).

### **Thorns**

[no specific botanical species]

In Christian art, thorns are symbols of grief and a crown of thorns on Christ and saints alludes to their martyrdom, such as in *Ecce Homo* (Figure 45). The crown of thorns used on Jesus is mentioned in the Gospels

*and then twisted together a crown of thorns and set it on his head (Matthew 27:29).*

*They put a purple robe on him, then twisted together a crown of thorns and set it on him (Mark 15:17).*

And

*The soldiers twisted together a crown of thorns and put it on his head ... When Jesus came out wearing the crown of thorns and the purple robe, Pilate said to them, Here is the man! (John 19:2-5)*

The Christian traditions suggest that the crown of thorns placed on Jesus was made with the branches of *Ziziphus spina-christi* (L.) Desf., but it was probably made with *Sarcopoterium spinosum* Spach which is a very common species in the hills around Jerusalem and has stems that are flexible and easily twisted, lending themselves to being woven into a crude crown (Zohary, 1982; Musselman, 2012).

### **Tree**

[no specific botanical species]

Trees can be symbols of both life (strong, full of leaves) and death (weak, few leaves, decaying), and are commonly represented in works of art related to episodes of the life of Christ and the Virgin Mary. Some trees can be identified, such as the cypress, but others lack botanical features that would allow a clear identification. In Christian iconography, the most important object made with wood was the Cross of Christ, which, according to different traditions could have been made of cypress (*Cupressus sempervirens* L.), cedar (*Cedrus libani* A.Rich.), pine (*Pinus halepensis* Mill.), juniper (*Juniperus* spp.) or fir [*Abies cilicica* (Antoine & Kotschy) Carrière].

In the NMAA we find works of art representing the Cross, such as the *Salvator Mundi* (Figure 41), and paintings where desiccated and decaying trees represent death and sin, such as in the *Triptych of the Temptations of St. Anthony Abbot* (Figure 49) or

**Figure 49: Triptych of the Temptations of St. Anthony Abbot (detail) by Hieronymus Bosch (c.1500)**



Oil on oak panel. NMAA Inv. 1498 PINT



**Figure 50: *Christ Appearing to St. Mary Magdalene* (detail) by Francisco Venegas (c.1590)**



Oil on canvas. NMAA Inv. 2196 PINT

healthy trees full of green leaves alluding to the redemption of sin, the salvation of humankind and the resurrection of Christ such as in *Christ Appearing to St. Mary Magdalene* (Figure 50).

### ***Tree of Jesse***

[no specific botanical species]

The Gospel of St. Matthew describes the ancestors of Christ, including Jesse, the father of David, and this genealogy is often described in a form of a tree which ends in the Virgin Mary and Jesus. The Tree of Jesse is also based on the prophecies written in the Book of Isaiah 11:1-2

*A shoot will come up from the stump of Jesse;  
from his roots a Branch will bear fruit. The  
Spirit of the Lord will rest on him.*

It is to these verses that the words VIRGA JESSE FLORVIT written in the painting *Virgin and Child with St. Anne, St. Joachim and a Donor* refer to (Figure 51). In this work of art, the flowers and leaves of the Tree of Jesse allude to an herbaceous species: the flax plant, a very common species in Flemish society where the painter lived. It was also from flax that was made the linen shroud that received the Body of Christ, after his death on the Cross.

**Figure 51: *Virgin and Child with St. Anne, St. Joachim and a Donor* (detail) by Unknown Master (possibly**



Oil on oak panel. NMAA Inv. 1072 PINT

### ***Vine***

[*Vitis vinifera* L., Vitaceae]

The vine is one the most cited plants in the Bible and was used to express the bond between God and humans, such as in Isaiah 5:1-7

*I will sing for the one I love a song about his vineyard: My loved one had a vineyard on a fertile hillside ... The vineyard of the Lord Almighty is the nation of Israel, and the people of Judah are the vines he delighted in. And he looked for justice, but saw bloodshed; for righteousness, but heard cries of distress.*

The vine was also a symbol of the Messiah, the True Vine, such as in the Gospel of John 15:5 when Jesus says

*I am the vine; you are the branches. If you remain in me and I in you, you will bear much fruit; apart from me you can do nothing.*

Representation of labouring in the vineyard signifies the work of good Christians in the vineyard of the Lord (Ferguson, 1989). In the NMAA we find vine leaves (and grapes) alluding to episodes of the Old Testament (Figure 22) or to the Passion of Christ (Figure 52).

Figure 52: *The Virgin and Child with Angels* (detail) by Gregório Lopes (c.1536-1539)



Oil on oak panel. NMAA Inv. 30 PINT

### *Violets*

[*Viola* L., Violaceae]

Pansies and violets were symbols of humility, meditation, and remembrance. The sweet violet (*Viola odorata* L.) and other species of the genus *Viola* L. are common in European fields and gardens (Coombs, 2003), but they are not Bible plants nor are they native of the Holy Land. Sweet violets were symbols of the Virgin Mary to whom Saint Bernard of Clairvaux called the violet of humility in the sermon *Ad Beatam Virginem Deiparam*

*Hi sunt quorum odore suavissimo totam domum Domini replet, o Maria, viola humilitatis, lilium castitatis, rosa charitatis* (Migne, J.-P., 1879).

The NMAA has a painting, *The Marriage of the Virgin* (Figure 53), that presents violets associated with the Virgin Mary, and a tapestry, *The Baptism of Christ* (Figure 31), in which pansies are represented along the edges, probably as an attribute of Christ, who had the humility to become a man (Impelluso, 2004).

Figure 53: *The Marriage of the Virgin* (detail) by Unknown Dutch Master (c.1475-1500)



Oil on oak panel. NMAA Inv. 1242 PINT



## Wheat

[*Triticum* L., Poaceae]

In Christian art, bunches of wheat and bread are related to Holy Communion and are symbols of the Body of Christ, such as evoked in the painting *The Supper at Emmaus* (Figure 54) which describes an episode recorded in the Gospel of Luke 24:13-35

*Now that same day two of them were going to a village called Emmaus ... When he was at the table with them, he took bread, gave thanks, broke it and began to give it to them ... Then their eyes were opened and they recognized him ... Jesus was recognized by them when he broke the bread.*

The Gospel of John also links wheat with the Body of Christ in verse 12:24

*Very truly I tell you, unless a kernel of wheat falls to the ground and dies, it remains only a single seed. But if it dies, it produces many seeds.*

In biblical times, wheat was almost all from the species *Triticum durum* Desf.; bread made with durum wheat has less gluten and therefore, when baked, it does not rise much when compared with modern wheats, forming the characteristic flatter breads of indigenous peoples in the Middle East (Zohary and Hopf, 2000; Musselman, 2012).

**Figure 54: *The Supper at Emmaus* (detail) by Unknown master (c. 1475-1500)**



Oil and tempera on oak panel. NMAA Inv. 303 PINT

## Discussion

Public discourse about the role of museums in contemporary societies and their relevance in people's lives has resulted in questioning the museums' introvert functioning that focuses mainly, or solely, on the study and sharing of knowledge regarding a core subject matter, although we now know that people visit museums with very different agendas (Falk & Dierking, 2013; Vlachou, 2013). Thus, considering the very diverse interests and needs of visitors, museums must engage in a distinct relationship with visitors. Considering these diverse interests and needs, how can museums engage in viable relationships with people? Relevance opens new pathways to the building of deep connections with people who do not immediately self-identify with the work of the artist - it is the key that opens the door to meaning (Simon, 2016).

Focusing on art museums, the general tendency is to share knowledge on art history: artistic movements, techniques, comparisons between works which are not next to each other, that is, information which is meaningful for those who bring with them substantial prior knowledge on the subject. Surveys undertaken with art museum visitors have shown that they frequently lack specific knowledge on visual arts, and this emphasises the need for museums to re-examine both the content and the language of the information they share with visitors (Selwood, 1998).

Museum visitors look for an experience that may be relevant and this brings an additional challenge for art museums, which need to go beyond the technical discussion between peers that they are accustomed to, and engage in a dialogue with diverse people. In this sense, what seems to be a static permanent collection, seen mainly under the lens of art history, may gain new perspectives, allowing us to explore a wealth of different themes that may be found in artworks and which are relevant for visitors. After all, the artists created them with the intent to communicate something, and not with the hope of being the subject of a study within art history.

In our search for plant images with symbolic meaning within the Christian Art, we identified 40 taxa (Table 1), excluding manna, the tree of Jesse, the tree (broad sense), thorns, and thistles. The Rosaceae family was the most common, with 8 taxa (*Cydonia oblonga*, *Fragaria vesca*, *Malus*, *Prunus avium*, *Prunus domestica*, *Prunus dulcis*, *Pyrus*, *Rosa*) probably because it includes the most important economic fruits (quince, strawberry, apple, cherry, plum, almond,

<b>Table 1: Taxa identified in the Christian Art at Nacional Museum of Ancient Art (excluding manna, tree, Tree of Jesse, thorns and thistles)</b>			
<b>Taxa</b>	<b>Family</b>	<b>Bible Plant</b>	<b>Structure (NMAA)</b>
Anthemideae	Asteraceae	*	Flower (Inflorescence)
<i>Arundo donax</i>	Poaceae	*	Stem
<i>Blechnum spicant</i>	Blechnaceae	No	Plant
<i>Boswellia</i> sp.	Burseraceae	Yes	Oleo-gum-resin
<i>Castanea sativa</i>	Fagaceae	No	Fruit and Bracts
<i>Cedrus libani</i>	Pinaceae	Yes	Tree
<i>Citrus × limon</i>	Rutaceae	No	Fruit
<i>Citrus × sinensis</i>	Rutaceae	No	Flower
<i>Commiphora myrrha</i>	Burseraceae	Yes	Oleo-gum-resin
<i>Convallaria majalis</i>	Asparagaceae	No	Flower
<i>Cucumis sativus</i>	Cucurbitaceae	Yes	Fruit
<i>Cupressus sempervirens</i>	Cupressaceae	Yes	Tree
<i>Cydonia oblonga</i>	Rosaceae	No	Fruit
<i>Dianthus caryophyllus</i>	Caryophyllaceae	No	Flower
<i>Ficus carica</i>	Moraceae	Yes	Fruit / Leaf
<i>Fragaria vesca</i>	Rosaceae	No	Flower / Fruit
<i>Hedera helix</i>	Araliaceae	Yes	Leaf
<i>Iris</i> sp.	Iridaceae	No	Flower
<i>Lagenaria siceraria</i>	Cucurbitaceae	*	Fruit
<i>Lilium candidum</i>	Liliaceae	*	Flower
<i>Linum usitatissimum</i>	Linaceae	Yes	Fibbers
<i>Malus</i> sp.	Rosaceae	Yes	Fruit
<i>Narcissus</i> sp.	Amaryllidaceae	*	Flower
<i>Olea europaea</i>	Oleaceae	Yes	Tree
<i>Papaver rhoeas</i>	Papaveraceae	*	Flower
<i>Phoenix dactylifera</i>	Arecaceae	Yes	Fruit / Leaf
<i>Pinus</i> sp.	Pinaceae	Yes	Cone / Leaf / Wood
<i>Plantago</i> sp.	Plantaginaceae	No	Inflorescence / Leaf
<i>Polypodium</i> sp.	Polypodiaceae	No	Leaf
<i>Prunus avium</i>	Rosaceae	No	Fruit
<i>Prunus domestica</i>	Rosaceae	No	Fruit
<i>Prunus dulcis</i>	Rosaceae	Yes	Fruit
<i>Punica granatum</i>	Lythraceae	Yes	Fruit
<i>Pyrus</i> sp.	Rosaceae	No	Fruit
<i>Quercus</i> sp.	Fagaceae	Yes	Fruit / Leaf
<i>Rosa</i> sp.	Rosaceae	Yes	Flower
<i>Taraxacum</i> sp.	Asteraceae	No	Flower (Inflorescence)
<i>Triticum</i> sp.	Poaceae	Yes	Fruit
<i>Viola odorata</i>	Violaceae	No	Flower
<i>Vitis vinifera</i>	Vitaceae	Yes	Fruit / Leaf
* = not referred by name or not unanimously accepted by authors			



pear), as well as the rose flower. With the exception of the Burseraceae family, which includes frankincense (*Boswellia* spp.) and myrrh (*Commiphora myrrha*), all plants are native or introduced in Europe, although some only exist in southern Europe, such as *Citrus × sinensis*, *Ficus carica* or *Phoenix dactylifera*. Some plants were depicted with botanical inaccuracy although they still have features or written clues that allow the identification, such as the cedar in *Virgin and Child with St. Anne, St. Joachim and a Donor* (Figure 9) painted by an unknown master, possibly Flemish, or the palm and palm leaf in the *Virgin and Child with Saints* by the German painter Hans Holbein, the Elder. Artists from Northern Europe may have never seen Mediterranean plants and their sources were written descriptions, engravings, or other works of art (Ward, 2008). Concerning the part of the plant that is represented, fruits were the most common (18 taxa), followed by flowers (13 taxa); these data confirm that the cultural uses of plants are usually connected with their availability, economic value and unique characteristics (Alexiades & Sheldon, 1996; Prance & Nesbitt, 2005).

Most plants were linked to Christian traditions after a creative interpretation of the Bible and the Apocrypha Gospels or were inspired by popular beliefs from the Middle Ages and early Renaissance Europe, such as the carnation and the violets. The collection of NMAA is very rich in botanical elements because most of the paintings, sculptures and tapestries come from extinct convents whose works of art often used plants to allude to religious episodes or as attributes of Saints, Christ and the Virgin Mary.

Besides the symbolic use of plants, the works of art displayed in the NMAA have another link with plants in so far as they were created on wood panels (painting) or with wood (sculptures), such as: (1) poplar (*Populus*) in *St. Augustine* by Piero della Francesca (NMAA Inv. 1785 PINT.); (2) oak (*Quercus*) in *Triptych of the Temptations of St. Anthony Abbot* by Hieronymus Bosch (NMAA Inv. 1498 PINT); (3) pine (*Pinus*) in *The Lamentation* by

Bartolomé Ruiz (NMAA Inv. 895 PINT.); (4) walnut (*Juglans*) *St. James* by a Flemish workshop active in Portugal (NMAA Inv. 1436 ESC.); (5) beech (*Fagus*) in *St. George* by a Rhineland workshop (NMAA Inv. 789 ESC.) or (6) cherry in the *St. Onuphrius* by José de Almeida (NMAA Inv. 350 ESC.). Besides panels made with wood, paintings could also be created over canvas, like *St. Joseph with Child Jesus* by Josefa de Óbidos (NMAA Inv. 1854 PINT.) made with linen obtained from flax (*Linum usitatissimum* L.); the oil itself being made with flax seeds.

During the Middle Age and Renaissance, as theologians discussed the religious texts, new allegories and metaphors were created. These included both native and exotic plants used to make simple the religious texts or to embody virtues and sins. The geographic origin of the plants does not seem to have been important as they used both European and Holy Land plants in their doctrines. Subsequently, painters, sculptors or weavers follow them, and created works of art in which European native plants, such as the lily-of-the-valley, violets or strawberries, or exotic species, such as lemons or oranges, were represented in the biblical episodes that took place in the Holy Land or were relocated within a European environment.

Plants were included in symbolic codes in which every tree (cypress or cedar), leaf (palm or ivy), flower (lily or iris) or fruit (apple or pomegranate) dialogues with the observer, revealing or concealing messages. This secrecy is part of an extraordinary interaction between humans, nature and art. Inspired by the beauty and resilience of plants, artists have attributed to plants a variety of allegoric meanings and artistic resonances that place plants in the core of art, making art museums powerful places able to enrich educational and scientific culture, based on plants and, simultaneously, deal with them via interdisciplinary studies. Our research aimed to contribute to a more general accessibility of the coded botanical language used by artists in order to valorize the works of art safeguarded in the National Museum of Ancient Art and the cultural role of plants in human societies.

## Conclusion

After the secularisation of convents in 1834, following the Portuguese Civil War, some Christian objects were transferred to art museum, where they are now interpreted and studied within the context of history of art, and so changed their purposes. With our research we want to highlight that although these objects may now have a new meaning, they did not lose their religious purpose nor was the moral message they wanted to convey lost. We can bring them back to their primordial meaning, now within the frame of religious tourism. Museums now have multiple social agendas in which wonder and religious experience can be included, following Buggeln (2012:30) thoughts when he wrote:

*Western museum culture has generally encouraged the notion of the museum visit as a quasi-religious, even transcendent, aesthetic encounter with art and architecture, it has shunned particular and obvious expressions of religious devotion. Why is a certain understanding of 'sacred space' permissible, while other meanings of that term seem to make museum professionals uncomfortable?*

With our research we aim to create new routes and programmes linked to religious tourism, now within the walls of western art museums.

As a further thought, Portugal has one of the most visited Catholic sanctuaries in Europe – the Sanctuary of Our Lady of Fatima – and so Lisbon's National Museum of Ancient Art could act as a complement to those engaged in pilgrimage to this sanctuary as well as to all others involved in a broader concept of religious tourism.

## Bibliography

- Alcorn, J. (1995) The scope and aims of ethnobotany in a developing world. In: R. Schultes and S. Von Reis, eds., *Ethnobotany: Evolution of a Discipline*. Dioscorides Press. Portland (OR): 23-39.
- Alexiades, M., and J. Sheldon (1996) *Selected guidelines for ethnobotanical research: a field manual*. New York Botanical Gardens Press. New York (NY).
- Ancona, M. (1977) *The garden of the Renaissance: botanical symbolism in Italian painting*. L.S. Olschki, Firenze, Italy.
- Azambuja, S. (2009) *A Linguagem Simbólica da Natureza - A Flora e a Fauna na Pintura Seiscentista Portuguesa*. Nova Vega, Lisboa.
- Barreyra, I. (1698) *Tratado das Significaçoens das Plantas, Flores e Frutos*. Manoel Lopes Ferreyra, Lisboa.
- Bauhin, C. (1623) *Pinax theatri botanici*. Sumptibus & Typis Ludovici Regis, Basileae Helvet.
- Baumann, H. (1996) *The Greek plant world in myth, art and literature*. Timber Press, Portland (OR).
- Berchorius, P. (1609) *Reductorium Morale*. Apud Ioannem Keerbergium, Antwerp.
- Buggeln, G. (2012) Museum space and the experience of the sacred. *Material Religion* 8(1): 30-50.
- Chwalkowski, F. (2016) *Symbols in Arts, Religion and Culture: The Soul of Nature*. Cambridge Scholars Publishing. Newcastle Upon Tyne, UK.
- Claudian (1922) *The Rape of Proserpine* (Trans. Platnauer, M.). Loebb Classic Library. Harvard University Press, Cambridge (MA).
- Cleene, M., and M. Lejeune (2002) *Compendium of symbolic and ritual plants in Europe. Volumes 1 and 2*. Man and Culture Publishers, Ghent.
- Coombs, R. (2003) *Violets: the history and cultivation of scented violets*. Batsford, London.
- Cotes, R. (1904) *Bible Flowers*. Methuen & Co., London.
- Coxe, C., Roberts, A., Donaldson, J (Trans.) (1886) *Fathers of the Third and Fourth Centuries*. Christian Literature Publishing Co., New York.
- Crossway Bibles (ed.) (2016) *The Holy Bible, English Standard Version*. Good News Publishers, Wheaton (IL).
- Cullen, J., S. Knees, and H. Cubey (eds) (2011) *The European Garden Flora 2<sup>nd</sup> ed.* Cambridge University Press, Cambridge, UK.
- Danin, A. (1972) A Sweet Exudate of Hammada, Another Source of Manna in Sinai. *Economic Botany* 26(4): 373-375.
- DMATC (Department of Medieval Art and The Cloisters) (2001) The Cult of the Virgin Mary in the Middle Ages. In *Heilbrunn Timeline of Art History*. The Metropolitan Museum of Art, New York (NY).
- Donkin, R. (1980) *Manna: An Historical Geography*. Springer Science + Business Media, B.V., Dordrecht.
- Eadmerus, C. (1904) *Eadmeri Monachi Cantuariensis Tractatus de Conceptione Sanctae Mariae*. Herder, Freiburg im Breisgau
- Emboden, W. (1987) *Leonardo da Vinci on Plants and Gardens*. Timber Press, Beaverton (OR).
- Falk, J., and L. Dierking (2013) *The Museum Experience Revisited*. Left Coast Press Inc, Walnut Creek (CA).
- Fanti, G., and P. Malfi (2016) *The Shroud of Turin: First Century After Christ*. Taylor & Francis Group, Boca Raton (FL).
- Ferguson, G. (1989) *Signs and Symbols in Christian Art*. Oxford University Press. New York (NY).
- Forster, E. (1936) Trees and Plants in Homer. *Classical Review* Vol. 50(3): 97-104.
- Freeman, M. (1976) *The Unicorn Tapestries*. Metropolitan Museum of Art, New York (NY).



- Friedmann, H. (1980) *A Bestiary for Saint Jerome - Animal Symbolism in European Religious Art*. Smithsonian Institution Press, Washington DC.
- Gaffiot, F. (1934) *Dictionnaire Latin Français*. Hachette, Paris.
- Graves, R. (1993) *The Greek Myths: Complete Edition*. Penguin, New York (NY).
- Griffin, K. and Raj, R. (2017) The Importance of Religious Tourism and Pilgrimage: reflecting on definitions, motives and data. *International Journal of Religious Tourism and Pilgrimage* 5(2) article 2.
- Grimal, P. (1996) *The Dictionary of Classical Mythology*. Blackwell Publishers, Malden (MA).
- Groom, N. (1981) *Frankincense and Myrrh: A Study of the Arabian Incense Trade*. Librairie du Liban, Beirut.
- Haig, E. (1913) *The floral symbolism of the great masters*. Kegan Paul, Trench, Trubner & Co., London.
- Harvey, J. (1981) *Medieval gardens*. Timber Press, Beaverton (OR).
- Herodotus (2008) *The Histories*. Oxford University Press, New York (NY).
- Homer (2003) *Odisseia* (trans. Frederico Lourenço). Edições Cotovia, Lisboa.
- Homer (2005) *Iliada* (trans. Frederico Lourenço). Edições Cotovia, Lisboa.
- Horne, C. (2010) *The Gospel of Pseudo-Matthew from the New Testament Apocrypha*. Kessinger Publishing, Whitefish (MT).
- Impelluso, L. (2004) *Nature and Its Symbols*. The J.Paul Getty Museum, Los Angeles (CA).
- James, M. R., (1924) *The Apocryphal New Testament*. Oxford University Press, Oxford.
- Juniper, B. and D. Mabberley (2009) *The Story of the Apple*. Timber Press, Portland (OR).
- Linnaei, C. (1753) *Species Plantarum Vol.1*. Impensis Laurentii Salvii, Holmiae.
- Mary, M., and K. Ware (1978) *The Lenten Triodion Supplement*. St Tikhon's Monastery Press. Yonkers, New York (NY).
- Meagher, J. (2000) Botanical Imagery in European Painting. in *Heilbrunn Timeline of Art History*. The Metropolitan Museum of Art, New York (NY).
- Mendonça de Carvalho, L. (2011) The Symbolic Uses of Plants. Pages 353-371 in E. Anderson, D. Pearsall, E. Hunn, N. Turner, eds., *Ethnobiology*. Wiley-Blackwell, New York (NY).
- Migne, J.-P. (1879) *Patrologiae Latinae Tomus CLXXXIV* (S. Bernardus Clarae-Vallensis Abbas.) Usines Brepols, Paris.
- Moldenke, H., and A. Moldenke (1952) *Plants of The Bible*. Chronica Botanica Company, Waltham (MA).
- Musselman, L. (2012) *A Dictionary of Bible Plants*. Cambridge University Press, New York (NY).
- Nöth, W. (1995) *Handbooks of Semiotics*. Indiana University Press, Bloomington (IN).
- Ovid (1955) *Metamorphoses* (trans. Rolfe Humphries). Indiana University Press, Bloomington (IN).
- Pausanias (1918) *Description of Greece* (trans. W.H.S. Jones, Litt.D., and H.A. Ormerod). Harvard University Press, Cambridge (MA).
- Pliny (1945) *Natural History, Volume IV: Books 12-16* (trans. H. Rackham) Loebb Classic Library. Harvard University Press, Cambridge (MA).
- Pliny (1950) *Natural History, Volume V: Books 17-19* (trans. H. Rackham) Loebb Classic Library. Harvard University Press, Cambridge (MA).
- Prance, G., and M. Nesbitt (ed.) (2005) *The Cultural History of Plants*. Routledge, London.
- Rosenberg, P. (1934) Flowers of the Bible. *Nature Magazine* 24: 254-256.
- Saint Ambrose (1961) *Hexameron* (Trans. J.J. Savage) Fathers of the Church, Inc. New York (NY).
- Seaton, B. (1995) *The Language of Flowers: A History*. University of Virginia Press, Charlottesville (VA).
- Selwood, S. (1998) *Survey of Visitor Research at the Victoria and Albert Museum (1986-1996)*. Policy Studies Institute, London.
- Simon, N. (2016) *The Art of Relevance*. Museum 2.0, Santa Cruz (CA).
- Smith, J. (1878) *Bible Plants: Their History*. Hardwick & Bogue, London.
- Thanos, C. (2005) Theophrastus on Oaks. *Botanika Chronika* 18(1): 29-36.
- Tresidder, J. (2004) *The Complete Dictionary of Symbols in Myth, Art and Literature*. Duncan Baird Publishers, London (UK).
- Venerable Bede (1844) *Venerabilis Bedae. Opera Quae Supersunt Omnia* [The Complete Works of Venerable Bede Vol. IX. Commentaries on the Scriptures], ed. J.A.Giles. Whittaker and Co., London.
- Vlachou, M. (2013) *Musing on Culture*. BYPASS Editions, Lisboa.
- Wansbrough, H. (1999) *The New Jerusalem Bible: Standard Edition*. Doubleday, New York (NY).
- Ward, G. (2008) *The Grove Encyclopedia of Materials and Techniques in Art*. Oxford University Press. Oxford, UK.
- Weber, R., and R. Gryson (ed.) (1994) *Biblia Sacra Vulgata Editio Quinta*. Deutsche Bibelgesellschaft, Stuttgart.
- Zohary, M. (1982) *Plants of the Bible*. Cambridge University Press. Cambridge.
- Zohary, D., and M. Hopf (2000) *Domestication of Plants in the Old World: The Origin and Spread of Cultivated Plants in West Asia, Europe, and the Nile Valley*. 3<sup>rd</sup> ed. Clarendon Press, Oxford.