# G. Caneva, A. Monaco, P. Virgili \& F. Bartoli <br> "Re-flowering flowers": the hope of an eternal blooming since Roman times* 


#### Abstract

Caneva, G., Monaco, A., Virgili, P. \& Bartoli, F.: "Re-flowering flowers": the hope of an eternal blooming since Roman times. - Bocconea 28: 95-112. 2019. - ISSN: 1120-4060 printed, 2280-3882 online. "Re-flowering flowers", i.e., the metamorphic artistic representations of plants in which one flower gives birth to other ones, are often detectable in the phytoiconography of the Greek-Roman art. Through an extensive analysis of archaeological artworks in the Euro-Mediterranean and WestAsian area, we found the diffusion of this motif starting from the Hellenistic period (IV century B.C.). The metamorphic flowers motif became a dominant element in triumphal arches, and later also in coffered ceilings, forming the so-called "rosettes". The identification of the single plant elements of these compositions can be carried out both on pottery (among which the best examples come from the Apulian and Greek vases) and on carved structures, where colours are no longer present. We analyzed in detail the botanical compositions of the scrolls of the Ara Pacis and in the triumphal Arches of Titus and Septimius Severus in Rome (Italy). The results enhanced the representation of a relevant floristic richness with some recurrent flowers, such as those of Lilium, Anemone, Silene, Stellaria, Anthemis, Calendula, Scabiosa, Asphodelus, Nuphar, Carlina and Laurus, but also fruits, shoots, bulbs and floral buds. This motif seems linked to the leading thread of the metamorphosis in the Hellenistic culture and the revived Pythagorean theories of the Augustan age. The continuous transformation of an element into another suggests a spatial translation of temporal concepts: the absence of an end; death as a prelude to a new life. We should better understand the meanings of natural elements in the ancient artistic representations since they were not used only as a mere decorative motif but were part of a widely shared symbolic language.


Key words: flowers representation; plant iconography; phytoiconology; plant symbolism; Roman archaeology.

## Introduction

Analyzing art representations in the Greek-Roman culture, spread in western cultures for hundreds of years, we can highlight the presence of "Re-flowering Flowers" (RF), i.e., metamorphic plant images in which one flower gives birth to another one, in sequence

[^0](Fig. 1). Such scheme is widely recurrent in scrolls and the so-called "rosettes" (Ramage \& Ramage 2008), and these iconographic elements had a great fortune from ancient times until nowadays, as they were used in the coffered ceiling of aristocratic palaces, in churches and "classic" architectonic elements (Fig. 2). We can even assume that this type of decoration, highly diffused from Augustan times in the Euro-Mediterranean area, seems to be even more ancient (Vandi 2002).

The archaeological literature neglects these representations in their constitutive polymorphic and metamorphic structure, even in the case of Pompeii, where some attention was given to plant representations in paintings (Comes 1879; Jashemski \& al. 2002; Ciarallo 2004, 2006; Caneva 2014). In fact, a description of the composite elements of floristic representations was carried out rarely, such as in the case of the Ara Pacis freezes (Caneva 2010), and in other archaeological remains in Rome (Caneva \& al. 2014; Kumbaric \& Caneva 2014). Despite the absence of specific studies, the ceilings of triumphal arches of Roman Emperors seem to represent a relevant source of examples for understanding the structure and composition of the RF motif.

Moreover, often the floristic parts have been considered only as a decorative motif. It seems contradictory with the knowledge that- in ancient cultures- the representation of an image was the bearer of a message, which needed to be read in relation to its provenience and context to be fully understood (Zanker 1989; Pensabene 2011). For the ancient Roman culture, as for other ancient civilizations, the importance of giving a symbolic meaning to the subject of representations, is clearly underlined by Vitruvius in his famous treaty on Architecture (De Architectura, Book I, $5^{\text {th }}$ paragraph): "the architect must possess a good knowledge of history, which permits him to explain to the eventual interlocutors the symbolical meaning with which he often embellishes his buildings". The primary role of nature in such a means of communication was evident from the literary texts of Horatius (Odes), Gaius Plinius Secundum (Naturalis Historia), Virgilius (Bucolicae), and Ovidius (Metamorphosis), as well as from an in-depth iconographic analysis of archaeological remains (Caneva 2010; Caneva \& al. 2014; Kumbaric \& al. 2014; Kumbaric \& Caneva 2014). In fact, all the ancient civilizations were in close contact with the natural world, and


Fig. 1. Examples of "Re-flowering flowers", i.e., images in which one flower sprouts from another one, in a sequence of two, three or four elements (from the Ara Pacis scrolls, Caneva 2010).


Fig. 2. The RF motif in the coffered ceiling of aristocratic palaces, in churches and in the "classic" architectonic elements: (a) Grimani Palace, Venice; (b) Quirinale Palace, Rome; (c) Pantheon, Paris.
recurrently explained natural phenomena as deity expressions affecting humans (Vandi 2002), and we should better understand the meanings of natural elements in the ancient artistic representations, to better comprehend their culture.

Considering the importance of explaining this recurrent motif, which was insufficiently analyzed, this study aims to define: i) its origin, ii) its symbolical meaning and iii) the variants of the RF motif, taking into consideration a wide range of examples, including some examples of ceilings of triumphal Roman arches. So, in this work, we will discuss its origin and diffusion, the scheme of composition in some relevant monuments and its symbolic and cultural meanings.

## Methods

The analysis of the RF motif started from an extensive bibliographic research, looking at different type of architectural, ceramic and jewellery artifacts, mainly from the Hellenistic period in the Euro-Mediterranean area, but also from the Assyrian and Babylonian area (Kleiner 2012). It was useful to analyse both the origin of the motif and its diffusion over time and in different regions. The bibliographic analysis was associated with field research carried out in Rome (Roman Forum, Colosseum valley, Imperial Fori, Trajan Markets and Ara Pacis), to point out how widely this kind of motif was employed and how differently it was realized. We used the collected images together with the results of the bibliographical analysis, to produce a database, which was used to select three outstanding examples of RF representations, which are described here with their historical background and iconographic structure. Following the idea of carrying out a visual "break down" of elements that are in successive transformation, which was suggested for the Ara Pacis scrolls (Caneva 2010), we carried out a botanical analysis identifying the "various elementary components". Specifically, we identified various plant parts (calyx, corolla, stamens, pistils, fruits, bulbs, leaves and derived structures), through the comparison with flora and botanic atlases of reference (Pignatti 1982; http://dryades.units.it/floritaly). The meaning of this motif was finally hypothesized considering the previously cited ancient textbooks of Plinius, Virgilius, Vitruvius and Ovidius.

## The analyzed monuments

The Ara Pacis was conceived as an altar dedicated to the peace, which was built (from 13 B.C. to 9 B.C.) to celebrate Augustus's return from his victorious expedition in Gaul and Spain (Fig. 3a). Marking the end of the external rebellions and internal struggles that started with Julius Caesar's murder in 44 B.C., it was an augural tribute for a new peaceful age of Roman dominance coincident with the Empire's founding (La Rocca 1983; Zanker 1990; Castriota 1995; Cohon 2002). The botanical scrolls are here widely carved in the six panels of the lower parts of the external faces, below the representations of the scenes of the Roman origin and of the finally reached prosperity (four panels), as well as below the two panels representing the parade that was welcoming Augustus at his return. This monument can be considered the most relevant example of an extensive use of plant representations for iconographic and symbolic purposes (Caneva 2010).

The arches of Titus and Septimius Severus in Rome are other earlier and highly representative momuments that include such iconographic motif. The origin of such architectur-
al element (the arch) was possibly related to the propylaea of the Hellenistic cities, to the tetrapylia of the columnnade streets and elements of Alexandria and Pergamum. However, the arch seems also to be related to the Etruscan-Italian door of the city, but the first time the word arcus appears in a document (of the Decurion assembly in Pisa) was during the Augustan age, when it was referred to the building of the arch of Caius and Lucius Caesar (4 A.D.) (La Rocca \& al. 2008).

The arch of Titus (Fig. 3b) was realized in 81 A.D., as an honorific monument built by the Domitian emperor on the via Sacra, to reinforce the community consensus on the Flavian dynasty, commemorating the victories of his brother Titus, as a deed of pietas (De Maria 1988). It celebrates the bellum judaicum and the conquest of Jerusalem in the 71 A.D., and it represents Titus's triumphal return, with the booty of the temple of Jerusalem, a four-horse chariot, crowned by a personification of Victory, and Titus's deification being carried to heaven by an eagle. Other representations in the arch celebrate Honos and Virtus, Rome and the Genius of the Roman people (Torelli \& al. 2008).

The arch of Septimius Severus (Fig. 3c) was built in the Roman Forum, and it was dedicated by the Senate in 203 A.D. to celebrate the Princeps Virtutis and his sons Caracalla and Geta, winning the wars against Parthia. The historic relieves, located on the smaller fornix, imitates the triumphal pictures and the friezes of the columns as well. The narration starts from the bottom to the top, showing the salient moments of the war of Mesopotamia (Torelli \& al. 2008). The decoration of the arch exhibits a polysemy of meanings. Looking at the archivolt, we can see the Victories carrying trophies, while underneath there are the Putti of seasons representing the aeternitas of the imperial power. Moreover, the fluvial deities in the smaller fornix symbolize the territorial extension of the Empire, and the arch is rich of images carrying messages connected to peace, prosperity, power and the Emperor (De Maria 1988).

## Results

## The origin and diffusion of the RF motif

Our bibliographical analysis and field surveys showed as, in ancient times, the $R F$ motif was adopted in different architectural elements in ancient Greece and Macedonia, and in the wide Magna Grecia area (Tab. 1). Moreover, this motif was not confined only to a fixed context, but it was diffused in a wide artistic production. Examples are present on marble reliefs, in gold necklaces, on mosaic pavements and pottery vases. On pottery, significant examples come from the Apulian and Greek vases where the use of still-visible colour makes easier the analysis of the single elements of composition. In this case, such as on marble friezes or in mosaics, the RF motif includes compositions that start from a central Acanthus and end in a flower. In the vault of the arch and ceilings the representation is not connected with other plant elements, and this type of execution is close to examples of the motif in jewellery (e.g., Diadem of Verghina, Taranto necklace) (Becatti 1965).

Considering that the most ancient monuments where the RF motif is detectable, such as the Temples of Saturnus, Castor and Pollux, and Apollo Sosianus, were widely modified during the centuries with the addition of new elements, the most likely origin of such motif seems to be the "red-figure vases" from ancient Apulia. The chronology of


Fig. 3. The analyzed monuments: a) Ara Pacis; b) Arch of Titus; c) Arch of Septimius Severus.

Table 1. A Chronological bibliographic database of RF motifs in the earlier stages of their use.

| Object | Date | Originated from | Located in | Part of | Place/ City |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Temple of Saturnus | V cent. B.C. <br> (restored in 42 <br> B.C. and 283 <br> A.D.) | Roman Forum | Roman Forum | coffered <br> ceiling | Rome, Italy |
| Temple of Castor and Pollux | V cent. B.C. (restored in 117 and 73 B.C. and 6 A.D.) | Roman Forum | Roman Forum | coffered <br> ceiling | Rome, Italy |
| Temple of Apollo Sosianus | V cent. B.C. (restored in 353 and 117 and 34 B.C.) | Campus Martius | Campus Martius | coffered <br> ceiling | Rome, Italy |
| Gold Necklace | IV cent. B.C. | Apulia | British Museum | whole | London, England |
| The golden larnax | 366 B.C. | Tomb of Philip II (Macedonia) | Museum of the Royal Tombs of Aigai | whole | Verghina, Greece |
| Drape with Acantino decoration | 366 B.C. | Tomb of Philip II (Macedonia) | Salonika <br> Museum | whole | Thessaloniki, Greece |
| Diadem | 366 B.C. | Tomb of Philip II (Macedonia) | Salonika <br> Museum | whole | Thessaloniki, Greece |
| Krater with a mythological scene | $\begin{aligned} & 350 \text { B.C. (Bari } \\ & \text { painter) } \end{aligned}$ | Apulia | British Museum | krater neck | London, England |
| Krater with the funeral of Patroclus | 340 B.C. (Darius painter) | Apulia | British Museum | krater neck | London, England |
| Krater with a naiskos scene | 325 B.C. <br> (Baltimora painter) | Apulia | British Museum | krater neck | London, England |
| Mosaic with a hunting scene | 316 B.C. | Pella | Pella Museum | edge | Pella, Greece |
| Tomb of Lucius Scipio Barbatus | 280 B.C. | Sepulchre of the Scipio family | Vatican Museum | metope | Rome, Italy |
| Two marble reliefs | 270 B.C. | Pergamum, Sanctuary of Demeter | Istanbul Museum | whole | Istanbul, Turkey |
| Mosaic | Eumen II age (197-160 B.C.) | Pergamum | Berlin Museum | edge | Berlin, Germany |
| Tombs of Larthia | 150-130 B.C. | Chiusi | Archaeological Museum | metope | Florence, Italy |

Table 1. continued.

| Tombs of Thanunia Seianti | 150-130 B.C. | Chiusi | British Museum, London | metope | London, England |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Basilica Julia | I cent. B.C. | Roman Forum | Roman Forum | Frieze and coffered ceiling | Rome, Italy |
| Forum Julium | 46 B.C. | Imperial Forum | Museum of <br> Trajan markets | coffered ceiling | Rome, Italy |
| Venus genitrix temple | 46 B.C. | Imperial Forum | Museum of Trajan markets | coffered <br> ceiling | Rome, Italy |
| Marble plutei relief | First Augustan age (31 B.C.-10 B.C.) | Horti Sallustiani | Museum of Montemartini central | whole | Rome, Italy |
| Ara Pacis | $9 \mathrm{B.C}$. | Campus Martius | Campus Martius | frieze | Rome, Italy |
| Forum of Augustus | $2 \mathrm{~B} . \mathrm{C}$. | Imperial Forum | Museum of <br> Trajan markets | coffered <br> ceiling | Rome, Italy |
| Temple of Mars Ultur | $2 \mathrm{~B} . \mathrm{C}$. | Imperial Forum | Museum of <br> Trajan markets | capitel | Rome, Italy |
| Arch of Titus | 81 A.D. | Roman Forum | Roman Forum | coffered <br> ceiling of the vault | Rome, Italy |
| Forum of Nerva | 97 A.D. | Imperial Forum | Museum of Trajan markets | coffered ceiling | Rome, Italy |
| Trajan's Market | 100-110 A.D. | Imperial Forum | Museum of Trajan markets | coffered ceiling | Rome, Italy |
| Trajan's Forum | 112 A.D. | Imperial Forum | Museum of Trajan markets | frieze with cupids | Rome, Italy |
| Temple of Antoninus and Faustina | 141 A.D. | Roman Forum | Roman Forum | external <br> frieze | Rome, Italy |
| Arch of Septimus Severus | 203 A.D. | Roman Forum | Roman Forum | coffered ceiling of the vault | Rome, Italy |

Apulian vases is connected to the period in which Taranto (Taras) reached its heights, being a forced waypoint for the commercial routes that connected Greece to Italy, through the Adriatic Sea (Cerchiai \& al. 2002).

The most used shapes for the Apulian vases were the "volute-krater" and the pseudopanathenaic amphorae, due to their monumental dimension. In the Apulian vases, the
recurrent motifs of the Greek culture were re-elaborated, as the Greek influence bloomed in the Apulian region (Becatti 1965). The subjects of these vases were taken from drama, tragedy and mythology (Trendal 1989). Here, all the floristic elements show the image of double or triple flowers connected with the previous one from the central part (Boardman 1966). Flowers and plants moved from the centre to the side and motifs of RF are usually placed in the lower register (Fig. 4). In the upper register, there are floristic elements, even though they are depicted in a static way (Todisco 2012).


Fig. 4. An Apulian vase (Montesarchio, Archaeological National Museum of Sannio Caudino): Flowers and plants develop from the centre to the side.

A further example of the use of floristic elements is the gold necklace of the second half of IV century B.C., from the grave goods of a tomb from Taranto. The jewel shows a decoration of a triple flower that recalls the floristic elements in the ceramic production. This is a clear demonstration of the motif that switches from different materials (Masiello \& Indellicati 2011).

The RF motif was also used in the funeral context like the case of so-called diadem of the princess Meda of Verghina (Macedonia) in one of the three tombs of the Royal Tumulus ( 350 B.C.). There, it was found a gold diadem with a Herculean knot, and a lace embellished with leaves, flowers and petals. It was also discovered a drape with an acanthus decoration enriched with flowers and tendrils. In this context, we have a clear archetype of the motif of the re-flowering flowers in both metal and textile materials.

In the earlier Roman context, we also find this motif in the Republican sarcophagus of Lucius Cornelius Scipio Barbatus, a member of the Scipio family that built the sarcophagus that was found in the tomb on the via Appia. The coffin, carved out in volcanic stone, is modelled on the type of the Greek altar, typical of southern Italy. Here we have a clear example of a mixture of architectural elements of an Ionic temple, provided by the use of volutes on the lid and a Doric temple by the presence of metopes filled with the re-flowering flower elements (Ramage \& Ramage 2008). This shows how fast the circulation of art was in the Republican age, where a motif taken far away was re-elaborated and suddenly used in the local art.

A relevant example of the RF motif comes from the stylistic decoration of "acanthus motif", which had a big fortune during the III century B.C. Their first examples are found in the tomb gravestones of Thebe, realized as an imitation of the temple trabeation in which the acanthus shoot was placed to fill the space in the architrave, tympanum and connecting lines of the acroterion (Castriota 1995). In the sanctuary of Demeter (270 B.C.) an elaborate vegetal frieze, carved in marble reliefs, arises from a central acanthus that develops axial stems and racemes, generating different plants and RF as deities in miniature (Centanni 2007). This composition, such as that on the Pergamon altar, had an important role in the study of the Roman art, also considering their symbolic functions (Castriota 1995). Remarkably the representation of the central acanthus seems to have a formal affinity with the Ara Pacis, built in honour of Augustus.

## The botanical analysis of RF in the composition in Roman archaeological monuments

The recognized plants in the different examples of RF sum up to about 35 species in the three selected monuments, but this number represents only a part of the original floristic richness of such representations. The botanical composition and their approximate recurrence (Fig. 5) are shown in Tab. 2.

In general, the six external panels of Ara Pacis present a very rich flora in their composition, with about 100 species, as previously documented (Caneva 2010). The flora of the scrolls consists of 16 species, with dominance, for the external flowers, of species belonging to Cardueae, or the genera Carlina, Lilium, Nymphaea, Anemone, Hedera, Anthemis and Scabiosa. In the case of the central elements (the terminals), the most recurrent elements are fruits of Asphodelus and Malva or buds and shoots of various species (Tab. 2).

Both Titus and Septimius Severus arches showed, indeed, a rich coffered ceiling, which was built up respectively by 82 and 140 tiles containing the RF motif. Despite the large use


Fig. 5. Botanical details: External elements (a, b, c) from the Ara Pacis (scrolls, Caneva 2010) and (d, e) from the Septimius Severus Arch; Central elements (Terminals) (f, g, h) from the Ara Pacis scrolls (Caneva 2010) and (i, 1) from the Arch of Titus.

Table 2. Re-flowering Flowers: Botanical elements in the Ara Pacis and Roman trium-phal arches.

| Scientific names | Features | External elements |  |  | Central elements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Ara } \\ \text { Pacis } \end{array} \\ \hline \end{array}$ | Titus Arch | $\begin{array}{\|l\|} \hline \text { SS } \\ \text { Arch } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Ara } \\ \text { Pacis } \end{array} \\ \hline \end{array}$ | Titus Arch | $\begin{array}{\|l\|} \hline \text { SS } \\ \text { Arch } \\ \hline \end{array}$ |
| 1) Carduea | Capoline leaves, often thorny | *** |  |  |  |  |  |
| 2) Carlina cfr. utzka | Capoline leaves with the typical shape | ** | * | * |  |  |  |
| 3) Lilium candidum | Flowers (symmetry and number of elements) | ** | * |  |  |  |  |
| 4) Nymphaea sp. | Flowers (morphology and number of elements) | ** |  |  |  |  |  |
| 5) Hedera helix | Fruits (morphology of single elements) | ** |  |  |  | * | * |
| 6) Lilium sp . | Flowers morphology (or typical bulb structure) | * | * | * |  |  |  |
| 7) Anemone cfr. apenina | Flowers (symmetry and number of elements) | * | * | * |  |  |  |
| 8) Anemone cfr. coronaria | Flowers (symmetry and number of elements) | * | * | * |  |  |  |
| 9) Scabiosa sp . | Capoline (morphology of ligulate flowers) | * |  | ** |  |  |  |
| 10) Narcissus sp. | Flowers (symmetry and shape) | * |  | * |  |  |  |
| 11) Helianthemum cfr. nummularium | Flowers (symmetry, margin shape and number of elements) | * |  |  |  |  |  |
| 12) Alchemilla cfr. vulgaris | Flowers (symmetry and number of elements) | * |  |  |  |  |  |
| 13) Sedum sp . | Flowers (symmetry and number of elements) | r |  |  |  |  |  |
| 14) Ecballium elaterium | Flowers (symmetry and number of elements) | r |  |  |  |  |  |
| 15) Rosa sp . | Flowers (symmetry and number of elements) | r |  |  |  |  |  |
| 16) Anthemis sp. | Capoline morphology with a combination of tubulate and ligutae flowers | * | * | * |  |  |  |
| 17) Calendula arvensis | Capoline morphology with many ligulate flowers |  | * | ** |  |  |  |
| 18) Silene sp. | Flowers (symmetry, number of elements, typical petal shape) |  | ** | ** |  |  |  |
| 19) Stellaria cf. media | Flowers (symmetry and number of elements) |  | * | * |  |  |  |
| 20) Chaerophyllum cfr. temulum | Flowers (symmetry number of elements, typical petal shape) |  | * | * |  |  |  |

Table 2. continued.

| 21) Cerastium sp. | Flowers (symmetry <br> and number of ele- <br> ments) |  |  | $*$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 22) Punica granatum | Calyx (typical shape) |  |  | r |  |  |  |
| 23) Asphodelus sp. | flowers and fruits <br> (symmetry, number of <br> elements, typical <br> trimerous shape of the <br> capsule) |  |  | $* *$ | $* *$ | $*$ | $*$ |
| 24) Malva sp. | Fruits (shape of the <br> mericarps) |  |  |  | $* *$ |  |  |
| 25) Arum italicum | ripening fruits <br> (transformation of the <br> inflorescence) |  |  |  | $* *$ |  |  |
| 26) Nuphar luteum | flower buds (typical <br> shape) |  |  |  | $*$ | $*$ | $*$ |
| 27) Cydonia oblonga | Fruit (pommes with <br> typical shape) |  |  |  | $*$ |  |  |
| 28) Panicum miliaceum | Growing spikelet |  |  |  | $*$ |  |  |
| 29) Asparagus sp. | Shoot (elongate grow- <br> ing stem) |  |  |  | $*$ |  |  |
| 30) Orchids | Pollinodia, with <br> elongate structure |  |  |  | r |  |  |
| 31) Biarum tenuifolium | Acute shoot |  |  |  | $*$ |  |  |
| 32) Tragopogon sp. | Flower buds (typical <br> elongate shape) |  |  |  | r |  |  |
| 33) Petasites sp. | Flower buds showing <br> composite structure |  |  |  | r |  |  |
| 34) Allium sativum | Bulb composed by <br> bulbils |  |  |  | $*$ |  |  |
| 35) Laurus nobilis | Flower buds |  |  |  |  | $* *$ | $* *$ |
| Leg |  |  |  |  |  |  |  |

Legend: $* *=$ frequent, $*=2-3$ representations; $\mathrm{r}=$ rare
of plant elements, especially in the cases of the tiles of the arches, the identification of most flowers to a specific taxonomic detail is now impossible, due to the bad state of conservation or to the insufficient carved details, and thus we can only suppose the genus or the family of the represented plants. As in the Ara Pacis case, the flowers of Carlina, Lilium, Anemone, and Scabiosa were recurrent in the external elements, but the most frequent were those of Silene, Stellaria, and Calendula, and also of Chaerophyllum and Asphodelus, which were rare or absent in the Augustan altar. In the case of central elements (the terminals), the most recurrent still resulted the fruits of Asphodelus and Malva, but also the flower buds of Laurus nobilis, which were absent in the Ara Pacis scrolls (Tab. 2).

The general structure is built up by external flowers with actinomorphic symmetry and the terminal elements with flower buds or shoots, and its build-up follows three schemes, respectively constituted by two, three, or four levels. In the Ara Pacis, a higher floristic richness is represented with a higher number of selected species. In both arches, the external flowers have from 6 to 14 petals, and the most common representation is that with six petals on the external level and a trimer bud on the internal level. The arch of Septimius Severus is in a better state of conservation and appears to have a high number of elements. They all have at least three levels
of composition: one external and two internal. Differing from the arch of Titus, the composition shows a more elaborate way of execution, and each flower presents a great variety of elements.

## The symbolic meaning

In the case of the Apulian vases, the "plant volutes" and the spiralling branches have been associated with the goddess of fecundity (Zanker 1989). In fact, the ceramic production is related to the period in which Taras reached its height. The floral spring realized on the neck of the vases is the symbolic representation of this period. The most representative motifs of this production had shoots formed by undulate stems enriched with tendrils encircled in spirals, animated by flowers, corollas, palmettes, and dentate leaves in arabesque volutes; the symbolic representation of the female head in the middle of the floristic elements sets the human representation no longer in a mythological context, but indicating a close relation and fusion with nature (Becatti 1965). The RF motif is presented at the end of the path of the vegetal composition, reflecting the dynamic sense of a process which has no end. The plant decoration is the representation of an eternal blooming that starts with a flower, carrying on in another flower, with the idea of eternal prosperity of the city.

This meaning is evident in the case of monument representations. In fact, the monuments constituted the most relevant elements of a period, and the monuments are the most representative carriers of ideas, and messages of whom decided to build them. A building or its elements are strictly connected with whom committed its construction and with the message that the client wanted to convey. In this way, the single elements that are usually designed as a decorative motif, need to be considered in the same way as the inscriptions or the reliefs.

For the Ara Pacis and the monumental arches, the double or triple flower representation is an augural motif that evokes the idea of eternal blooming, in relation to time and its cyclic conception. The use of plant elements is connected with the new Augustus political program. In the plant representation, there are also deities' attributes. Specifically, Dionysus and Apollo specific attributes are represented to celebrate their connection with the Attalid family. In this way, the metonymic presence of the deities in the vegetal frieze of the Ara Pacis recalls the Pergamum's reliefs and the will of Augustus to be accompanied during its new political program and approved in lineage as Divus filius (Centanni 2007).

The architecture of the arches changed its purpose giving more emphasis to both political and propagandistic ideas of power, which was carried through inscription (Mazzilli 2016) and symbolic representations. The interior vaults, accompanied by the deification of the emperors, were made by a coffered ceiling, where the metamorphic flowers in the tiles stand as an augural signal reinforcing the idea of prosperity (Torelli \& al. 2008). The recurrence of laurel flower buds in the final elements of the arches has a clear augural meaning of victory, in coherence with the aims of the arches theirselves.

## Discussion

## The origin and diffusion of the RF motif

Assyrian and Babylon cultures used the representation of metamorphic elements, which gave rise to chimeric animals and "tree of life" structures. The tree of life has been described in the book of the Genesis and in the Assyrian Babylonian culture as a symbolic representation
of the garden of Eden, the biblical paradise (Murphy \& Murphy 2002). However, we cannot find examples in the Western Asian ancient representations, where flowers were used as single elements for their symbolic meanings (e.g., Ishtar Gate, Babylon) (Kleiner 2012).

The origin of the RF motif from the Apulian area can be explained considering the influence of Spartans colonization, occurred during the VII Century B.C., on the autochthonous culture, which created a new culture. As other southern Italian regions (Campania, Calabria and Sicily) of the so-called Magna Graecia, Apulia was inhabited by both indigenous and Greek people, and the local artistic production was an elaboration of previous elements merged together with the new ones (Giuliano 1989). The ceramic wares had a key role in this context, and they are considered a means through which the locals assimilated new messages as well as thoughts from Greece (Becatti 1965). First, the ruling class wanted to have the Attic ceramic for autorepresentation needs, and then they started to create their ceramics, with a specific structure. Moreover, the ancient city was first ruled by a severe aristocracy that switched to democratic systems after military defeats (Masiello \& Indellicati 2011). Moreover, during the time of the Pythagorean Archytas (mathematician and philosopher, which assumed a primary role in the city from 367 to 361 B.C.), Taras was open to sciences, arts and intellectuals, as testified by the great production of vases, sculptures, terracottas and jewellery (Trendal 1989).

In ancient civilizations, different aspects of other cultures have merged together and influenced each other, and artworks reflect something of the past that can be repeated or simply adopted with a new message. Considering these aspects, it is necessary to look at the phytomorphic images cautiously, considering all the little elements that compose the representation. Thus, there is a connection between the images presented and their meaning. What is shown through artistic representations is the result of many factors that connect various cultural elements within a community.

Then, from the III and II century B.C., when Romans conquered the Greek world, they started to be in contact with the Hellenic culture, which influenced religion, lifestyle and morality (Zanker 1989). Especially the artistic representations of the Republican period seem to have a relationship with the Greek-Hellenistic tradition, especially during the years of the conquest of Macedonia (146 A.D.) (Hölscher 1987). The members of the senator class were fascinated by the new culture, also renamed with the Latin term asiatica luxuria (the Latin noun luxuria is related to the abundance and wealth that Romans had seen at the Hellenic court). Moreover, the new noble families started to show their cosmopolitism as well as their political ambitions. The Republican years acquired a key role in the development of the Roman art, becoming a prelude of the Augustus age. In fact, later Octavianus kept many aspects of the Republican structure in his political program. This led the emperor to be in contact with the people, an aspect also reflected in art, where we can underline a relationship of offer and return. This event has to be considered as a key moment in the evolution of art since Rome opened the doors to an entirely new world that slowly disclosed its secrets (Hölscher 1987). In the spoils of the war after Actium's battle, around 31 B.C., there were not only riches and artworks but also, and most importantly, Egyptian's scientists, whom, heir of the Assyrian and Babylonian at first, then of the Greek culture, transmitted to the Romans their ancient knowledge.

The recurrence of the RF motif in many celebrative monuments, such as temples, basilicas and in the triumphal arches, can be explained considering the origin of the arch itself, and to their symbolic meaning, which will later be discussed.

## The botanical analysis of the RF motif in the Roman archaeological monuments

The botanical identification seems useful to deepen and to contribute to the understanding of the role and use of the RF motif in the architectural decoration of the past. In fact, several flowers and different plant elements were used to create metamorphic structures, and each one had a specific aim, even if the relevance could be different (for more details, see Caneva 2010).

Among the most significant plant elements, we need to consider especially those located in the central area of the motif, i.e., the terminal part of the blooming process. Then, the carving of Malva and Asphodelus fruits can then be connected to their use in the ritual offering to the Apollonian ceremonies, giving them the meaning of hope of a return of the golden age (Detienne, 1975). Great value should be given to Laurus nobilis flowering buds in the central part of the RF motif in the triumphal arches since they express an Apollonian symbol of victory. The bulb of Allium sativum is a propitiatory element, known since antiquity for its therapeutic and magical properties, and Romans, such as other cultures, considered it as one of the most important medicinal plants. Cydonia oblonga fruits were dedicated to both Hera/Juno and Aphrodite/Venus, and they bore the significance of driving away the negative/bad influences. Arum and Biarum species seem elements linked to the idea of fertility and female divinities of maternity. Analogously, Panicum miliaceum was a cereal associated to the idea of fertility and Ceres/Demeter.

Dealing with the external flowers, as starting points of the metamorphic process, we have observed a high variety of elements. For example, Cardueae and related plants had the iconographic significance of reference to the bitterness of the earth, as emerged from biblical texts, by referring to their thorniness and their ability to thus protect themselves. Lilies constituted an emblem of beauty and fertility; ivy, as an example of the noblest blooming, was a Dionysian reference. Anemones were associated to the myth of Adonis' death and the idea of the ephemeral, and Narcissus to the idea of beauty, but also death, being a flower associated to the myth of Narcissus. Nymphs in general and lotus in particular represented, according to ancient eastern beliefs, the "flower of the sun, of creation and rebirth". Silene flowers were associated with the moon, but also with Silenus, who in mythology appears as the clumsy tutor of Bacchus. Flowers of Asphodelus had a different symbolic meaning with respects to their fruits, and according to Greek mythology grew in the Underworld, where "the shadows of heroes" walked, and that thus they were "flowers of the deceased" planted close to tombs. Their presences in the arches probably honour the deaths in the military campaigns, which concurred to the victory.

## The overall symbolic meaning of the RF motif

In this context, the origin of the RF motif is coherent with one of the fundamental ideas of the Hellenic philosophy of the continuous metamorphosis, in particular in the preSocratic naturalism. As expressed by the speculative and deeply metaphysical genius of Heraclitus, "to be is to flow" and "everything flows, nothing stays"; "the world would consist of a perennial transformation": each one of us lives in that one develops, in that one continuously renovates. At the same time the becoming of the being is linked with the non-being, however "this death is not a total dying, but a transmutation into something else". The myth of transformation and metamorphosis was already mentioned in the Alexandrine literature, in Callimachus', Eratosthenes's, earlier than in Virgilius, Catullus and Ovidius. Starting from the Pythagoras's theory stating the never-ending transformation
in the universe, in Ovidius's Metamorphosis is shown a lively nature where everything is changing in one eternal mutation, revealing the deceptiveness of the appearance.

The idea of a continuous metamorphosis of one element into another creates both a physical and ideological interconnection between the elements of nature and such a process of generation creates a sort of unitary link between all the elements of the creation, which is quite an important leading thread in the Hellenistic culture and the revived Pythagorean ideas of the Augustan age. The idea that the individual is only an element, a means but not an end, emerges from the observation of this continuous ending and transformation into something else contributes to giving the idea of a starting point of further growths. The richness of different plant elements contributes to the idea that nature follows such rules.

RF elements found a very suitable place in the ceiling of the arches, which express the purpose of emphasizing both political and propagandistic ideas of power (Mazzilli 2016). They become symbols of victory, and they find in the symbols of a never-ending flowering a perfect symbiosis.

## Conclusions

The diffusion of the RF motif started during the Hellenistic period (IV Century B.C.). It became a dominant element in triumphal arches, and later also in coffered ceilings, forming the so-called "rosettes". Through the analysis of specific artworks and monuments, such vases, jewellery, marble reliefs and the Roman arches, we were able to confirm the symbolic value of nature, and its great diversity of plant elements. The floristic elements were often considered only as a decorative motif, neglecting the symbolic language linked to the primary role nature had in the ancient culture. It symbolically expresses the hope on an "eternal blooming" even if today its original meaning is lost.

## References

Becatti, G. 1965: L'età classica. - Florence.
Boardman, J. 1989: Athenian red figure vases, The classical period a handbook. - London.
Caneva, G. 2010: The Augustus botanical code. Ara Pacis: speaking to the people through the images of nature. - Rome.

- 2014: Il giardino come espressione del divino nelle rappresentazioni dell'antica Roma. Pp. 301361 in: Coleman, K., Ducrey P. (eds), Le jardin dans l'antiquité. Tome LX. Entretiens sur l'Antiquité classique. - Vandœuvres.
—, Savo, V. \& Kumbaric, A. 2014: Big Messages in Small Details: Nature in Roman Archaeology. - Economic Bot. 68 (1): 109-115.

Castriota, D. 1995: The Ara Pacis Augustea and the imagery of abundance in later Greek and early Roman art. - Princetown.
Centanni, M. 2007: Ara Pacis: le fonti, i significati e la fortuna: materiali in corso di elaborazione a uso del seminario del Centro studi: in occasione della lezione e degli incontri con La Rocca E. e von Hesberg H. $6-7$ febbraio 2007. - Venice.
Cerchiai, L., Jannelli, L. \& Longo, F. 2002: Città della Magna Grecia e Sicilia. - Verona.
Ciarallo, A. M. 2004: Flora Pompeiana. - Roma.

- 2006: Elementi vegetali nell'iconografia pompeiana. - Roma.

Cohon, R. 2002: Form and meaning: scrollwork on the Ara Pacis, grotesques in furniture design. J. Roman Archaeol. 15: 416-428.

Comes, O. 1879: Illustrazione delle piante rappresentate nei dipinti pompeiani. $\mathrm{Pp} .177-250 \mathrm{in}$ : Ruggiero, M. \& al., Pompei e la regione sotterrata dal Vesuvio nell'anno LXXIX. - Napoli.
De Maria, S. 1988: Gli Archi onorari di Roma e dell'Italia romana. - Roma.
Detienne, M. 1975: I giardini di Adone. La mitologia dei profumi e degli aromi in Grecia. - Milano.
Giuliano, A. 1989: Storia dell'arte greca. - Roma.
Hölscher, T. 1987: Il linguaggio dell'arte romana. Un sistema semantico. - Torino.
Kleiner, S. F. 2012. Gardner's Art Through the Ages: The western Perspective, 1. - Belmont.
Jashemski, W. F., Meyer, F. G., Ricciardi, M. 2002: Catalogue of plants. Pp. 80-180 in: Jashemski, W. F., Meyer, F. G. (eds), The Natural History of Pompeii. - Cambridge

Kumbaric, A., Savo V. \& Caneva, G. 2013: Orchids in the Roman culture and iconography: Evidence for the first representations in antiquity. - J. Cult. Heritage 14(4): 311-316.
Kumbaric, A. \& Caneva, G. 2014: Updated outline of floristic richness in Roman iconography. Rend. Lincei 25(2): 181-193.
La Rocca, E. 1983: Programma figurativo dell'Ara Pacis Augustae. Pp. 1-60 in: Ara Pacis Augustae in occasione del restauro della fronte orientale. - Roma.
-, Leon, P. \& Parisi Presicce, C. 2008: Le due patrie acquisite. Studi di archeologia dedicati a Walter Trillmich. Bollettino commissione archeologica di Roma. - Roma.
Mazzilli, G. 2016: L’arco di Traiano a Leptis Magna. Monografie di Archeologia Libica. - Roma.
Masiello, L. \& Indellicati, A. 2011: Non solo Persefone - Tesori di Taranto nel mondo. - Taranto.
Milella, M. 2010: La decorazione del tempio di Venere Genitrice. Scienze dell'antichità. - Storia Archeol. Antropol. 16: 455-469.
Murphy, R. E. \& Murphy, R. E. 2002: The tree of life: An exploration of biblical wisdom literature. - Cambridge.

Pensabene, P. 2011. Tradizioni punico-ellenistiche a Volubilis. I capitelli corinzi e composti. Archeol. Classica 62: 203-278.
Pignatti, S. 1982: Flora d'Italia, 1-3. - Bologna.
Ramage, N. H. \& Ramage, A. 2008. The Roman Art. - Cambridge.
Todisco, L. 2012: La ceramica a figure rosse della magna Grecia e della Sicilia. I - Inquadramento. - Roma.
Torelli, M., Menichetti, M. \& Grassigli, G. L. 2008: Arte e Archeologia del mondo Romano. -Milano.
Trendal, A. D. 1989: Red figure vases of south Italy and Sicily. - London.
Vandi L., 2002: La trasformazione del motivo di acanto dall'antichità al XV secolo, ricerche di teoria e storia dell'ornamento. - Bern.
Zanker, P. 1989: Augusto e il potere delle immagini. - Torino.

Addresses of the authors:
Giulia Caneva ${ }^{1}$, Arianna Monaco ${ }^{1}$, Paola Virgili ${ }^{2}$ \& Flavia Bartoli ${ }^{1}$,
${ }^{1}$ Dip. Science, Univ. Roma Tre, viale Marconi 446, 00146 Rome. E-mail: giulia.caneva@uniroma3.it, ariannamonaco@hotmail.it, flavia.bartoli@uniroma3.it ${ }^{2}$ Sopr. Capitolina ai Beni Culturali (ex), Via Ostiense, 106, 00154 Roma. E-mail: virgilipaola2017@gmail.com


[^0]:    *Article first published online on 1 April 2019 in Flora Mediterranea 29: 27-44.

