Light, surfaces and materials: sculpting the imperceptible

Iluminação, superfícies e materiais: esculpir o imperceptível

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Abstract

Polychromy of Medieval and Early Renaissance sculpture can be painted, but also obtained with inlaid and using different materials. This paper focus on polymaterial sculpture and glazed terracotta sculpture in Tuscany, and the interplay between materials and lights – natural or artificial. Sculptors, indeed, used different materials and their surfaces – matte, glossy or shiny – in order to reinforce and convey the political or theological message to the beholder. They also adapted the device for the domestic setting, the interior of the ecclesiastical buildings or the façades of churches and civic buildings. Luca della Robbia's implementation of glazed terracotta technique, in the 1430s, considerably changed the relationship between sculpture, material, and light.

KEYWORDS
Sculpture polymaterial
Colours
Painted glass
Glazed terracotta

Resumo

A policromia da escultura medieval e renascentista pode ser pintada, mas também obtida com incrustações e utilizando diferentes materiais. Este artigo centra-se na escultura polimaterial e na escultura em terracota vidrada na Toscânia, e na interação entre materiais e iluminação – naturais ou artificiais. Os escultores utilizaram diferentes materiais e superfícies – opacas, brilhantes ou lustrosas – para reforçar e transmitir a mensagem política ou teológica ao observador. Também adaptaram as esculturas ao ambiente doméstico, ao interior dos edifícios eclesiásticos ou às fachadas das igrejas e edifícios cívicos. A implementação da técnica da terracota vidrada por Luca della Robbia, na década de 1430, alterou consideravelmente a relação entre a escultura, o material e a iluminação.

PALAVRAS-CHAVE
Escultura polimaterial
Cores
Vidro pintado
Terracota vidrada

Introduction

Looking closer to Late Medieval and Renaissance polymaterial sculptures in Tuscany allows new and capital insights for the understanding of the transfers between techniques. Building on the elements emerged from comparative analyses, we will focus on the links between Tuscan workshops and, in particular, the ties between inlaid stone sculpture and glass production.

To better define our topic, polymaterial sculpture corresponds to ornamentation resulting from the free use of materials of different natures or colours in various combinations, and it is characterised by the simultaneous visibility of materials [1]. Understanding the relationships between the materials and techniques used is essential to a deeper understanding of the sculpture itself. The materials, their treatment, their assembly and their colour are a fundamental dimension of the plastic and figurative language. The polychromy, both painted and provided by the materials, which originally enhanced medieval sculptures, played a full part in the visual strategies designed to immerse the faithful and encourage total devotion [2]. The material value of the sculptures was as decisive as the semantic content of the materials and colours, which were very often luxuriant [3-4]. The pictorial aspect that results from the use of different materials gives a naturalistic aspect to the stone sculptures and sublimated representations from both an aesthetic and spiritual point of view. Exploiting the multiformity of materials, the figures reinforced their anchorage in the earthly world, but also their capacity of evoking the heavenly world. The variety of surface and light effects, the diversity of materials and their colours, functioned as a stimulus for the faithful, activating the meditation through a sensory experience. Moreover, particularly in the late Middle Ages and early Renaissance, polymateriality and polychromy confronted the faithful with the spiritual dimension of sculpture. *Varietas*, the multiplicity of elements assembled with skill and virtuosity in relation to one another [4], together with polychromy and ornamentation, participated in the quest for the apprehension of the divine word [5]. The variety of materials and the plural nature of the elements of the objects are intended to help the mystical experience. Like the Holy Scriptures, which reveal divine law to mankind, polymaterial creations were themselves charged with various narratives and mental images revealing the abundance and diversity of Creation [6].

The relationship with sight, and more particularly with light, is an important issue in this type of polymaterial work [7, pp. 132-134]. The use of glass or majolica inserts is ubiquitous in Tuscan artistic production: thanks to the diversity of their surface effects (smooth, shiny, matt), they reflect the different sources of light offering shimmering colours that vary according to the time of day and the light source. Like the glassy surfaces of stained-glass or mosaics, those inserts enhanced the representations from both an aesthetic and spiritual point of view, making it easier to read the episodes they highlighted.

The relationship between materials and light has undergone a remarkable change in Tuscan art between fourteenth and fifteenth centuries [8, pp. 29-33]. Looking at sculptures for religious building – in and outside – or to private devotion, this paper aims to study the different techniques employed to enhance space, depth and figures and to make the spiritual message perceptible in the interplay with different sources of light, both inside the private residences and the churches or on the exterior of religious and civic buildings. Luca della Robbia's invention of glazed terracotta inserted in this quest but aimed to answer those formal and spiritual needs with a unique material. This deep technical renewal played a major role in the neglecting of polymateriality.

Artificial lighting in enclosed spaces: devotional reliefs and glassmakers' influence on sculptors

The use of images in devotion has been an established area of research for a century [9-12]. The devotional image – as it emerged at the end of the Middle Ages and as defined by Erwin

Panofsky – is characterised by a combination of format and specific function [13]. In private devotion, it "allows the viewer's individual consciousness to immerse itself contemplatively in the content being meditated upon, and allows the subject's soul to merge, as it were, with the object" [14, p. 14]. Building on cognitive studies, Mary Carruther reinforces this point by explaining the function of senses in a devotional space: the objects allow the reactivation of the art of memory through emotions to get the attention of the devotee [15, pp. 116-118]. Hans Belting, on his side, showed that the *imago pietatis* could serve sacramental as well as devotional purposes, and that the traditional distinction between ecclesiastical public worship and private domestic devotion was not strict in practice [16]. Against the assumption that images have a unique established function, these studies show that the meaning of images is constructed through practices and uses [8, pp. 29-33]. To understand how an "image-object" [17] – i.e. the artwork considered as an object inscribed in a place invested with a specific value – works, it is necessary to take into account the nature of the images, their social or symbolic significance and their liturgical functions in their setting. This is even more important for polymaterial sculptures, especially for those presenting vitrified inclusions.

Like the many small-scale bas-relief Madonnas, the Madonna and Child, known as the *Madonna Goretti Miniati* (Figure 1), was intended for private devotion. The tradition of owning devotional images dates back to the beginnings of Christianity [18, p. 111; 19, p. 51; 20, p. 101]. However, in the Latin world, this tradition of religious image acquired a profound theological justification only with the Scholasticism [21, p. 72]. The images we focus on here are mainly the icon-inspired half-body representations referred to by Guillaume Durand as *picturae dimidiatae* and discussed by André Chastel [22] and Jean Wirth [23, p. 23]. In this context, these images play an important role in the development of religious affectivity, reflected in the attitudes and behaviour of Christians to the end of the Middle Ages to the end of the Middle Ages [24].

Figure 1. School of Donatello, *Madonna and Child*, known as *Madonna Goretti Miniati*, c. 1430, marble, blue glass inlay, Florence, Bargello.

This bas-relief shows a nimbed Virgin Mary carrying the Infant Jesus in her arms. Originally, the Virgin's halo, cloak and arm showed traces of gilding [25], now invisible to the naked eye. Both placed in line with a window, they are viewed from a slight three-quarter angle, marking out the lines of the rectangular room.

The main purpose of the window, which is materialised here by the blue glass inserts, is to mark the space visually [26]. Immersed in a deep blue, the two figures stand out thanks to the luminous effects of this blue-light, allowing the faithful to meditate on the absolute model of filial and maternal love. The setting in this image, combined with the traditional position of the Virgin and Child, gives it a timeless reality, while retaining the characteristics of the antique style that distinguish spirituality from physical existence [16].

The deep blue used to materialise the scene is associated with sapphire. In the Old Testament, this precious stone had a direct link with God and the celestial spheres, and was at the frontier between light and matter. Its vivid colour evoked the heavens, and more specifically the promise of celestial life announced by God [27, pp. 329-332]. In this context, the richness of the hue and the effects of brilliance and shimmer reinforced the effectiveness of the devotional content of the image and accentuated its sensitive dimension. Thanks to the meditative and performative power of the scene, which came to life as the devotee's lights and movements changed, the image functioned as a stimulus that produced mental images in the devotee.

The attribution of this bas-relief is not completely established. The inserts indicate a source close to Donatello or Michelozzo, both of whom enjoyed experimenting with materials. The blue glass of the background, in particular, creates an architectural setting reminiscent of the *Madonna del Perdono* (Figure 2), now in the Museo dell'Opera di Siena. Although not entirely by Donatello, the *Madonna del Perdono* is an important work in his catalogue. Among all Donatello's surviving Marian reliefs, this *tondo* is the only one to have been commissioned and designed not for private, domestic use, but for a monumental public display [28]. It is precisely for this reason that Donatello has elevated this Marian image in a project that presents a real optical challenge to the viewer, which is a peculiarity of this sculptor [29-30].

Figure 2. Donatello, *Madonna and Child with Four Cherubs*, known as Madonna del Perdono, c. 1457-1459, marble, blue glass inlay, Siena, Museo dell'Opera.

Comfortably seated, the Virgin Mary is depicted in a three-quarter view, with the Child seated on her mother's legs. Presented in the Celestial kingdom, several cherubs, signified simply by their heads, are crowding around them.

The *tondo*, similar to an *oculus*, acts as a window open onto Mary's kingdom, only half revealing the scene. The Virgin and Child's Glory could only be partially seen by the faithful, who were looking up on the scene constrained by its round frame. For this reason, the Virgin was sculpted in a progressive overhang, from the bottom upwards, and that her nimbus is so pronounced. As Enzo Carli reminds us, the expressive power and plasticity of the scene are undeniably more pronounced when viewed from below than if the bas-relief had been presented head-on [31, pp. 35-36]. While the Virgin's face appears elongated and sullen in a frontal view, it can be fully appreciated for its suppleness and roundness when viewed from below, and it gains in tenderness and melancholy. To reinforce the window-like appearance of this *oculus*, Donatello and his workshop decorated the thickness and depth of the marble with inserts of blue glass forming a coffered ceiling.

For a long time, the sculptor's original intention was incomprehensible because the relief was moved due to Bernini's rebuilding of the chapel of the *Madonna del Voto* in 1660. Placed in the lunette above the south portal of the transept, known as the Porta del Perdono, this bas-relief was exposed to the elements. Seriously damaged, the sculpture had lost many of its inserts, and the two remaining ones were tarnished before restoration work was carried out between March 1988 and July 1990 by Annamaria Giusti (restoration director) and Ernesto Tucciarelli (restorer) [32].

These glass inclusions were not only ornamental, but also create an illusory three-dimensional and perspective effect that could be appreciated from the point of view of the faithful crossing the doorway to the *Cappella delle Grazie*. In the apparitions, the Virgin is described as surrounded by a beautiful celestial radiance [33]. Ornamentation was therefore used as a means of honouring the Virgin in the image. The Virgin's role in the history of salvation and her role as mediator between earthly reality and the afterlife means that we need to understand her central position in Christianity. When the faithful entered the chapel, the Virgin and the panels of tinted glass sparkled and were illuminated by natural light and the oil lamps placed around them in the chapel. The special nature of this lighting system evoked the presence of God and became an indicator of holiness. This decorative system and the resulting reflections arise from a long tradition that was already well established in the Middle Ages. Glass, like many other materials, could be used to create effects of colour, surface and light that fascinated and captivated the beholder. Indeed, more than the glass itself, it was the search for light that was paramount in many works, whether painted or sculpted, polymaterial or otherwise. Light is part of the sacred, because God himself is light. As a result, anything that helps to produce, transmit, disperse or multiply the light is associated with devotion [34]. Because of its position, high up in the lunette overlooking the altar and the painted panel of the *Madonna delle Grazie* in the chapel [35], the *tondo* functioned like a stained-glass window. Thanks to its location, it offered the faithful a spectacle of light, where the blue, symbol of purity and the celestial kingdom, was in perpetual movement, animated by the undulating flames of the nearby candles and lamps. In this way, the surface of the stone was dematerialised and functioned like an open window to the heavens.

The special nature of this light system evoked the presence of God and became an indicator of holiness. The presence of the Marian image thus served to make sacredness visible; by representing the "heavenly sovereign" in the human appearance he adopted through the "Incarnation".

Shimmering in the sunlight: polymaterial sculpture for the façades

In the last decades of the twentieth century in Italy, the restoration of stone objects evolved beyond the simple cleaning of surfaces, revealing the elements of colour still present on the works. This marked the beginning of research into the preparation, finishing and colouring of stone surfaces, which were becoming increasingly evident [36]. Restoration files and analysis reports, rich in the results of diagnostic investigations, are a fundamental element in establishing a dialogue between the sciences and the arts, and provide a better understanding of polychromy and polymateriality.

The bell tower of Santa Maria del Fiore (Figure 3), built between 1334 and 1359, has a very complete iconographic cycle with a strong theological message, making it the second largest theological programme in medieval Florence, the first being the patristic and biblical mosaics in the Florence Baptistery [37]. The Campanile cycle is conceived as a scholastic and humanist cycle, based on an Aristotelian scheme derived from the doctrine of Saint Thomas Aquinas, which reconciles the demands of the Christian faith and the affirmation of Being as a universal reality [38].

Figure 3. Campanile di Giotto, 1337-1342, Florence.

In this cycle, each relief, whether hexagonal or lozenge-shaped, is linked to a human activity or an art that is revealed as an essential element in the vocation to know God. All human knowledge, whether manual, related to the arts or theology, is brought back to its primary source, God. In this way, the earthly skills have been arranged in hexagonal reliefs, with backgrounds painted blue [39]. Apart from the architecture, which features small black marble inserts, there are no inlays on this level.

Polymateriality, instead, has been reserved for the lozenge reliefs relating to celestial spheres (Figure 4). They represent the *Planets* (west side), the *Virtues* (south side), the *Liberal Arts* (east side) and the *Sacraments* (north side). Here, the painted backgrounds were replaced with inserts of glazed blue majolica. Exposed to the elements, in the centre of the city, the inserts were covered in micro-organisms and tarnished by pollution. As a result, until the 1980s, the majolica did not appear in its original state, but looked like painted backgrounds. The cleaning process has enabled us to gain a better understanding of how the sculptures interact with day light. While the deep blue paint of the hexagons remained matt and did not react to the sun, the lozenge-shaped reliefs, inlaid with blue majolica, detached the figures and brought out their modelling against a shimmering blue background that modulated according to the hours of the day and the intensity of the sun. This way, their different appearance clearly indicated to the beholder the distinction and emplacement of the terrestrial and celestial spheres.

The choice of majolica instead of glass, is probably due to the solidity of this material, that offers comparable mutability properties and very similar effects. Glass is more fragile and would become detached, tarnished or broken.

Figure 4. *Venus as planetary divinity*, 1337-1342, marble and majolica, Florence, Museo dell'Opera della Cattedrale di Firenze.

The allusion to the celestial spheres was usually made through the colour and position of the blue background with inserts, whether in majolica or glass. The use of inserts in coloured materials with a high degree of reflectivity, as we have just seen, was widespread in Tuscany, and particularly in Florence, from the fourteenth century onwards [40, 41, pp. 91-102]. The Loggia dei Lanzi, built in the 1380s, and in particular the compartments of the *Virtues*, are a continuation of the research into the plastic materialisation of the Kingdom of Heaven through the use of reflective and shiny materials. The upper sections of the Loggia, formerly known as the Loggia della Signoria, feature the four *Cardinal Virtues* and the three *Theological Virtues* in four-lobed forms, sculpted in marble between 1383 and 1391 to designs by Agnolo Gaddi [42]. For some polymaterials – we are thinking, for example, of the bronze crown placed on the head of the *Faith* – these marble representations were enhanced with paint and gold to highlight details of the figures' hair and dresses, as can still be seen on the *Temperance* (Figure 5). These touches of colour complemented the polychromy produced by the blue inlays on the backgrounds, which were originally made of ceramic [43, pp. 13-36]. During the twentieth century restauration, those backgrounds have been entirely replaced with glass, with the exception of the *Prudence*, whose background has been reconstructed with ceramic tassels [44]. The construction of this loggia began at a decisive moment for the affirmation of Florentine republican identity, which was seeking to assert itself against the great powers of the Italian peninsula [44].

The conflict between the Holy See and Florence in 1375 prompted the Florentine humanists to establish Florence as the leader of the free communes. The Loggia was part of this project. Its strong symbolic dimension played a very important role in the city's political and religious events [44]. This loggia was intended to give the gonfaloniers and priors their office, but also to house government representatives during public ceremonies in the presence of the people [45]. Placed in the upper parts, they personified the image of good government and its virtues, as represented in Anjou imagery [44]. The decorative system of polymateriality and their position in the spandrels of the arches allowed them to dominate the building as a whole, making them visible from the Piazza della Signoria. The *Virtues* were reflected in their own background, depending on their exposure to the sun, and thus came to life as the hours passed in the quatrefoils. The blue glass or ceramic backdrops were dotted with gold stars, helping the marble figures to stand out against the *pietraforte* of the building, creating a strong contrast. Both the iconography and the staging of these images served to affirm the importance and decision-making power of Piazza della Signoria in the Trecento.

Figure 5. Agnolo Gaddi, *Temperance*, c. 1380, marble and blue glass inlay (eglomised glass), Florence, Loggia dei Lanzi.

The everlasting solidity of the material was highly praised also for Luca della Robbia's new technique, the glazed terracotta sculpture. As Giancarlo Gentilini and Marco Collareta, among others, demonstrated, the luminous quality of the surface was much more important in Luca's first attempts intended for church interiors, but the resistance to elements was also a key factor of his success [46-47]. The heraldic program of Orsanmichele in the around 1450s offers a precious perspective on the dialogue between techniques.

The ancient *loggia* of the grain market, transformed into a church, received not only the niches and the statues of the Saints of the Florentine guilds, but also the heraldic medallions of those guilds, placed on the second level of the building. Some of them were fresco painted – and are, thus, very badly preserved – while others took advantage of Luca della Robbia's new medium.

According to Giancarlo Gentilini, the first glazed medallion was, around 1450, the one of the *Maestri di Pietra e Legname* – the guild of stone and woodcarvers, to whom Luca himself belonged [48, pp.153-161]. This medallion is neither a polymaterial nor a three-dimensional sculpture and, nevertheless, it is of the greatest interest to understand Luca della Robbia's meditation on the use of glass and ceramic inserts or marble inlaid in his predecessors' works (Figure 6).

An interesting point to understand Luca's formal choices was made by Suzanne Butters: she noted, for the first time, the importance of the hagiography of the patron saints of the guild, the *Four Crowned Martyrs*, portraited by Nanni di Banco in the Tabernacle underneath the medallion [49, pp. 176-180]. According to their *Passio*, the four saints were sculptors working in porphyry caves in Pannonia under Diocletian, unparalleled skilled in carving ornament from that hard stone: the central roundel, purple and decorated with acanthus, would then directly refer to their work, rather than to a textile. The presence of Cosmatesques motives, as the quincunx – already noted, for instance, by John Pope Hennessy – would also refer directly to the Roman eponym basilica [49-50]. The motifs, shape and colours, thus, would not only present the heraldry of the stone and woodcarvers, but also enrich and comment the marble niche with the patrons' statues.

Considering this meta-reflection upon sculptors' work, however, the choice of a flat painted support – and one of Luca's finest works in this field – appears even more intriguing. According to John Pope-Hennessy, the reason is to find in the pre-existent fresco painted heraldic medallion, and the flat-painted glazed terracotta would have been, thus, a simple replacement [50]. The perception and the interaction with the light, however, is profoundly different: the motif painted and glazed appears much closer to an opaque stained glass rather than a fresco painting.

Figure 6. Luca della Robbia, Heraldic Medallion, stone and wood carvers (Maestri di Pietra e Legname), c. 1450, Glazed Teracotta, Florence, Orsanmichele.

The *stemma*, however, is not "simply" painted: as pointed out by Giancarlo Gentilini, the technique also recalls the mosaic or the *tarsia* [48, pp. 153-161]. Indeed, due to an experimental technique of glazing a gilded surface, the heraldic motives and the background could not be fired together and are thus assembled afterward as a mosaic. Due to its location, the Orsanmichele medallion is difficult to study closely, but the technique is strictly comparable to the gold-glazing attempt in the frame of the *Monument of Bishop Benozzo Federighi*, nowadays in Santa Trinita (Florence), also not very successful [51-52]. The recent conservation treatment has shown that the glazed mosaic is strictly comparable to the inlaid of marbles. Luca, trained as a marble sculptor, probably in Nanni di Banco's workshop, certainly was familiar with this technique, largely employed, for instance, in the *Four Crowned Martyrs* niche. In other tabernacles in Orsanmichele, moreover, the marble niche also shows a glass mosaic inlaid. For instance, in Niccolò di Pietro Lamberti's *Madonna of the Rose* (1399), the background is covered with a mosaic of blue and gold-foil glass mosaics [53]. The same technique, with a different pattern, is also to find in the niche of *Saint James Major*, also by Niccolò di Pietro Lamberti, probably made around 1420 [53].

The glazed terracotta mosaic, thus, recalls some of the techniques largely employed by the Florentine sculptors and, in that sense, is complementary to the marble sculpture of the niche.

The perception of the medallions by their beholders on the Florentine street, however, is much more related to the flat, reflective surface and put Luca's work in a direct dialogue with the art of stained glasses.

Natural and artificial light: glazed terracotta and stained glasses

The reference to stained glasses in Luca della Robbia's glazed terracotta *œuvre* becomes more evident if we come back to the figurative production intended to the church interiors. The cycle of the *Apostles* in the Pazzi Chapel – in the first cloister of the Florentine convent of Santa Croce – seems a good example in this sense and will also contribute to a better understanding of the complex role of Filippo Brunelleschi in the ornamental project of this chapel.

Before looking to the glazed medallions, a brief point on the building is needed: we must consider, indeed, that this analysis is complexified by the lack of documents for the dating of the building and its decoration. However, it is currently admitted that the construction began about 1429-1430; the building was still in progress in the 1450s, and the inner dome was covered in 1459, while the mall dome of the portico in 1461 [54]. As Brunelleschi died in 1446, more than a decade before the achievement, many concerns have arisen about the respect of the original project, but it commonly accepted that the interior of the building follows his project, while the exterior porch, with its small dome, is a later addition [55].

The interior of the chapel shows the typical, sober contrast between the dark-grey structural elements in *pietra serena* and the white walls, only enhanced by the twelve grazed terracotta medallions in white and blue, showing the *Apostles* and, in the entablement, by a painted terracotta frieze with cherubs and *Agnus Dei*. The square apse has no altarpiece, but the window shows a stained glass with a standing *Saint Andrew*, surmounted by a roundel with the *Holy Spirit*. The central space is covered by a small dome, with twelve oculi, and its pendentives are filled with polychrome glazed terracotta medallions showing the *Four Evangelists* (Figure 7).

The attribution of the *Apostles* to Luca della Robbia, with some assistance from Andrea della Robbia on the last phase, is widely accepted, while the dating is not firmly established: Gentilini proposes a large span of time, going from the *Saint Peter*, about 1445, to the *Saint Thomas*, about 1465-70 [48-50]. The polychrome *Evangelists* are more problematic both on their date and their attribution. The style of the figures tends to exclude Luca della Robbia's paternity: among the last hypothesis, Pope-Hennessy suggested the name of Donatello, with Andrea della Robbia's glazing, while Gentilini proposed Filippo Brunelleschi, collaborating with Luca della Robbia [48, 50, 56].

Figure 7. Filippo Brunelleschi (architectural project), Pazzi Chapel, c. 1430-1459, Florence, Santa Croce.

Figure 8. Luca della Robbia, *Saint Peter*, 1445-1450 c., Glazed Terracotta, Florence, Santa Croce, Pazzi Chapel.

The figures of the *Apostles* are entirely white, seated on clouds against a blue background. In the four oldest medallions, on the east wall, probably made in the 1440s, this background is made with concentric circles of different shades of blue, going from the lightest in the middle toward the darkest on the exterior, while the remaining eight medallions, probably made some years later – around 1460-70 – have uniform blue backgrounds (Figure 8).

The concentric shades of blue clearly respond to the light: not the natural light, coming from the windows in the west façade, as thought by Carlo del Bravo, but to the light emitted from the figures themselves, as pointed out by Catherine Kupiec [57-58]. The *Apostles* are, thus, the symbolic sources of light of the chapel: Millard Meiss, followed by Paul Barolsky, already noted the connection between the twelve *oculi* of the dome and the glazed relief, indicating the medallions as an "extension" on the walls of the spiritual light coming from the dome [59-60].

The symbolic function of the medallion as "sources of lights" reinforces link to the stained glasses, and several material and formal elements also go in this direction. The first one concerns the concentric circles of the background: this device has been read as a condensed representation of the Heaven, as in various fourteenth and fifteenth century paintings [61]. However, a much closer model could be recognised in the stained glasses of the *oculi* in the Florentine cathedral: both in Lorenzo Ghiberti's *Assumption* in the façade and in almost all the episodes of the *Passion* in the drum of the dome, the blue background is formed by concentric circles. A further element that could have reinforced the perception of the *Apostles* medallions as self-luminous *oculi*: on the walls of the Pazzi Chapel, just beneath of the *pietra serena* frames, are still visible some metal hooks. Those hooks are still visible on the Northern side of the chapel, but on early twentieth century photos they also appear on the other side, one under each medallion. Nowadays, those hooks have no function, but it seems highly probable that they held some kind of artificial lighting, such as oil lamps (Figure 9). Joined to the light coming from the dome, the flickering artificial lighting from the bottom should have reinforced the heavenly, luminous presence of the *Apostles*.

The most decisive connection between the glazed terracotta and the stained glasses, however, resides in the choice of the materials themselves and further reinforces the hypothesis of a Brunelleschian paternity for the *Evangelists*. Indeed, as mentioned in the rapid overview of the chapel, all the figurative elements present in the chapel are either in glazed terracotta – *Apostles*, *Evangelists* – or in stained glasses. This choice seems to follow Filippo Brunelleschi's concerns to the respect of spatial unity of his architectures: Alison Luchs demonstrated the architect's aversion to painted altarpieces, perceived as an unfortunate insertion breaking this unity, while the stained glasses could absolve the same function without this problem [62] (Figure 10). The polemic reception of Donatello's stucco medallions in the Old Sacristy can also be read at the light of the loss of spatial unity of the architecture. The very simple spatial layout of Luca's *Apostles*, on the reverse, was interpreted by Catherine Kupiec as a way to preserve and reinforce the unity of space of the chapel [57].

Figure 9. Filippo Brunelleschi, Pazzi Chapel, archival photo (Florence, Kunsthistorisches Institut).

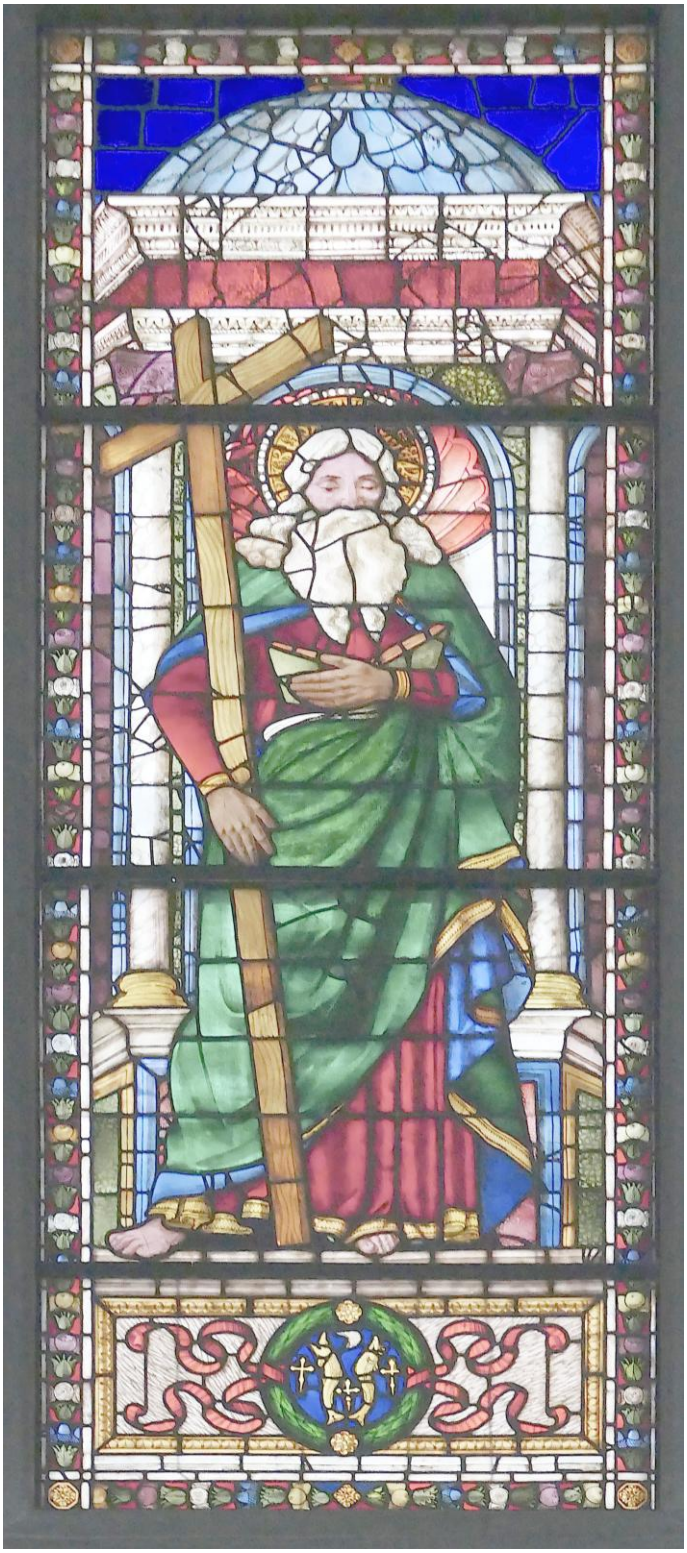

Figure 10. Alesso Baldovinetti, *Saint Andrew*, Stained glass, Florence, Santa Croce, Pazzi Chapel.

In fact, we think that the material proximity between the figures in stained glasses and the glazed images, and the similar way in which they react to the natural and artificial light is even more important in this sense.

If this hypothesis is correct, the whole decorative program of the chapel – including the *Evangelists* – looks much more unified and dependent from Filippo Brunelleschi's project.

The comparison between Donatello's medallions in San Lorenzo and the *Evangelists* can also be read in this sense: while the stucco medallions perspective breaks the space of the architecture, the *Evangelists* respect the "members and bones of the architecture", as Carlo

Ludovico Ragghianti demonstrated [63]. The attribution of those medallions to Brunelleschi, already proposed by Adolfo Venturi, Paolo Sanpaolesi and Giulio Carlo Argan among others, had been refused by John Pope-Hennessy – who advanced Donatello's name instead – but more recently reaffirmed by Giancarlo Gentilini, as a bright, luminous answer to Donatello's stucco [46, 64-65]. The choice of a natural polychromy, often perceived as antithetical to Brunelleschi's idea, would, on the contrary reinforce the link to the stained glasses and, thus, the unity of the program.

The diversity of materials used in Tuscan sculptures of the fourteenth and fifteenth centuries shows the range of artists' research about the interplay of reliefs and light and perception. Glass and majolica, as well as inlaid, were widely used in Late Medieval sculpture to enhance the visibility, the symbolic significance and, ultimately, the agency of the sacred images. The first generation of Renaissance sculptors – and especially Donatello and Luca della Robbia – built on this tradition. Donatello's *Madonna del Perdono* and Luca's glazed medallions perfectly show the sculptors' reflection on this tradition, but also the span of their technical innovation, in the mastery play with natural and artificial light and with the beholder's point of view.

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