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DIGITAL HERITAGE FOR EPHEMERAL ARCHITECTURE: CELEBRATING SAINT ROSALIA IN BAROQUE PALERMO

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Abstract

The ephemeral architectural works built in Palermo to celebrate saint Rosalia are structures of great complexity and interest, conceived to compete and complete the permanent architecture and to project the city into a fictitious, theatrical, mythical, and sacralizing perspective. Often involving both the fields of Tangible and Intangible Heritage, some of the works made in the first feast of 1625 and in the processions of the early 18th-century are studied here into the methodological frame offered by the Digital Heritage. Based on historical textual and iconographical documents, the digital reconstruction of some of these structures is then used to arrange multimedia products and to provide a critical key for original considerations on the documents and the architecture pieces, as well

Keywords

Digital Models, Ephemeral Architecture, Saint Rosalia

1. *Introduction*

This article presents the results of a research on the ephemeral architecture of the Baroque age (Carandini & Fagiolo, 1977-1978; Fagiolo & Madonna, 1985; Fagiolo, 1997). It focuses on the public festivals of saint Rosalia that since the first great feast in 1625, the Jubilee year, have been celebrating in Palermo, Sicily (Di Fede 2005-2006; De Cabi, 2016; Fagiolo, 2018). Many of the feasts have been designed by groups of talented literates and artists, described in letters and booklets, and immortalized in paintings, such as those at the Alba Collection, Seville, later analyzed. The ephemeral 'machines' that are the subject of this article are structures of great complexity and interest. On the one hand, they were designed to complete and sublimate the permanent buildings that in the same years were transforming the look of the city; on the other, they were expected to project the city itself, albeit for a short time, in a fictitious, mythical, and sacralizing perspective, which is indirectly confirmed by the visual works made to perpetuate them for posterity.

While this investigation mostly concerns the study and enhancement of a tangible cultural heritage (Colonnese 2018), the topic of the feast is strictly intertwined with the intangible heritage. This is due not only to the limited duration of the ephemeral architecture (only a few days) but also to aspects ranging from the active involvement of the local community to the contribution of music and voices as well as the smells of incenses and kitchens.

The article presents the context and main actors, and an historical analysis of the textual and iconographic documents that preserve the memory of the ephemeral architectures (the primary sources) built in two specific occasions: the first feast of saint Rosalia, in 1625, and the procession kept almost a century later, presumably around the 1710. The article focuses on the digital heritage applications aiming at verifying the level of consistency of the information preserved in the documents. The architectural structures are explored and reconstructed in two and three-dimensional models to produce visual products and disseminate their knowledge (Palestini, 2020). A brief description of the different geometric and spatial analysis criteria adopted in interpreting the documents introduces the several digital reconstructions, with different levels of reliability and formal definition. Some of these reconstructions finally fed some multimedia

products capable of presenting the results of the research to a wide audience during a conference[1].

2. 1625: Celebrating saint Rosalia

The founding act of the feasts for the thaumaturgist *Santuzza* Rosalia dates back to 1625, when Palermo's *Senatus Populusque* celebrated the wonderful triumph of the saint for the first time. It was a "marvelous and no more seen structure, which caused astonishing in those who saw it as telling it was something impossible" (*Relatione*, s.d., author's transl.).

As the Cardinal Giannettino Doria was promoted for the occasion, the intellectuals at the service of the Senate[2] developed and published the iconographic program for the feast. The influential archbishop of Palermo, who became Viceroy ad interim on the death of Emanuele Filiberto of Savoy by plague, had promoted the search for the relics of the *Santuzza*, "miraculously" found on the very day of the expiatory procession of July 15, 1624. Twelve days later, the saint was proclaimed Patroness of the city by the Senate. In February 1625, the archbishop solemnly handed the officially recognized relics of saint Rosalia over to the Senate. The preserved sources report that the celebration involved the construction of a triumphal Arch, a Leophant-shape fireworks machine and a Chariot on wheels.

2.1 The Arch at the Quattro Canti

The triumphal Arch built in 1625 constitutes a sort of ephemeral inauguration of the *Quattro Canti*. The new center of Palermo had been executed between 1609 and 1622, and therefore completed only three years earlier. It showed the new pro-municipal sculptural apparatus, with the four patron saints replacing the Kings in the facades – the Kings will be reinstated only from 1630 onwards in the restructuring works directed by Mariano Smiriglio (1561-1636). In this sense, the Arch can be considered the virtual conclusion of a single iconological program, conceived by Filippo Paruta (c.1552-1629), the omnipresent Secretary of the Senate.

The architect of the Senate, Smiriglio was engaged first at the Porta Felice and then, after 1619, at the continuation of the *Quattro Canti* construction together with the engineer Giovanni D'Avanzato[3]. Vincenzo Sitaiolo, the architect who designed the Arch, was inspired by an idea of Smiriglio.

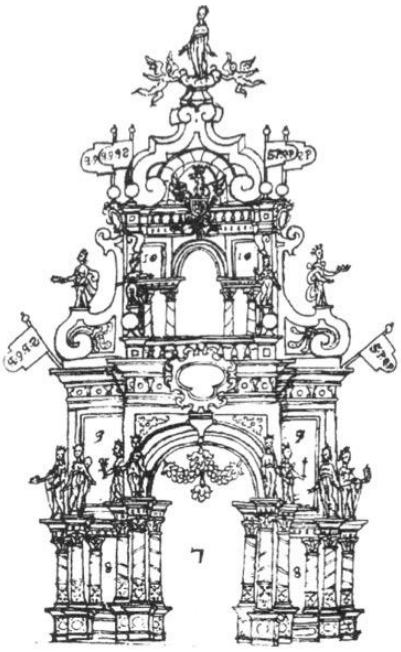

Fig. 1: A sketch of the Arco. *Relatione* (s.d.), c.10.

Two sources describe the construction of the triumphal Arch: the anonymous short handwritten description *Relatione del Sontuosu Apparatu*,[4] which is illustrated by two sketches of the Arch (Fig. 1); and the *Relatione* written by Onofrio

[1] The conference, which had been scheduled for July 2019 in Palermo on the occasion of the celebrations of Saint Rosalia, was cancelled on the tragic death of Prof. Sebastiano Tusa. Unfortunately, the attempt to include it in the events of the following years was thwarted by the sanitarian measures for the prevention of Covid-19 diffusion.

[2] Among others, the Senate made use of the academic circles of Palermo, like the Accademia dei Riaccesi, which was reconstituted by the viceroy Emanuele Filiberto (Di Fede, 2012, pp. 328-329).

[3] Smiriglio will resume the multi-level structure of the Arch in the Urn of Saint Rosalia, designed in 1631.

[4] *Relatione* (s.d.). The unsigned manuscript consists of 42 numbered sheets, with two drawings of the plan and the elevation of the Triumphal Arch at the Quattro Canti (c. 10), to which 7 pages are dedicated (cc. 6v-10r). The manuscript was finished after 1625, since Nicolò Placido Branciforti, Count of Raccuia and Prince of Leonforte, is called "alhora Pretor de la Città". Given the strong differences with the other document, whose description of the Arch is much more articulated and detailed, it is not possible for the moment to attribute the manuscript to Onofrio Paruta: it could perhaps be a first version elaborated by Filippo Paruta and then assigned to his son Honorius, in view of the publication. Honorius would certainly have worked there between 1627 and 1629, and the work would have been completed by Simplicio Paruta, with the collaboration of Silverio Campati (author of the description of the Arco dei Catalani, pp. 157-168) and Don Martino La Farina (pp. 169-176).

Paruta (died in 1629) and his brother Simplicius, a 48-page booklet with an engraving published in 1651. The latter emphatically defines the Arch as "the largest, most magnificent and pompous of those that have ever been seen in Palermo on other festivals (...) but of all those which, on the occasion of any ceremony, were made not only in Sicily, but in many parts of Italy and Europe as well" (Paruta, 1651, p. 83; author's transl.).

The magnificent *tetrapylon* is illustrated by an engraving of Francesco Negro from Caltagirone (Di Fede 2010) after a drawing of Gerardo Pastorino, a Palermo-born painter. It shows the arches facing the four streets in continuity with the urban gates that appear in perspective. The interior space of the arch looks like a sort of 'tunnel' formed by the four barrel vaults merging in the central cross vault. The external structure is enriched with sculptures and decorations that interrelate with the facades of the *Quattro Canti*.

Due to the perspective foreshortening the upper part, the engraving does not testify to the Arch's exceptional vertical development, which is instead deduced from the accurate description of the *Relatione*: with its four superimposed orders, the Arch was 171-palms tall (almost 45 meters), far taller than the 25 meters tall *Quattro Canti* (Di Fede, 2012). The Arch was topped by "a silver cloud supported by four Angels in relief, which stood in the air (...) and above this cloud lay the fourteen palms tall Statue of the Saint" (Paruta, 1651, pp. 86-87; author's transl.). This resembles the early solution for St Peter's Baldacchino that Gian Lorenzo Bernini was to design a few years later.[5] Moreover, the about 3,70m-tall *Gloria con la Santuzza*, possibly made of papier-mâché or other light materials, was designed to rotate in the wind like a weather vane in order to address its saving gaze on all the people of Palermo, a true *deus ex*

Fig. 2: Unknown artist, The Procession, 1706-1713. Alba Collection, Siviglia

[5] This analogy is evidenced by a drawing attributed to Agostino Ciampelli, Interior of St. Peter's, with the Wooden Model of Bernini's Baldachin. New York, Pierpont Morgan Library, Dept. of Drawings and Prints, 141981.

machina (or rather a goddess *super machinam*)[6].

The feast in 1625 featured two more interesting ephemeral works. The former is a machine for fireworks. It was designed to appear in the Praetoria Fountain on the arrival of the procession: "twelve fire wheels were above the statues of the Fountain and an immeasurable sized Leophant with a castle on its back was in the middle of it and above such a castle there was an angel who held a garland in his hand, whose artifice was all made of fireworks" (*Relatione*, nd, ch. 41r; author's transl.).

The latter machine, set up on July 12 in the Cathedral nave, was a chariot with a three-level architectural structure upon. The first order "was an eight-corner circle with eight columns and above said columns followed by another triangular circle with three columns onto the middle of which came out a very large column onto which there was a huge ball; three natural size statues in relief, representing the Fame, the War, and the Plague, were placed at the corners of the triangle. The whole was a firework; the machine was supported by four very large iron wheels of artillery, accompanied by four drums for war use. The chariot fired into the lower floor of the said church" (*Relatione*, n.d., ch. 41r; author's transl.).

2.2 Painting the Procession

The Procession (Fig.2), a painting preserved in the Alba collection, Seville (Fagiolo, 2007; Sutera, 2009; D'Arpa, 2012; Montana, 2014; D'Arpa, 2018, Fagiolo, 2018), marks the twinning between the vice-kingdom of Sicily and the Spanish monarchy. Over the decades, there was also an Iberian appropriation of the cult of saint Rosalia.

The city of Seville, where the painting is presumed to have arrived in the 19th century, had played the role of capital of the relationships with the Spanish America. It is no coincidence that the cult of the *Santuzza* also expanded into Latin America. Eventually, in 1693 a papal bull effectively extended Rosalia's patronage in the various Spanish domains, turning her into a sort of "planetary" saint, to take up the title attributed to Felipe IV "Rey Planeta". The *imago urbis* portrayed in *The Procession* can recall the images of the defeated cities that paraded in the ancient Triumphs. In this case, it is saint Rosalia's Triumph which takes place under the protective gaze of the Viceroy, a sort of triumphal entry into Palermo welcomed as a queen and a saint as well.

The painting depicts the fourth day of the celebrations (July 15), featuring the return of saint Rosalia's to the Cathedral by Via Toledo. In particular, it shows a suggestive ideal view of Palermo arranged for the party, with four parallel rows of buildings in front of which an endless religious procession is marked by ephemeral "machines". Such an 'artificial' view does not reflect any topographical order and looks rather like a townscape. It includes public and aristocratic buildings and nine 'modern' churches while the convents are missing. The extraordinary importance of the painting, so far scarcely investigated, is also linked to the fact that 10 of the 22 painted buildings find here their only known representation.[7] Above all, the facades by Paolo and Giacomo Amato mark its architectural appearance, in the wake of the Roman Baroque classicism. The Amatos can be attributed 8 of the 22 painted buildings, probably some of the ephemeral machines and possibly the organization of the painting itself. In this perspective, one should not be surprised by the lacking of important buildings such as the Royal Palace, the urban Gates, and the *Quattro Canti*. The churches of the major religious orders, such as the Franciscans (the facade of S. Francesco is medieval) or Dominicans (S. Domenico will have its new facade only in 1726) are also missing although they are called to play a central role as patrons of some of the processional machines in the feast. In its own way, the city is also represented as a stone procession headed for the Cathedral. The silent deployment of the buildings enhances their potential as places of observation of the spectacle, showing a wide range of loggias, roof terraces, and balconies as theatrical stages,

[6] The invention is motivated by Paruta (1651, p. 86) by the need to make the Angels and the Saint rotate in the wind "so that they do not break while standing still".

[7] Following the boustrophedical order of the procession, one finds: 1. Hospital of S. Bartolomeo degli Incurabili (at Porta Felice); 2. "P[alazzo] of the City "; 3. Church of S. Teresa alla Kalsa; 4. Theater of S. Cecilia; 5. Vicar; 6. Church of S. Maria della Pietà; 7. Palazzo Villafranca (Prince's Palace of Villa Franca); 8. Church of SS. Salvatore (Batia del Salvatore); 9. Palazzo Roccella; 10. Church of S. Matteo; 11. Palazzo Carini; 12. "Ba. delli Estimiti"; 13. Palazzo Cutò (Palazzo del Duca della Fabrica); 14. Church of S. Maria della Grotta (Collegio Novo); 15. Palazzo Mirto (Palazzo del Chonte di San Marco); 16. "Batia delli Virgini" (church of S. Maria delle Vergini?); 17. Palazzo Branciforte (Palace of the Duke of Branciforti); 18. Palazzo Cattolica (Palace of the Prince of the Cattolica); 19. Olivella; 20. Casa di Tarallo; 21. Church of S. Giuliano (Batia di S. Iuliano); 22. Palazzo Geraci (Palace of Iraci).

although the only visible spectators are the Viceroy with his family, looking out under a canopy on the second floor of the Palazzo di Città.

2.3 The other paintings (dating hypothesis)

In the same Andalusian collection, two other paintings are dedicated to the Piazza Pretoria with the Fountain and the Palazzo di Città and to the Piazza dei Quattro Canti[8]. The parades of carriages portrayed in the paintings appear contemporary to those in *The Procession*. Their comparison allows to conjecture a dating between 1706 and 1720[9] or, more precisely, within 1713,[10] under Philip V of Spain, at the time of the viceroy Isidro Melchor de la Cueva (1705-1707) or of the viceroy Carlo Filippo Antonio Spinola Colonna (from October 1707 to 1713). Given the large space dedicated to carriages in the processions, it is possible to advance the hypothesis that the client of the paintings was precisely the viceroy Isidro Melchor de la Cueva y Benavides Marquis of Bedmar (1652-1723), an important figure who had been a military commander in Milan and in Flanders, where he had been designated as Viceroy of Sicily already in 1701.

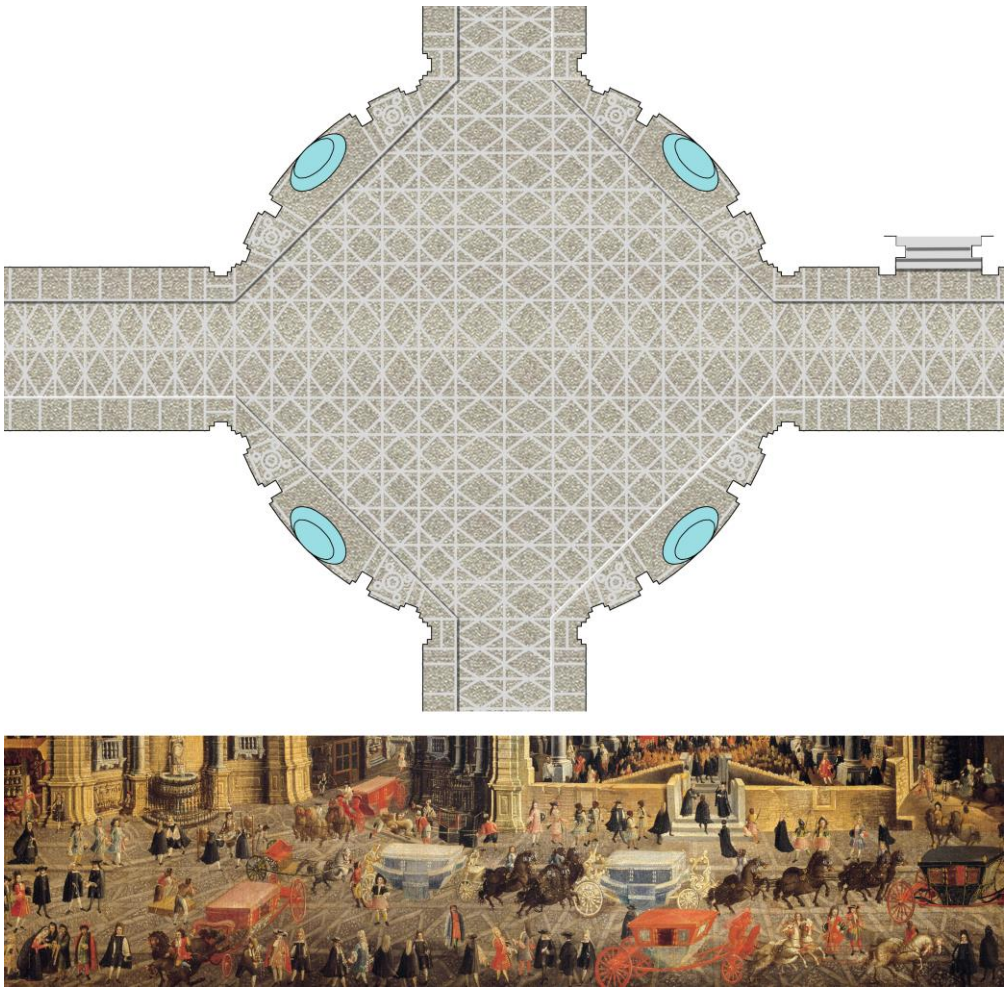

Fig. 3: Plan reconstruction of the Quattro Canti pavement in Billiemi marble after the painting Piazza dei Quattro Canti, 1706-1713 (detail). Alba Collection, Siviglia (Drawing by F. Colonnese).

[8] J. Urrea Fernández (1977, p. 375, plates CXXXIII-CXXXIV) writes that "estas tres vedutas de la ciudad de Palermo son obra de un anónimo pintor palermitano relacionado con el autor de una serie de vistas de Palermo conservadas en el Museo Pepoli de Trápani y en la Galleria Nazionale della Sicilia en Palermo".

[9] The façades of S. Teresa and the Salvatore are prior to 1706 and the dome of S. Giuseppe appears to have been built up to the drum and, therefore, the interior frescoes by the Flemish painter Willem Borremans (1675-1744), which were completed in 1724, had not yet begun.

[10] By considering the gala costumes in black, typical of sumptuous Spanish fashion, the creation of the painting must precede the entry of the new king, Vittorio Amedeo di Savoia, to Palermo.

Upon returning from Palermo, the viceroy Isidro was appointed Vicar General of Andalusia in 1709 and would later hold important positions at the court of Madrid, where he remained until his death in 1723. The depicted Piazza dei Quattro Canti shows an elegant road pavement with lozenges and other geometric figures (Fig.3). Based on Paolo Amato's design, it was begun in 1702 and finished in 1705, and therefore almost inaugurated by these ceremonial processions. The magnificent epigraph exalts the "celeberrima Via Marmorea del Cassaro" opened by King Roger and then by the viceroy Garcia de Toledo (from whom it assumed the name *Toletana*") with the *novo marmoreo pavimento*. The two-tone pavement presents a pebble carpet and elements in Billiemi, a Sicilian gray marble (Sutera, 2015). Such a marble counts numerous monumental applications in Palermo, such as the interior of S. Giuseppe with twelve gigantic columns of Billiemi that Stefano Piazza (2007, p. 256) defined "the largest stone monoliths built in Sicily in the modern age". The pavement is designed by five lanes with a series of quadrilaterals that contain rhombic figures; in correspondence with the four fountains, circular motifs recalling the Cosmatesque floor designs are introduced. The typological and formal analogy with the courtyards of Palermo palaces, primarily the Royal Palace, leads to consider the Cassaro also as an urban space of honor and representation, almost an extension of internal courts.

3. Reconstructions

The study of these documents and works was facilitated and developed through digital procedures and tools. They allowed a visual comparison in exploring different reconstructive options and communication models. The visual products presented here obviously derive from different procedures, defined on the basis of the available documents, the absolute value of the work itself, and the role envisaged in the communication.

3.1 The Arch and the Chariot

The reconstruction of the Arch, already tested years ago (Giammusso, 2014), results of a careful reading and interpretation of the two available descriptions. Occasionally, the descriptions proved to be inconsistent with each other, with the sketches and engraving, as well, but in general they provide most of the measures in palms (1 palm is about 26,3 cm) to restitute both the plan and the elevation as well as details on the decorative patterns and sculptures.

Fig. 4: Digital photomontage of the Arco in a present picture of the Quattro Canti. The original engraving (Paruta, 1651) has been subjected to a vertical development (Photomontage of F. Colonnese).

The reconstruction process followed two parallel trails. First, a digital reworking of the engraving has been carried out. A sort of digital photomontage, it intends to express the impressive height of the structure and of the upper statue in particular, related to the wings of the *Quattro Canti* (Fig. 4). Indirectly, it served to understand the many articulations of the structure and the relationships between the parts, and contributed to a deep knowledge of the architecture that worked as a filter to the two textual descriptions, facilitating the digital reconstruction.

Second, a digital reconstruction in orthogonal projections has been developed. The restitution of the plan after the engraving and the description is

particularly interesting (Fig. 5). It results in a mathematical arrangement of twelve cruciform supports, each consisting of a central pillar with a square section whose side is 4 palms-long (1,05 m). While these pillars, which are 21 palms (5,52 m) mutually distant, performed the main structural task, the four ornamental columns placed at their sides had a main decorative task. Inserting the reconstructed Arch plan into the plan of the *Quattro Canti* demonstrates that the Arch almost completely saturated the place, leaving only a few meters all around to circulation. At the same time, its vertical organization largely reflected the curved facades around it while the four arches resembled the urban gates at the ends of the cross roads.

The reconstruction of the elevation (Fig. 5) results of an interpolation between the measures reported in the description and the formal solutions expressed by both the engraving and the Quattro Canti's facades, especially for some of the architectural orders' elements. The elevation shows that the structure was organized on four levels. Starting from below, the first level presents 48 Corinthian columns around the 12 square pillars on tall pedestals; the second level frames the four arches corresponding to the inner barrel vaults and the central cross vault, and the statues just upon the columns; the third level is an attic with eight large volutes (*cartoccioni*) and the serliana-shaped loggia with Corinthian columns; finally, the fourth level shows a balustrade with diagonal scrolls that supports the cusp with the "pivoting" figure of the saint upon a vase-shaped piedistal.

The reconstruction required the adoption of a few hypothetical measures capable of agreeing some partial measures with the total height reported (171 palms, almost 45 meters). In particular, as the size of the upper cornice and balustrade is missing in the description, the height of the attic, which is also partially hidden in the engraving, was established by calibrating some elements according to a palm-module grid.

The figures and the decoration upon the key of the round arch has been transposed from the engraving but most of the decorations present in the frieze, the volutes, the columns and so on have been censored for the difficulty to decipher their geometric and iconographic nature and to better highlight the main architectural structure.

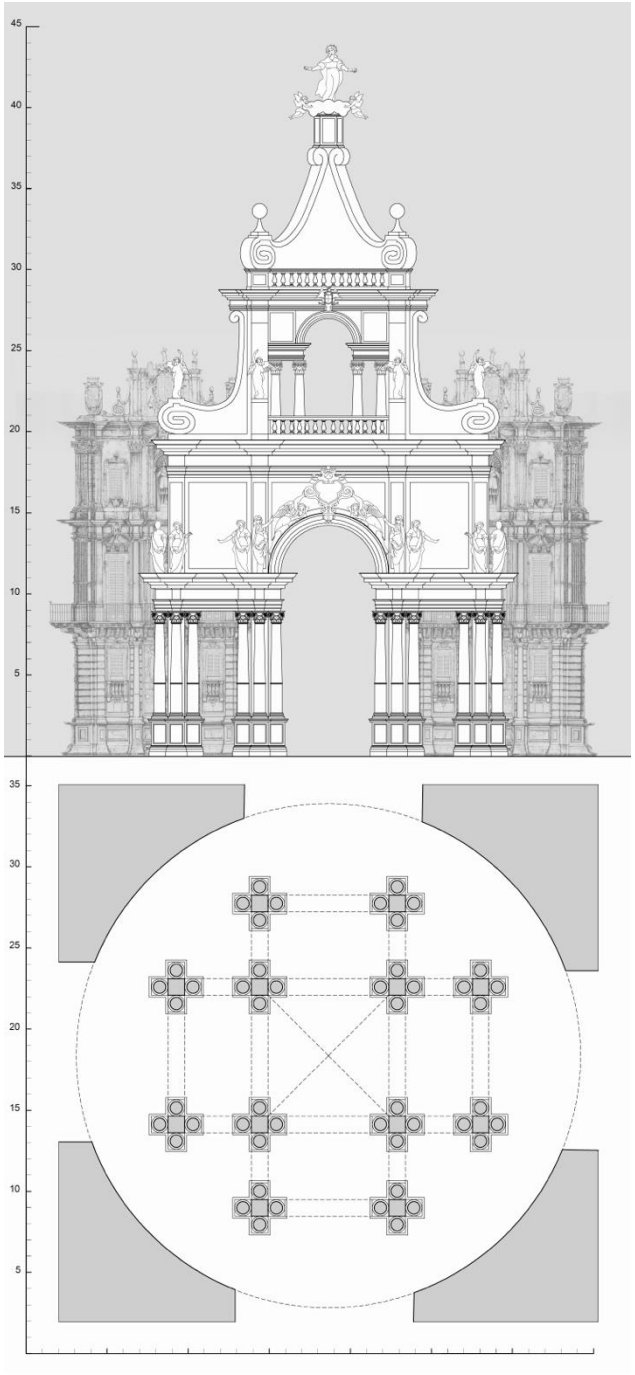

Fig. 5: Reconstruction of the *Arco ai Quattro Canti* in plan and elevation (Drawing of F. Colonnese).

The issue of the chromatic finishes of the arch is rather complex, too. Like in other ephemeral structures, colors were mostly applied with fabrics and used either to suggest fictitious materials or to symbolically evoke the typical colors of the saint or the city. For example, the arches of the cross-vault were red while the surfaces were blue, mimicking the "lapis lazzuli" (Paruta, 1651, p. 84), while the 48 columns on the first order were divided in three parts: the lower third was decorated in relief, with silver paper-works or covered with silver plates; the middle was covered with a "fabric in silver half-blade and red silk", while the upper third was covered with the "same drape but in blue" and fixed by silver and white silk ribbons (Paruta, 1651, p. 84, author's transl.). Unfortunately, the descriptions do not offer unquestionable elements for a general chromatic reconstruction.

Other two machines for the 1625 celebrations, namely the Chariot and the Leophant, have been studied through digital reconstructions, as well. The Chariot set up on the Cathedral floor constitutes an early application of the type of the chariot on armored wheels. The reconstruction shows the wheels but it is also possible that they were hidden under a cloth simulating a basement, like in 'machines' of the following years. In general, this reconstruction is rather conjectural. As the description (*Relatione*, ch.41r) provides only the general organization of parts, the size of the figures has been used to proportion and size the whole Chariot in order to have room enough to let people move inside of it.

The reconstruction is conjectural also for the uncommon transition between the octagonal geometry of the lower Ionic order and the triangular one of the upper Corinthian order that has no evident precedents; in this sense, it is also possibile that the central structure housed a small stair to reach for the upper floor. Moreover, also the large sphere placed upon the upper column looks quite original (Fig. 6). The figures in the reconstruction alluding to the statues at the gallery are inspired by the 1603 edition of Cesare Ripa's *Iconology*. They highlight the fusion between architecture and sculpture and offer a reference to human scale.

The Leophant or Elephant, a machine for fireworks, has been depicted through a digital photomontage hybridizing the Praetorian Fountain of Palermo with the Elephant from the Sacro Bosco of Bomarzo. Starting from the first photomontage, a sequence of four pictures have been developed to show the different form of fireworks as the daylight decreases.

Finally, a rough 30-seconds long animation was produced to demonstrate the effect of the Arch seen from Palermo's streets. The video adopts a subjective point of view that retraces the approach to the Arch starting from Porta Felice and then continues upwards to show the vision of the saint over the roofs of Palermo.

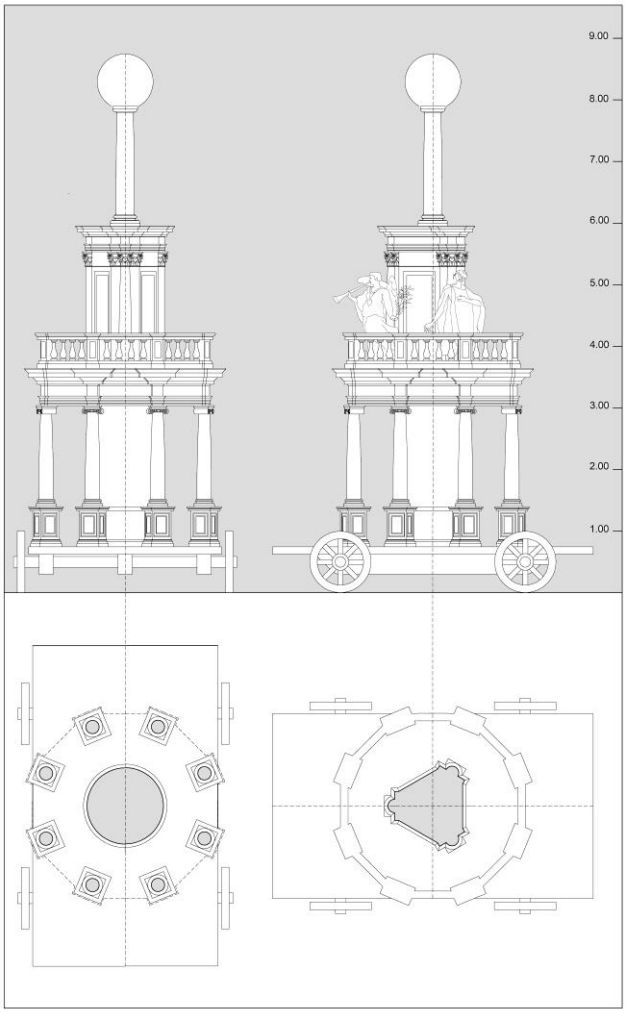

Fig. 6: Conjectural reconstruction of the Chariot of the 1625 feast in plans and elevations after the description (*Relatione*, ch.41r).

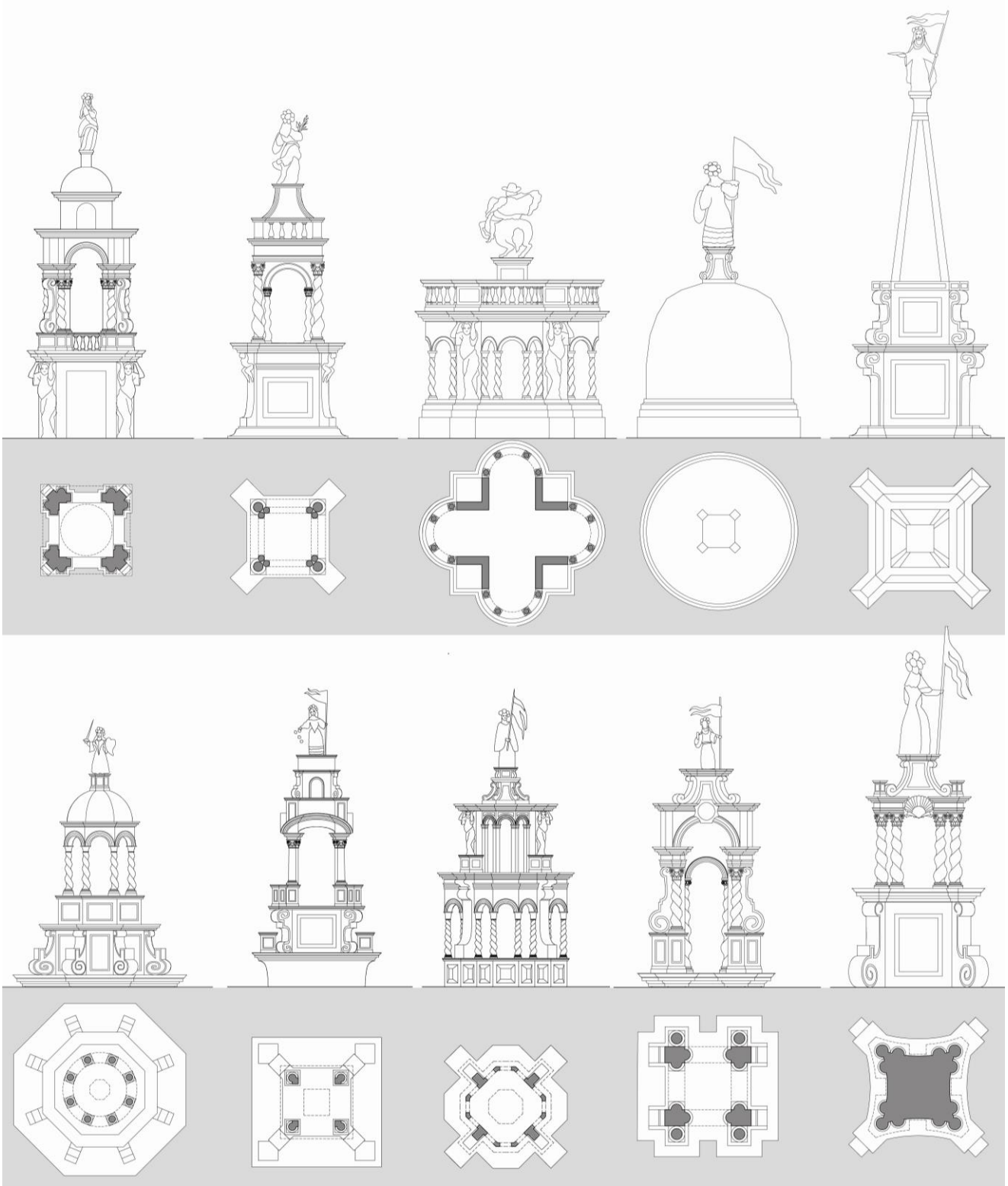

Fig. 7: Reconstruction in plan and elevation of the ephemeral machines after *The Procession* painting (Drawing of F. Colonnese)

3.2 The Procession painting

The architectural data preserved in *The Procession* have been studied from different points of view. While examining the painting to identify the facades and the religious communities involved into the procession, both the buildings and the single 'machines' have been subjected to a digital heritage process along two parallel trails.

First, the ephemeral machines have been digitally reconstructed. The reconstruction work has based on high-resolution digital photographic fragments. These have confirmed that the machines were painted in a pseudo-frontal axonometric view after the elevations, which can thus provide affordable data on geometry and proportions. In this sense, a series of freehand sketches have been preliminary drafted to understand the fundamental components, relationships, and proportions of each 'machine'. These sketches have served to interpret them as three-dimensional structures and to conjecture a general plan for each of them. After this, the reconstruction procedure has been moving from the plan to elevation and *viceversa* in order to obtain a gradual, coordinated and consistent definition of both.

The painted frontal elevation of each 'machine' has been critically redrawn in CAD. This means that the elements have been interpreted as parts of a composition ordered by a regular net of invisible construction lines. At the same time, the sizes that could be obtained from the painting have been adjusted to multiples of the basic modules of the plan, always applying the grammar and syntax derived from the Baroque architecture of those years. The presence of several axes of symmetry have simplified the reconstruction work. In

Fig. 8: Excerpt from *The Procession* painting, reconstruction in plan and elevation, and rendering from the 3D solid model of the last ephemeral machine of the procession (Drawing by F. Colonnese; rendering by L. Ascani).

Fig. 9: Digital retouched version of *The Procession* with empty streets (Digital collage by F. Colonnese).

particular, after critically redrawing half of the elevation, the plan of a quarter of the machine was reconstructed. The systematization of geometries and proportions led to the final design of the portion of the plan which was then mirrored. Finally, the elevation was checked and recalibrated on the basis of this definitive plan.

Fig. 10: Interactive data-base interface showing individual paintings with the facades after The Procession onto the walls of a generic museum hall (Rendering by F. Colonnese).

Unfortunately, the 'machines' are supported by neither textual descriptions nor certain measures. Their apparent size in the painting is affected by the general perspective effect and the comparison with the human figures around or upon them is the only key to conjecture their actual size.

At the same time, their size may be a consequence of the painter's need to enhance some machines in order to respond to visual or political hierarchies. This uncertainty dissuaded from the attempt to establish a precise scale of representation of the reconstructions.

The grid of the digital reconstructions in plan and elevation (Fig. 7) makes it possible to distinguish the machines that derive the formal elements from the need to present specific places or episodes (the Fountain or the Mountain, for example) after the life of saint Rosalia from those that adopt the baroque language in search of a specific formal identity for the religious order they represent. At the same time, it highlights some features shared by most of machines, like the presence of many empty areas either in the middle or at the corners to host flower decorations, statues or even actors. In the case of the last machine, a three-dimensional solid model limited to the architectural structure has also been built

Fig. 11: Two frames from the video showing the procession moving in the empty streets of the painting and a three-dimensional scene made of the painted facades (Video rendering by L. Ascani).

(Fig. 8). It was used to verify the formal development of the reconstruction, to test the level of detail of the spatial information derived from the painting and to present the actual view of the machine from the point of view of the people walking and looking at the procession. Given the scarce information of the source, the reconstruction shows elements resulted from the interpretation of the painted machine that, like the corner cornice upon the columns, would require alternative solutions, eventually overruling the evidence. However, it is useful to illustrate the visual perception of the structure open on all four sides and the richness of the spatial solutions expressed by the machines in the panel and, by extension, in those created during the many years.

These "machines" were more sophisticated then the 1625 chariot was. For example, the wheels were hidden under the box at their base or covered by fabric and they looked like lifting over the ground, as the thin shadow below shows in the rendering.

A second digital intervention has involved *The Procession* painting itself. Looking for a way to valorize the many architectural facades aligned along the procession, the painting has been digitally purged of the procession (Fig. 9). This digital collage required both an additional iconographic research on the original form of the painted buildings and a formal analysis of the individual buildings in order to recognize the compositional criteria and the form of details. The parts of the facades originally hidden by figures and machines were mostly reconstructed with the application of other parts from the painting itself, in order to fill the all the gaps with elements the share the same colors and texture.

Finally, each single building was cut out this 'silent' version of *The Procession* to feed an elementary visual data-base able to present the architectures. The data base was conceived as a virtual museum. First, small virtual paintings were arranged from each of the facades by applying digital wooden frames. Then, a sort of virtual museum hall, a hall dedicated to the facades of the Baroque Palermo, has been designed (Fig. 10).

The visual interface shows the framed facades hung on the walls. From this menù-page, each of the painting can be clicked to show a larger picture of the facade, the map with the building's actual position in the city, and its fundamental historical and architectural data. Subsequently, a 6 minutes-long video has been elaborated through a story-board. Starting from a plan of the center of Palermo, the video presents the virtual paintings of each building disposed on a wall, gradually revealing their actual positions in the city. Slowly, these virtual paintings move and take the position the buildings have in the general painted view with the empty streets, which finally appears by a fading effect. The silent fictitious streets of Palermo are then zoomed and explored as the procession enters the picture on the sound of music (Fig. 11). Through an application of matte painting and 2D animation technique exploiting the parallax effect, the procession flows before the perspective facades of churches and palaces simulating an ideal three-dimensional scene in the center of Palermo. After this animation, step by step the video presents the reconstruction of the machines, in orthogonal projections and, in one case, through a three-dimensional model. Then, it returns to the original painting and, finally, passes from this to the painting of the *Quattro Canti*, showing the interior of the Cathedral and highlighting the ephemeral altar built and decorated for celebrating the *Santuzza*.

Fig. 12: Digital photomontage inserting the top of the 1625 Arco ai Quattro Canti into the current Palermo skyline (Photomontage by F. Colonnese).

4. Considerations

While the chariot of 1625 was designed in relationship with the interior space of the cathedral, eventually blowing up in colored and

noisy fireworks, the tetrapylon Arch was designed in direct relationship with the city and the *Quattro Canti* in particular. Perfectly aligned with the style of the permanent city, the huge triumphal Arch of 1625 was designed to collect the urban flows and orient them upwards, almost trying to push the figure of the saint, which would have been visible above the roofs of the houses, as high as possible (Fig. 12). Its structure had been conceived as a sublimation of the urban form and its renovated monumental center. Its plan symbolically reiterates the (sacred) subject of Palermo cross

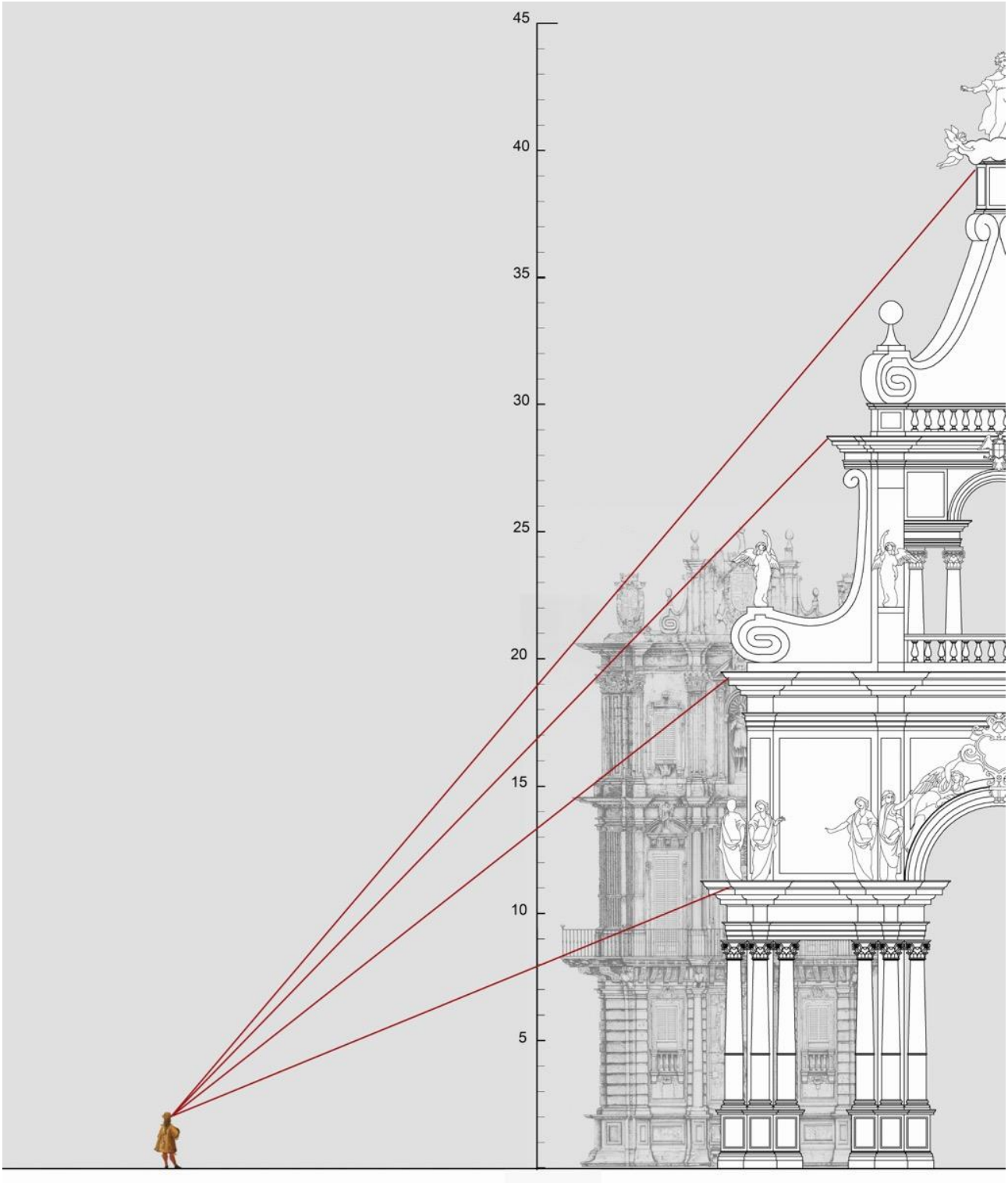

Fig. 13: Reconstruction detail of the Arco ai Quattro Canti in elevation with red lines connecting main horizontal lines of Arch and Quattro Canti facades (Drawing by F. Colonnese).

road in the flower-like cross-shape pillars, in the diagonal structure of the *cuspide* and in the upper cross, of course. Like the curved wings around it, it presents an order on bases as tall as the gaze of people walking to underline the inaccessible level (like a stage) of the representation of magnificence and pomp. The four orders of the Arch could have been initially conceived to replicate the lines of the curved facades around them and perhaps only later expanded vertically, to realize a towering structure that dwarfs them by almost 20 meters. By comparing the lines of ephemeral and permanent architecture, it is possible to conjecture the existence of a geometric center as high as the gaze of people approaching the Arch. From this center, which is about 20 meters away from the Arch, radial lines would connect quite precisely corrisponding lines and elements of the Arch and buildings of the *Canti* before it.

In this sense, a theatrical stratagem could have been conceived to provide a point of view during the approaching route in which the main horizontal lines of the Arch visually may look aligned with the corrisponding lines of the background facades (Fig. 13). This could be interpreted as sort of *mise-en-scene* of an epiphany, an illusory generation by duplication of the Arch out of the facades of Quattro Canti. From that point of view onwards, the Arch itself would have looked like detaching from the facades, virtually growing and literally raising the *Santuzza* up to the sky.

While the Arch was possibly designed to evoke a sort of virtual motion when approached on foot, the machines depicted in *The Procession* painting were purposely designed to have a dynamic relationship with the city.

Although their actual perception was strongly influenced by the ornaments and fictitious figures that populated them, they were light and mobile structures capable of interacting both with the specific topics of the feast and with the urban landscape. In particular, they were designed to resonate with the most modern facades or as well as to create striking contrasts with the older ones. Although some of their reconstructions show questionable elements and solutions, due to the scarce visual documentation, in many cases they highlight the character of micro-architectures on the move.

Appropriately decorated and framed, they elude their specific scale, evoking much more monumental catafalques, triumphal arches or bell towers as well as tabernacles, ornaments or pieces of furniture. At the same time, they are only the support of complex installations that transcend simple architecture by virtue of floral decorations, textile coatings, candles and torches, painted and sculpted figures that these reconstructions cannot include, as well as people in costume that surround them and, in some cases, crowd them. In this sense, the people themselves became a part of the buildings in those occasions, and *viceversa*, of course.

While, from a historical point of view, *The Procession* painting offers the opportunity to appreciate buildings that disappeared within a few decades and, more generally, a representation of the political and religious power of Palermo at the beginning of the 18th-century, from a figurative point of view, it reveals several levels of interpretation.

The several digital applications, aimed at freeing the streets from the procession, breaking down the building fronts into individual components, and isolating the ephemeral micro-architectures, highlight the layered structure of the painting and enhance the properties and relationships between the different components. In this sense, the painting can be interpreted as the result of a sophisticated process that comports five stages, at least:

1. selecting the buildings out of the many monuments and architectures in Palermo;
2. ordering them according to their contingent importance and mutual relationship;
3. orientating them with respect to their most significant facade (generally the one along the most important street);
4. arranging them along four fictitious streets or four sections of a single virtual street;
5. finally, changing their proportions in order to have all the palaces roofs aligned and all the churches just a bit taller. While the perspective has the effect to have the closer facades looking bigger then the farer ones, this final correction has the consequence to give all the buildings the same importance, to highlight the hierarchical superiority of Church and, together with the homologating color and material, to provide an image of order and control of Palermo and, indirectly, of an efficient governance.

The process here described resembles the procedure and sketches made by the Russian director Sergei Eisenstein when describing the cinematographic montage (Eisenstein, Montani 2001) as well as the "copy-and-paste" practices of digital photomontages (Fig. 14). After all, the procession guides the gazes of the observer along the fictional streets as Walt Disney's camera would do along the background of an animated movie. This choreographic process appears perfectly adequate, and possibly suggested, by the urban context transfigured by the ephemeral structures of the feast itself, capable of transforming the experience of the city into an event out of time and space.

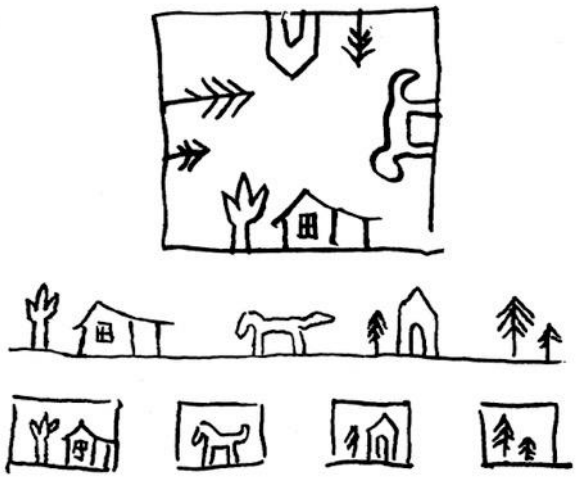

Fig. 14: Sergei Eisenstein, Illustration of a drawing by David Burliuk, decomposition and reframing of the elements, 1947. Eisenstein, Montani 2001.

5. Conclusion

The celebrations arranged by people of Palermo for saint Rosalia meant an event of communion, participation, and creativity. They cyclically transformed the centers of aristocratic, civic and religious power as well as the public space around them into magical, mutable places, leaving the rest of the city as a sort of *ridotto* around the stage. From this point of view, in the course of the various editions of the fest, the ephemeral architecture embodied by the many processional machines was able to question and articulate the motifs of the existing city, by either redesigning them or contrasting them. In this continuous critical agency, which was presumed to address the future work of artists and administrators, the ephemeral architecture provided a collective, virtual world of ideas and dreams with the opportunity to come true and enter the world of reality.

Quite in an analogous way, the application of Digital Heritage to descriptions and iconographic documents, here developed on a range of procedures from scientific reconstruction to visual retouching and illustration, were designed to cross the threshold between memory and present.

The multimedia products set up on this occasion are just an attempt to demonstrate not only the potentials and opportunity to interrogate textual and iconographic documents through digital tools but also the need to do it in order to translate the past and disseminate knowledge, linked to secular urban customs and rituals, which witness the idea of the city and its spaces as a collective, inclusive, and dynamic work.

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