

Images and Imagination in the *Narrazione Delle Solenni Reali Feste*[†]

Vincenzo Cirillo

Dipartimento di Architettura e Disegno Industriale, Università degli Studi della Campania Luigi Vanvitelli, Aversa CE 81031, Italy; vincenzo.cirillo@unicampania.it

[†] Presented at the International and Interdisciplinary Conference IMMAGINI? Image and Imagination between Representation, Communication, Education and Psychology, Brixen, Italy, 27–28 November 2017.

Published: 16 November 2017

Abstract: Through the drawing's disciplinary, the paper investigates the images attached in the *Narrazione delle solenni Reali Feste* ... held in Naples (1749) and returns, through 'other' images (here for the first time composed) a tour of real space, referring the architectural and urban spaces where took place the festivities to a synthesis table which shows the time program. Also; starting with the textual description and with the drawing in plant and section; and by a conversion in meters of the dimensions indicated in Neapolitan palms; the modeling and subsequent visualization of the pyrotechnic machine is returned. Then it was contextualized in *Largo di Castello*.

Keywords: drawing; representation; visualization; images; ephemeral apparatus

1. Introduction

In November 1747, were celebrated the solemn celebrations for the Filippo's birth of Philip, the firstborn of Charles of Bourbon and Amalia of Saxony, born after five females, of whom three disappeared prematurely. This event is described in the volume entitled the *Narrazione delle solenni Reali Feste fatte celebrare in Napoli da sua Maestà il Re delle Due Sicilie Carlo Infante di Spagna, Duca di Parma, Piacenza &c. &c. per la nascita del suo primogenito Filippo Real Principe delle Due Sicilie* [1] (frontispiece), published in Rome in 1749.

The solemn celebrations celebrate the long-awaited monarchical stability with the birth of Prince Philip and they give back an 'image' of the city of Naples which, during the '700 was the destination of the better Italian and foreign nobility that from [...] more remote countries they went to admire the pomp of these shows [1] (p. 4–5). In this sense, this episode can be placed in the broadest panorama for the creation of ephemeral apparatus that was widely used in '700 Neapolitan [2].

On this occasion, the King ordered that in Naples occurred sumptuous celebrations which be worthy of not less than his greatness, than the magnificence of that metropolis, and the splendor of his subjects [1] (p. 4). And so, from November 4, for two consecutive weeks, sumptuous events such as masked dancing parties, banquets, serenades and games were held, which more architectural spaces as the Royal Palace with the annex Largo di Palazzo, the Real Theater of San Carlo, Castel Nuovo and Largo di Castello [3].

The drawings of the theatrical machines set up in these spaces are included in the *Narrazione* and are the work of the set-designer Vincenzo Re (1695–1762), assistant of Pietro Righini at the Real Theater of San Carlo and who will replace his from 1740 [4] (p. 247).

The *Narrazione* is divided into two parts. The first part (about one-third of the volume) is the subject of the literal festivities description, anticipated by the detailed exhibition of the celebrations program, divided into fifteen days including date, event and place. This program is returned here with a synthesis image in the form of brochures or flyers drawing by writers (Figure 1). In the activities program are also planned rest days, Tuesday and Friday. This specific choice alludes to

another image of the city of Naples, this time of the conceptual type and linked to the spirituality and superstition which according to an old popular saying, in Venus and Mars they don't marry and don't depart, and they aren't days for beginning the Art. After the description of the events program, the *Narrazione* gets into the heart of each day event description. The tale in the book completely immerses the reader in the reading, sparking an ever-arousing an increasing imagination [5] for the accuracy and meticulousness of all the architectural, figurative and ornamental elements described: rooms staged by long golden 'dammaschi', on which are depicted white ornamental motifs; dames adorned with their most precious clothes, covered with gold coins and gems of great value; sparkling lights and vases of beautiful manufacturing, placed on columns from which are engraved velvet pendants that enclose mirrors of fine golden carving; etc.

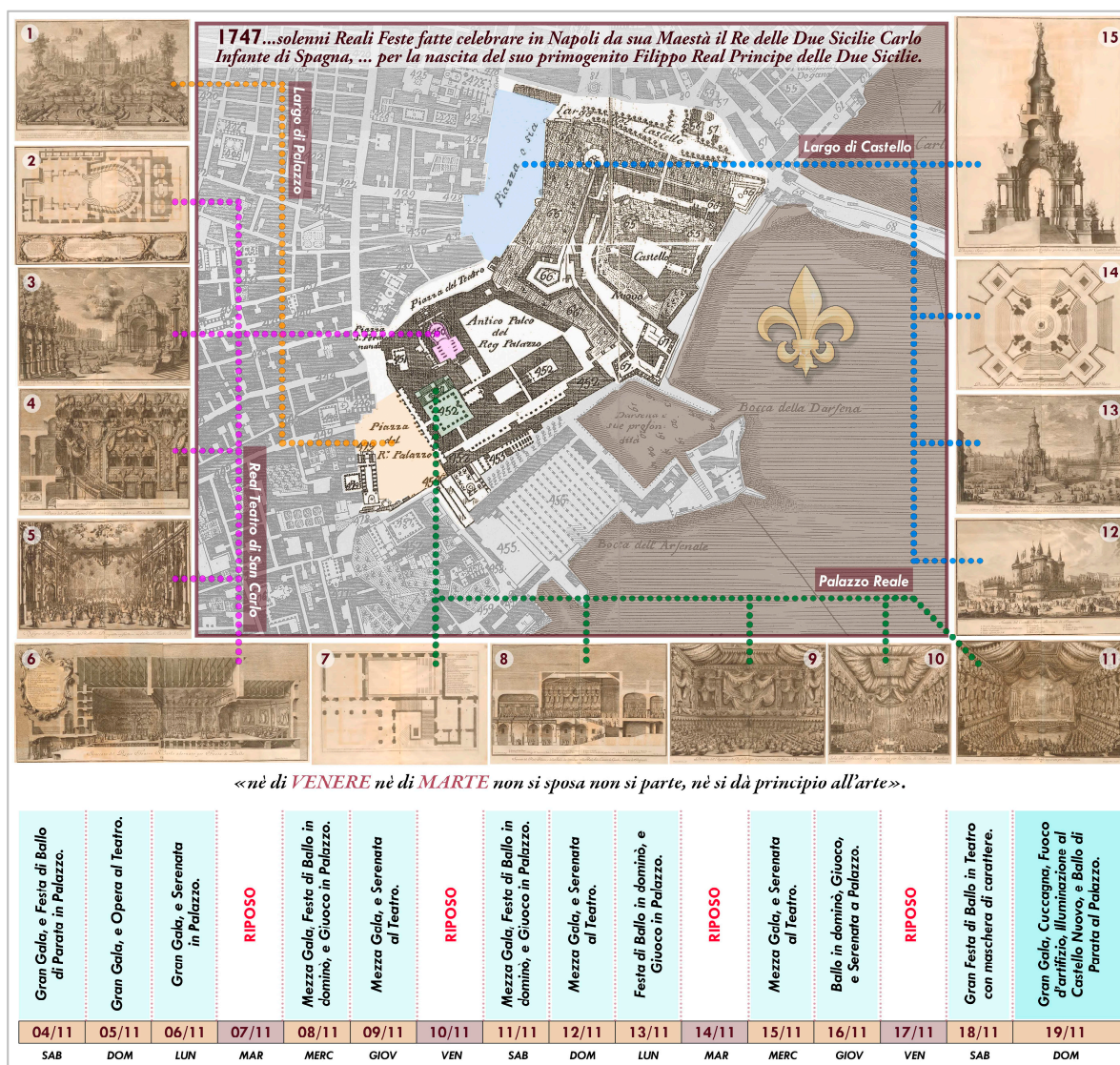


Figure 1. Conceptual map of events and places of solemn Royal Celebrations in Naples... (drawing by V. Cirillo).

But for the author of *Narrazione*, the mere 'mental' imagination induced in the reader is not enough. Every single day, even if described with details, is accompanied by drawings; 'images', which illustrate with a visual summary the event of that day. In this sense, the fantasy of imagination is accompanied by a series of real images or drawings.

The second part of the *Narrazione* (about two-thirds of the volume) is therefore exclusively made up of visual images who Vincenzo Re 'invented' and 'outlined' and who Angelo Guiducci, Giuseppe Vasi, Francesco Polanzani, Nicolas Henri Jardin and Luigi Le Lorrain engraved. These 'images',

mentioned by the author of the *Narrazione* as ‘tables’ or ‘notes’, are all accompanied by a designation that shows in plant view, cross-section or perspective every space of the celebrations, always animated by the guests. The ‘images’ exhibited are: The Royal Palace spaces map (which used to set up the celebration); the Royal Palace apparatus (which served as a stage for dancing); the decorations of the Court Theater; plant, cross-section, and front of the Real Theater of San Carlo (where the masked dancing was held); the ‘Cuccagna’ and the big pyrotechnic machine (sets up, respectively, in the Largo di Palazzo and Largo di Castello).

The fact that the *Narrazione* of the festivities is made up of written parts and drawn tables induces to reflect on the relationship between subjectivity and objectivity of the imagination with respect to different forms of representation of the same data [6]. There is no doubt which the literal description can generate a multiplicity of ‘mental images’ of a subjective nature, linked to the culture and sensitivity of the reader; conversely, the ‘drawn’ image reduces the subjective effect conditioning the reader’s imagination into a description of the facts that should be more objective. However, reading the *Narrazione* and comparing the written texts and drawings, there was often a certain margin of ambiguity between the richness of literary descriptions and a more synthetic graphic representation which, even though being conspicuous, does not cover the entire program of events. In this sense, the virtual reconstruction project of these spaces through the digital modeling and subsequent visualization, conducted here by the writers for the first time, has not been devoid of any further interpretations of the reported facts, both in relation to written texts and drawings which, in the form of plants, cross-sections, fronts, assonometries and perspectives, return metric, architectural and figurative information on the apparatuses of the ‘solemn festivities’.

2. The Representation of the Rooms and the Festivities Places

In the *Narrazione* the rich literary description is accompanied by the iconographic one and it is a guide to the knowledge of the main places used to celebrate the births of Philip, the first male son of Charles of Bourbon. In this sense, the literary work combined with visual image production are in a wider iconographic production that characterized the description and the historical representation of the ephemeral apparatus produced in the city of Naples and in the cities of its kingdom, especially in the ‘700.

The fifteen images which shows the different spaces of the festivals resume and continue the use to document the great celebrations organized by the sovereign as those for the Fair of *Real Marriage* (1738) [7] and for the celebrations of the firstborn Maria Isabella (1740) [8], both organized by the architect Ferdinando Sanfelice.

The images contained in the *Narrazione* stand out for different representation type: plants, cross-sections, accidental and central perspectives, section-perspectives. Starting an analysis of the geometric representation methods through which images are drawn, it is particularly interesting here to compare the Tavv. I and VIII, respectively the *Part of the Palace that served the festivities* [1] (pp. 28–29) and *cross-section of the Real Palace, and the staircase which introducing into the Real Room, the Games Rooms, and Refreshment room* [1] (pp. 52–53), elaborated in orthogonal projection and representing in plant and section the portion of the Royal Palace used for celebrations (Figure 2A).

The plant shows the second level of the Royal Palace, while, watching well, the altimetric cross-section corresponds, for the first level, to the ground floor (A-A’); for the second, on the first floor (B-B’). In this sense, the plan of the altimetric section is not the one but it assembles two different projections; in addition, the section plan for the first floor also has a bayonet course. This implies that the intent of the illustrator was not the correct application of the geometric method but the construction of a conceptual image capable to displaying the itinerary path for to access to the *Real Room* from the entrance to the ground floor at the Royal Palace; so that in the plan (which representing the first floor) is used a graphic symbol recalled in the legend is used to indicate the entrance-hall of the ground floor (Figure 2B).

Referring to the legend attached to the plant, the path to access the *Real Room*, starting from the main entrance and the courtyard (+, A) through the Royal Staircase (B), led to the first floor to enter in the Dancing Room. For the occasion was closed the usual access door (D). According to festivities

organizers, the lateral position of this access (still in place) would not have induced the guests as amazed as that of a frontal access to the principal room. Therefore, was opened the door (G) between the *Real Room* (E) and the *Anteroom* (H), with access, the latter, from the next door (K). Through a passage (L), near the wall of the theater (F) had access to the rooms for sweets and refreshments (N, O).

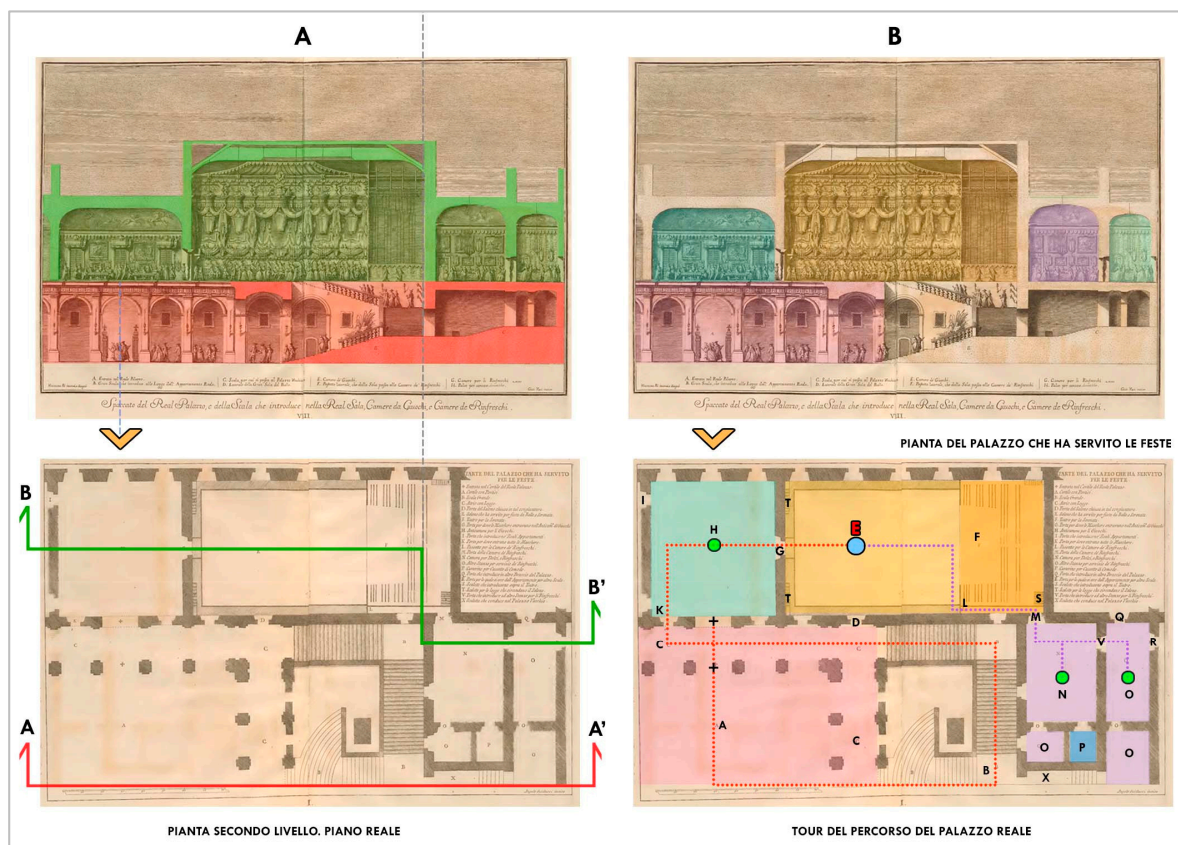


Figure 2. (A,B) Graphical analysis of spaces and access path to the *Real Room* in the Royal Palace (drawing by Vincenzo Cirillo).

A large group of images is built using the perspective. The central perspective is used for the representation of the room in the Royal Palace, while for urban views, the accidental perspective, except for the *Cuccagna*, is also displayed in central perspective. The reasons seem attributable to the specific nature of the different character of the depicted space. Indeed, where there are bilateral symmetry systems (the Dance Room and the Cockaigne apparatus), this spatial configuration is reinforced using the central perspective. In the case of urban contexts which are articulated in their space, however, the accidental perspective is used.

Specifically, the central perspective images which show the dance room in a longitudinal direction are Tavv. II, III and V: *First Parade Dancing* [1] (pp. 32–33), facing to the access door (Figure 3A); *The Dance in Mask* [1] (pp. 36–37), towards the theater scene (Figure 3B); *Dance Room sets up for the Serenade*, still towards the theater scene but adorned in different way so as to cause remarkable amazement in the guests (Figure 3C). The *Serenade*, entitled *The Dream of Olimpia*, was accompanied by a *Choir of Musicians* and the drawing of the theatrical scene that served as a background for serenade is represented in Table VI of the *Narrazione*.

All the images of this room give the magnificence of the work by Vincenzo Re, real stage designer of the Real Theater of San Carlo. The room walls were covered by long *golden dags* alternated with white drapery strips and *flowers of various shapes*, which (the author notes) thanks to their perfect arrangement seemed like composite pillars. Above the capitals were large vases, and in the center, there were huge mirrors all *surrounded by fine golden carvings*. After dancing in the celebrated in the room, the participants could rest with sumptuous banquets prepared in the adjacent rooms. The

choice to make two views for the same room has a dual purpose. They wanted to highlight not only the architectural elements and the rich scenery that surrounded it, but above all the most significant points of view. The first image places in the center the presence of the majesty with three large decorated chairs (Figure 3A). The second, however, shows like stage scenery, a staging by *amphitheater* shape, accessible through a large staircase, on which were the bigger musicians of *any possible instrument* dressed in pink and turquoise and garnished with elements of silver; above them was an enormous velvet drawer with gold embroideries (Figure 3B).

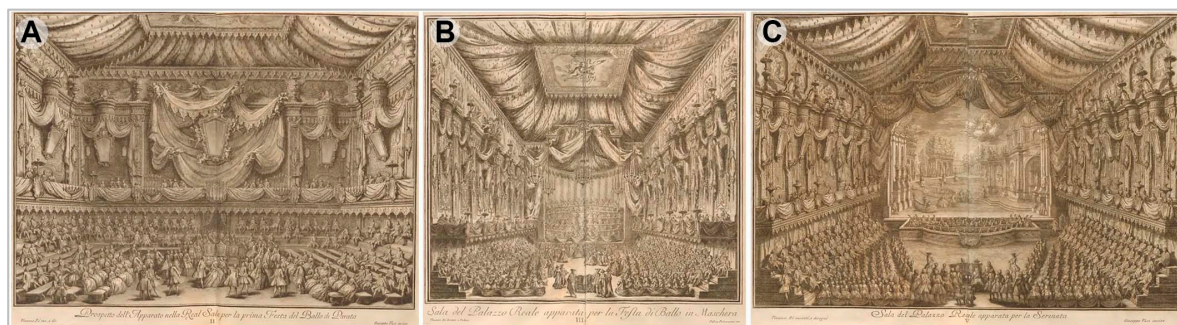


Figure 3. (A,B,C) ‘Apparatus’ for Dance party and Serenades (Tavv II-III; IV).

Illumination was another significant project component: huge crystal luminaires; perimeter walls supporting small lit torches; golden mirrors that reflected the light, helping to create a floating atmosphere; lumens arranged neatly that *did not produce any confusion, but they well pleased the view of the guests* [1] (p. 7). This bright image was so impressive that it was imprinted in the memories of the participants to the point that this event was remembered as that of the ‘sparkling hall’.

Another place used to celebrate the festivities was the Real Theater of San Carlo, inaugurated by the same King ten years ago and where was replicated on Thursday 9th the *Serenade*, which had taken place a few days earlier in the Royal Palace Room. This event was in fact very successful so that the King wanted to replicate it in his Royal Theater, providing his free access.

The events described were repeated on alternate days until the 18th day when the Real Theater of San Carlo was organized as the predominant event of all the solemn festivals, the most sumptuous and splendid event ever seen or the *Great Dance Character Party* or in Mask. On this occasion, the theater was divided into two parts: in one there were the knights and dames of nobility; in the other, the people took part.

This event organized in the Theater of San Carlo also became part of the collective Parthenopean imagery. For the evening of the 18th there was a great even more outstanding scene of the Theater itself. Huge wooden bows were surmounted by enormous velvety drapes that contained, for three rows in height and three in width, the audience’s platform. Between an arch and another there were pillars, which had the same size of the same platform. At the top there were enormous mirrors, and enormous ‘lumiere’ were placed along the same pillars. The theater on this occasion was illuminated as *the light of day*. With this narration, the author gives imagines of the evocative atmosphere created by the blend of all these reflective elements (mirrors, golden carvings, lumiere, candles, jewels, precious stones).

For the representation of the images which shown the Real Theater of San Carlo, the set designer has used several geometric representation methods (Figure 4). The first theater image (Table IV) is the plant in which all the specifications are listed in the legend. The second (Table VI) is a perspective section in which all theater venues set up for the *Great Dance* are meticulously described. In the third (Table IX) there are two section-prospects: on the left, the entrance to the theater is visible; to the right, the prospect of richly arranged stages and half the real stage. This elaborate represents an explained projection of the curvilinear space of the stalls. The last picture (Table X) depicts the scene of the *Great Dance in Mask* according to the geometric method of the central perspective.

On Sunday, November 19th, the solemn feasts took on an urban dimension. The Largo di Palazzo saw the presence of a Cockaigne, as large as the square that, built on four levels, was covered

with all kinds of food and equipped with water and wine fountains (Figure 5A). The Cockaigne, as a ritual, was plundered by the people after the festivities. Finally, at Largo di Castello, an *Artificial Fire Machine* was set up at the end of all celebrations (Figure 5B,C).

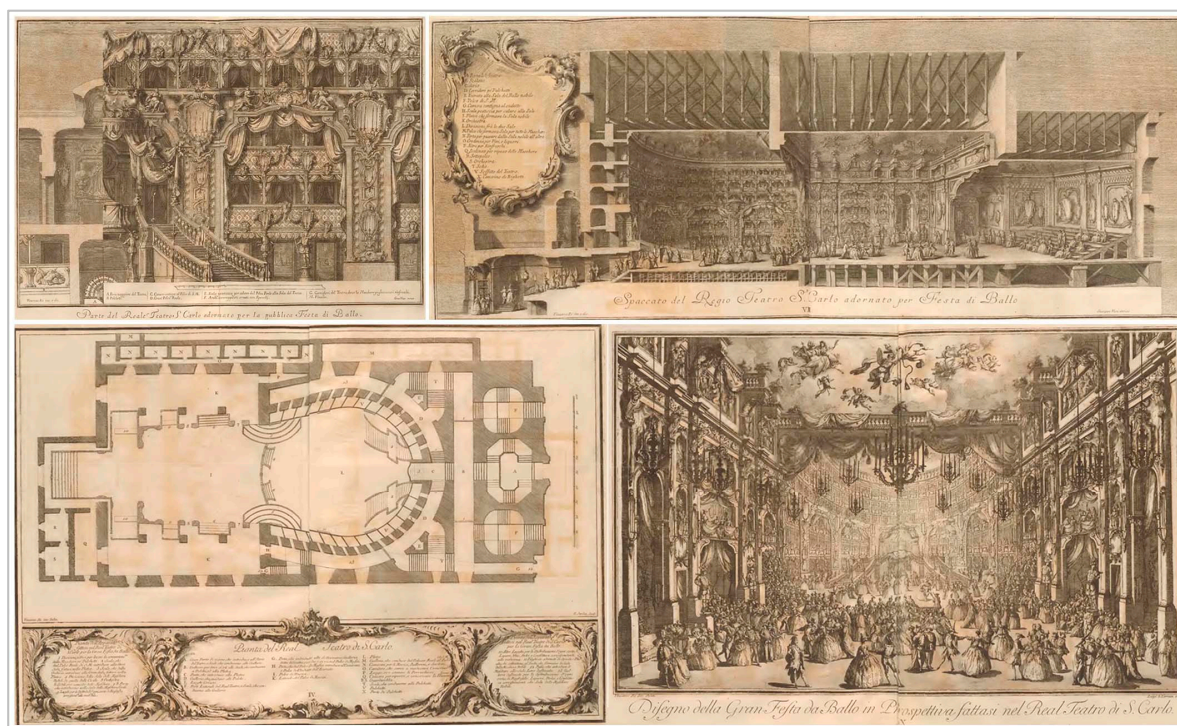


Figure 4. Plant and drawings of the Real Theater of San Carlo adorned for the Dance party (Tavv V, IX–XI).

The pyrotechnic machine had in plant an octagonal matrix. Along the main crossing axis there were two access ramps leading to the center of the structure. Nearly four of the eight sides of the octagon were joined four squares protruding from the octagon of reference, which served to accommodate the bases on which statues were placed (Figure 5D).

The pyrotechnic machine internal structure consisted of four bearing elements, arranged along the 45° axes, which inside were placed winding staircase to reach the upper level overlooking the square bases. Between the four bearing elements, four arches were opened, which, being along a cylindrical surface, were curves of the fourth order. A high circular tambour and curvilinear section joined the carriers to the top. Overall, the pyrotechnic machine was very impressive with its largest plant of 200 Neapolitan Palm (about 53 m) and in height 240 (about 63 m).

3. Visualization of the *Macchina del Fuoco d'Artificio* in Largo di Castello

The digital model visualization corresponding to the *Artificial Fire Machine* has been made through a conversion to the dimensions of the 'neapolitan palms' shown in the drawings contained in the *Narrazione*. Using digital drawing, through a reverse-conceptual operation and *modeling* and *rendering* techniques [9] was generated virtual images (raster) of the pyrotechnic machine [10].

Specifically, the *modeling* construction of the geometric model [11] of the pyrotechnic machine has served as a basis for *rendering* architectural views carefully chosen to simulate perceptual adherence to reality. In this sense, the restitution phase here was the 'putting in shape' of images of the pyrotechnic model attached to the *Narrazione*, each of which is constructed in function of the position of the point of view and according to the specifics to communicated [12].

The possibility to represent the three-dimensional model of a pyrotechnic machine finds reason in the presence of the technical drawings in the *Narrazione* (plan and section-front), which allow to draw metric and geometric data of the architectural organism in question.

The creation of new images has been structured in such a way as to give distinctly scenes created with a man-height observation direction and top-level urban images [13].

The reference to the different geometric construction [14] for imaging was intentionally oriented to better represent the event. In addition, integration between images created ex-novo (three-dimensional model of the pyrotechnic machine) and existing images of the city of Naples were used, such as iconographic sources representing the Largo del Castello.

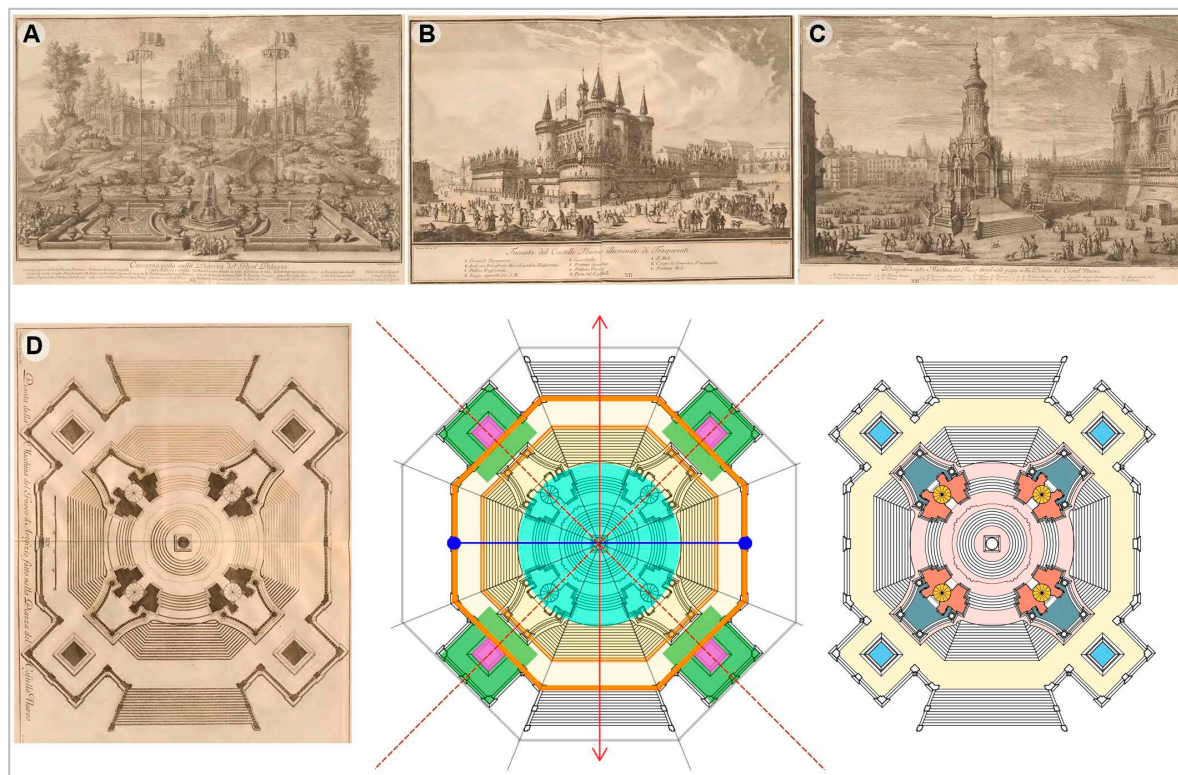


Figure 5. (A) *Cuccagna*; (B) *Castel Nuovo*; (C) *Artificial Fire Machine*; (D) *Geometric-Configuration Analysis of Pyrotechnic Plant* (drawing by V. Cirillo).

The first prospective image (Figure 6) shows a possible view of the pyrotechnic machine built at the man height and, therefore, given its remarkable height (about 63 m) and the reduced visual viewing angle, the architectural organism is not taken in its entirety. Thanks to the historical iconographic documentation of Largo del Castello, it was then possible to contextualize the machine in the urban area, placing the Vesuvio profile and the front of Castel Nuovo in an appropriate scale ratio [15]. The next graphic operation was to place of the pyrotechnic machine plant in the *Mappa topografica della città di Napoli e de suoi contorni* by Giovanni Carafa Duca di Noja (images 11 and 18), according to a similar scale, edited in 1775, but, as it is known, it was written around 1750 and therefore near to the time of solemn celebrations (1747) (Figure 7). The machine placement took place by observing and analyzing the *Perspective of the Artificial Fire Machine, located in the Piazza del Castel Nuovo* (Table XIII), contained in the *Narrazione*, with the pictorial work by Antonio Joli of 1757 representing the square on a carnival from the same point of view (Figure 8). Based on these documents, it is assumed that the pyrotechnic machine could have been located at a point of the Largo, next to the current Santa Brigida Street, to allow (through the coaxiality of the arches of the pyrotechnic machine on the aforesaid road) to catch from Via Toledo the scenic machine and part of the Castel Nuovo front [16].

The urban scale image was built by placing the digital model of the pyrotechnic machine in an eighteenth-century reconstruction of the Naples city by the *Pixel '06* Association [17], which shows the area of the Castel Nuovo fortified citadel with a high viewpoint [18]. The insertion of the pyrotechnic machine was carried out using a single color (given the insufficiency of sources for a possible machine color hypothesis) and using allusive graphic fire effects, luminaries (located along

the castle battlements) and the light pyramids (located on the towers of the same to provide the square of an immense light) (Figure 9).

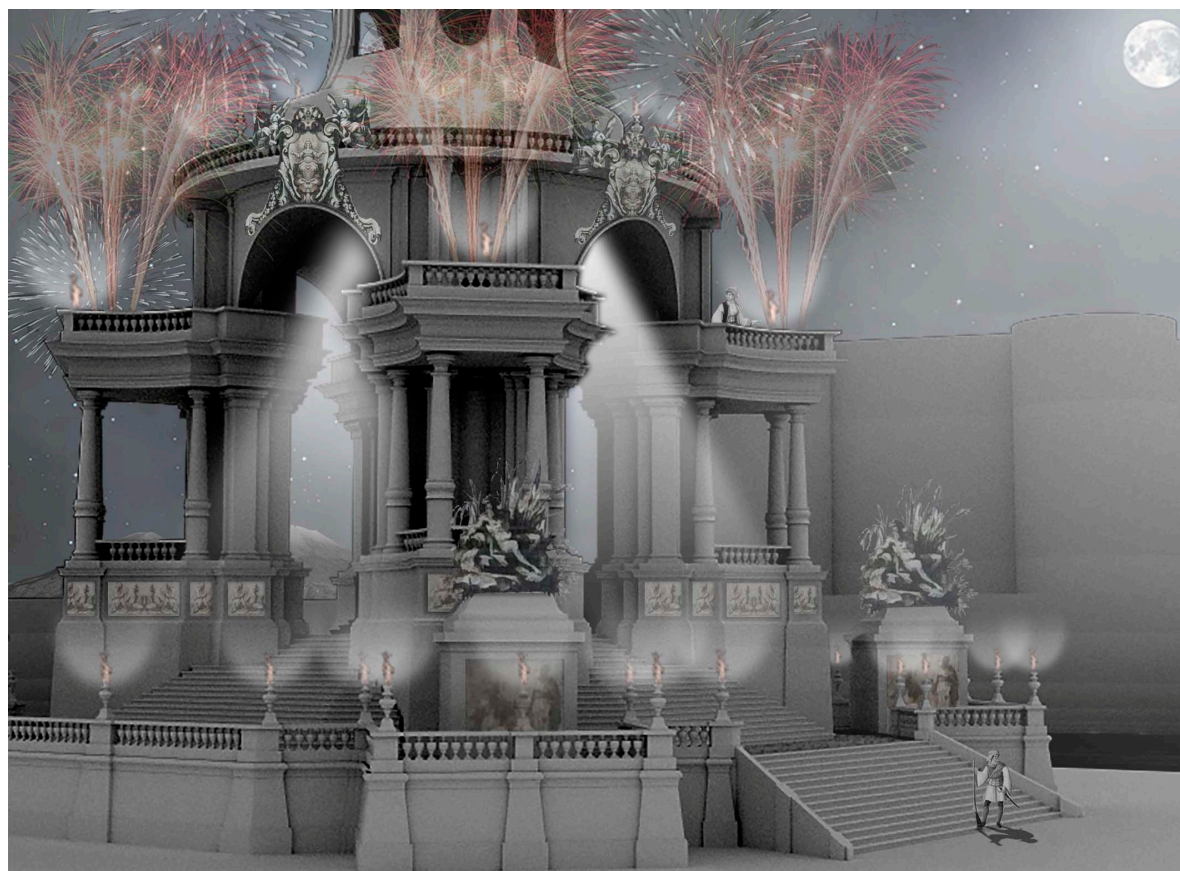


Figure 6. Visualization of the *Firework Machine* from the San Carlo Theater (drawing by V. Cirillo).

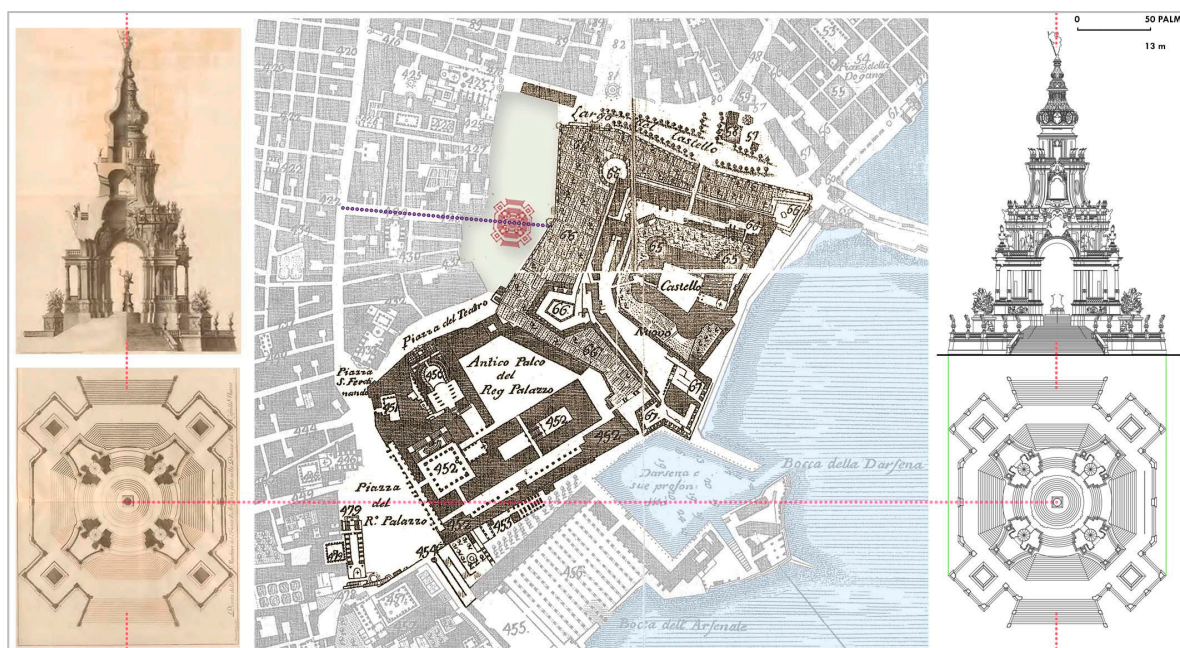


Figure 7. Pyrotechnic machine plant inserted in the Mappa del Duca di Noja (drawing by V. Cirillo).

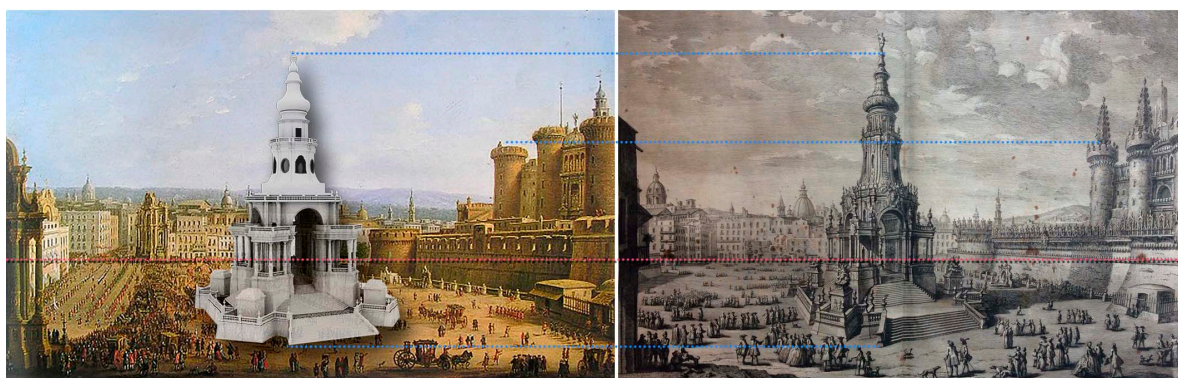


Figure 8. Insertion of the pyrotechnic machine into Joli and comparison with Table XIII (drawing by V. Cirillo).

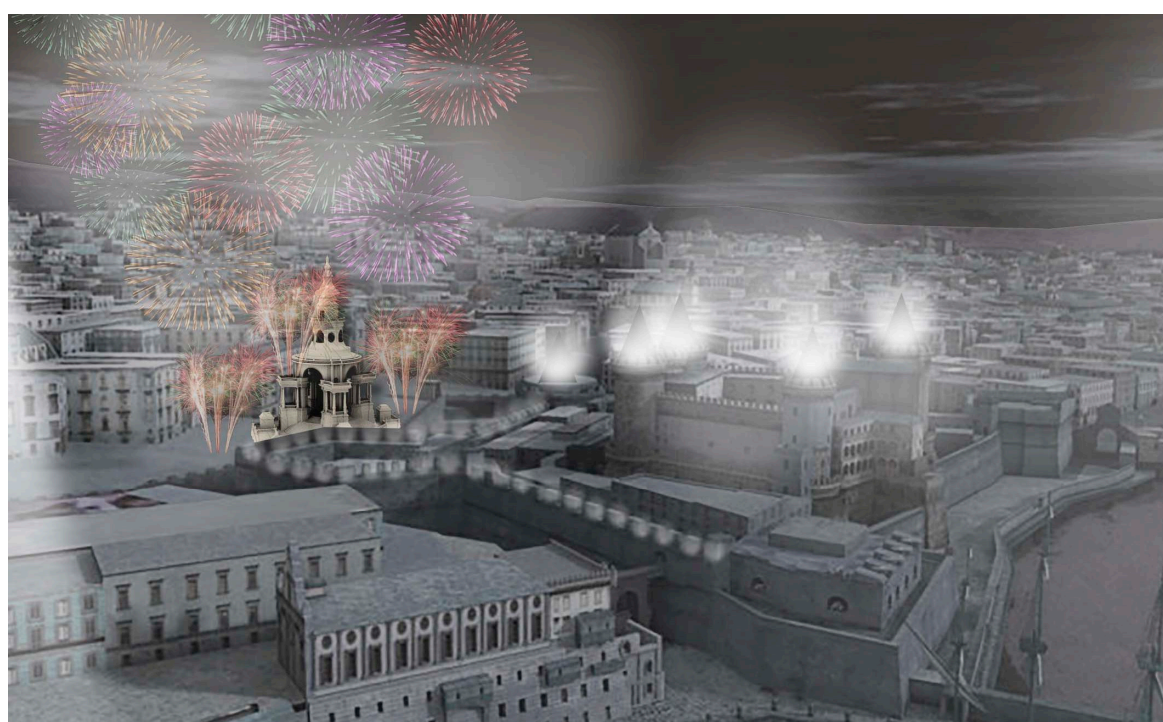


Figure 9. Pyrotechnic machine digital model in an eighteenth-century reconstruction (drawing by V. Cirillo).

4. Conclusions

This contribution is part of the ephemeral architecture studies, which characterized the city of Naples in the 18th century, and is part of a larger personal research that has already produced in 2017 more results in the investigation on the *Breve ragguaglio della rinomata fiera che sotto la direzione di D. Ferdinando Sanfelice si celebrò nel mese di luglio dell'anno 1738 in occasione del real matrimonio del nostro Re D. Carlo Borbone; dedicato agli eccellentissimi eletti della fedelissima città di Napoli* (1738) [19], while it is still underway by who write the investigation on the analysis of the *Relazione delle Feste Fattesi in Napoli per la nascita della Ser. Reale Infanta Delle due Sicilie* (1740).

Contrary to the modeling and three-dimensional visualization necessary to better understand (and to make it understood) the architectural and urban space of the Fair in the absence of a allusive images of the fair three-dimensionality, in the *Narrazione delle solenni Reali Feste [...] per la nascita del suo primogenito Filippo Real Principe delle Due Sicilie* of the 1747, the iconographic apparatus show 15 images which most are in perspective or in cross-sections that, more than return the metric data, are concerned with the perceptual aspect.

The iconographic apparatus of the *Narrazione* accompanies the reader to understanding the events not only through reading the text, but above all through the vision of these images, which in some cases also fulfill a conceptual map rather than a technical elaboration. In addition, many of the events are represented in their urban contexts. In this sense, the results obtained with this graphic analysis and image building ex-novo are the cultural contextualization of the representation modes used (including derogations to the geometric rule), and the return of a three-dimensional digital model to be understood what stage of a further study aimed at verifying the new virtual representation technologies in the service of cultural tourism [20]. The aim is to make the drawing ‘immersive’ for the new visitor to perceive and imagine in 360° the images of ‘700 Neapolitan and in the virtual and real contexts [21].

Acknowledgments: This research was supported supported by the professor Ornella Zerlenga (Università degli Studi della Campania Luigi Vanvitelli) who provided insight and expertise that greatly assisted the research.

Conflicts of Interest: The authors declares no conflict of interest

References

1. Rè, V.; Vasi, G. *Narrazione Delle Solenni Reali Feste: Fatte Celebrare in Napoli da sua Maestà il Re Delle Due Sicilie Carlo Infante di Spagna, Duca di Parma, Piacenza &c. &c. per la Nascita del suo Primogenito Filippo Real Principe Delle Due Sicilie*; Stamperia Reale: Roma, Italy, 1749.
2. Mancini, F. *Feste ed Apparati Civili e Religiosi in Napoli dal Viceregno alla Capitale Raccolti, Commentati e Descritti da Franco Mancini*; Edizioni Scientifiche Italiane: Napoli, Italy, 1968; ISBN 10: 8881145987.
3. Mancini, F. Il ‘trucco’ urbano: apparati e scenografie tra finzione e realtà. In *Spinosa, N. In Civiltà del ‘700 a Napoli 1734–1799*; Centro Di: Firenze, Italy, 1980; pp. 302–370; ISBN 10 8870380106.
4. Soprintendenza beni ambientali architettonici di Napoli. *Capolavori in Festa: Effimero Barocco a Largo di Palazzo*; Electa Napoli: Napoli, Italy, 1997.
5. Rak, M. *A Dismisura D’uomo. Feste e Spettacoli del Barocco Napoletano*. Duepunti Edizioni: Palermo, Italy, 2012; ISBN: 9788889987834.
6. Zerlenga, O. *Dalla Grafica All’infografica. Nuove Frontiere Della Rappresentazione nel Progetto di Prodotto e di Comunicazione*; Claudio Grenzi Editore: Foggia, Italy, 2007; pp. 69–79; ISBN 978-88-8431-247-1.
7. *Breve Ragguaglio Della Rinomata Fiera che Sotto la Direzione di D. Ferdinando Sanfelice Cavalier Napoletano si Celebrò nel Mese di Luglio Dell’anno 1738*; Stamperia di Francesco Ricciardo: Napoli, Italy, 1738.
8. *Relazione delle Feste Fattesi in Napoli per la nascita della Ser. Reale Infanta Delle due Sicilie*; Francesco Ricciardo Impressore del Real Palazzo: Napoli, Italy, 1740.
9. Brusaporci, S. Modelli digitali per la rappresentazione dell’architettura. *Disegnarecon* **2011**, *4*, doi:10.6092/issn.1828-5961/2575.
10. de Rubertis, R. *Il Disegno Dell’architettura*; La Nuova Italia Scientifica: Roma, Italy, 1994; p. 260, ISBN 978-88-430-0272-4.
11. Migliari, R. *Geometria dei Modelli. Rappresentazione Grafica e Informatica per L’architettura e il Design*; Kappa: Roma, Italy, 2003; p. 312, ISBN 978-88-7890-512-2.
12. Negro Ponte, N. *Essere Digitali*; Sperling & Kupfer: Milano, Italy, 2004; ISBN 10 8820020041.
13. Purini, F. Digital Divide. In *Architettura e Cultura Digitale*; Sacchi, L., Unali, M., Eds.; Skira: Milano, Italy, 2003; pp. 90–91, ISBN 88-8491-408-6.
14. Zerlenga, O. *Rappresentazione Geometrica e Gestione Informatica dei Modelli*; La scuola di Pitagora: Napoli, Italy, 2008; ISBN 978-88-89579-56-5.
15. Filangieri, R. *Castel Nuovo. Reggia angioina ed aragonese di Napoli. L’arte tipografica*; Napoli, 1964; pp. 223–236.
16. B
17. Corriere del Mezzogiorno.it. Available online: http://corrieredelmezzogiorno.corriere.it/fotogallery/campania/2014/02/nuovo_regno_pixel/documentario-storia-napoli-3d-2224064078207.shtml#8 (accessed on 24 July 2017).
18. Ippoliti, E.; Meschini, A. Dal “modello 3D” alla “scena 3D”. Prospettive e opportunità per la valorizzazione. *Disegnarecon* **2010**, *3*, doi:10.6092/issn.1828-5961/2083.

19. Cirillo, V. Riflessioni su disegno e visualizzazione della Fiera del 1738 a Napoli. *Eikonocity* **2017**, *2*, 101–118, doi:10.6092/2499-1422/5088.
20. Granelli, A. Le nuove frontiere della fruizione: prime riflessioni per una metodologia per progettare l'esperienza culturale. In *(Re)design del territorio*; Fondazione Italia, Palombi: Roma, Italy, 2010; pp. 64–67, ISBN 978-88-95540-04-7.
21. Unali, M. *Atlante Dell'abitare Virtuale: Il Disegno Della Città Virtuale, fra Ricerca e Didattica*; Gangemi Editore: Roma, Italy, 2016; pp. 27–45, ISBN 978-88-492-9865-9.



© 2017 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).