







From Survey to Graphical Analysis of the Monumental Entrance to the Verano Cemetery in Rome

Piero Barlozzini¹ , Laura Carnevali² , and Fabio Lanfranchi²  

¹ Department of Biosciences and Territory, University of Molise, Campobasso, Italy
piero.barlozzini@unimol.it

² Department of History, Drawing and Representation of Architecture, Sapienza Università di
Roma, Rome, Italy
fabio.lanfranchi@uniroma1.it

Abstract. This contribution describes the results of graphical analysis conducted on the monumental entrance to the Verano Cemetery in Rome, which was designed in the first half of the 1800s by Virginio Vespignani and finished around 1875 by the architect Agostino Mercandetti. The building, designed as an integral part of the architectural complex composed of the four-sided portico and the Church of Santa Maria della Misericordia, differs stylistically from a layout based on Renaissance Revival compositional canons, instead favouring a magniloquent symbolic allusive monumentality. The original centre of the Verano Cemetery was the object of studies conducted especially in the area of art history and architecture. Nevertheless, the substantial absence of specific design documentation and the objectively low reliability of the available documentary material, which almost exclusively regards the general layout, have not as yet enabled specific targeted investigations of the geometric-proportional aspects of the individual buildings. Following a series of survey campaigns, a body of drawings was organized, complete with all the representations useful for analysing the building system in question. With the geometric reasoning of classical and archaeological origin characterizing the work of Virginio Vespignani, the design/drawing of the monumental entrance to the Verano Cemetery is associated with a desire for an expressionist matrix illustrated through the clear evidence of the four “out-of-scale” statues and two towers. These are perfectly assembled in a geometry that, overcoming its own latency, becomes nearly tangible, contributing, like the physically explicit symbols, to the conformation of the perceived image.

Keywords: Verano Cemetery monumental entrance · Graphical analysis · Virginio Vespignani

1 Introduction

1.1 Brief Historical Considerations

The original centre of today’s Campo Verano Cemetery in Rome, composed of the monumental entrance, the four-sided portico (*Quadriportico*) of the Church of Pia Unione,

and the northern area called Pincetto, is based on a project by Virginio Vespignani, who was nominated architect of the complex in 1850. This project led to the completion of a work that began in 1811 with the first project by Giuseppe Valadier and to which numerous illustrious architects, including Pietro Camporese, Gaspare Salvi, and Paolo Belloni, were dedicated. The creation of a cemetery was necessary to comply with the orders of the Extraordinary Council for the Roman States in July 1809, which extended Napoleon's edict forbidding burial within inhabited centres. However, "The Roman artistic environment had already for some time been aware of the problem of the cemetery areas. In 1805, the Accademia di San Luca opened the Concorso Clementino for a cemetery, which was presented again in 1835" [1]. The two calls highlight how the guidelines indicated served as an effective reference in nearly all the projects proposed by the different figures mentioned above. This confirms the cultural influence exerted by the Accademia di San Luca on the contemporary field of art. In effect, "The competitions not only formed an integral part of teaching, but were held on the level of international interaction" [2]. What is expressed is widely confirmed, considering the project design results with respect to the indications in the call of 1835, of which we report only the part related to the entrance area addressed in this discussion. "There will be two rooms for cemetery workers, one for priests and mansionaires, the other for the caretaker and other assistants. These rooms will be located on the square outside the cemetery, to the side and a short distance from the main façade, which should announce with grandeur the importance of this building and conserve in all its parts the character befitting the seriousness and gravity of its use and, as a consequence, the Greek or Roman style from the Age of Augustus is to be adopted" [3].

1.2 The Monumental Entrance to the Verano Cemetery, Background and Goals of the Study

Defining the monumental entrance to the Verano Cemetery, Vincenzo Fontana [4] writes, "the entrance was decorated with four seated colossal statues representing the "healthy thoughts". Two colossal sarcophagi inspired by the ancient sepulchre on Via Cassia, called "the tomb of Nero", frame three deep arches that mark the passage from the city of the living to the city of the dead" (Fig. 1). In effect, the archetypes characterizing the "threshold", or better yet, the "opening" between the cities of the living and the dead fully reflect this description. A "passage" punctuated by four large feminine figures placed on high pedestals presiding over those crossing through the three entrance arches included, protected, and emphasized by the two large arks resting on powerful stone bases. "Here, Vespignani renounces any typological model of reference, adopting an "oversize" dimension that is accentuated by the unattainable nature of the four large figures placed on very high pedestals: a clear expressionist desire that evokes Piranesi, even more evident in the towers that block the entrance arches" [5]. Nineteenth-century cemeteries generally communicated the celebration and memory of people who have passed through eschatological symbolism. "In the Campo Verano Cemetery, symbolic writing styles can be seen on two distinct levels: in addition to the symbols represented in the decorations on private tombs, there is also a series of references in the general layout of the cemetery" [6] as in any building in the first layout, including the entrance. "Our capacity to read and interpret the world with recourse to forms that seem "analogous"

cannot overlook our creativity and inclination to imagine. [...] While in the first case -telling about the existing world- we refer to the “mimetic” aspect of representation, in the second case -when we use our creativity, for example, to design architecture- we apply the immense “poietic” possibilities” [7]. With these premises, the study therefore centered on decoding what cannot always be directly interpreted by reading the form as it is perceived. A careful, cultured interpreter -as Vespignani was, effectively- of harmonious, numerical Pythagorean relationships marking the field of architecture in the classical period was too appetizing a topic to avoid investigation, especially as in this particular case suspended in a dual state of otherness: the terrestrial condition, defined through an architecture pervaded with symbolism, and the existential condition. Following the series of survey campaigns of the entire monumental area carried out over three years starting in 2012, it was possible to render the measurement data even through terrestrial laser scanning (TLS) (Fig. 2). Once the graphical material related to the plans, sections, and elevations was defined, the building was analysed in precise graphical detail. We recall that for this building, as for the Church and four-sided portico, no graphical material was found, especially relating to the elevations. However, with regard to the corpus of plan drawings stored in various archives in Rome, the level of metric/proportional reliability was clearly rather approximate considering the scales with which extended territorial areas were represented.

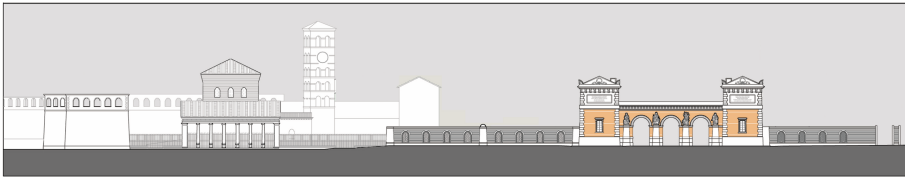


Fig. 1. Western exterior elevation of the entrance area, at right the monumental entrance, at left the Church of San Lorenzo Fuori le Mura. (Graphic prepared by Fabio Lanfranchi).

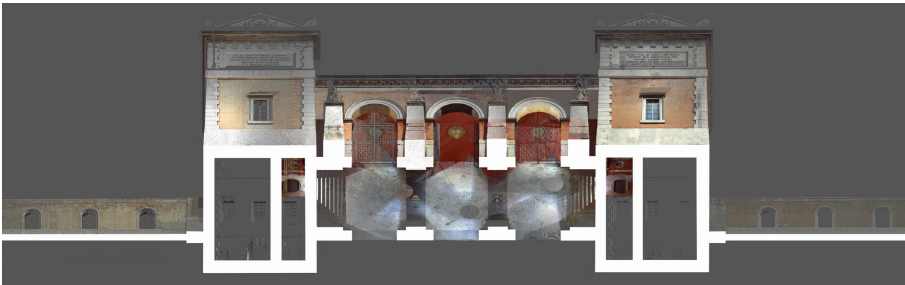


Fig. 2. Monumental entrance to the Verano Cemetery in Rome. Axonometric view from below of the union of the point clouds acquired using TLS. (Graphic prepared by Fabio Lanfranchi).

2 Discourse

2.1 Document Analysis

The entrance to the Verano Cemetery was finished in 1872 under the guidance of Agostino Mercandetti, who was nominated director of the works in 1871 following Vespignani's resignation. The limited availability of original documents and the change in direction during the work did not facilitate "reconstruction" of the design and construction path. From the graphical point of view, the only drawings signed by Vespignani relate to some overall plans stored in the Lanciani Collection at the Biblioteca dell'Istituto di Archeologia e Storia dell'Arte di Roma (BIASA). Dating from the 1950s, the drawings were probably extrapolated from municipal administrative documents. With this type of documentation, it is not possible to deduce the original volumetric conformation. The only useful coeval document in this area is the engraving, "New entrance to the Campo Verano Cemetery", shown in (Fig. 3). The image, published in 1865, may have been engraved following consultation of Vespignani's project. It is interesting to note how the four statues, evidently taken from the designer's drawings, are different from those made following an original competition in 1873 and produced between 1877 and 1878 by Stefano Galletti "Hope", Francesco Fabj Altini "Prayer" and "Meditation", and Giuseppe Blasetti "Silence". In fact, the building today (Fig. 4) is different from the architecture represented in the engraving with regard to both the group of statues and the cornice of the two side elements, which are topped by pyramid hip roofs in the engraving. It is therefore plausible that a modification -which is addressed below- was made by Mercandetti during construction. Another consideration is how the "stylistic emphasis and rhetoric of this celebratory entrance, so far from neoclassical poetry, reflects the new image of the "city of the dead" in the latter 1800s, representing the contemporary eclectic and historicist culture" [9].

2.2 Survey Data Acquisition and Rendering, Metric Analysis

The documentary research was followed by a campaign to acquire measurement data, which was done both directly and indirectly using the total station and laser scanner, followed in turn by a careful rendering phase aimed at organizing a body of drawings complete with all the representations deemed useful for studying the building system. In addition to plans of all levels, the four elevations and main longitudinal and transverse sections were also developed. The first analysis related to the metric investigation. In some of the drawings made by Vespignani in creating the Verano Cemetery, the use of graphical scales expressed with pontifical and metric units of measurement was found. The only drawing referring to the construction of the building is a survey drawing without a graphical scale stored in the BIASA archive. This drawing was made by Vespignani himself; it relates to a survey of the archaeological footprint made in the intersection between the corner of the building situated to the north-east and the cemetery perimeter wall. Nevertheless, no particular relevance of the general measures of the building were found to refer to the pontifical unit of measurement. Rather, finding full correspondence of the measures of "fragments" of building, for example, the length of the front elevations and depth of the central body connecting the two towers were both exactly 10 m, we supposed -albeit with the appropriate caution- that the building may have been designed in metres rather than in rods.



Fig. 3. Monumental entrance to the Verano Cemetery in Rome. New entrance to the Campo Verano Cemetery. Rome, 1863, Aquatint [8].



Fig. 4. Monumental entrance to the Verano Cemetery in Rome. Entrance portico to the Verano Cemetery, anonymous photograph, albumen technique, late 19th century, Source: Archivio Storico Capitolino, no. p. 2384, old marking (CART. III/5).

2.3 Graphical Analysis

Substantial confirmation of what was outlined above emerged by extending the dimensional tests to the elevations. With regard to the side towers, the height from the ground to the top of the acroteria is equal to 16.18 m. The relationship between the measurements of the base and height therefore satisfies the golden ratio (Fig. 5). The superposition of the golden rectangle on the elevations of the two side elements also confirmed how the proportion of the individual parts fully agrees with the geometric logic of the “divine proportion”; the block of the base set on the 10-m square, is added to the area of elevation and cornice, which can in turn be inscribed in a golden rectangle of 10 m × 6.18 m. Once rotated 90° and repeated 4 times, this last module defines the outline of the elevation of the element connecting the towers. It is interesting that the transverse section of this element is perfectly inscribed in a 10 m square (Fig. 6, left). The same is also revealed in the plan with regard to both the connecting block, obviously defined by the aggregation of the four 10 m × 6.18 m modules, which for the lateral blocks is defined by bringing together the 2 modules rotated by 90° (Fig. 7). In this case, as in the elevations of the towers, the golden geometry seems to represent the precise basis of the compositional logic: the intermediate wall is found on the line separating the squares and respective complementary rectangles set side by side. The same can be said of the composition of the side elevations. In this case as well, the definition of the entire profile, as with the geometries of the individual parts (Fig. 6, right) continues to be formulated on a robust logic of aggregating squares and golden rectangles. With regard to the eastern façade, that is, the one facing the interior of the cemetery, the proportions identified above and detailed for the western façade are still valid for the central body. The profiles of the side elements differ, however, which are more developed in height due to the plane of the interior plane, which is 270 cm lower than the exterior plane (Fig. 8). In this case, the base/height ratio corresponds to the harmonic relationship 8:15, coinciding with a dissonant musical interval (major seventh). Architecturally, we cannot see a relationship with the considerations reported above if we exclude the discord in terms of finishing touches. We refer, for example, to the connection of the building to the ground, which is characterized by the strong chiaroscuro plasticity of the stone rustication with respect to the more ethereal polished marble sheets of the exterior. In effect, however, the entrance to the Verano Cemetery integrates Vespignani’s compositional modes to some degree, which are especially present in analogous architectural themes, for example, his activity on some of the gates of Rome. In reconstructing Porta San Pancrazio, for instance, Spagnesi [5] writes, “Vespignani offers a solution rich in symbolic value: access to the city from outside is presented as powerful and protected, while the more elegant and “ornate” part faces the city. Two different schemes therefore contribute to solving the same motive.”

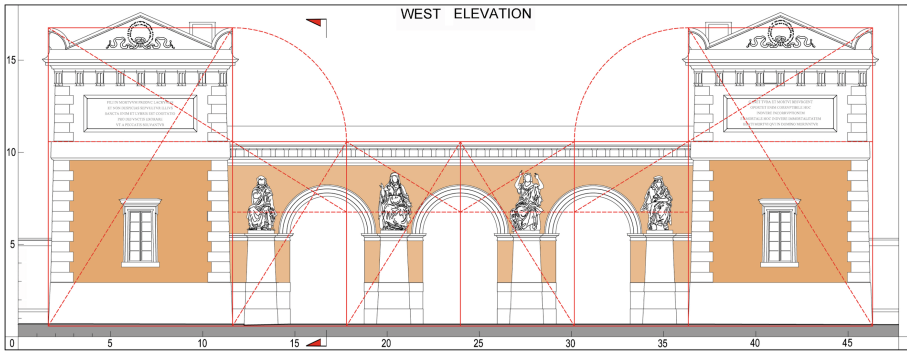


Fig. 5. Monumental entrance to the Verano Cemetery in Rome. Graphical analysis of the western elevation. (Prepared by Fabio Lanfranchi).

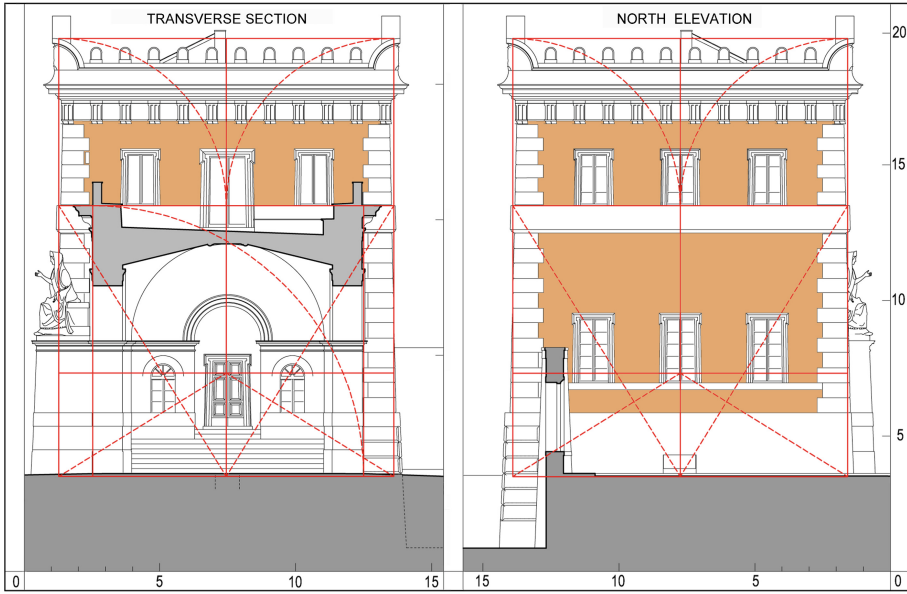


Fig. 6. Monumental entrance to the Verano Cemetery in Rome. Left: graphical analysis of the transverse section. Right: graphical analysis of the northern elevation. (Prepared by Fabio Lanfranchi).

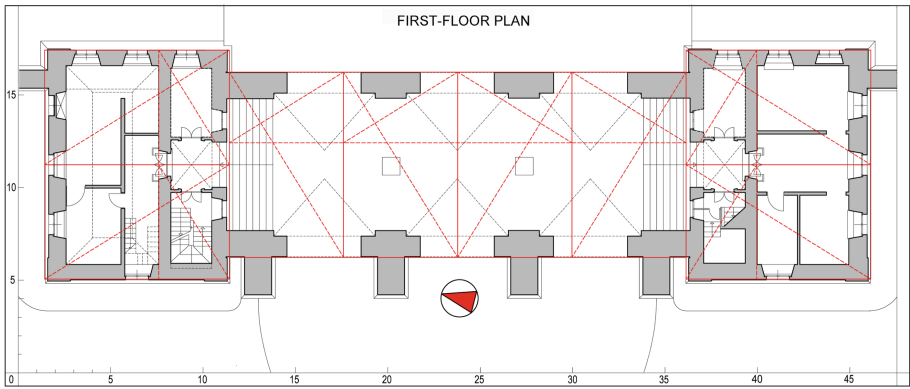


Fig. 7. Monumental entrance to the Verano Cemetery in Rome. Graphical analysis of the first-floor plan. (Prepared by Fabio Lanfranchi).

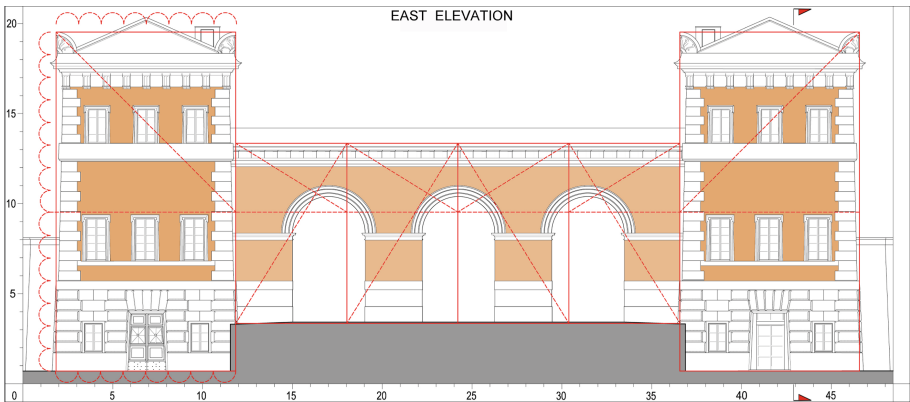


Fig. 8. Monumental entrance to the Verano Cemetery in Rome. Graphical analysis of the eastern elevation. (Prepared by Fabio Lanfranchi).

2.4 Reflections on the Documentation and Current Conformation of the Work

As mentioned above, we consider the engraving “New entrance to the Campo Verano Cemetery” and the related hypotheses attributing the current conformation of the cornice to the intervention made by Mercandetti and formulate a plausible hypothesis based on the emerging evidence, the proportional evidence, and the results of the surveys. While the correspondence between the finished work and related harmonic frame is almost unbelievable and shifts between the conceptual grid and the construction may be overlooked, we need to consider that -admitting the proposed geometric hypotheses as valid- the differences between the actual work and the one represented in the engraving cannot really be called substantial. In fact, we consider the dimensions of the work in terms of both plan and height and we assign the heights of today’s acroteria and the underlying cornice to the highest points and line of the eaves of the two pyramid roofs represented in the engraving. In this way, we can easily calculate the pitch of the pair of sides to be between 32% and 36%, a value fully compatible with the so-called Roman type of roofing. In addition to the above, it should be noted that the survey data shows the perimeter walls of the upper level to be thicker than the walls of the lower level on two of the four sides. Basically, instead of being aligned, or, as provided for by construction techniques for continuous walls, tapered towards the inside, the walls of the upper level extends towards the interior with respect to the line of the lower wall by about 20 cm (Fig. 8). Continuing with just the environment here, we consider the results regarding the graphical analysis and evidence deriving from the surveys, and we have no choice but to validate the hypothesis of an intervention carried out by Mercandetti during the works. In order to provide for the greater weight of the current solution with dividing walls, tympana, and gran-diose cornices, he would have had to implement the thicknesses originally considered for lighter wooden framework (Fig. 9).

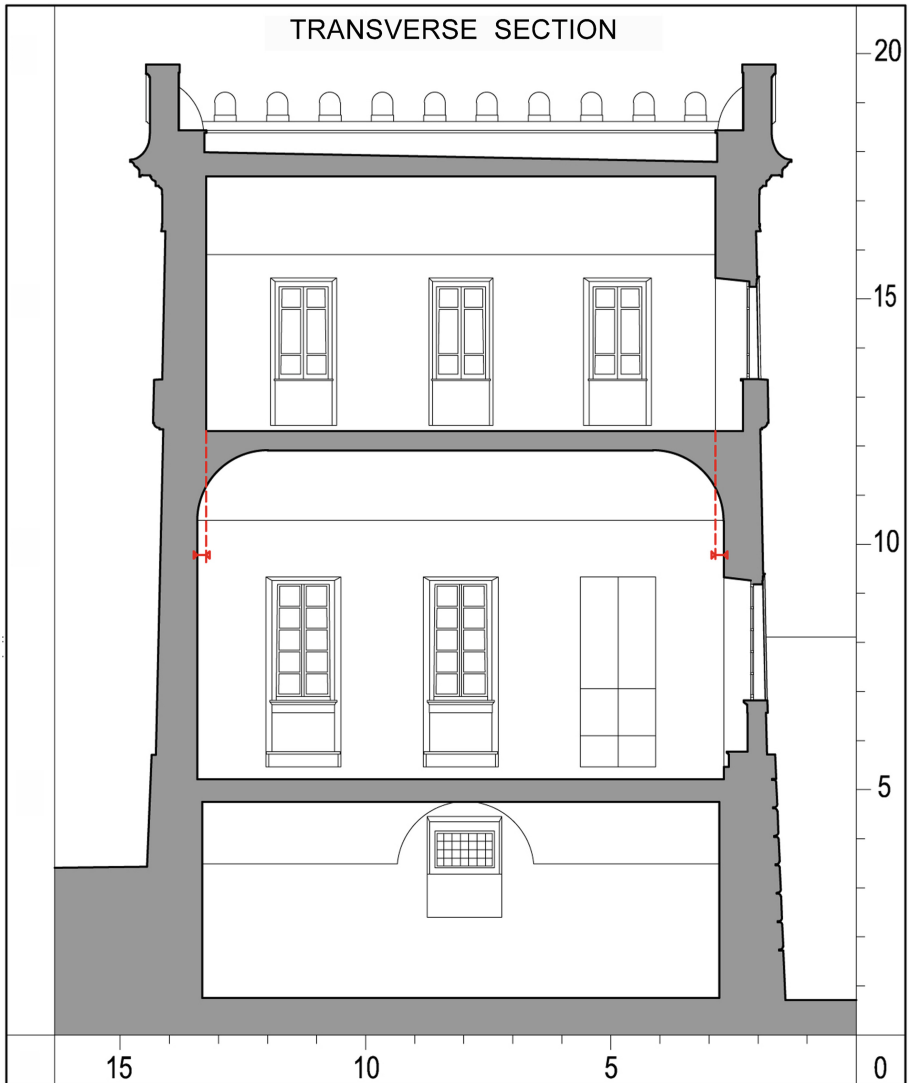


Fig. 9. Monumental entrance to the Verano Cemetery in Rome. Section of the tower, highlighting the protruding internal part of the walls on the upper level with respect to the lower level. (Prepared by Fabio Lanfranchi).

3 Conclusions

The study of a building implies the need to reason with mental schemes, knowledge, and the technical and conceptual references of the work's creator. "In other words, we can investigate buildings using tools deemed to be more or less pertinent to the cultural area in which the creator developed the project" [7]. In the specific area of graphical analysis, *Disegno* becomes the principal decoding tool, a strategic means to identify regulating

traces, proportions, and modularity. From the results of the study of the monumental entrance to the Verano Cemetery, both the golden rectangle, with its unique property in which its shape and proportion are maintained if a square is added to or subtracted from it, and the square itself, another recurring shape in Vespignani's work, would seem to represent the geometric references organizing the symmetry and *eurythmia* "grace" underlying the Vitruvian concept of *venustas* "beauty". This design knowledge, not limited to the sole tangibility of the building, also extends beyond. Still today, the monumental entrance of the Verano Cemetery remains unchanged architecturally, nearly crystallized as it were in its grandiose importance, preserving in every aspect the character appropriate for the seriousness and gravity of its use. The view through the three arches evokes an unavoidably emotional passage amplified by the perspective emphasis of the sloping parterre that leads slowly and unavoidably to the plane of the four-sided portico, a perceptively perspective goal that is also clearly symbolic.

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