Chapter 12
Reconstructing the Illusion:
VH on Bernini’s Solid-Perspective for Felipe IV

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ABSTRACT
This chapter describes and critically reviews all the phases of an enquiry supported by the Museo Nacional del Prado in Madrid on an almost unknown project of a monument for Felipe IV of Spain in the portico of the Basilica of S. Maria Maggiore in Rome designed by Gian Lorenzo Bernini. The process consists of analysis and re-drawing after the existing documents, of modeling of the solid-perspective sacellum and the bronze statue actually made by Girolamo Lucenti, and of presentation and dissemination of the results, in form of video in the exhibition in Madrid and in other visual product to illustrate scientific publications. This process has been didactically divided between digital heritage, the translation of tangible historical-testimonial documents into digital formats, and virtual heritage, the production of original digital contents aimed at visually recreating the unbuilt monument and its perspective deceptive effects.

INTRODUCTION
At the beginning of 2012, Delfin Rodriguez Ruiz, Professor of Art History at the Universidad Complutense of Madrid and passionate scholar of Baroque art, agreed with El Museo Nacional del Prado to organize an exhibition aimed at reconstructing and exhibiting the relationships the Roman artist Gian Lorenzo Bernini had had with the Royal Court of Spain in the political and cultural environment of the 17th century. The exhibition entitled Las Animas de Bernini: Arte en Roma para la corte espanola, which was arranged in four rooms of the museum from 6 November 2014 to 8 February 2015, presented documents and works by Bernini and other artists of his age.¹

In anticipation of the exhibition, Rodriguez Ruiz involved some scholars to investigate the role of Bernini as an artist for the Spanish crown and to analyze some of the works to be exhibited. These studies converged into a book entitled Bernini: Roma y la Monarquia Hispanica, which has been published at the end of 2014.

Reconstructing the Illusion

As a part of these studies, the author was involved by Prof. Marcello Fagiolo in the enquiry of a little-known architectural project made by Bernini as a monument dedicated to Felipe IV of Spain to be built in Rome. The research work was conducted with the scientific criteria aligned with the recent guidelines of Digital Heritage (DH) and Virtual Heritage (VH). An initial stage of reading, analysis, and interpretation of the documents was followed by both the three-dimensional digital reconstruction of the structure, which has helped to highlight a number of geometric and constructive aspects that were imperceptible in the designs, and the editing of proper visual and multimedia products designed to complement the historical document during the exhibition and to promote a full understanding of its theatrical and illusionistic values.

This chapter is organized in parts that methodologically and critically cover the phases of the entire process of study, knowledge, reconstruction, modeling, animation, exposition and dissemination of the results of this research. In particular, the first section expresses a concise historical framework of the context in which the monument was designed, the role Bernini had in the process and its historiographical misfortune. The second section describes the sources the author has been taking into account to understand and reconstruct the *sacellum* designed by Bernini and its planned location in the portico of the Basilica of S. Maria Maggiore in Rome. The third section describes the operations specifically related to the DH phase, ranging from the digital copy of the design sheets to their critical re-drawing. The fourth section describes the operations specifically related to the VH phase, ranging from the construction of the two-dimensional model of the project to the rendering and animation after the three-dimensional reconstruction model. The fifth section describes the operations of disclosure and presentation of the results, with particular attention to the specificities of the involved media and target. The sixth section is dedicated to a final consideration on the whole operation about the agency of digital models in DH and VH practices.

**Gian Lorenzo Bernini and a Monument for Felipe IV of Spain**

In September 1663, the Cardinal Giulio Rospigliosi (1600-1669), the future pope Clement IX, commissioned Gian Lorenzo Bernini (1598-1680) to design a monument to Felipe IV of Spain (1605-1665) to be placed in the portico of Santa Maria Maggiore in Rome, the church of the Spanish Crown (Fig. 1). This was a place Bernini was fond of and involved in. He was born nearby; he had lived for years in a house whose windows are facing on it; together with his father Pietro, he had taken his first steps as a sculptor inside it, in the chapel dedicated to Sixtus V; he had created one of his first sculptural groups for the garden fountain of the neighboring Villa Montalto; he designed a new *tribuna* for the church with the tombs of Alexander VII and Clement IX inside of it; eventually, on his death in 1680, he was buried in the family tomb under the marble steps at the right of the main altar of Santa Maria Maggiore.

To accommodate the bronze statue of the Spanish sovereign sculpted by Girolamo Lucenti, Bernini designed a *sacellum* in the left side of the portico, just near the Porta Sancta. The surviving graphic documents of the project show a sort of small apsed temple that contains the effigy placed onto a tall basement. The external motif of the *aedicula* supported by twin columns is related to the supporting theme of the existing portico. The Serliana motif, barely mentioned in the overlapping of curvilinear pediment, recalls the solution for the Scala Regia in the Vatican. The light “alla Bernina” coming from the hidden windows at the left of the monument would have emphasized the theatrical representation of the sovereign, seeking for an effect similar to that achieved in some of his celebrated chapels.