The reconstruction of Borgo Caracciolo in Maniace (Sicily) between tangible and intangible heritage

La ricostruzione di Borgo Caracciolo a Maniace (Sicilia) tra patrimonio materiale e immateriale

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This research explores the case study of Borgo Caracciolo in Maniace, designed by architect Francesco Fichera during the fascist era and later demolished in 1964. The village, caught between historical memory and oblivion, represents a complex heritage with conflicting narratives.
The study aims to digitally reconstruct the ruins using historical documents and digital surveys, offering insights into architectural intentions and historical narratives. This approach emphasizes the preservation and enhancement of design archives for cultural and educational purposes.
The methodology includes a thorough analysis of historical events and project drawings, with the final reconstruction highlighting different phases from its construction to demolition.
Ultimately, the virtual reconstruction serves as a dynamic tool for understanding and engaging with complex histories, preserving cultural heritage, and fostering dialogue on contentious pasts.

La ricerca esplora il caso studio di Borgo Caracciolo a Maniace, progettato dall'architetto Francesco Fichera in epoca fascista e successivamente demolito nel 1964. Il borgo, in bilico tra memoria storica e oblio, rappresenta un patrimonio complesso con narrazioni contrastanti.
Lo studio si propone di ricostruire digitalmente le rovine utilizzando documenti storici e rilievi digitali, offrendo approfondimenti sulle intenzioni architettoniche e sulle narrazioni storiche. Questo approccio enfatizza la conservazione e la valorizzazione degli archivi di progettazione a fini culturali ed educativi.
La metodologia comprende un'analisi approfondita degli eventi storici e dei disegni di progetto, con la ricostruzione finale che evidenzia le diverse fasi dalla costruzione alla demolizione.
In definitiva, la ricostruzione virtuale funge da strumento dinamico per la comprensione e il coinvolgimento di storie complesse, la conservazione del patrimonio culturale e la promozione del dialogo su un passato controverso.

1. INTRODUCTION

This research addresses the issue of so-called dissonant heritage, a controversial site whose history and *raison d'être* are subject to various interpretations, caught between memory and oblivion. A notable example is Borgo Caracciolo in Maniace, designed by Catanese architect Francesco Fichera during the fascist regime and built at the Nelson Duchy. Construction of the village began in 1940, was halted in 1943, and ultimately demolished by the Nelsons in 1964. Today, the ruins of the hamlet lie abandoned, bearing witness to the historical tensions between the farming community and the Nelson family.
The virtual reconstruction of Borgo Caracciolo, based on project drawings, historical documentation, and digital surveys, provides a tangible connection to the past. It encourages reflection on the historical narratives and architectural intentions, highlighting how memory and oblivion shape our perception of history. Additionally, it emphasizes the importance of preserving and enhancing design archives, recognizing their value as historical records and as catalysts for cultural and educational enrichment and visualization.

2. BORGO CARACCIOLO: AN EMBLEMATIC EXAMPLE OF DISSONANT HERITAGE

The concept of "dissonant heritage" [1], [2] represents a complex challenge in cultural heritage management. It pertains to sites, monuments, or traditions that evoke contrasting or conflicting narratives, often linked to historical memories of oppression, resistance, or transformation. This heritage is not merely a remnant of the past but a battleground for contemporary identities and politics.
Significant examples of dissonant heritage in Europe include remnants of totalitarian regimes, such as Nazi sites in Germany [3] and Fascist sites in Italy [4], which raise questions about how to remember these histories without glorifying them. Moreover, it is crucial to avoid trivializing these sites, particularly in the context of tourism, ensuring that they are taken seriously and respected for their historical significance [5].
Borgo Caracciolo is an example of this complexity. For the local community, this small rural settlement symbolizes liberation from the Nelsons, the English feudal lords, marking a significant social and cultural victory. However, the village is also the result of Fascist propaganda policies, transforming it into a symbol of Fascist power. This dual nature makes Borgo Caracciolo a fascinating and complex case study in the field of dissonant heritage, demonstrating how heritage can be both unifying and divisive, reflecting the multifaceted nature of history and collective identities.

3. AIM OF THE PROJECT AND METHODOLOGICAL APPROACH

The research has two main objectives: on one hand, the creation of digital content for the valorization and virtual reconstruction of the ruins with the aim of countering their oblivion and returning the site to collective memory; on the other, the enhancement of archival funds of architectural drawings using digital techniques.
The methodological approach involved an initial phase of comprehensive analysis of the design projects and understanding of the site, followed by a detailed reconstruction.
In particular, the following steps have been carried out:

— Contextualization of the project and the architect: study of historical events, the role of the designer, comparison and study of archive drawings preserved at the Museo della Rappresentazione (MuRa)[1] in Catania;
— Digital survey of the site: 3D acquisition, 2D restitution of the footprint of the buildings, verification of the current planimetric layout of the site against the design drawings;

01.

Territorial overview of Borgo Caracciolo.

— Identification of the phases of Borgo Caracciolo (from its original design to its demolition);
— 3D virtual reconstruction of the buildings based on the design drawings and in accordance with the identified construction phases.

Particular attention was paid to the dual objective of making explicit the paradata, namely the data that describe the relationships between the digital representation, the characteristics of the artifact, the archival sources, and the decision-making process underlying the reconstruction, while simultaneously preserving the narrative and informative nature of the representations.
Reference was made to methodological approaches and significant case studies present in the literature [6], [7], [8].

4. BORGO CARACCIOLO

4.1 HISTORY OF THE CONSTRUCTIVE EVENTS

To understand the creation, destruction, and subsequent neglect of Borgo Caracciolo in Maniace, it's essential to look at the key historical events and local sentiments that shaped the area [9] [Fig. 01.].
Maniace was established in 1173 with the founding of the Abbey of Santa Maria di Maniace.

In 1799, Ferdinand III rewarded Admiral Horatio Nelson for suppressing the Neapolitan Republic by donating the Abbey to him, leading to feudal rule by the Nelson-Bridport family, which caused significant local discontent.
In 1940, the Colonization Authority began constructing Borgo Caracciolo, but work halted in 1943. Post-war, the Nelsons briefly regained control, but the Agrarian Reform of 1950 ended their feudal rule. The heirs of the Nelson family demolished the rural village in 1964. By 1981, Maniace gained autonomy from Bronte, and the Nelson family relinquished their last holdings to the municipality. After the village's demolition, some ruins were used to commemorate the town's agricultural heritage. An entrance arch was reconstructed with materials from the site, placed at the town's entrance, and adorned with glazed tiles depicting the municipal coat of arms [Fig. 02.].
Although intended to honor the town's history, this act left the actual ruins largely abandoned and neglected.

02.

Arch reconstructed after the spoliation of the site.

4.2 PROJECT ANALYSIS

The design of the village was entrusted in 1940 to Francesco Fichera (Catania, 1881 – 1950) a highly prominent architect from Catania, active mainly during the first half of the 20th century. His style is characterized by a strong integration of elements from the Sicilian architectural tradition with the more modern trends of Eclecticism and the emerging Rationalism of that period [10]. In particular, the village project consists of 52 drawings in good condition, made in pencil or ink on tracing paper.
The village, facing the Nelson residence, is organized around two squares, differing in shape and function. The main square, larger and enclosed on all sides, is square-shaped and bordered by a portico with side towers (1) acting as a buffer with the Nelson residence, the Fascist house (2), the administrative offices (3), the school (5), and the post office (6). Access to the main square is via three porticoed entrances near the corners. The health house (4) is accessed from the street. The second square, called the Rural square, is rectangular and enclosed on only three sides. This square faces the post office building (6), the tavern and retail shop (7), the employees' accommodations (8), the artisans' accommodations (9), and the carabinieri station (10).
Both squares feature a centrally located square basin used for collecting rainwater.
Additionally, the project includes two more buildings, the veterinarian's clinic (11) and another building (12), which were not included in the building contract.
The entire village is set within an Italian-style garden, with flower beds arranged to define the main alignments of the buildings [Fig. 03.].
The in-depth analysis of the corpus of drawings led to their identification and classification into two categories: **definitive project and executive project**.

03.

Axonometric view of the Borgo Caracciolo project with numbering of the buildings. Inventory number 5(C-1).

04.

Definitive project drawing, post office building. Inventory number 6(C-1).

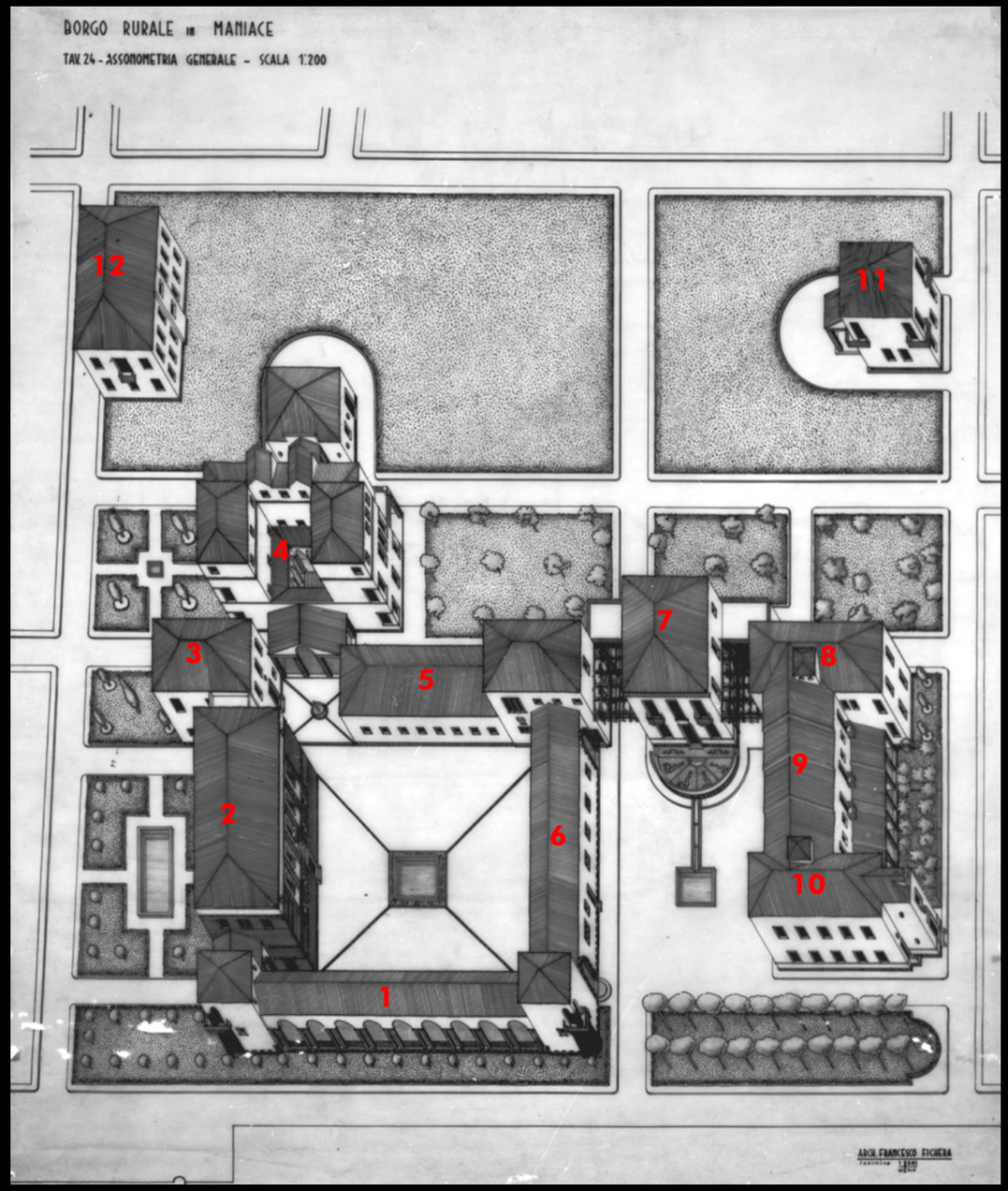
The **definitive project** drawings are characterized by: - headers and text created using a lettering guide; - use of a 1:100 scale for two-dimensional drawings (plans, elevations, and sections with internal, external, inter-floor dimensions, and use designations of various rooms); - use of a well-defined stroke; - the architect's signature made using a lettering guide [Fig. 04.] The text of the **executive project drawings** (headers and descriptions) is done freehand and includes terms like "bis," "variant," and "details." Regarding the drawings, they mostly represent details made freehand with a very careful stroke, contextualized with extracts of plans, elevations, and sections. Also, instructions are provided on the materials to be used and the construction element implementation. The representation scales vary from 1:50 to 1:1. All drawings are initialed by the architect [Fig. 05.].

4.3 THE DIGITAL RECONSTRUCTION

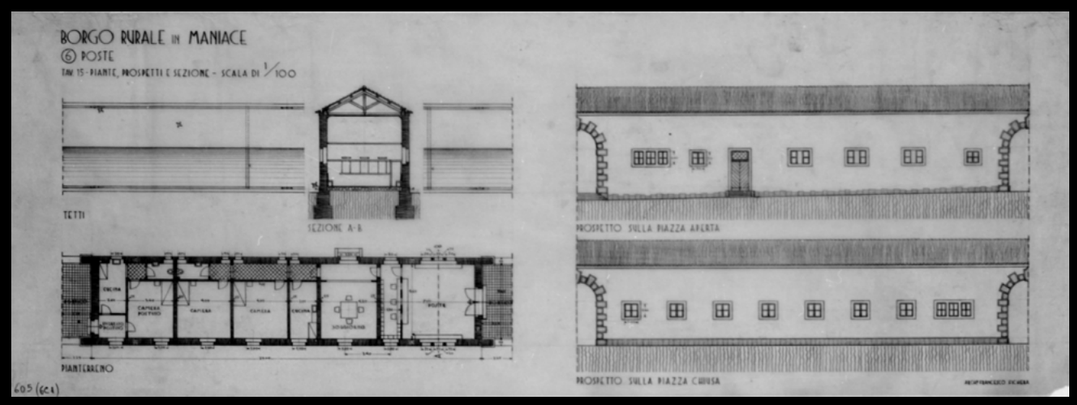
The reconstruction of the constructive history of Borgo Caracciolo is depicted through images, highlighting the project's knowledge phase. A crucial support in the reconstruction was the on-site survey phase, which involved reading the existing ruins and comparing them with the project drawings.
Two survey campaigns were conducted using the Leica Geosystem BLK360 laser scanner. In the first campaign, 26 scans were performed to capture the entire site. In the second, focusing on the buildings around the rural square, 13 scans were completed after the removal of vegetation revealed previously hidden masonry elements. The final point cloud, after the cleaning process, consists of about 250 million points
The reconstruction considered the two identified project phases, contextualizing them with historical events, and documenting the ruined state of the village. This led to the following conceptualizations:

1. Reconstruction of the definitive project (1:100);
2. Reconstruction of the executive project (1:50), considering both the entire village's reconstruction from the executive project drawings (2.a) and the project as completed up to the interruption of works (2.b);
3. Documentation of the ruined state.

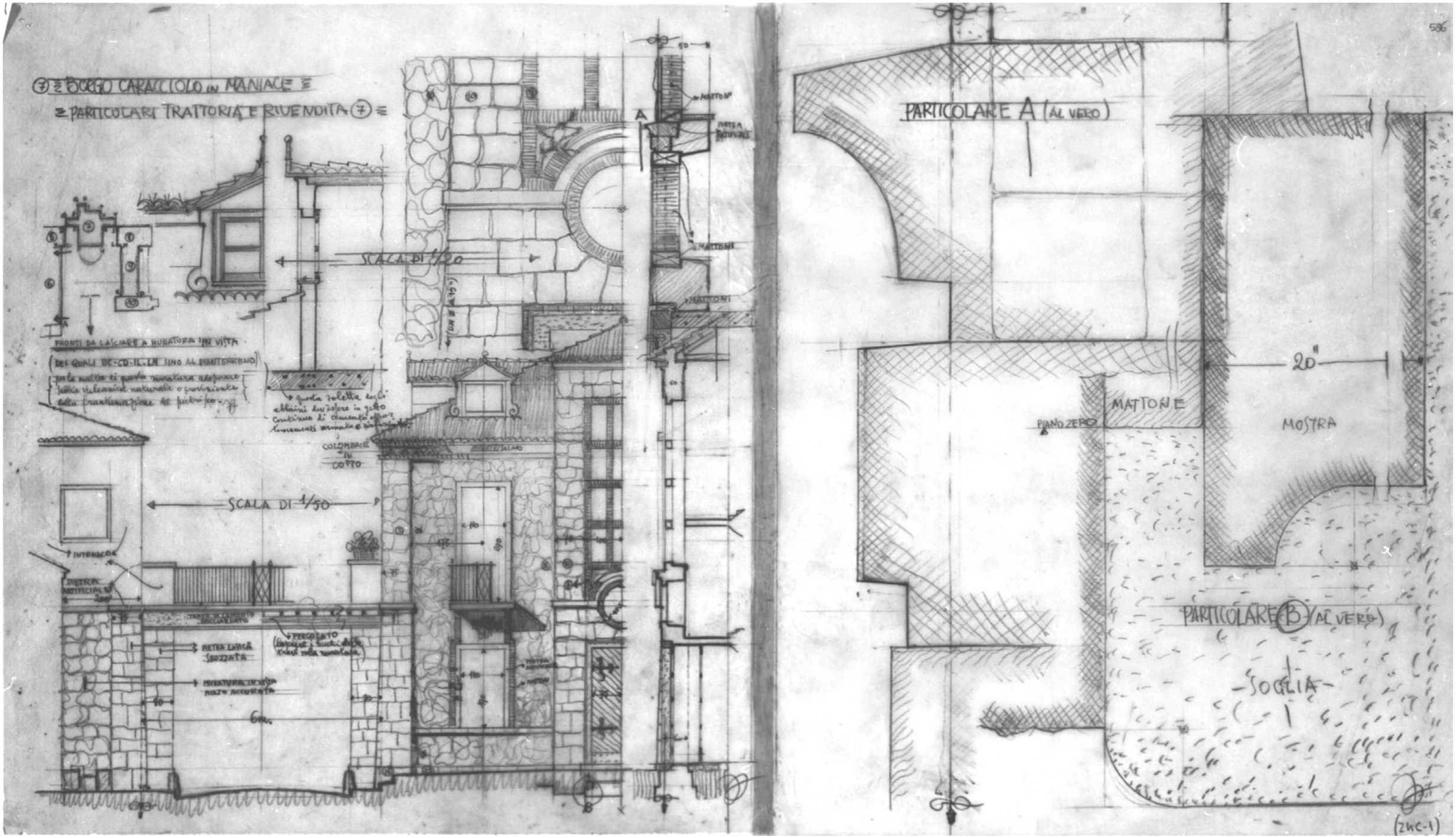
Following the principles of the London and Seville charters, five levels of reliability were defined for the reconstruction to clarify the reconstruction choices:
- existing state; - reconstruction based on the interpretation of project drawings of individual buildings; - reconstruction based on the interpretation of axonometric drawings; - reconstruction based on typological and dimensional comparison with other buildings in the settlement; - portions of the project not realized after the interruption of works.
For the reconstruction of the **definitive project** [Fig. 06.] the base axonometric view was used as the main reference for the volumetric modelling of the buildings' external envelope (decorative elements such as the base, cornice, etc., were simplified, and the openings were highlighted). Differences in the floor plan with the current state were evidenced. There is a one-meter difference in the Casa del Fascio, precluding the alignment between some of the buildings, visible in the project's axonometric drawing.
The reconstruction of the **executive project** was split into two models. The first model reconstructs the entire village following the project drawings [Fig. 07.]. The modelling focuses on the external envelope with a detail scale of 1:50 and includes all the constructive elements characterizing the individual buildings. In the absence of information deduced from the drawings, some elements were reconstructed for typological similarity with other drawings of the village buildings. In comparing the executive project with the current state, it was found that the alignments between the buildings are respected IMG07. The second reconstruction model is derived from the previous model but considers what was built up to the suspension of works (1943), representing the portions of the buildings never realized in transparency, defined



03.

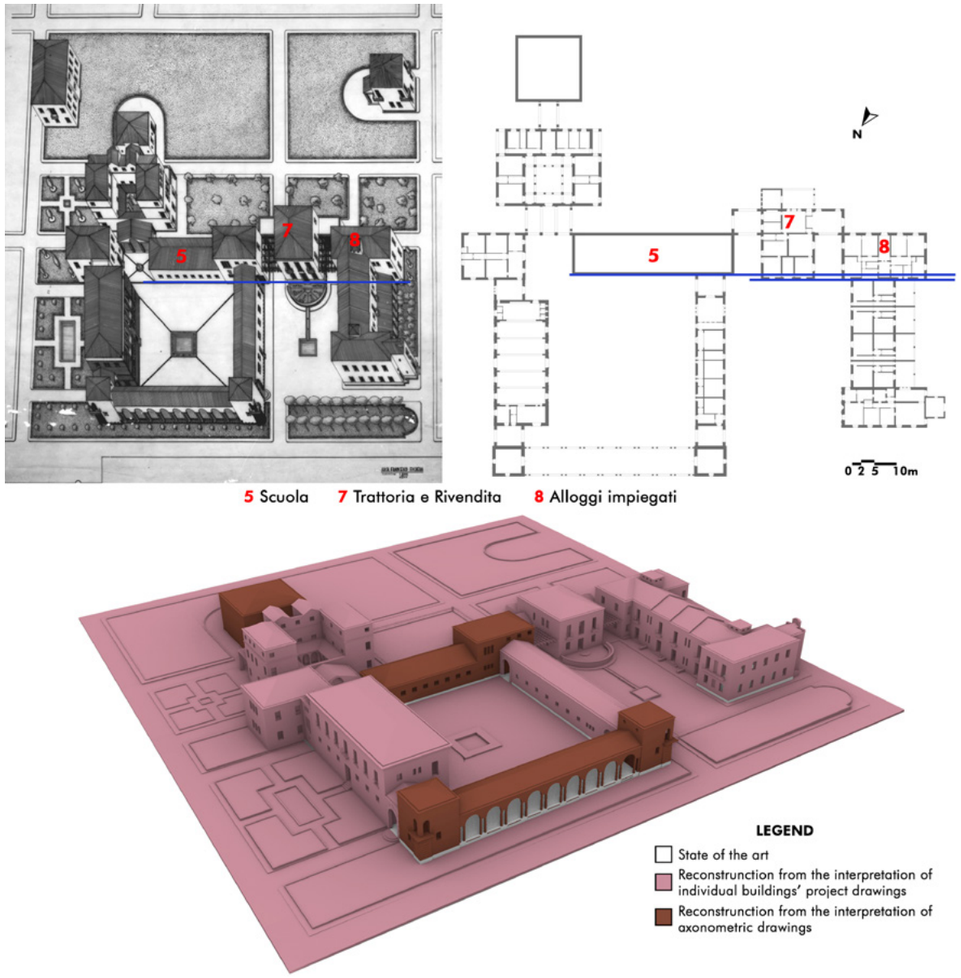


04.



05.

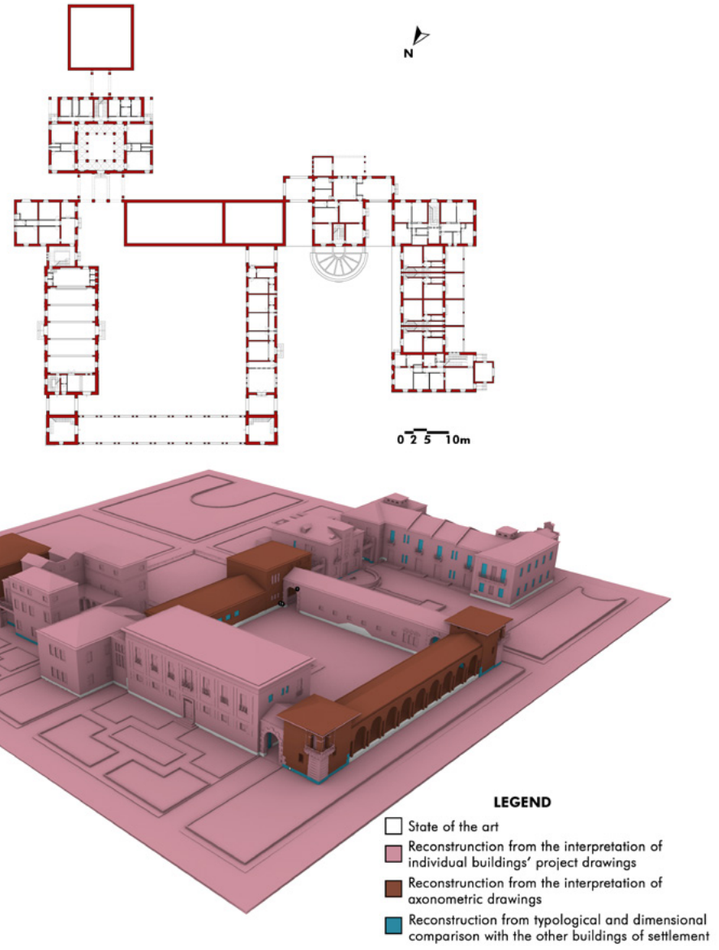
Executive project drawing, details of the Trattoria and retail building.
Inventory number 24(C-1).



06.

Reconstruction of the definitive project, top left the axonometric drawing showing alignments, top right the reconstructed plan highlighting misalignments, bottom the perspective view with degrees of reliability.

through comparison with documentary and photographic sources [Fig. 08.].
The **current state** describes what can be seen on site today, i.e., a pile of rubble and the few traces of the buildings' foundations. In this case, the three-dimensional model is inserted within the point cloud to make the conditions of the entire site visible [Fig. 09.].



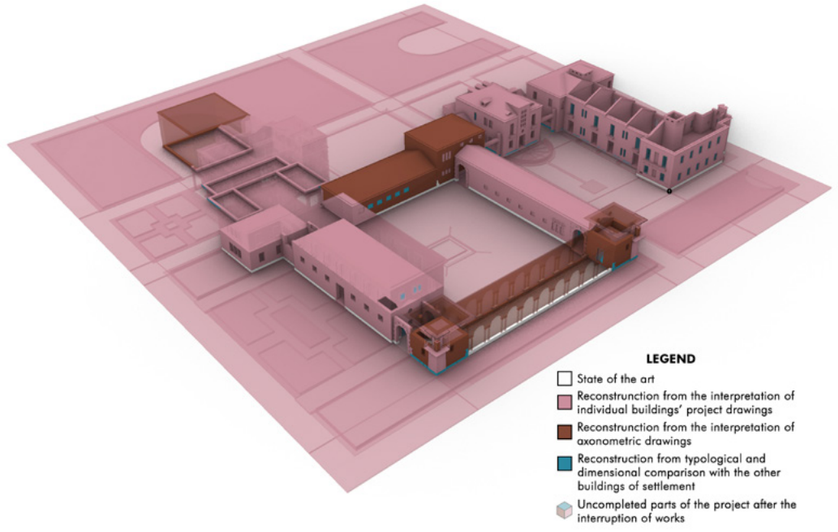
07.

Reconstruction of the executive project, top the reconstructed plan, bottom the perspective view with degrees of reliability.

5. CONCLUSIONS AND FINAL RESULTS

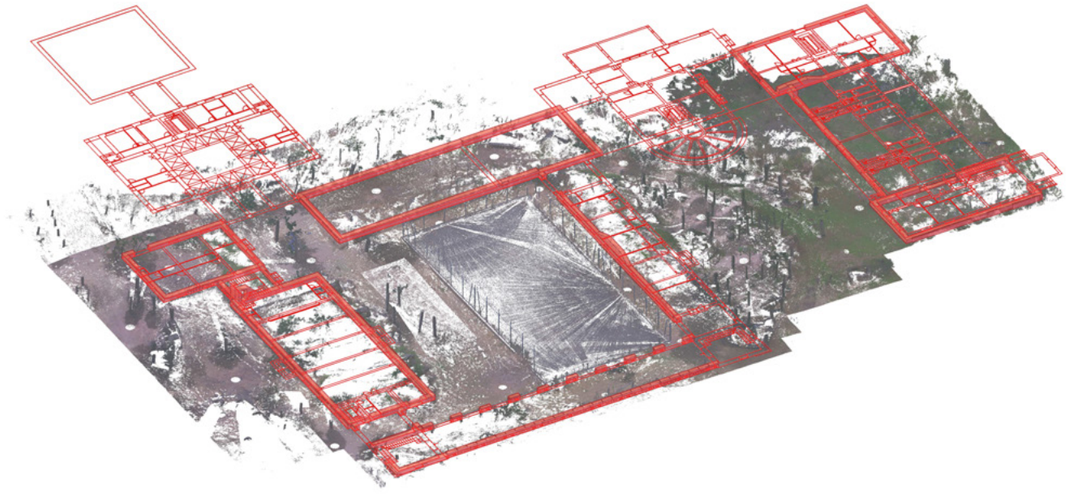
5.1 POTENTIAL OF RECONSTRUCTIONS

Digital reconstructions of lost architectures hold significant potential in historical preservation and education. These reconstructions allow us to revive long-lost sites, offering a detailed view into the past that can be both educational and inspirational. Furthermore, digital reconstructions are inherently adaptable; as new discoveries are made, these models can be updated to reflect the latest findings, making them dynamic tools for ongoing research. This evolving nature not only honors the original site's historical significance but also highlights the continuous journey of archaeological and historical discovery. In the case of dissonant heritage, digital reconstructions are particularly meaningful as they allow us to engage with and reinterpret complex or contentious histories. By providing a virtual space to explore these sites, we can foster dialogue and understanding, helping to bridge gaps in cultural narratives and offering a platform for inclusive historical discourse.



08.

Reconstruction of the executive project until work was halted in 1943, perspective view with degrees of reliability.



09.

Reconstruction of the current state.

5.2 CONCLUSIONS

The virtual reconstruction of Borgo Caracciolo demonstrated that digital models serve as dynamic gateways to our past and act as beacons of cultural heritage, inviting us to explore, interpret, and reconcile dissonant histories. These reconstructions, rooted in meticulous archival research and contemporary technologies, not only revive lost architectures but also foster nuanced understandings of complex historical narratives helping to reviving memory and removing abandoned sites from oblivion. This comprehensive approach underscores the importance of embracing both technological advancements and historical context in heritage conservation efforts.

CREDITS

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NOTES

01| Museo della Rappresentazione is part of the scientific museums network of the University of Catania. It was established in 1996 at Villa Zingali Tetto, an early 20th-century residence, which was restored for the occasion. The museum preserves and exhibits archival collections and prints related to the Department of Civil Engineering and Architecture, including the project collection of architect Francesco Fichera and the etchings by Giovan Battista Piranesi [11].

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