

LevARQ

GRUPO DE INVESTIGACIÓN



What LevARQ is?

LevARQ is a research group of the Polytechnic University of Valencia, led by professors Pablo Rodríguez-Navarro and Teresa Gil-Piqueras. They are specialized in architectural graphic survey using photogrammetry and laser scanner, and are pioneers in the use of drones.

What do we do?

For more than 20 years we have been carrying out graphic surveys of architecture and archeology, both for professional works and for research. The ability of the research team in data acquisition and management techniques is demonstrated by their great experience in the documentation of the built heritage and its territory, using advanced techniques of graphic survey, topography, 3D laser scanner, SfM digital photogrammetry, Geographic information systems, including the use of drones for the acquisition of aerial sequences, all of which guarantee the quality of the results. The strengths of the LevARQ group are experience, quality, precision, and its permanent situation on the frontier of knowledge.



Present situation

Professor of the Department of Architectural Graphic Expression of the Polytechnic University of Valencia (Spain) since 1994. He is Professor of Architectural Drawing, Photography, Photogrammetry and Laser Scanner in the Degree of Technical Architecture and in the Master's Degree in the Conservation of Architectural Heritage at the Polytechnic University of Valencia.

Secretary of the National Spanish Association of Professors of Graphic Expression Applied to Building, APEGA.

Member of the Scientific Committee and reviewer of numerous journals and congresses related to the graphic survey and the architectural and archaeological heritage, like DisegnareCON, Digital Applications in Archaeology and Cultural Heritage, FORMA CIVITATIS: International Journal of Urban and Territorial Morphological Studies, Digital Heritage International Congress, Arqueológica 2.0, Loggia, Arquitectura y Restauración, VAR Virtual Archaeology Review, Buildings (MDPI), Heritage (MDPI)...

President of the International Society for Mediterranean Fortifications, FORTMED

Mentions and prizes

Extraordinary doctoral thesis award
International research prize Ibn al-Abbar
Juan Manuel Raya Award "EDIGRÁFICA" best graphic research exhibition
Nominated for the 2019 Aga Khan Award for Architecture

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Languages: Spanish, English, Italian

Education

Technical Architect
Building Engineer
Art Historian
PhD. in Architectural Graphic Expression
Postdoctoral stays: Università degli Studi di Firenze, Italy. Dipartimento di Architettura, 2011; Politecnico di Milano, Italy, 2012; MOLA_ Museum of London Archaeology, 2018., UK



Present situation

Professor of the Department of Architectural Graphic Expression of the Polytechnic University of Valencia (Spain) since 2000. She is Professor of Architectural Drawing, Topography, Photogrammetry, Laser Scanner and GIS, in the Bachelor's Degree in the Fundamentals of Architecture and in the Master's Degree in Landscape Architecture at the Polytechnic University of Valencia.

Specialist in the documentation of architectural heritage, through advanced techniques of graphic survey and geographic information systems.

Associate Editor of EGE, Journal of Graphic Expression in Building, Universitat Politècnica de València, Spain.

Member of the Scientific Committee and reviewer of numerous journals and congresses related to the graphic survey and the architectural and archaeological heritage, like FORTMED, ArCo Conference, HERITAGE 2020, Loggia, Arquitectura y Restauración or International Exhibition in Research in Building Engineering-EXCO.

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Education

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Materials Engineer
PhD. in Architectural Graphic Expression
Postdoctoral stays: Laboratorio de Arqueología y Arquitectura de la Ciudad, CSIC, Granada, Spain; Università degli Studi di Firenze. Italy, Dipartimento di Architettura, 2019;

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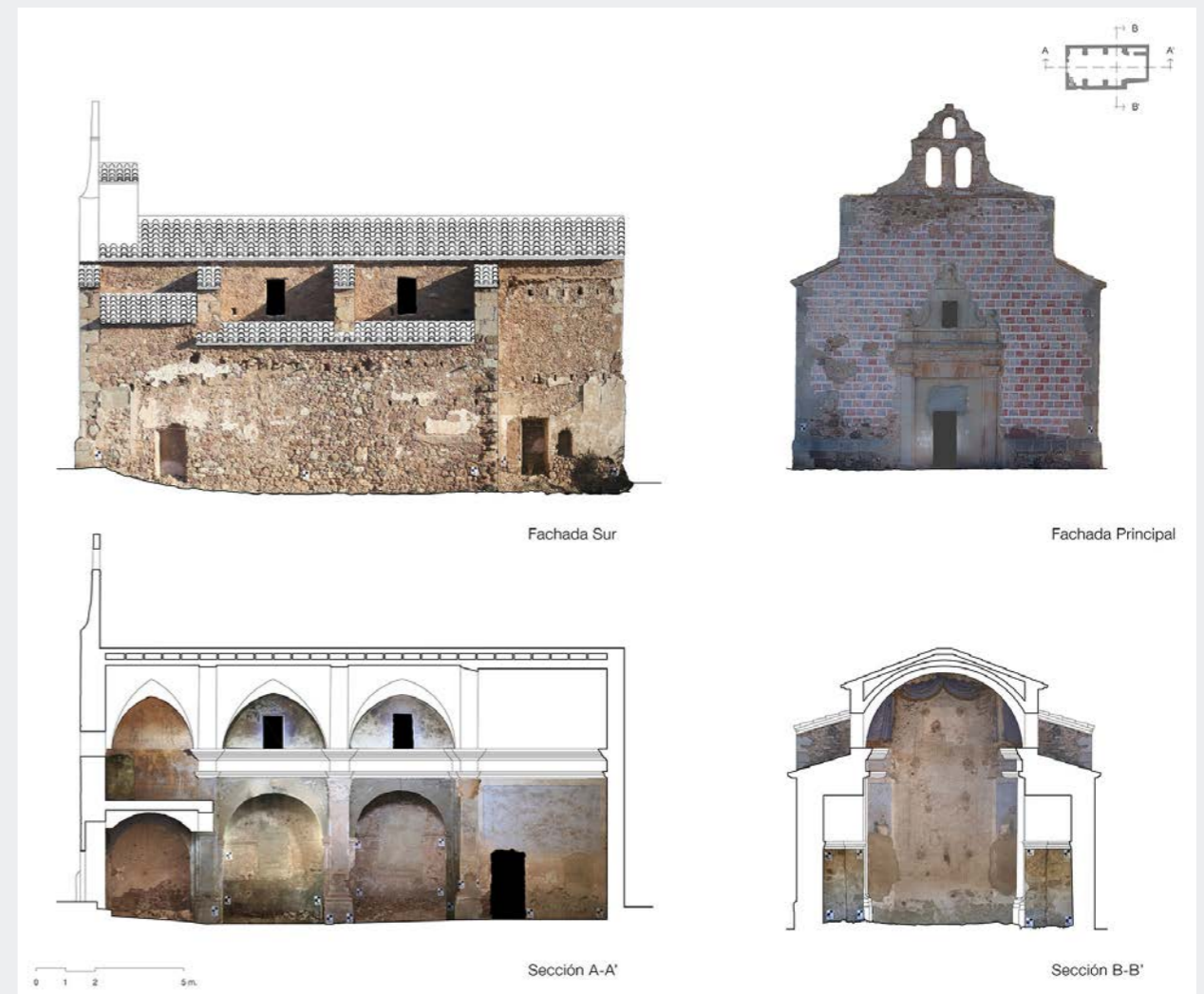
WORKS SELECTION

SANTIAGO CHURCH

Benicalaf, Valencia, Spain

Works done:
3D photogrammetric survey
Photographic support with drone
Topographic support
Scale architectural plans



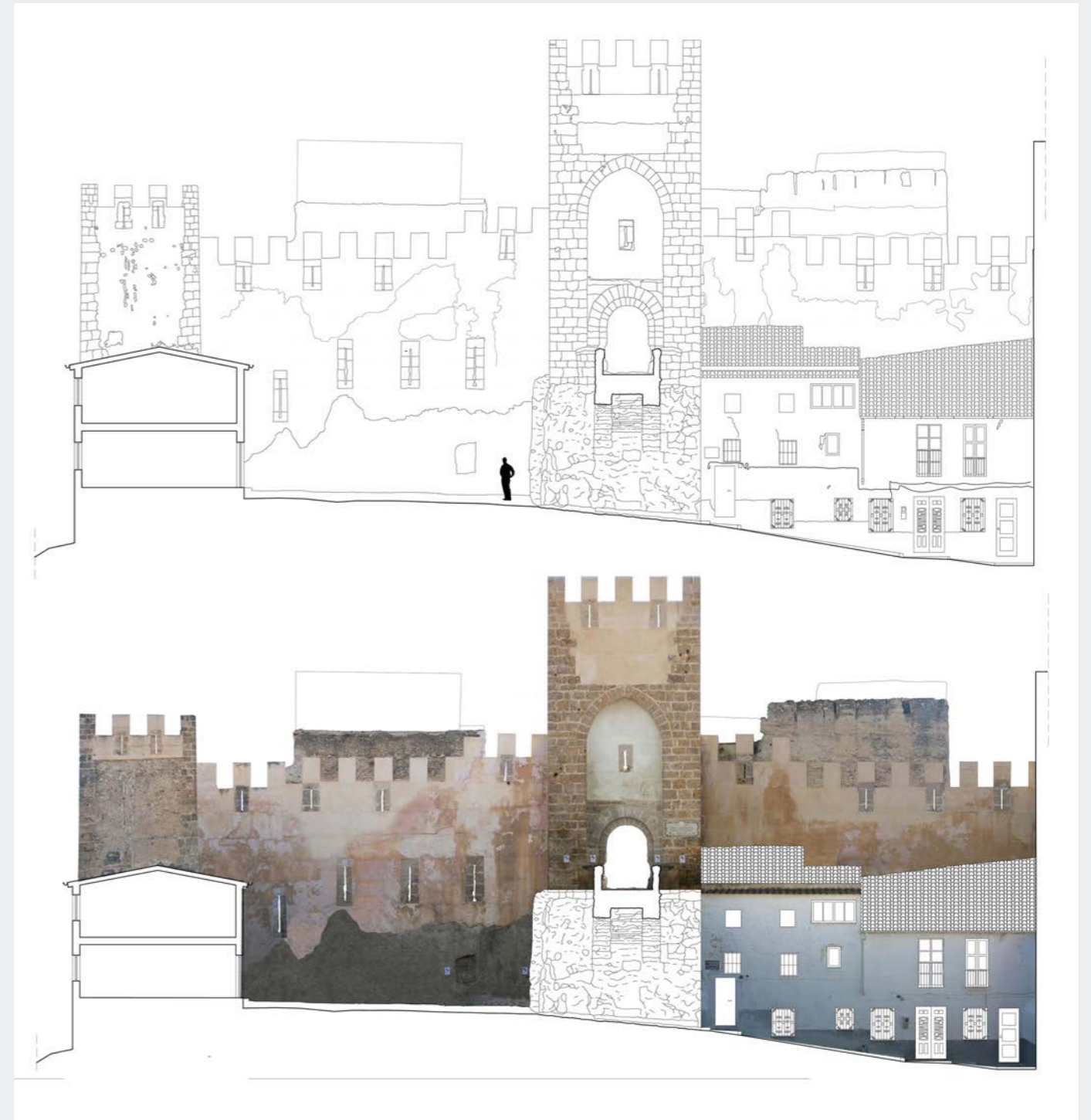
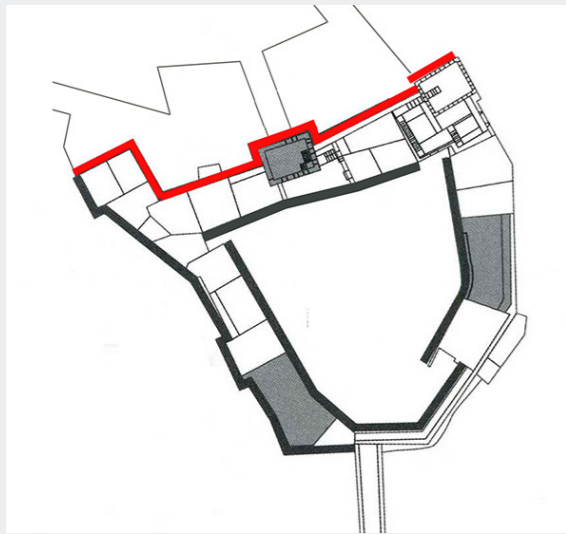


BUÑOL CASTLE

Buñol, Valencia, Spain

Works done:
2D photogrammetric survey
Topographic support
Scale architectural plans





Castillo de Buñol LevARQ Group, Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Elevation and photogrammetric elevation

FÁBRICA DE CURTIDOS

Barrio del Carmen, Valencia, Spain

Works done:

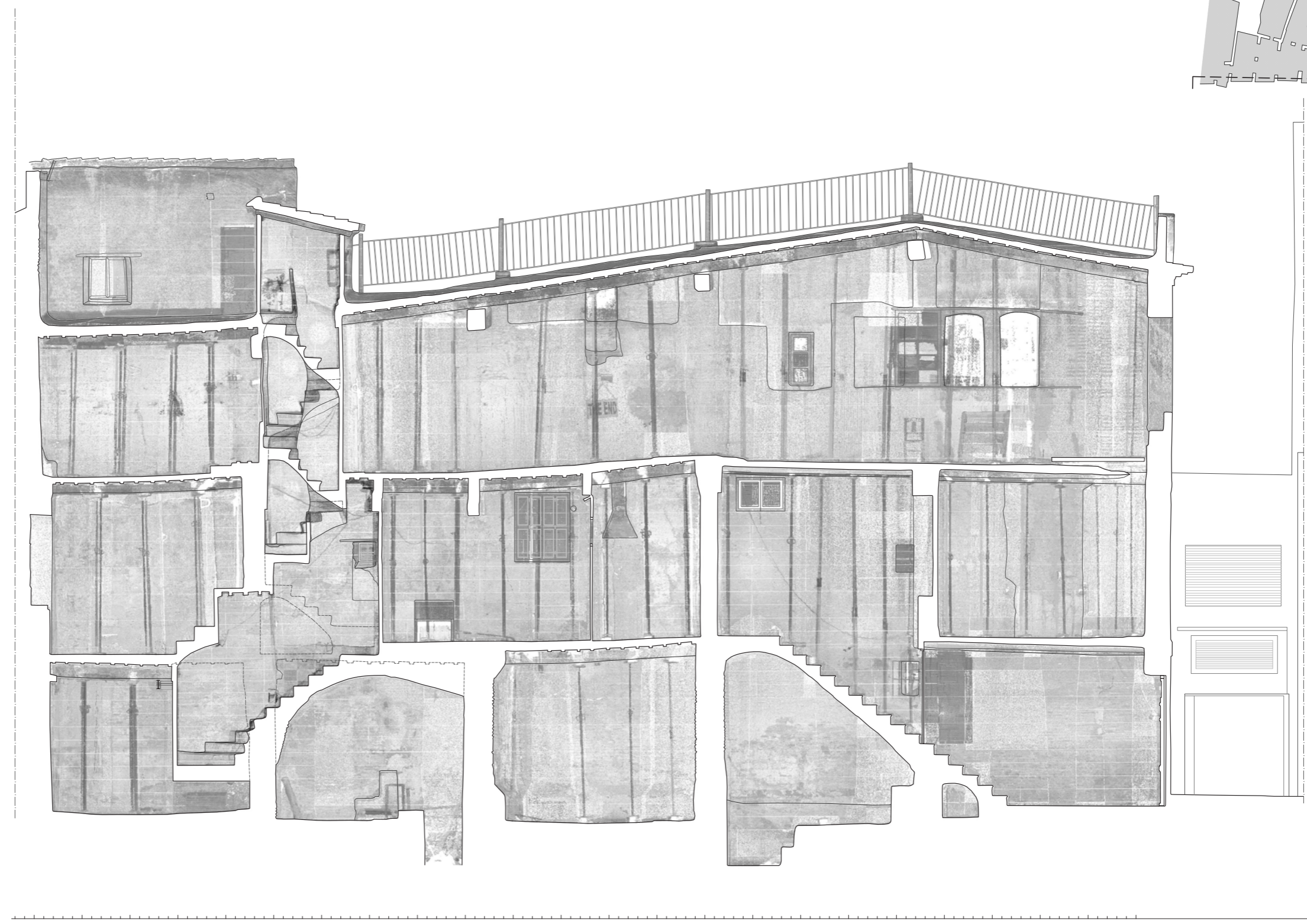
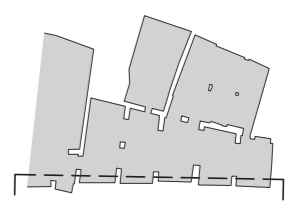
2D photogrammetric survey (exterior elevations)

3D scanner laser survey

Topographic support

Scale architectural plans and sections





HISTORIC CENTER OF VILLAJOYOSA

Vilajoiosa, Alicante, Spain

Works done:
2D photogrammetric survey
Topographic support
Scale architectural plans





Historic center of Villajoyosa LevARQ Group. Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Elevation and photogrammetric elevation

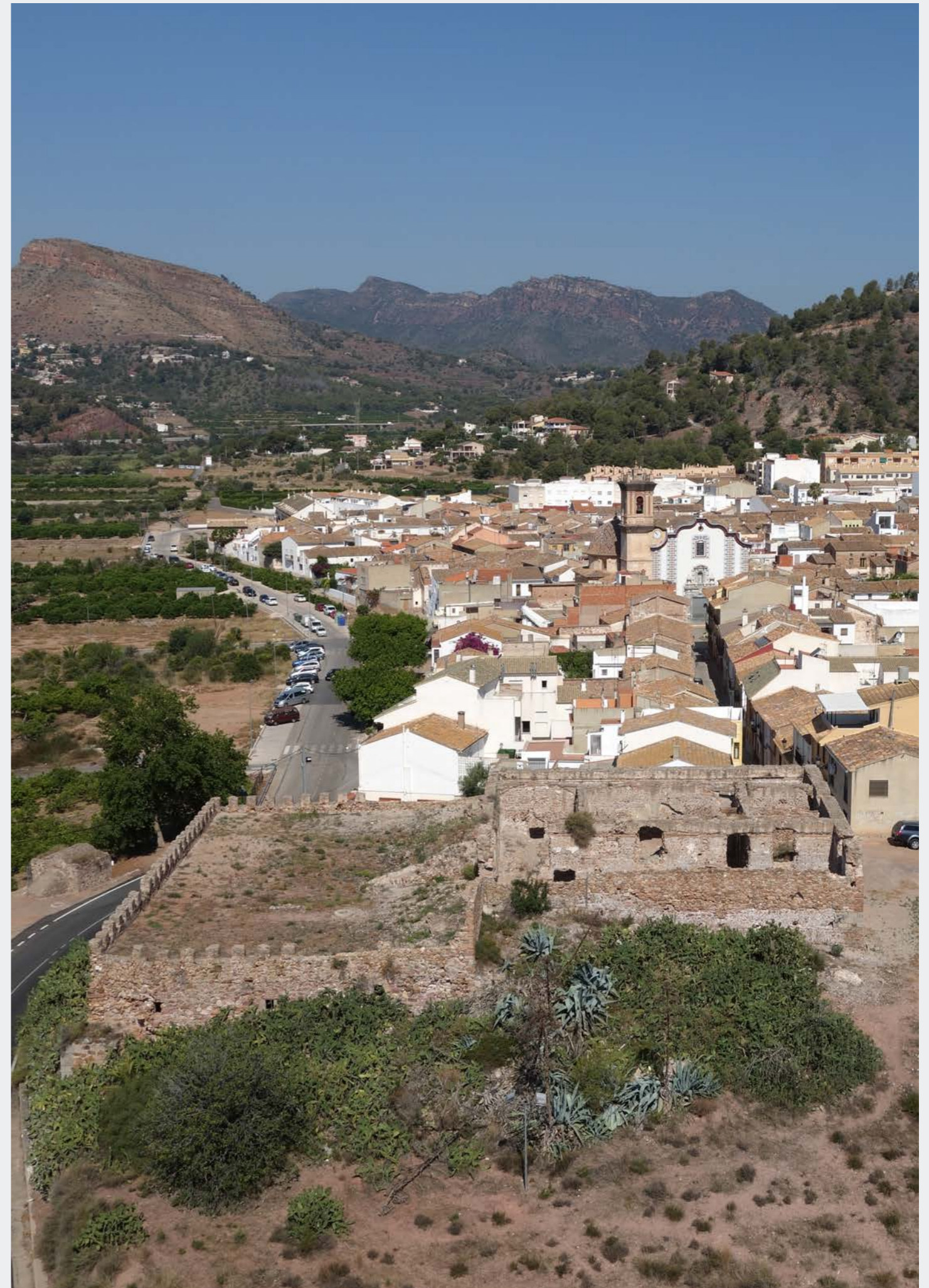


PETRÉS CASTLE

Petrés, Valencia, Spain

Works done:

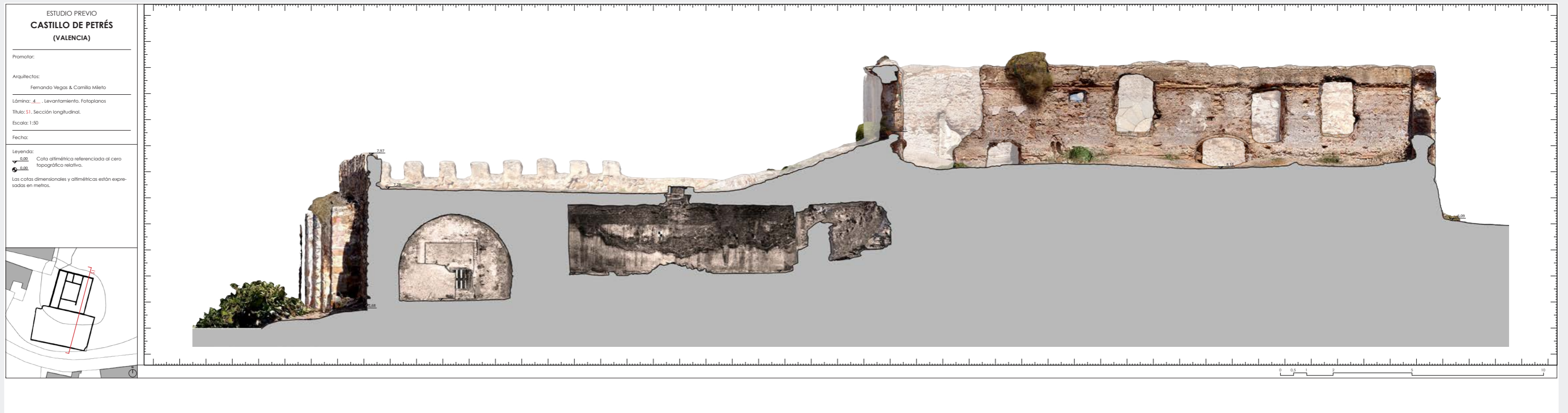
- 3D photogrammetric survey
- Photographic support with drone
- 3D scanner laser survey
- Topographic support
- Scale architectural plans

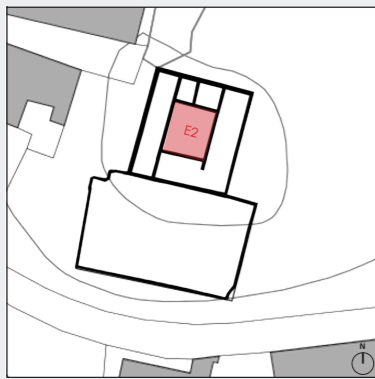
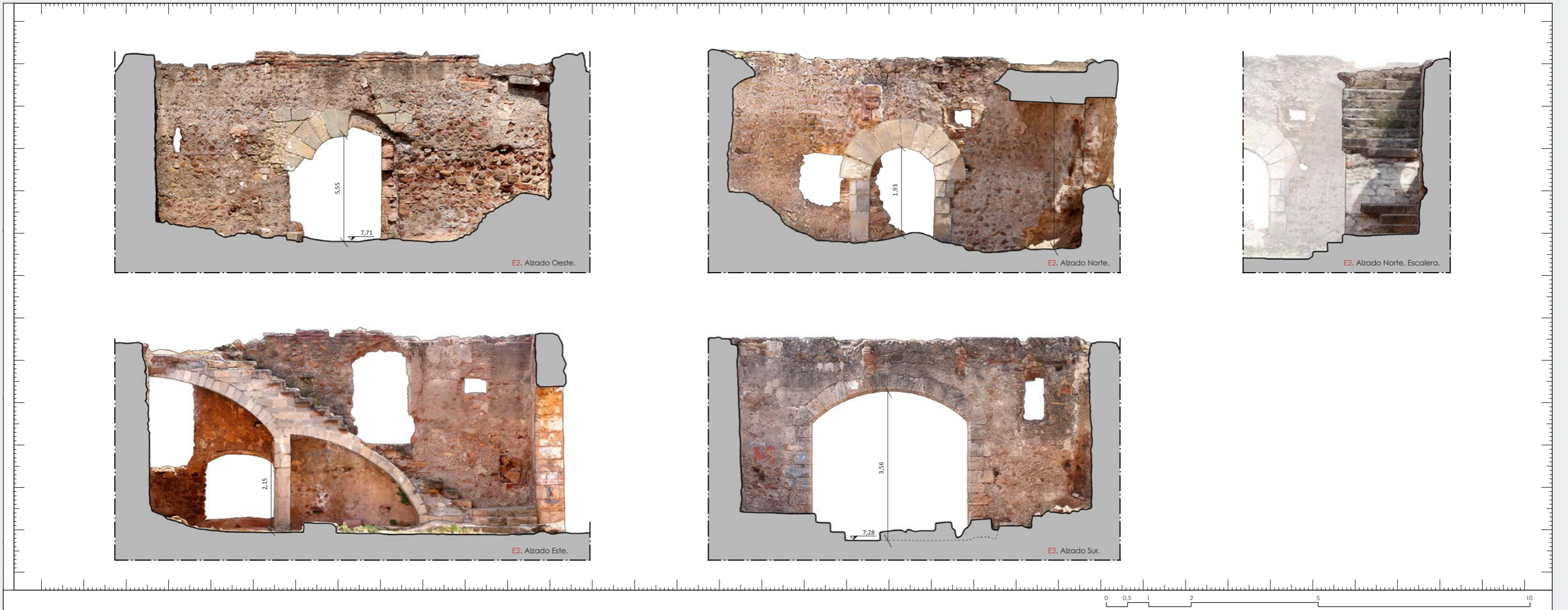




CASTILLO DE PETRÉS LevARQ Group. Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Point cloud section

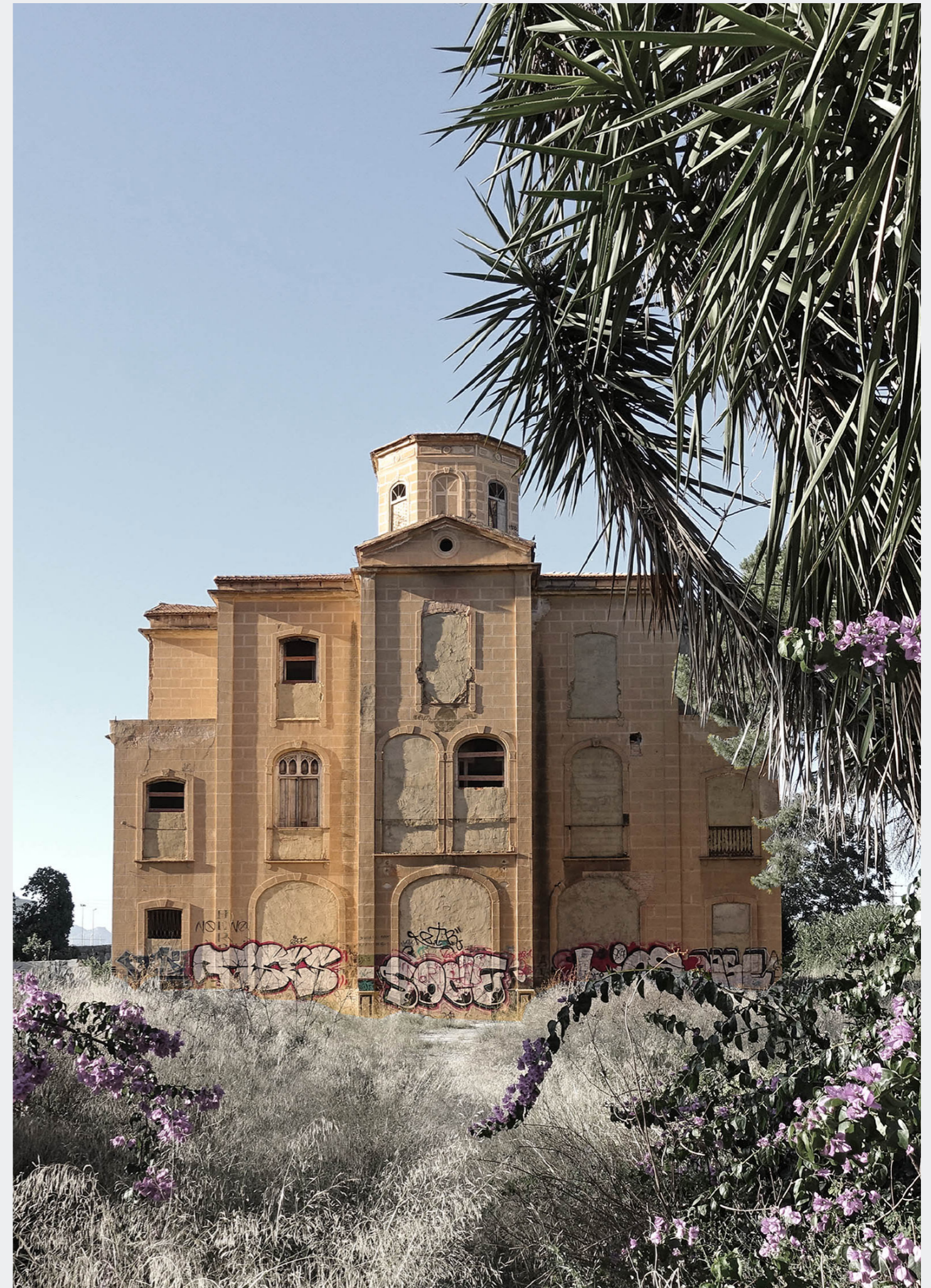
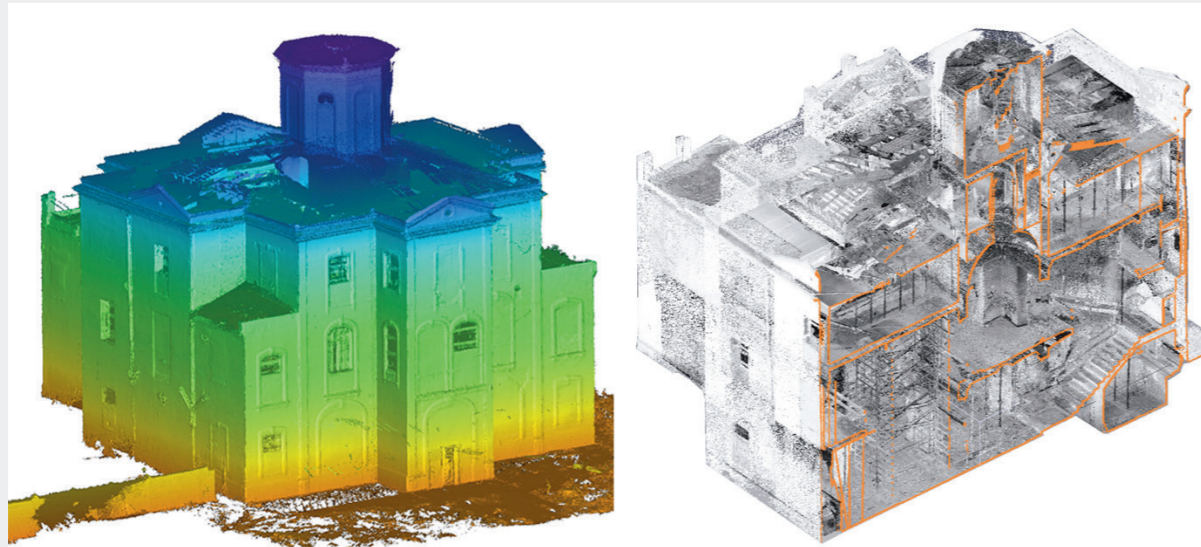


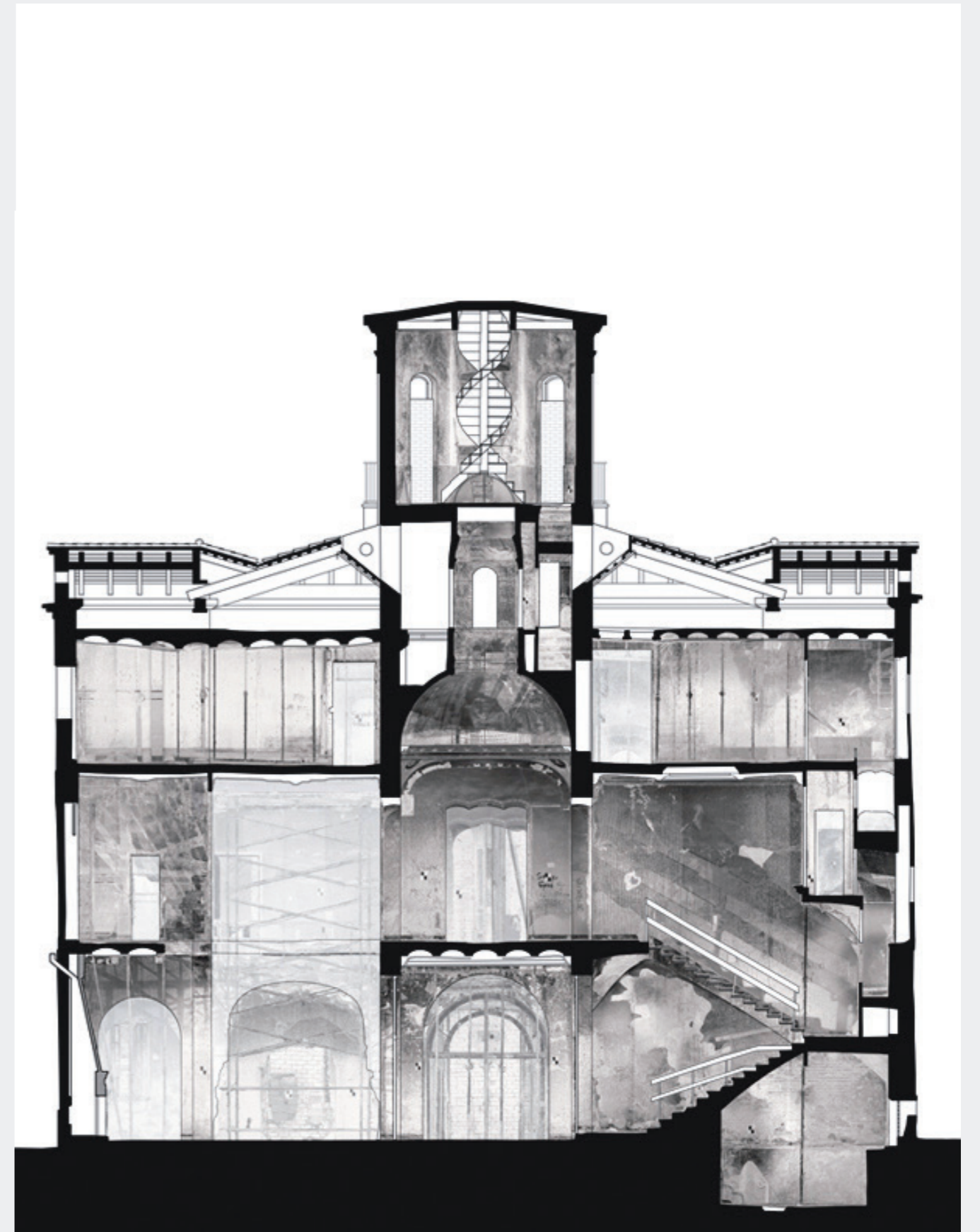
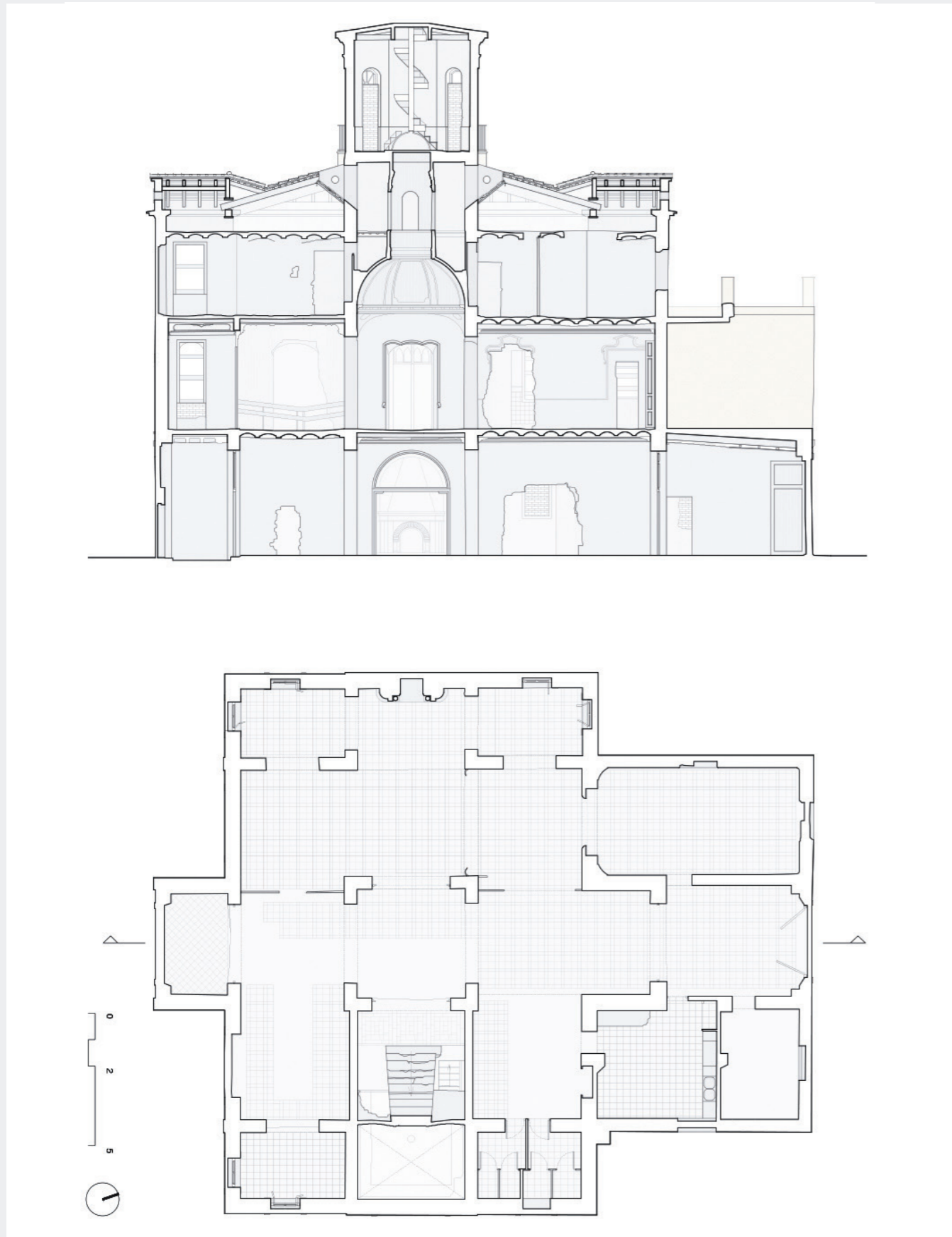


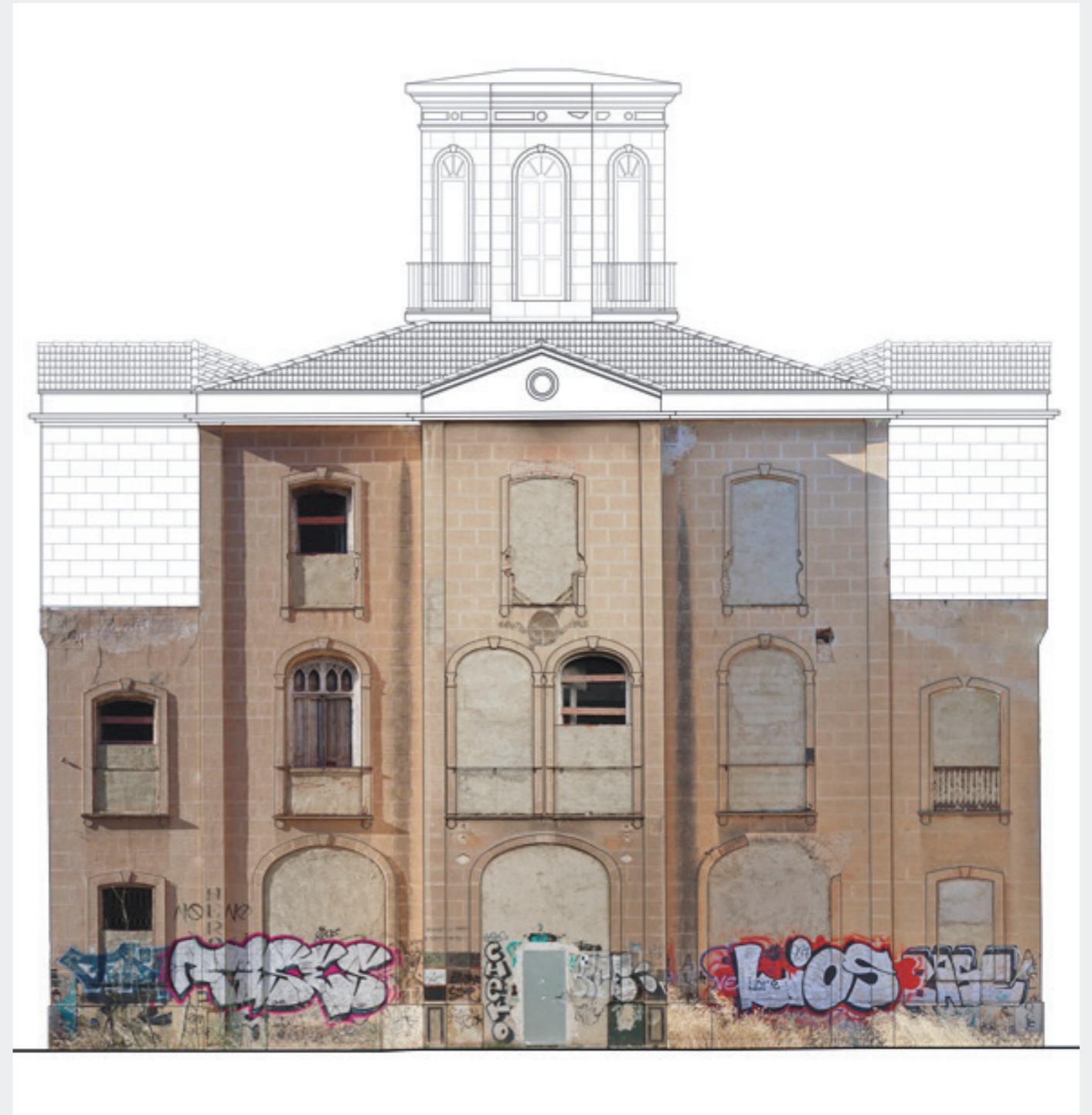
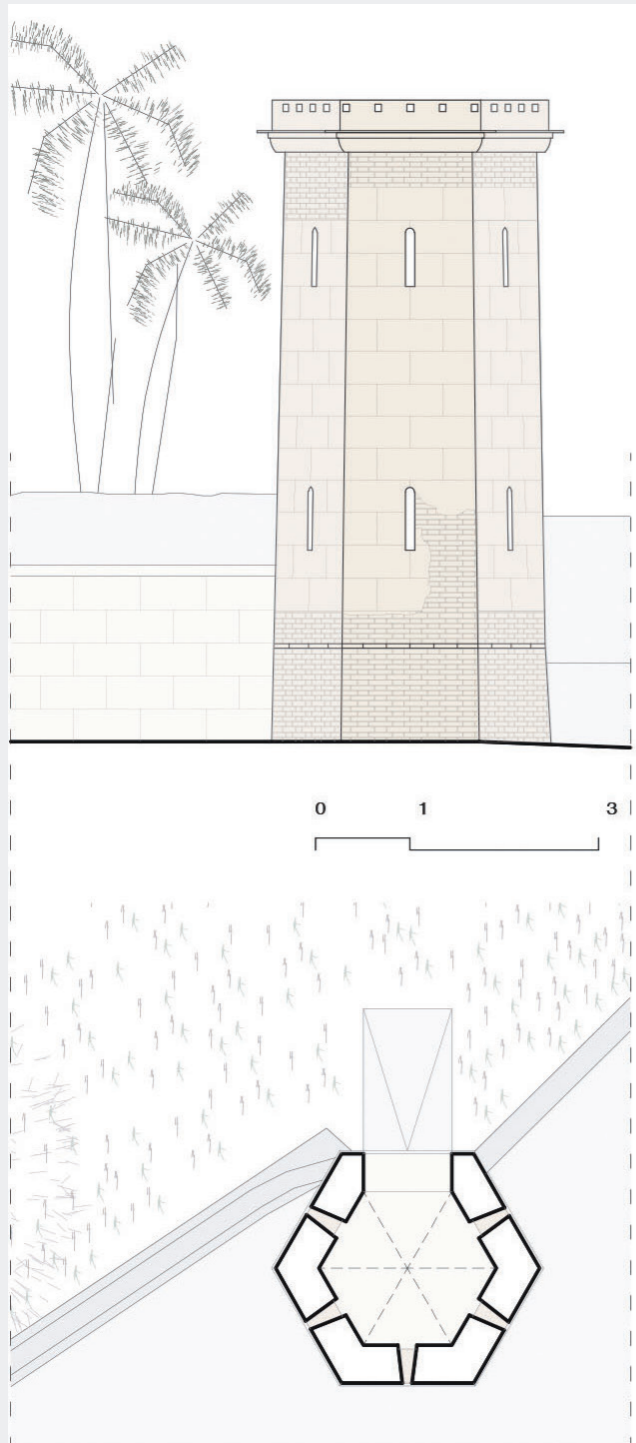
HOUSE OF THE AMERICAN

Valencia, Spain

Works done:
2D photogrammetric survey
3D scanner laser survey
Topographic support
Scale architectural plans







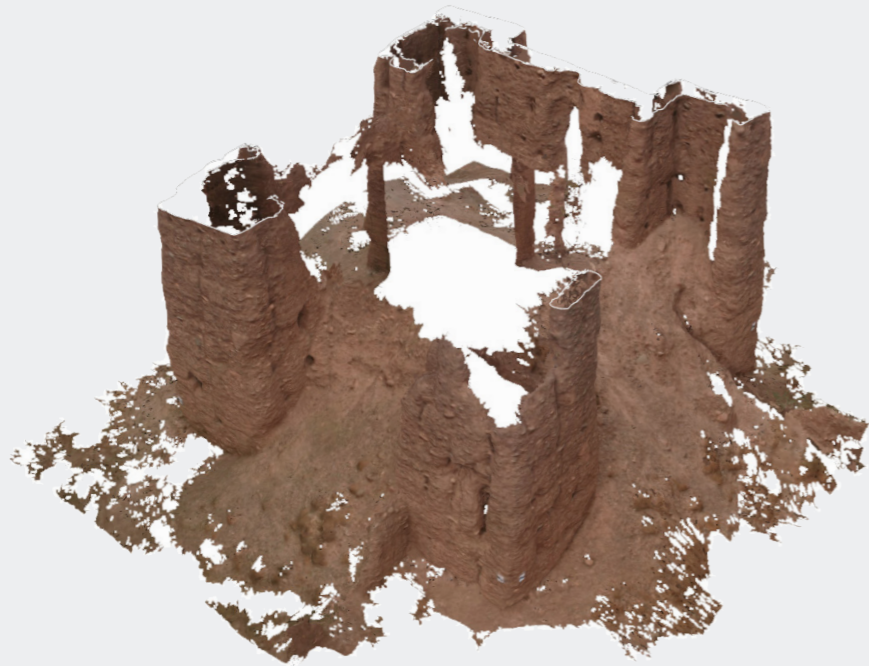
CASINO DEL AMERICANO LevARQ Group, Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Photogrammetric elevation. Tower wall enclosure (previous page)

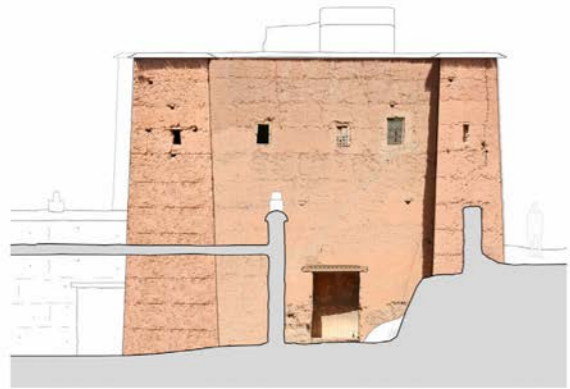
THREE KASBAHS IN THE MGOUN VALLEY

Mgoun Valley, Morocco

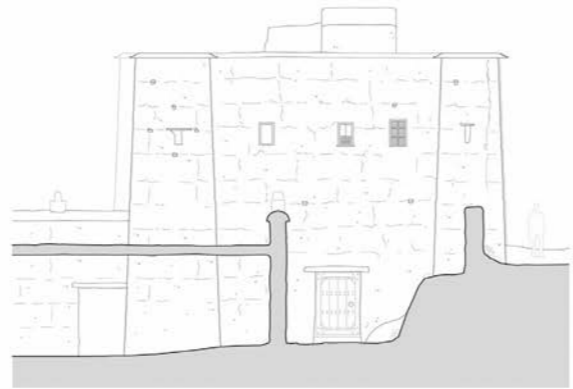
Works done:
3D photogrammetric survey
Direct measurement
Scale architectural plans



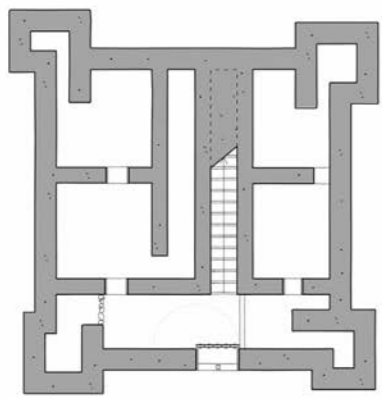
Ait Bousaka en Issoumar



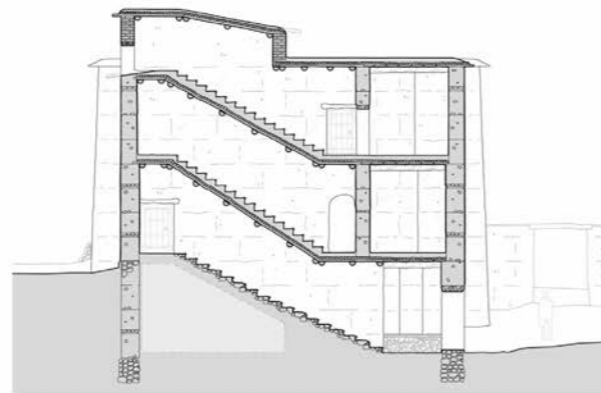
Fotogrametría sur



Alzado sur



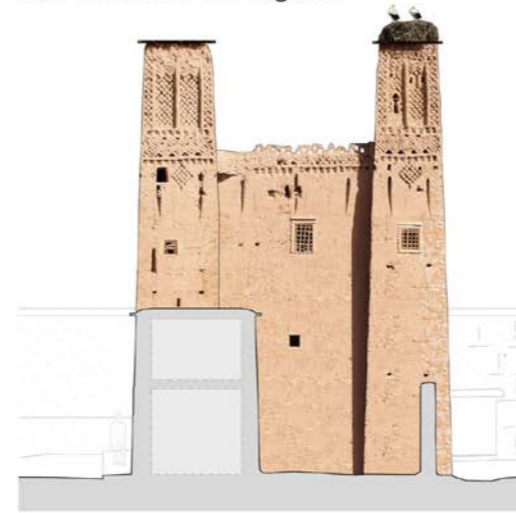
Planta baja



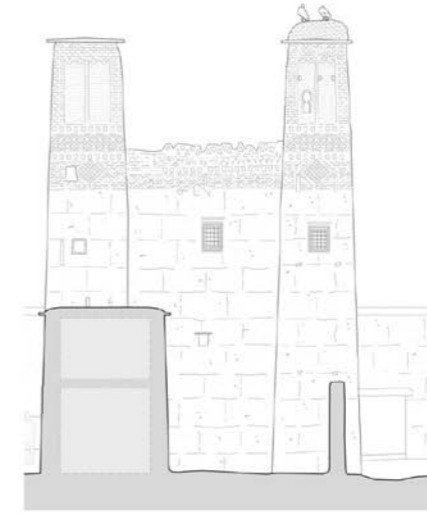
Sección por escalera

0 2 4 m

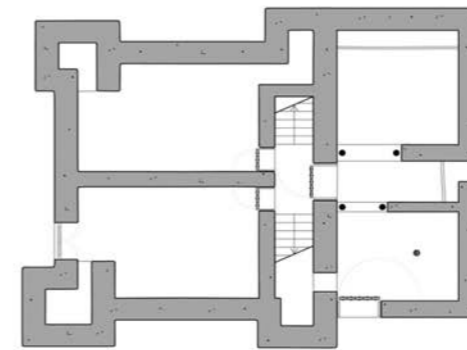
Ait Aicha en Bou Taghrar



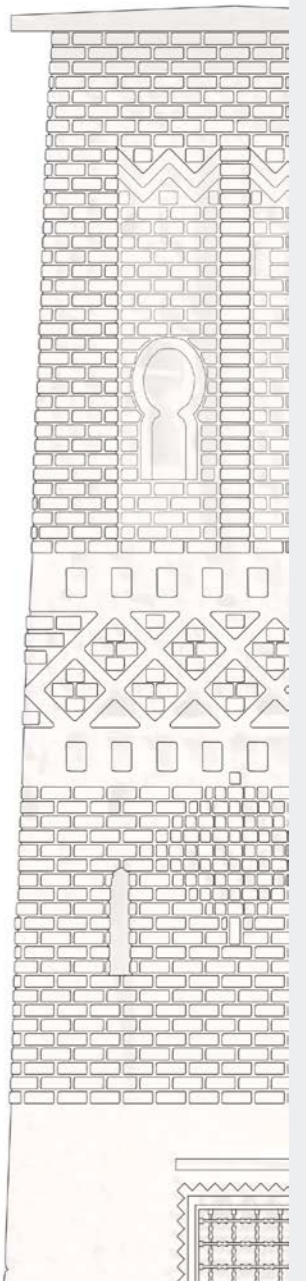
Fotogrametría oeste



Alzado oeste



Planta baja



BAIRÉN CASTLE

Gandía, Valencia, Spain

Works done:
3D photogrammetric survey
Photographic support with drone
Topographic support
Scale architectural plans







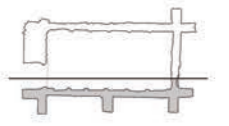
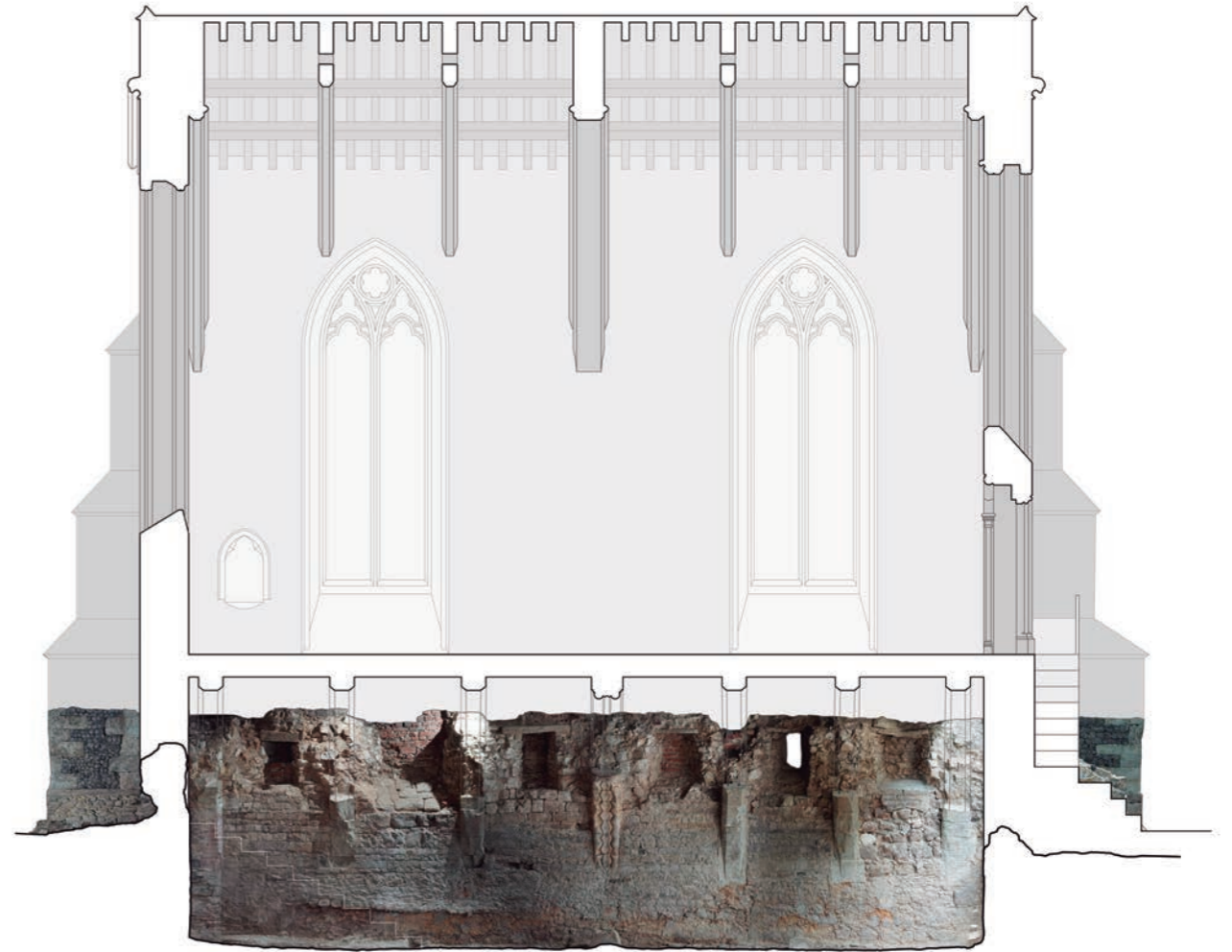
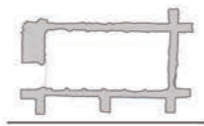
CHARNEL HOUSE

Spitalfields, London, United Kingdom

Works done:
3D photogrammetric survey
Topographic support
Scale architectural plans
Reconstructive hypothesis

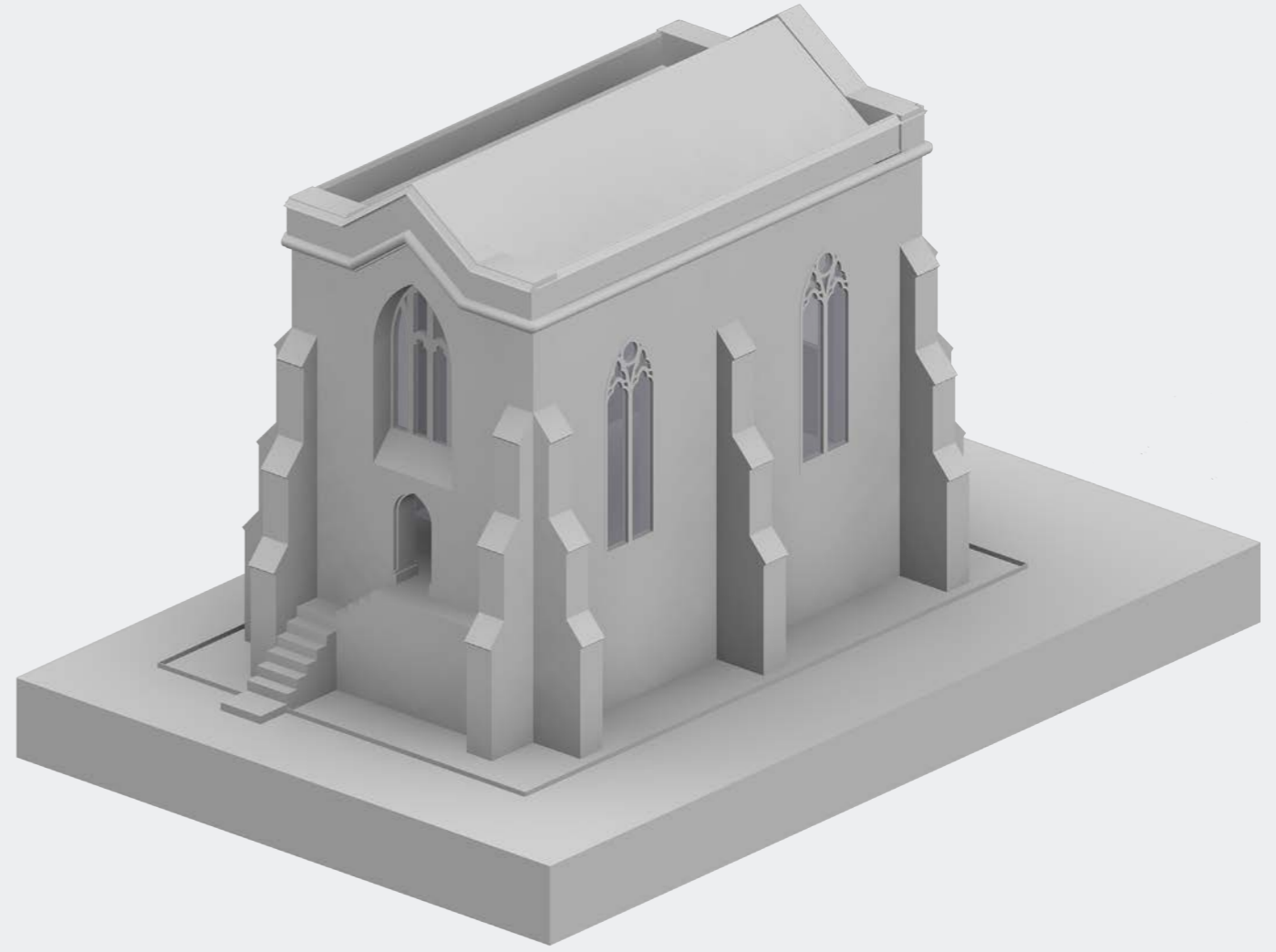








TAKE THIS QR-CODE WITH YOUR SMARTPHONE OR TABLET AND ENJOY THE INTERACTIVE 3D MODEL OF STONES USED FOR THE RECONSTRUCTION

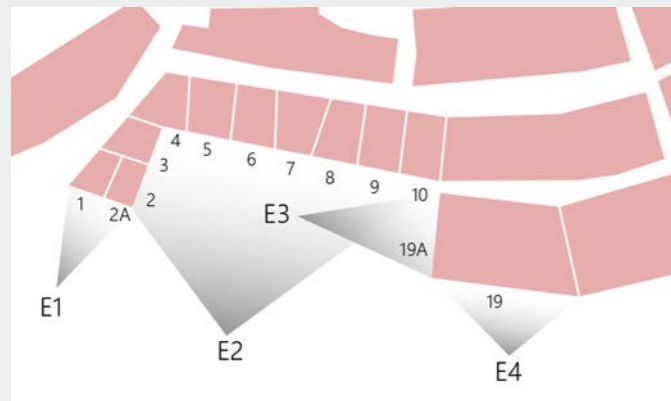


ESTUDIO SQUARE

Morella, Castellón, Spain

Works done:
2D photogrammetric survey
Topographic support
Scale architectural plans





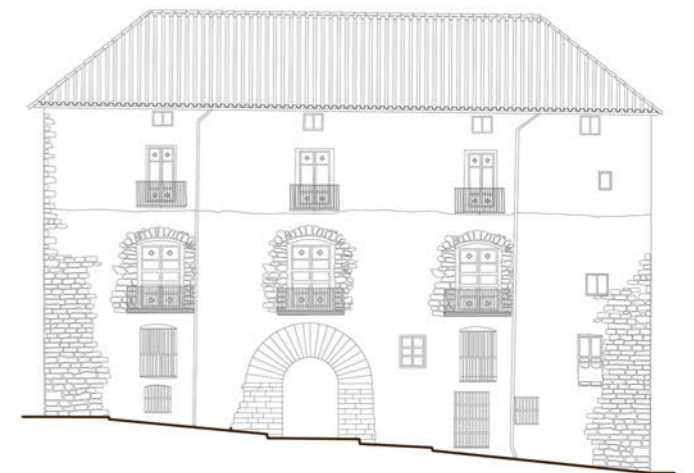
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nº 19



nº 19 A



nº 19



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DE VALÈNCIA