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 CMTATIS: International Journal of Urban and Territorial Morphological Studies, Digital Heritage International Congress, Arqueológica 2.0, Loggia, Arquitectura y Restauración or International Exhibition in Research in Building Engineering-DXCO. 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.
WORKS SELECTION
SANTIAGO CHURCH

Benicalaf, Valencia, Spain

Works done:
- 3D photogrammetric survey
- Photographic support with drone
- Topographic support
- Scale architectural plans
IGLESIA DE SANTIAGO DE BENICALAF
LevARQ Group. Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Vault painting. Elevations and sections. 3D model (previous page)
BUÑOL CASTLE
Buñol, Valencia, Spain

Works done:
2D photogrammetric survey
Topographic support
Scale architectural plans
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  LevÁRQ 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
ESTUDIO PREVIO
CASTILLO DE PETRÉS
(VALENCIA)

Promotor:
Arquitectos:
Fernando Vegas & Camilla Mileto

Lámina:
Título:
Escala:
Fecha:

Leyenda:
0,00
0,00
Cota altimétrica referenciada al cero topográfico relativo.

Las cotas dimensionales y altimétricas están expresadas en metros.

S1
S1
Sección longitudinal.

____
Levantamiento. Fotoplanos
1:50

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

Combined section of photogrammetry and point cloud
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-Piquerás

Point cloud section. Plan and section (previous page)
THREE KASBAHS IN THE MGOUN VALLEY

Mgoun Valley, Morocco

Works done:
3D photogrammetric survey
Direct measurement
Scale architectural plans
KASBHAS IN MGOUN VALLEY
LevARQ Group Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Ait Boussaka en Issoumar

Ait Aicha en Bou Taghrar
BAIRÉN CASTLE

Gandía, Valencia, Spain

Works done:
- 3D photogrammetric survey
- Photographic support with drone
- Topographic support
- Scale architectural plans
CASTILLO DE BAIRÉN
LevARQ Group. Pablo Rodríguez-Navarro & Teresa Gil-Piqueras
Plan, Orthophoto
CASTILLO DE BAJÉN  LeVARQ Group. Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Photogrammetric elevations
CHARNEL HOUSE
Spitalfields, London, United Kingdom

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

Morella, Castellón, Spain

Works done:
2D photogrammetric survey
Topographic support
Scale architectural plans
Elevations and photogrammetric elevations
PLAZA DEL ESTUDIO  LevARQ Group. Pablo Rodríguez-Navarro & Teresa Gil-Piqueras

Elevations and photogrammetric elevations
COLLABORATORS

Andy Chopping
Anna Pérez Vila
Diego Rodrigo-Maganto
Gabriele Guidi
Giorgio Verdiani
Manuel Mateo
Sergio González Estruch
Xosé Garrido