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* Information, text, images, drawings
and plans provided by
Francisco Reina Fernández-Trujillo

project

01

Casa Diáñez (Diáñez House)

Rehabilitation of Casa Diáñez. Alcalá de los Gazules

IDENTIFICATION

Designations

✗ Casa Familia Estrada

Information about the location

✗ Historic centre

Address

✗ Plaza San Jorge, 4. Alcalá de los Gazules

Country / Region

✗ España / Cádiz

Coordinates

(GIS: ETRS89 / Google Maps: WGS84)

✗ 255938.08, 4038743.70
36°27'46.50"N, 5°43'25.19"W

City size

✗ 5226 hab. (2020)

Website

✗ <https://www.reina-asociados.com/work/casa-dianez/>
<http://www.fernandoalda.com/es/trabajos/arquitectura/444/rehabilitacion-de-la-casa-dianez>

Accessibility

✗ Public

Public visits:

✗ Yes

Category

Architectural project
✗ Reuse (Adaptive)



Figure 1. Location map and panoramic view of Alcalá de los Gazules

Author: Elaborated on © Google Maps image by Francisco Reina Fernández-Trujillo.

Source: Document provided for the restricted proposal competition by Consejería de Obras Públicas y Transportes, Junta de Andalucía, 2005



Figure 2. Casa Diáñez (Diáñez House), Plaza San Jorge

Author: © Fernando Alda, 2009.

Source: Francisco Reina Fernández-Trujillo.

Deliberative and participatory planning

✗ Yes

First prize in the restricted proposal competition (2005):

> Title of the proposal: "Mírala" by Francisco Reina Fernández-Trujillo, María Jesús Carmona Salas and José Vázquez Mora.

Current use:

✗ Administrative building.

It was the Technical Office of the Area de Rehabilitación Concertada (Concerted Rehabilitation Area) of the Historic Center of Alcalá de los Gazules and the Historical and Ethnographic Interpretation Centre for the city of Alcalá de los Gazules and its territorial surroundings. The town council is considering using it as a museum.

Year (period) of the project renovation / restoration

✗ 2005/2006: Project and Public Competition
2006/2009: Execution

Area of the building (m²)

✗ 508,85 m²

Current owner

✗ Public: Junta de Andalucía

Architects

✗ Francisco Reina Fernández-Trujillo

Other designers / engineers

✗ Collaborators:
María Jesús Carmona Salas, José Vázquez Mora, Amanda Martín Mariscal, Mercedes Sánchez González, Olga Valderas Grisalvo, José Allona Rosendo (Architects).
✗ Structure:
Pedro Lobato Vida (Architect).
✗ Building Services:
ASTER Consultores.

Other agents

✗ Direction of execution: Francisco Alcoba González (Quantity Surveyor)

Developer

✗ Empresa Pública de Suelo de Andalucía (EPSA).
Oficina Técnica del Área de Rehabilitación Concertada del Centro Histórico de Alcalá de los Gazules.
Dirección General de Rehabilitación y Arquitectura, Consejería de Obras Públicas y Vivienda, Junta de Andalucía.

Building contractor

✗ BEYFLOR, S.L.

Cost of the project / execution time

✗ 652.121,66 €

KEY FEATURES



Remarkable attributes / Singularities / Specific Values

Its powerful tectonics and spatial simplicity: four bays built with thick masonry walls and slabs with tight spans delimit a courtyard of reduced dimensions; on the smaller sides of the courtyard, a system of galleries supported by double arcades intermeddle in the relationship between the void and the rooms, blurring the massive and closed character of the interior space.

Scope of application / necessity of the project:

The façade bay, protected by urban planning policy, and the load-bearing walls of the rest of the building, consolidated and freed of additions or actions lack of value, have been preserved. The adaptation of the new spaces is entrusted to light and unitary structure that is introduced into the building, transforming its section and intertwining naturally with the pre-existing.

Previous studies (Ex. Archaeological, historical, structural, materials, etc.)

- ✗ Historical: The historical study was included in the restricted ideas competition.
- Archaeological: Provincial Delegation of Culture.

HISTORY OF THE BUILDING/SITE



Original use

- ✗ House
- ✗ Religious

HISTORIC USES

Pre-existing conditions: Manor house (15th-16th century) / Cloistered Convent and Episcopal Palace (16th/17th century) Estrada family house / Inn / multi-family housing

CONSTRUCTION PERIOD

17th century

SUMMARY OF MAJOR FUNCTIONAL AND STRUCTURAL CHANGES / YEAR OF INTERVENTION

18th century: remodeling of the façade. Adaptation of the single-family housing into a multi-family housing. Alterations from different periods can be recognised in the original configuration of the house. These include contemporary modifications to the left lateral bay - rebuilt with concrete slabs - and the insertion of a third gallery on the first floor parallel to the rear bay, supported by two square-section pilasters.

ARCHITECTS / AGENTS

Unknown

PHYSICAL CONDITION BEFORE RESTORATION / RENOVATION

The building was in a poor state of general repair and underwent shoring and structural consolidation work in 2005. The most significant damages affected roofs and floor slabs, mainly due to the poor condition of the wooden load-bearing elements - both beams and boards - which led to the fall of entire sections in some areas of the building, the appearance of deformations and the loss of tile pieces in the gables with the consequent general lack of water tightness of the roofing system. However, the load-bearing structure of the masonry walls remained solid and showed no significant damage, except for occasional pathologies due to the absence of cladding material.



Figure 3. Exterior view before the intervention. Source: Document provided for the restricted proposal competition by Consejería de Obras Públicas y Transportes, Junta de Andalucía, 2005.



Figure 4. View of the arcades before the intervention and Figure 5. Interior view before the intervention. Source: Document provided for the restricted proposal competition by Consejería de Obras Públicas y Transportes, Junta de Andalucía, 2005.

STATUS OF PROTECTION

The house is included in the Revision of the Normas Subsidiarias Municipales de planeamiento (Municipal Urban Planning Subsidiary Rules) of Alcalá de los Gazules. Specifically, it is included in the Catálogo de Bienes Inmuebles Protegidos (Catalogue of Protected Immovable assets) numbered as T-2 with a typological degree of protection. The Plan Especial de Protección para el Centro Histórico (Special Plan for the Protection of the Historic Centre) of Alcalá de los Gazules protects the first bay of the building, facing the Plaza de San Jorge.

GENERAL DESCRIPTION OF THE BUILDING BEFORE ITS RENOVATION / RESTORATION

The house stands on a plot with a geometry similar to a rectangle of 15x12 m, structured around a central courtyard of 5.5 x 4.5 m with four perimeter bays. The clear interior spans are approximately 3 m in the outer bays and 2.50 m in the inner bays. On the two smaller fronts of the courtyard, arcades are built to support galleries at the first-floor level. The arcades are made up of a double carpanel arch with a brick masonry column as an intermediate support. Functionally, the manor house was structured by levels; ground floor for service activities, offices, storerooms, or stables; first floor for housing and second floor for storing foodstuffs or household goods.



Figure 6. Ground floor before restoration
Author: Francisco Reina Fernández-Trujillo.

PROJECT DESCRIPTION

DESIGN PROJECT IDEA FOR THE RENOVATION / RESTORATION

The project works under the following premise: to highlight the essential aspects of the original house once it has been consolidated and freed from additions or previous actions. To conserve the values of the domestic/palatial architecture and make them compatible with the new administrative use, giving it a public and institutional character.

The adaptation of the new spaces is entrusted to light and unitary structure that is introduced into the building, transforming its section and intertwining naturally with the pre-existing. The courtyard, the new axis of routes and circulations, becomes the backbone of the house. Its treatment with wooden lattices combined with glass elements nuances the relationship between the void, the rooms, and the circulation spaces, diluting its limits to make the house lighter as we ascend. Transparencies, glazing, permeability, brightness and reflections give the building a public and institutional character, compatible with the more domestic image of the original house.

DESCRIPTION OF THE CHANGES AND ADDITIONS

Recovery of the typology through the consolidation of the structure and the potential character of the courtyard.
Elimination of the stairs to relocate them next to the rear party wall.
Suppression of internal partitions in certain bays.
Replacement of the contemporary sloping roofs with terraces.

BUILDING MATERIALS

The building is built with thick load-bearing walls made of masonry clad with lime mortar. The original floor slabs were made up of wooden beams or timber beams with a

continuous wooden board. The floor was laid directly with a layer of bonding mortar on top of the board. The roofs are pitched tile roofs, with a wooden structure made up of pairs supported by stirrups embedded in the walls and upper row.

The adaptation of the new spaces is entrusted to light and unitary structure that is introduced into the building, transforming its section and intertwining naturally with the pre-existence, eliminating additions and other inappropriate reforms.

PROJECT IN RELATION TO THE SUSTAINABILITY

Social aspect:

The proposal values the powerful tectonics and the spatial and material simplicity of the original house, preserving its protected elements: the main doorway towards the Plaza de San Jorge (as the main place where the main activities of the population took place: economic, political and religious), the courtyard galleries and the façades.

The intervention aims to convert the house into a significant building in the historic centre of Alcalá with the idea of serving as a stimulus for the urban fabric in which it is inserted.

Economic aspect:

Public funding



Figure 7. Longitudinal section

Author: Francisco Reina Fernández-Trujillo.



Figure 8. View through wooden lattices after the intervention.

Author: © Fernando Alda, 2009.

Source: Francisco Reina Fernández-Trujillo.

Environmental aspect:

The proposal transcends the conservation of the building that is the object of the intervention to “recover the urban and natural (cultural) landscape” in which it is inserted. In this way, the intervention in the courtyard, in addition to “capturing the light”, seeks to establish visual relations with other heritage elements in the surroundings, such as the tower of the church of San Jorge (to the east), the tower of the convent of Santa Clara (to the west) and the castle tower of tribute from the north terrace.

We understand that the typological recovery based on the recognition of the cultural values of the pre-existences, the recycling of spaces, the incorporation of the courtyard into the interior space (capturing the light and connecting with the heritage of the place and with the landscape through new visuals) as well as the use of traditional materials, especially in the façades that remain, show a sustainable attitude in the heritage action. But above all, we are interested in the intervention in the heritage as an intervention that recognises the value of the building, beyond the immediate urban environment, emphasising the capacity of these objects as transmitters of knowledge, in this case of the municipality of Alcalá de los Gazules, and their necessary relationship with the territory through the establishment of relationships with other elements that coexist in the landscape.

SPECIAL METHODS OR TECHNIQUES USED IN THE PROJECT WHICH REFLECT THE SUSTAINABLE DESIGN

On the technical side, energy efficiency interventions are proposed through passive actions (such as the treatment of light through the courtyard or the control of orientations). A decentralised air-conditioning system was incorporated to make each floor independent. Finally, photovoltaic solar energy panels were not installed due to the use of the building. From a functional point of view, it is proposed to flexibly adapt the uses demanded, allowing for other future occupancy alternatives.

DIGITAL DATA EMPLOYED FOR THE DOCUMENTATION (3D SCANNING, PHOTOGRAMMETRY, ETC.)

No digital data was used.



Figure 9. a) View of the interpretation room and b) View of the courtyard from second floor.

Author: © Fernando Alda, 2009.

Source: Francisco Reina Fernández-Trujillo.



Figure 10. View of the courtyard after the intervention.

Author: © Fernando Alda, 2009.

Source: Francisco Reina Fernández-Trujillo.

TOOLS/TECHNOLOGIES USED FOR THE IMPLEMENTATION OF THE NEW USE

No tools/technologies were used.

DISSEMINATION / PROMOTION ACTIVITIES (WORKSHOPS, CONGRESS, PUBLICATIONS, PRIZES)

Prizes:

- > Finalist. Spanish Architectural Heritage Intervention Award 2009 Consejo Superior de Arquitectos de España.
- > Finalist Work. I Architecture Awards 2006-2010. Official College of Architects of Seville. 2015.

Publications and websites:

- > "Concursos de arquitectura con participación de jurado 2002/2006". Edited by Consejería de Obras Públicas y Transportes. ISBN 978-84-8095-537-9. 2008.

> <https://www.metalocus.es/es/noticias/luz-y-ligereza-en-la-rehabilitacion-de-casa-dianez-por-reina-asociados>

> www.divisare.com/projects/307047-francisco-reina-fernando-alda-www-fernando-alda-com-dianez-house
 > www.archilovers.com/projects/168130/dianez-house-restoration.html
 > <https://morewithlessdesign.com/casa-dianez/>
 > <http://www.fernandoalda.com/es/trabajos/arquitectura/444/rehabilitacion-de-la-casa-dianez>

Conferences:

> "Rehabilitación de dos casas en Cádiz". XV Edición Jornadas REhabilita. Colegio Oficial de Arquitectos de Extremadura, Ayuntamiento de Plasencia y Fundación Pymecon. Plasencia, 8 de octubre de 2020.
 > "Construir entre las cosas". Ciclo: "NOON. Miércoles mediodía. Conferencias sobre arquitectura contemporánea". Escuela Técnica Superior de Arquitectura, Universidad de Sevilla. Sevilla, 2 de junio 2010.

REFERENCES

Almagro Montes de Oca, Gabriel (2001). Alcalá de los Gazules en el fondo documental Sánchez del Arco. Cádiz: Excma. Diputación Provincial de Cádiz.

Almagro Montes de Oca, G. y Guerra Martínez, J. (1991) Alcalá de los Gazules: el medio físico y humano. Alcalá de los Gazules: Ayuntamiento de Alcalá de los Gazules. Cuaderno de Temas Alcalaínos.

Navarro Ariza, María Rosa (1998). El conjunto urbano de Alcalá de los Gazules en apuntes históricos y de nuestro patrimonio, 1997-98. Alcalá de los Gazules: Edición Municipal, pp. 63 y ss.

Navarro Ariza, María Rosa (Inédita). Caracterización, definición y delimitación del conjunto histórico de Alcalá de los Gazules para la Consejería de Cultura.

Ramos Romero, Marcos (1983). Alcalá de los Gazules. Jerez: Diputación de Cádiz. Historia de los Pueblos de la Provincia de Cádiz. Toscano de Puelles, Fernando (1990). Iglesia parroquial de San Jorge en Alcalá de los Gazules. Guía breve. Cádiz: Ayuntamiento de Alcalá de los Gazules. Cuaderno de Temas Alcalaínos.

Toscano de Puelles, Fernando (1988). Historia de la congregación beaterio de Jesús, María y José. Cádiz: Diputación Provincial.

Toscano de Puelles, Fernando (1985). Las escuelas profesionales de la Sagrada Familia en Alcalá de los Gazules. Chiclana: Asociación de AA. AA. SAFA.

Toscano de Puelles, Fernando (1987). Sainz de Andino el Hacedor de Leyes. Cádiz: Diputación de Cádiz.

VV.AA. (1988-2003). Apuntes históricos y de nuestro patrimonio. Cuaderno de Temas Alcalaínos, varios números. Alcalá de los Gazules: Ayuntamiento de Alcalá de los Gazules.

ACADEMIC WORKS / STUDENTS RELATED PROJECTS / PUBLICATIONS

Other proposals in the restricted competition (2005):

"Nueva Vida" by Francisco Javier Terrados Cepeda

"Jerash" by José Ignacio Fernández-Pujol Cabrera

"No es lo mismo" by Ignacio Rubiño Chacón, Pura García Márquez and Luis Rubiño Chacón

"Pathio3" by José Manuel Morales, Andrés Pérez Sánchez-Romate and Eva Escribano Montero

OTHER SIMILAR PROJECTS AS A REFERENCE

- Dwellings in Vírgenes street, Sevilla by Francisco Reina Fernández-Trujillo (2007-2011)
 - Pinillos House, extension of the Museum of Cádiz by Francisco Reina Fernández-Trujillo (2009-2011)

REFERENCE TO WORLDWIDE EXAMPLES

✕ N/A



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Antonio Jiménez Torrecillas Studio

project

02

Muralla nazari, Alto Albayzín (Nasrid Wall, Upper Albayzin)

////////////////////////////////////
(Recovery of the Cerro de San Miguel and the Darro river area. Rehabilitation of the wall of San Miguel Alto and its surroundings)

IDENTIFICATION

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Designations

- ✕ Muralla de San Miguel (San Miguel Wall)

Information about the location

- ✕ Peri-urban Mountain

Address

- ✕ Albayzin, Granada

Country / Region

- ✕ Spain / Granada

Coordinates

(GIS: ETRS89 / Google Maps: WGS84)

- ✕ 447729.67, 4115576.55
37°11'6.61"N, 3°35'20.02"W

City size

- ✕ 10 463 hab. (2017) Albayzín Neighborhood

Website

- ✕ N/A

Accessibility

- ✕ Public

Public visits

- ✕ Yes

Category

- ✕ Architectural project
Resilience
Restoration / Reconstruction
- ✕ Landscape Intervention
Preservation



Figure 1. Muralla Nazari (Nasrid Wall)
Authors: David Arredondo and Alberto García, 2006.
Source: Antonio Jiménez Torrecillas Studio.



Figure 2. Location map of Upper Albayzín and the Alhambra.
Author: Elaborated on @ Google Maps image by Antonio Jiménez Torrecillas, 2008.
Source: Antonio Jiménez Torrecillas Studio.

- ✗ Environmental planning
- ✗ Infrastructure planning

Deliberative and participatory planning
 ✗ No

Current use
 ✗ Public space

Year (period) of the project renovation / restoration
 ✗ 2002 / 2005: Project
 2005 / 2006: Construction

Area of the building (m²)
 ✗ 56,7 m² (constructed area) / 49 358 m² (area involved) / 40 m (wall)

Current owner
 ✗ Public: Ministerio de Cultura y Deporte, Gobierno de España (Ministry of Culture and Sport, Spanish Government)

Architects
 ✗ Antonio Jiménez Torrecillas

Other designers / engineers
 ✗ Collaborators:
 Michele Panella, Aberto García Moreno, David Arredondo Garrillo, Michele Loiacono, Miguel Dumont Mingorance, Miguel Rodríguez López, Gustavo Romera Clavero, Erwan Blanchard and Maylis Vignau (Architects)
 Miguel Ángel Ramos Puertollano and María Jesús Conde Sánchez (Quality Surveyor)
 Manuel Guzmán Castaños (Engineer)

Other agents
 ✗ Nicolás Torices Abarca (Art Historian)
 Emilia García Martínez (Geographer)
 Carlos Misó Esclapés (Sculptor)
 Daniel Campos López and Eusebio Alegra Paricio (Archaeologists)

Developer
 ✗ Albaicín Foundation, Granada City Council

KEY FEATURES



Remarkable attributes / Singularities / Specific Values

Opposite the hill of the Alhambra and the Generalife, the San Miguel hill frames the last stretch of the Darro Valley, and its Vega. It is a landscape that is very closed and linked to the city, natural and wild at the same time, but converted into a residual, almost marginal space, where all kinds of rubbish and debris accumulated: in the midst of its disorder, the incomplete, fractured remains of the Nasrid wall, with the marked landscape, historical and constructive values.

Scope of application / necessity of the project:

- > The hill: to preserve this landscape, which is necessary for the understanding of the city in the mountainous structure that determines it, by undertaking a conceptual and physical cleaning of its surroundings, as well as the accesses to it. This will prevent it from being developed.
- > The wall: re-establish the linear continuity of the wall and restore the primitive protection of its interior with the erection of a new wall, a boundary that characterises a landscape associated with the urban periphery with important heritage connotations, to prevent the passage of road traffic although allowing pedestrian communication established over the last century and a half between the two areas of the city separated by the wall.
- > The construction of this new section of the wall conceals a newly built residential area that distorts the landscape.

Building contractor

✕ Entorno y Vegetación

Cost of the project / execution time

✕ 1 mill. € from European Regional Development Fund (ERDF), Local Operational Programme (2000-2006)

Previous studies (Ex. Archaeological, historical, structural, materials, etc.)

✕ Intervention to consolidate the walls in the 1950s, by Francisco Prieto-Moreno Pardo (architect).
Archaeological work was carried out at the same time as work on the walls and the surrounding area, although several investigations had already been carried out beforehand on the walls, their history and materials.

HISTORY OF THE BUILDING/SITE
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Original use

✕ Military

HISTORIC USES

The wall was built as a means of defending the city. Later, with the absence of invasion threats, the wall lost its function and began its slow and steady deterioration. It is now a tourist attraction in the city.

Figure 3. Photomontage of the wall before the intervention

Author: Antonio Jiménez Torrecillas, 2005.
Source: Antonio Jiménez Torrecillas Studio.



CONSTRUCTION PERIOD

14th Century (Developer: Yusuf I)

SUMMARY OF MAJOR FUNCTIONAL AND STRUCTURAL CHANGES / YEAR OF INTERVENTION

> Destruction of 40 meters of the wall by an earthquake (19th century).
> Brick walls to consolidate the walls (ca. 1950) by Francisco Prieto-Moreno Pardo (architect).

ARCHITECTS / AGENTS

Unknown

PHYSICAL CONDITION BEFORE RESTORATION / RENOVATION

The surroundings, the accesses, and the wall itself were in a high state of abandonment



Figure 4. View of the breakage of the wall.

Author: Antonio Jiménez Torrecillas, 2008.
Source: Antonio Jiménez Torrecillas Studio.

and deterioration. The San Miguel hill had become an illegal rubbish dump. The wall was in a high state of abandonment, deteriorated and altered by acts of vandalism.

STATUS OF PROTECTION

Bien de Interés Cultural (Property of Cultural Interest). Category: Monument (Gaceta de Madrid, 12/07/1922).

GENERAL DESCRIPTION OF THE BUILDING BEFORE ITS RENOVATION / RESTORATION

The wall was built at the beginning of the 14th century. It was built with rammed earth, made of sand, mortar, and lime. Part of the wall has been lost. The adjoining walls were consolidated with brick masonry elements to provide stability and prevent further degradation of the ends of the walls. The area, although it retains a low degree of urbanisation, was very degraded

PROJECT DESCRIPTION



DESIGN PROJECT IDEA FOR THE RENOVATION / RESTORATION:

- To carry out a reversible intervention, clearly differentiated from the pre-existing construction, and from a contemporary conception, reinterpreting the materiality of the existing wall.
- To achieve, from a distant perspective, chromatic nuances similar to those existing in the wall. An integrating proposal from the landscape point of view.
- From a close-up view, establish the physical and constructive difference between the old wall and the newly built wall. Reversibility and discernibility characterise the proposed intervention.
- Respect the pre-existing construction respecting space between both constructions. Intervention is compatible with the pre-existence as it is physically separated.



Figure 5. Section.
 Author: Antonio Jiménez Torrecillas, 2006.
 Source: Antonio Jiménez Torrecillas Studio.

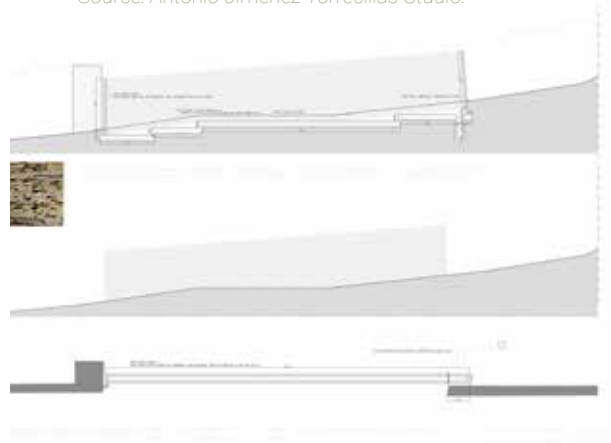


Figure 6. Wall enclosure wall of the wall opening. Section, elevation and plan.
 Author: Antonio Jiménez Torrecillas, 2004.
 Source: Antonio Jiménez Torrecillas Studio.

DESCRIPTION OF THE CHANGES AND ADDITIONS

In order to re-establish the linear continuity of the wall and restore the original protection of its interior, a new wall was built on the missing section. Attached to the historic element, it is distanced from it as far as necessary to avoid contact with the Monument and thus guarantee the conservation of the original walls and foundations. A new wall, in the manner of a “dressing”, is attached to the open wound. In a later intervention, a gap was made to allow people to pass from one side of the wall to the other, a route that had been consolidated since the loss of part of the wall in the 19th century. The rubble and rubbish on the hill were replaced by planting of pitas and prickly pear cactus.

.BUILDING MATERIALS

- Pink Porriño granite slabs for the new wall.
- Restoration of the cobblestones in the sections where they existed; soft tamped earth paving in the areas lacking paving and stone steps for the steeper sections.

PROJECT IN RELATION TO THE SUSTAINABILITY

Social aspect:

It prevents the damaging passage of vehicles through the wall, but allows pedestrian traffic between the area outside the walls and the Intramuros area. Initially, the passage was made in a bend, but later it was made with a direct passage. The accesses to the area were also adapted, facilitating communication and relations between the inhabitants of both parts of the wall.

Economic aspect:

Public funding

Environmental aspect:

The compact image of the wall and the Cerro de San Miguel is restored, hiding the presence of a modern urban development from the view of the Alhambra.

In addition, vegetation is introduced to recover the idea of a garden in keeping with the Generalife's distant gardens and as a natural backdrop to the Alhambra and the final perspective of the city of Granada itself.

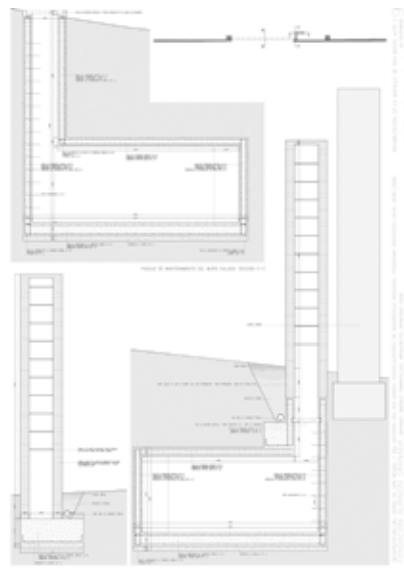


Figure 8. Openwork wall and maintenance passage. Sections.

Author: Antonio Jiménez Torrecillas, 2004.

Source: Antonio Jiménez Torrecillas Studio.

SPECIAL METHODS OR TECHNIQUES USED IN THE PROJECT WHICH REFLECT THE SUSTAINABLE DESIGN

- The works were carried out manually, especially those related to the wall's construction and the subsequent work to open a space for pedestrians to pass through.
- A green intervention was carried out in the area next to the stepped path with plantations typical of the area, such as pitas and prickly pears.

Figure 7. Photomontage of the intramural elevation.

Author: Antonio Jiménez Torrecillas, 2006.

Source: Antonio Jiménez Torrecillas Studio.



DIGITAL DATA EMPLOYED FOR THE DOCUMENTATION (3D SCANNING, PHOTOGRAMMETRY, ETC.)

No digital data was used.

TOOLS/TECHNOLOGIES USED FOR THE IMPLEMENTATION OF THE NEW USE

The work of building the new wall, as well as the subsequent opening of the opening, was carried out by hand, trying to alter as little as possible the remains of the foundations of the old fallen wall, and the surroundings.

DISSEMINATION / PROMOTION ACTIVITIES (WORKSHOPS, CONGRESS, PUBLICATIONS, PRIZES)

Prizes:

- > IV European Prize for Urban Public Space (2006). Finalist.
- > FAD Awards of City and Landscape, Barcelona (2006)
- > Premio Arquitectura Piedra, Madrid (2006)
- > X Premio Internazionale Architettura in Pietra, Verona (2007).
- > The Barbara Cappochin International Architecture Prize. Sustainable urban regeneration / eco-districts. Padua (2007). Honourable Mention.
- > Premio Mies van der Rohe (2007). Selected.
- > IX Bienal Española de Arquitectura y Urbanismo (2007). Finalist.
- > XI Bienal Internacional de Arquitectura. Venezia (2008). Selected.
- > Premio Andalucía de Arquitectura 08.



Figure 9. Sunset in Granada.

Author: Jesús Torres, 2006.

Source: Antonio Jiménez Torrecillas Studio.

Constructed work.

Congress:

- > Jiménez Torrecillas, Antonio (2006). "La muralla nazarí en el alto albaicín". In 16th International Meeting on Heritage Conservation. València: Universitat Politècnica de València, pp. 149-157.

Publications:

- > Bossi, Laura (2006). "Muri Andalusi. Intervención en la muralla Nazarí". *Domus*, 894, pp. 66-69.
- > Crespi, Giovanna (2009). "Recupero della muraglia Nazarí a Granada". *Casabella*, 774, pp. 62-67.
- > Gómez Acosta, José Miguel (2006). "Visión actual de la intervención en la muralla Nazarí: Albaicín Alto, Granada". *Restauración & Rehabilitación*, 101, pp. 42-43.
- > Gómez Acosta, José Miguel (2006). "Rehabilitación Muralla San Miguel Alto". *Neutra*, 14, pp. 160-162.
- > Gómez Acosta, José Miguel (2008). "Nasrid Wall, Muralla Nazarí". *A+U Architecture and Urbanism*, 456, pp. 110-115.
- > Gómez Acosta, José Miguel; Calatrava Escobar, Juan (2006). "Muralla Nazarí. Alto Albaicín. Granada". *Documentos de Arquitectura*, 61, pp. 24-33.
- > Jaque, Andrés (2010). "Antonio Jiménez Torrecillas. Muralla Nazarí, Alto Albaicín, Torre del Homenaje y Pósito de Huéscar. Cortijo de las Hermanillas. Viviendas en el Encinar de Monsaraz". *El Croquis*, 149, pp. 4-21; 170-199.
- > Jiménez Torrecillas, Antonio (2006). "Intervención de la muralla nazarí y su entorno (Granada)". *On diseño*, 277, pp. 180-191.
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ACADEMIC WORKS / STUDENTS RELATED PROJECTS / PUBLICATIONS

López Osorio, José Manuel (2016). "La muralla nazarí del Albaicín de Granada: conocimiento y restauración" (PhD Thesis). València: Universitat Politècnica de València.

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OTHER SIMILAR PROJECTS AS A REFERENCE

- Centro José Guerrero, Granada, by Antonio Jiménez Torrecillas (2002).
- Torre del Homenaje en Huéscar, Granada by

Antonio Jiménez Torrecillas (2002-2003).
- Pósito de Huéscar, Granada by Antonio Jiménez Torrecillas (2007/2008).

REFERENCE TO WORLDWIDE EXAMPLES

Alhambra of Granada (13th / 14th century).



Figure 10. Pekin Wall (5th / 16th century).
Author: Antonio Jiménez Torrecillas, 2005.
Source: Antonio Jiménez Torrecillas Studio.



Figure 11. Gorgoracha Tunnel, Granada (1848).
Author: Antonio Jiménez Torrecillas, 2005.
Source: Antonio Jiménez Torrecillas Studio.



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Marta García-Casasola

Daniel Pinzón-Ayala

* Information, text, images, drawings
and plans provided by
Luis Machuca Santa-Cruz

project

03

El Caminito del Rey (King's Path)

Recovery of King's Path, Gaitanes Gorge

IDENTIFICATION

Designations

- ✗ Los balconillos (The little balconies)
- El Chorro
- Service Road of the hydroelectric dam of The Gaitanejo

Information about the location

- ✗ Rural
- ✗ Mountain

Address

- ✗ Paraje Natural Desfiladero Natural de los Gaitanes (Álora, Antequera, Ardales).

Country / Region

- ✗ Spain / Málaga

Coordinates

(GIS: ETRS89 / Google Maps: WGS84)

- ✗ 342083.01, 4087033.13
- 36°54'57.97"N, 4°46'22.08"W

City size

- ✗ N/A

Website

- ✗ <http://www.caminitodelrey.info/es>
- <http://luismachuca.com/proyectos/recuperacion-del-caminito-del-rey-desfiladero-de-los-gaitanes-3/>
- <http://luismachuca.com/proyectos/centro-de-recepcion-de-visitantes-caminito-del-rey/>
- <http://luismachuca.com/proyectos/control-de-entrada-caminito-del-rey/>



Figure 1. View of the bridge into The Gaitanes Gorge.
Author: © Duccio Malagamba, 2015.
Source: Luis Machuca y Asociados, S.L.P.

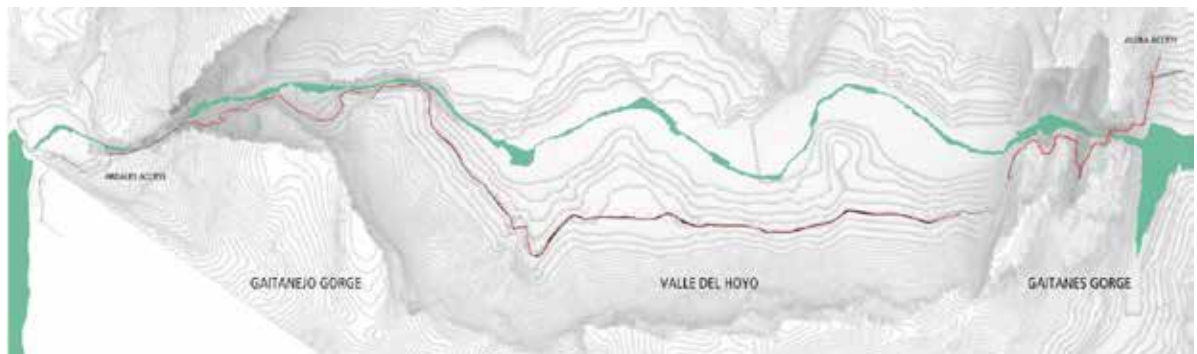


Figure 2. Location Map. Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey".
Author: Luis Machuca y Asociados, S.L.P.
Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: Arquitectura Viva.

Accessibility

X Public

Public visits

X Yes

Category

X Architectural project
Reuse (Adaptive)
Other

X Landscape
Intervention
Preservation

X Infrastructure planning
X Cultural planning

Deliberative and participatory planning

X No

Current use

X Turistic Path

Year (period) of the project renovation / restoration

X 2014-2015: El Caminito del Rey

Area of the building (m²)

X The total length of the route is 7.7 km, divided into 4.8 km of dirt tracks and access roads and 1.9 km of footbridges anchored in the vertical walls of the gorges.

Current owner

X Public: Diputación de Málaga

Architects

X Luis Machuca y Asociados, S.L.P.

Other designers / engineers

X Collaborators:
María Luisa Escudier Vega, Manuel José Rodríguez Ruiz, Borja Peñalosa Bejarano (Architects).
José Luis Escola (Civil Engineer)
José Ángel Mata (Industrial Engineer)
José Luis Juanas (Quantity Surveyor)
Juan Schwarzmann Fernández (Quantity Surveyor)

Other agents

X Encarna León (Geographer)
Aurora Quesada (Biologist)
Carlos Vasserot (Economist)
Amor Oliveira (Legal Advice)

Developer

X Diputación de Málaga; Municipalities of Álora, Antequera y Ardales; Junta de Andalucía

KEY FEATURES



Remarkable attributes / Singularities / Specific Values

- > It maintains the current landscape and does not damage the environment, as it is natural heritage.
- > It preserves the memory of the old path as industrial archaeology.
- > Restores accessibility to a natural and cultural landscape. It foresees the human impact on the surrounding area with the opening of the path.
- > Solves the complexity of the project with a moderate budget and a simple design.

Scope of application / necessity of the project:

The recovery of the path is not only relevant as a tourist attraction but also involves the vindication of the history and heritage of the Gaitanes.

The aim of the project has been achieved through a mimetic construction system with the escarpment, reinterpreting previous obsolete structures, and which adapts to the vertical topography as if it were a living being that adheres to the rock, and therefore organic: the idea was to create something new but to make it look as if it had always been there.

Building contractor

✗ Grupo SANDO and Hermanos Campano, S.L.

Cost of the project / execution time

✗ 2.240.000 € / 10 months

Previous studies (Ex. Archaeological, historical, structural, materials, etc.)

✗ There was no documentation of vertical topography, and so some tests were carried out on the rocks. Historical, Archaeological and characterisation studies were carried out, the results of which were compiled in several publications.

HISTORY OF THE BUILDING/SITE



Original use

- ✗ Industrial
✗ Commercial
✗ Other

HISTORIC USES

Service road: The path was built at the beginning of the last century in 1901-1905 with the intention of having control and maintenance of the canal and also to give access to the workers from the Conde de Guadalhorce dam to the hydroelectric power station of El Chorro. Thus, the workers and their families living in the settlement El Chorro avoid the long way through the sierra. Communication path: The Caminito del Rey was of great help to the local inhabitants. Children could go to the nearby school, women could buy essential products and it allowed them to keep in touch with other nearby villages in the surrounding mountains (cave houses).

CONSTRUCTION PERIOD

1904: Aqueduct bridge
1901 / 1905: El Caminito del Rey



Figure 3. Previous state of the footbridge. Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey".

Author: Luis Machuca y Asociados, S.L.P. Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: Arquitectura Viva.

SUMMARY OF MAJOR FUNCTIONAL AND STRUCTURAL CHANGES / YEAR OF INTERVENTION

Once it lost its industrial relevance at the end of the 20th century, it has remained in ruins due to the action of nature itself, the passing of time, and vandalism.

ARCHITECTS / AGENTS

Aqueduct bridge: Eugenio Ribera (Engineer)

PHYSICAL CONDITION BEFORE RESTORATION / RENOVATION

The old trail died when it became unusable, obsolete for the local people. The trail was described as one of the most terrifying hikes in the world, closed for 20 years.

STATUS OF PROTECTION

The Caminito del Rey is located in the Desfiladero de los Gaitanes Natural Park, declared by the Junta de Andalucía. Furthermore, this site belongs to Natura 2000: European ecological network of biodiversity conservation areas, as evidenced

by its declaration as a Special Area of Conservation (SAC) and Special Protection Area for Birds (SPA). Since 2019, the Caminito del Rey is preparing its candidacy to become a UNESCO World Heritage Site.

GENERAL DESCRIPTION OF THE BUILDING BEFORE ITS RENOVATION / RESTORATION

The hanging walkways were originally built with metal squares embedded in the rocks supporting wooden planks. Basically the structure consisted of corbels embedded in the rock, the joint with beams are tied together with plenty of wire, the beams support vaults and solid wooden planks joined together with lime mortar. The metal beams were actually railway rails.

PROJECT DESCRIPTION

DESIGN PROJECT IDEA FOR THE RENOVATION / RESTORATION

The design solution of each piece is useful, and everything has a purpose, no useless ornaments. Nothing is superfluous. The design is an organic body, really a centipede-like mechano that has adapted to the escarpment walls.

There are seven parts of the route:

- Visitor Reception Area Shuttle bus stop and a car park El Kiosko Restaurant
- Two access areas: the path and Gaitanejo way (2.7 km or 1.5 km long route, depending on your choice).
- Visitor Reception Centre and Gaitanejo Reservoir.
- First Canyon: Gaitanejo Gorge (2.9 km from the entrance to the exit)
- Second Canyon: Las Palomas Cliff
- Hoyo Valley
- Third Canyon: Gaitanes Gorge (Desfiladero de los Gaitanes)
- Last Stretch Boardwalk to the exit
- Downwards path to the El Chorro Train Station, called Avenue Caminito del Rey (2.1 km).

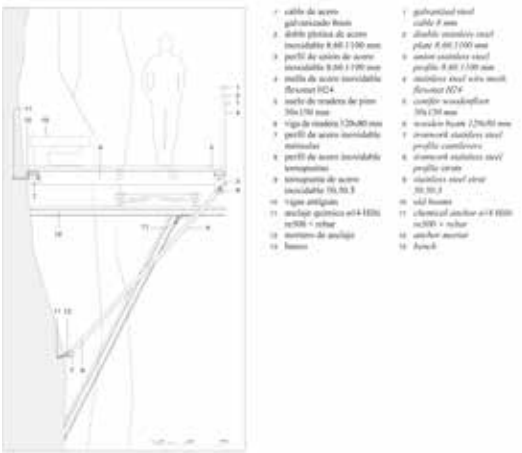


Figure 4. Construcción detail of the new footbridge over the older one
Author: Luis Machuca y Asociados, S.L.P.
Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: Arquitectura Viva.

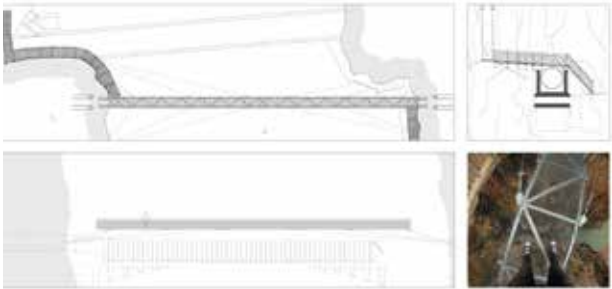


Figure 5. New bridge next to aqueduct bridge: floor plan, elevation, section and image of the footbridge. *Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey".*
Author: Luis Machuca y Asociados, S.L.P.
Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: Arquitectura Viva.

DESCRIPTION OF THE CHANGES AND ADDITIONS

> Footbridges: The decision to keep the old footbridges allowed us to appreciate how it was built, the human resources materials and the management of the workforce a hundred years ago. Today it is impossible to reform it completely, because it does not comply with current regulations.

> Hoyo Valley: The walkway has been preserved in its natural state, only cleaned on both sides for fire prevention and reinforced with quicklime mixed with the natural earth.

> Tunnel: An alternative path was found that can avoid the most dangerous place depending on the weather, when it rains and strong wind rocks fall on the path, so visitors can run into the old tunnel channel, which is 285 m long.

BUILDING MATERIALS

As for the footbridges, they had to have the least impact on the surroundings and the system should be very affordable and cost-effective to maintain. Materials such as stainless steel (anchors, brackets and braces) and wood (beams and walkway) are used.

PROJECT IN RELATION TO THE SUSTAINABILITY

Social aspect:

The Caminito del Rey and the bridge are in the memory of those who lived there, as they were of great help. It was necessary to recover this element as part of the collective memory of the area's inhabitants.

Economic aspect:

El Caminito del Rey's opening has brought significant improvement and economic growth to the area with the attendance of an increasing but controlled number of tourists.

Environmental aspect:

The site is an important archaeological industrial settlement, a wildlife area of botanical, geological and anthropological interest. At the midpoint of the route, a small pond has been created to protect the habitat of the common horned toad.

Tourist access is limited to a maximum number per year.

SPECIAL METHODS OR TECHNIQUES USED IN THE PROJECT WHICH REFLECT THE SUSTAINABLE DESIGN

- The intervention is reversible. If the footbridges were removed, the environment would remain unchanged.
- The wooden floor and beams are cut according to the state of the rock at each



Figure 6. View of the old and the new Caminito del Rey.
Author: © Duccio Malagamba, 2015.
Source: Luis Machuca y Asociados, S.L.P.



Figure 7. Aerial view of the two footbridges.
Author: Juan María.
Source: Luis Machuca y Asociados, S.L.P.



Figure 8. View of the tunnel.
Author: Jesús Ponce.
Source: Luis Machuca y Asociados, S.L.P.

point, as are the supports and ball joints, resulting in excellent adaptability and making the panels easy to replace.

- The wooden structure blends in with its surroundings. As the material comes from nature, it turns grey and thus blends in with the environment. All materials are recyclable.

DIGITAL DATA EMPLOYED FOR THE DOCUMENTATION (3D SCANNING, PHOTOGRAMMETRY, ETC.)

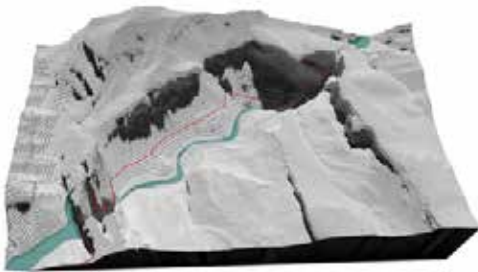


Figure 9. Digital Topography: Los Gaitanes Gorge.

Author: Luis Machuca y Asociados, S.L.P.

Source: Luis Machuca y Asociados, S.L.P.



Figure 10. 3D Software: Design of the footbridge, balcony and enclosed footbridge.

Author: Luis Machuca y Asociados, S.L.P.

Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: *Arquitectura Viva*.

TOOLS/TECHNOLOGIES USED FOR THE IMPLEMENTATION OF THE NEW USE



Figure 11. Vertical working systems with technical specialists

Author: Luis Machuca y Asociados, S.L.P.

Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: *Arquitectura Viva*.



Figure 12. Helicopter delivery of materials and waste management for greater precision and efficiency.

Author: Luis Machuca y Asociados, S.L.P.

Source: Machuca Santa-Cruz, Luis (2016). "Recuperación del Caminito del Rey". In: *Arquitectura Viva*.

DISSEMINATION / PROMOTION ACTIVITIES (WORKSHOPS, CONGRESS, PUBLICATIONS, PRIZES)

Prizes:

> ASTER Marketing iAwards, Escuela de Negocios ESIC.

> III National Awards: 'Ciudad y Territorio Albert Serratosá'. Colegio de Ingenieros de Caminos, Canales y Puertos y la Fundación Caminos.

> XIII Bienal Española de Arquitectura y Urbanismo: Prize Category: "Urbanismo: paisaje y ciudad" (2015). Ministerio de Fomento, CSCAE, Fundación Caja de Arquitectos y Unión de Agrupaciones de Arquitectos Urbanistas.

> "Andalucía del Turismo" Awards (2016).

Category: "Buenas prácticas". Secretaría General para el Turismo, Junta de Andalucía.

> Placa al Mérito Turístico. Category: "Destinos Emergentes" (2015). Consejo de Ministros del Gobierno de España.

> "El Caminante" Awards: Producto Turístico del Año. Periódico El Mundo.

> Architectural Awards of Archmarathon, Milán. Category: "Landscape Design & Open Space" (2016).

> X Bienal Iberoamericana de Arquitectura y Urbanismo, São Paulo (Brazil).

> The Europa Nostra Awards. Project "Grand Prix" and "Premio del Público" (2016).

> Certificate "Biosphere". Instituto de Turismo Responsable.

Publications:

> Machuca Santa-Cruz, Luis (2016).

"Recuperación del Caminito del Rey". AV, 2016.

Link: <https://arquitecturaviva.com/obras/recuperacion-del-caminito-del-rey>.

- > Machuca Santa-Cruz, Luis (2017). "La recuperación del Caminito del Rey. La singularidad de un proyecto". Málaga: SANDO, S.A.
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Loren-Méndez, Mar (2008). "La Modernidad Española como relato de las periferias. Laboratorio arquitectónico y visiones urbanas en el alejado Sur Ibero". *Apuntes*, 21 (2), pp. 234-251.

Martín Gaité, C. (1983). "El Conde de Guadalhorce, su época y su valor". Madrid: Colegio de Ingenieros de Caminos, Canales y Puertos.

Olmedo Checa, M. (1992). "El primer camino de hierro". *Revista Péndulo*, n. 3-4.

ACADEMIC WORKS / STUDENTS RELATED PROJECTS / PUBLICATIONS

To complete the restoration of the infrastructure, it has been necessary to combine an environmental project, an urban and territorial planning project (Special Plan for the Caminito del Rey and its surroundings), and a technical execution project for the construction of the walkways and footbridges, control cabins and visitor reception centres.

OTHER SIMILAR PROJECTS AS A REFERENCE

N/A

REFERENCE TO WORLDWIDE EXAMPLES

Path in the Pinar de la Algaida, Natural Park of Cadiz Bay, El Puerto de Santa María (Cádiz) by Ramón Pico and Javier López (2002).



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Marta García-Casasola

Daniel Pinzón-Ayala

* Information, text, images, drawings

and plans provided by

AF6 ARQUITECTURA

project

04

Antigua fábrica de Cerámica / Centro de la Cerámica de Triana



Rehabilitation of the Antigua fábrica de Cerámica (Former Pottery complex Santa Ana) as the Centro de la Cerámica de Triana (Pottery center of Triana)

IDENTIFICATION



Information about the location

✗ Historic centre

Address

✗ Antillano Campos 2, 4 y 6 y C/ San Jorge 31. Sevilla.
Actual C/ Callao, 16

Country / Region

✗ España / Sevilla

Coordinates

(GIS: ETRS89 / Google Maps: WGS84)

✗ -6.004630, 37.385586
37°23'08"N, 6°00'17"N

City size

691.395 hab. (2020)

Website

✗ <https://www.af6.es/centro-ceramica-triana/>
<https://www.jesusgranada.com/museo-ceramica-triana-sevilla-af6-arquitectos>
<https://www.visitasevilla.es/mas-lugares-de-interes/centro-ceramica-triana>

Accessibility

✗ Public

Public visits

✗ Yes

Category

✗ Architectural project
Reuse (Adaptive)
Restoration / Reconstruction

Deliberative and participatory planning

✗ Yes, First prize in the restricted proposal competition 2009

Current use

✗ Centro de la Cerámica de Triana: Museum / Cultural building

Year (period) of the project renovation / restoration

✗ 2009/2010: Project and Public Competition
2012/2014: Execution

Area of the building (m²)

✗ Plot area: 1510 m²
Floor area: 2241 m²

Current owner

✗ Public: Consorcio Turismo de Sevilla



Figure 1. Location map near to Triana Bridge.

Author: Elaborated on aerial image by AF6

ARQUITECTURA

Source: AF6 ARQUITECTURA

Architects

- ✗ AF6 ARQUITECTURA
Miguel Hernández Valencia
Esther López Martín
Juliane Potter
Francisco José Domínguez Saborido
Ángel González Aguilar

Other designers / engineers

- ✗ Collaborators in the competition:
Ana Blanco Campe, Angélica Cortés Sanguino, Rubén Ingelmo Crespo
- ✗ Collaborators in the project:
Angélica Cortés Sanguino, Elías Pérez Lema
- ✗ Consultants: DiMarq, S.L.
Instalaciones.
- ✗ Production Ceramic pieces façade:
METIS Conservación y Restauración S.L

Other agents

- ✗ Direction of execution: Rafael Esteve González and Reyes López Martín (Quantity Surveyors)

Developer

- ✗ Consorcio Turismo de Sevilla

Building contractor

- ✗ UTE CONDISA ALEA GLOBAL
Museum installation: Espai Visual.

Cost of the project / execution time

- ✗ Budget for the material execution of the works: 3.065.000,65 €
- ✗ Budget for the material execution of the museography: 367.794,27€

Previous studies (Ex. Archaeological, historical, structural, materials, etc.)

- ✗ Miguel Ángel García García (Archaeologist)
Restoration of furnaces: Dédalo Bienes Culturales S.L.U.
Others collaborators:
Paula Felizón (Anthropologist)
Antonio Libroero (Art historian)
Alfonso Pleguezuelo (Professor.

Department of Sculpture and History of Plastic Arts, USE, who drew up the preliminary museological plan and selected the ceramic pieces for the exhibition).

HISTORY OF THE BUILDING/SITE

////////////////////////////////////

Original use

- ✗ House
- ✗ Industrial
- ✗ Commercial

HISTORIC USES

Pottery complex, dwellings, shops.

KEY FEATURES

////////////////////////////////////

Remarkable attributes / Singularities / Specific Values

The heterogenous exterior image of the complex tells a story linked to the culture of Triana (pottery industry, commerce, housing). There are two interconnected plots where there are three semi-detached buildings with different façades facing the street.

Scope of application / necessity of the project:

The project rehabilitates an ancient pottery complex as a center for exhibitions of Triana, a museographic space, which includes the touristic itineraries of Triana, commercial and productive areas for Santa Ana Pottery Factory.

CONSTRUCTION PERIOD

Active pottery from the Middle Ages to the end of the 20th century.

SUMMARY OF MAJOR FUNCTIONAL AND STRUCTURAL CHANGES / YEAR OF INTERVENTION

Triana is a historic neighbourhood characterized by a small domestic scale layout. It is an urban complex that intermingles corrales de vecinos (historic collective housing), craft workshops, traditional housing and modern residential growth from the mid-20th century. In Triana there is a coexistence of traditional craft and everyday activities (pottery, flamenco...) strongly identified with the place and clearly reflected in the street, full of activity and bustle. Triana is a place where you can discover the pleasure of the everyday.

ARCHITECTS / AGENTS

Unknown

PHYSICAL CONDITION BEFORE RESTORATION / RENOVATION

The fact that the former Cerámicas Santa Ana factory remained active until the end of the 20th century has kept the historical elements of the Pottery Ensemble mostly complete, and their uses located in their original place: seven kilns for firing ceramics, water wells, mills and pigment deposits, workshops, and warehouses. During the archaeological excavations carried out, the remains of a further eighth kilns were found, the oldest of which was found to have been used until the end of the 16th century, and their activity can be dated back to no later than the 15th century.

STATUS OF PROTECTION

Catalogued in the Special Plan for the Protection of Sector 14 "Triana" of the Historical Complex of Seville of 1999. The



Figure 2. State prior to the intervention

Author: AF6 ARQUITECTURA.

Source: AF6 ARQUITECTURA.



Figure 3. State prior to the intervention

Author: AF6 ARQUITECTURA.

Source: AF6 ARQUITECTURA.



Figure 4. State prior to the intervention

Author: AF6 ARQUITECTURA.

Source: AF6 ARQUITECTURA.

Plan identifies the Pottery Assemblies of Triana as “buildings of typological interest.” Therefore the typological aspects should be the object of specific protection. It defines the “Santa Ana Pottery Complex” as one of the three major pottery complexes in Triana, together with Cerámicas Montalván and Cerámicas Santa Isabel. The Special Plan protects the façades, ceramic decorations, first bay, types of houses that can be protected, and all the elements related to the pottery industry, especially the kilns if they are historical. The Special Plan also gives a precise definition of Pottery Ensembles: “These are groups of buildings or houses characterised by being associated with traditional pottery activity from the 18th century and even earlier. They are based on the use of the blocks’ interior for the kilns and are gradually filled with buildings from different periods, either for housing the craftsmen themselves, warehouses, or exhibition and sales points”. In addition, the Special Plan establishes archaeological precautions for the whole complex, which imply that the archaeological analysis of the emerging structures must be carried out in coordination with the works. The IAPH drew up a technical report on the valuation and appraisal of ceramic pieces just before the intervention.

GENERAL DESCRIPTION OF THE BUILDING BEFORE ITS RENOVATION / RESTORATION

The old factory remained in use until the end of the 20th century. This situation has allowed the elements that make it up to be found mostly complete and located in their original context: seven ceramic firing kilns, water wells, mills and pigment deposits, workshops and storerooms. During the archaeological excavations carried out, the remains of another eight kilns were found, the oldest of which was used until the end of the 16th century. Two of them have been integrated into the project. The old factory cannot be seen from the street, and it is hidden behind the buildings that make up its urban image.

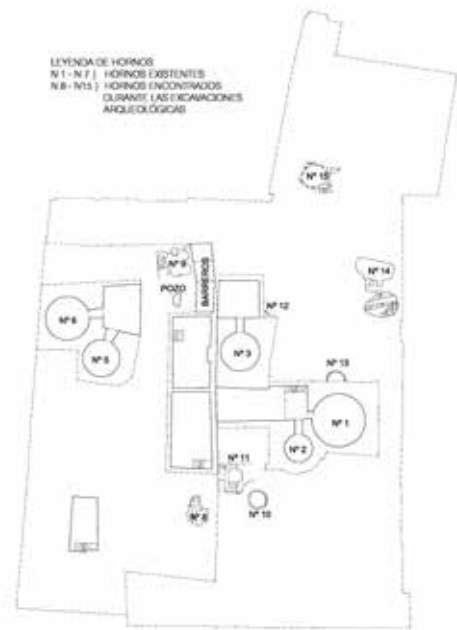


Figure 5. Previous state and archaeological excavations
 Author: AF6 ARQUITECTURA

PROJECT DESCRIPTION

DESIGN PROJECT IDEA FOR THE RENOVATION / RESTORATION

The heterogeneous exterior image of the complex tells a story linked to the culture of Triana (pottery industry, commerce, housing). There are two interconnected plots with three semi-detached buildings with different façades facing the street.

The first serves as the complex entrance and is clad with unique advertising tiles from Cerámica Santa Ana, forming the corner facing the Plaza del Altozano from where the Triana Bridge starts. The second building, which is lower in height, has a more austere, factory-like appearance. The third building was a three-storey block of flats with independent access from the street.

DESCRIPTION OF THE CHANGES AND ADDITIONS

The complex is the result of a historical process in which the colonisation of the

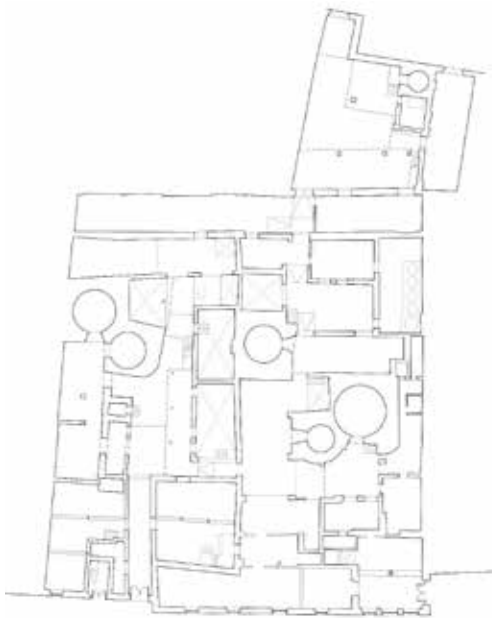


Figure 6. Ground floor before the reconstruction.
 Author: AF6 ARQUITECTURA

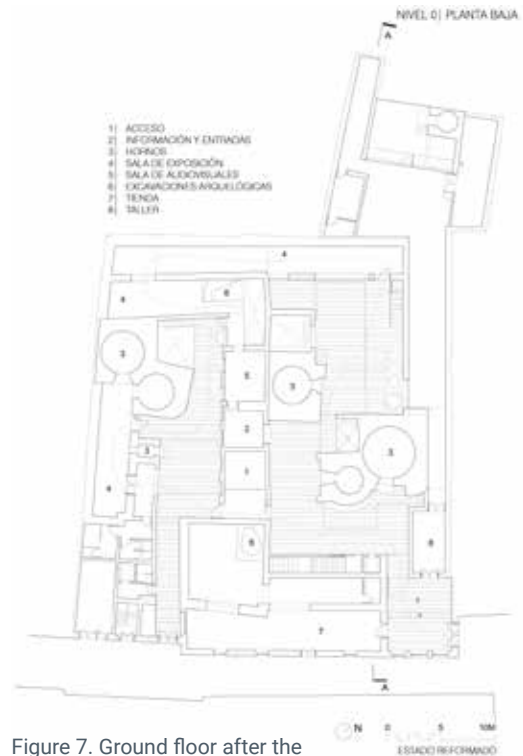


Figure 7. Ground floor after the reconstruction.
 Author: AF6 ARQUITECTURA

interior space is based on resolving the needs that have arisen: manufacturing, extending, housing, storing, modernising. The project is conceived as another process, from a contemporary point of view, which highlights this coexistence.

The Triana Ceramics Centre intertwines with the complex fabric of the Triana suburb, generating an inner urban landscape of great spatial richness. The new constructions adapt their height and shape to that of the existing buildings in the complex. The project is not intended to be a visual reference point from the outside that alters the profile of Triana. There is no façade. The complex will be like a gift, which is discovered when we enter it.

The building is organised on the ground floor as a continuous route, like a walk between the kilns of the pottery complex. The pottery production process is narrated using original elements from this pottery kiln inserted in their original context. A labyrinthine route is proposed between the pottery kilns and the old spaces of the factory that tell the visitor how pottery was produced in Triana. We work through an archaeological methodology without erasing temporary traces of the small



Figure 8. Image of the courtyard.
 Author: © Jesús Granada, 2013.
 Source: AF6 ARQUITECTURA.



Figure 9. Interior, exhibition space: musealised tiles
 Author: © Jesús Granada, 2013.
 Source: AF6 ARQUITECTURA.

memory of the spaces (smoke, disorder, chance, bricks, wood, ashes) that form part of the heritage.

BUILDING MATERIALS

The intervention strategy conserves and recovers original materials, making use of new ones that are always compatible with the existing ones.

The enclosure of the façades of the first floor reinforces the concept of the process of accumulation of the project. A galvanised steel substructure in the form of a large shelf serves as a support for the apparently disorderly stacking of hollow ceramic pieces of four different sizes. This solution allows for solar protection depending on the orientation and the different views of the pottery ensemble.

PROJECT IN RELATION TO THE SUSTAINABILITY

Social aspect:

The idea of sustainability is part of the criterion of minimal intervention on the existing elements (ovens, pigment deposits, etc.), preserved in their original position, which can be visited from outside spaces (courtyards).

Economic aspect:

The project preserves elements that were not included in the catalogue of the Special Plan, such as the central brick building that separates the two plots. This approach responds to criteria of conservation of the character of the "pottery landscape" - the title of the project entry for the competition. At the same time introduces the idea of minimum energy consumed during the construction process. The spaces and the constructive elements that constitute them are reused as far as possible.

Environmental aspect:

The artificially conditioned interior spaces are only those that are strictly necessary, and a large part of the visit takes place through intermediate spaces between the exterior and interior, crossing three courtyards, in sections that are sometimes covered from the rain and the sun. This minimisation of the spaces to be conditioned implies a reduction in the energy demand of the whole.



Figure 10. Organisation of the different volumes that make up the ensemble

Author: © Jesús Granada, 2013.

Source: AF6 ARQUITECTURA.

SPECIAL METHODS OR TECHNIQUES USED IN THE PROJECT WHICH REFLECT THE SUSTAINABLE DESIGN

The intervention complies with all energy efficiency standards for its ventilation and air conditioning installations. The space between the heterogeneous ground floor roof and the first floor is used to locate the air conditioning systems and ducts, attached to the party walls, thus avoiding the appearance of machines on the roof.

From the social point of view, a network of informants linked to the old factory was created, which gave rise to the document we call "life stories", in which these people are interviewed and which forms part of the exhibition on the ground floor dedicated to the factory.

The Triana neighbourhood actively participated by contributing documents that were used to put together an exhibition called "Aquí Triana" (Here Triana).

DIGITAL DATA EMPLOYED FOR THE DOCUMENTATION (3D SCANNING, PHOTOGRAMMETRY, ETC.)

The development of the interior enclosure towards the courtyards, with the ceramic lattice made up of extruded hollow pieces, is understood as an innovative technological resource. Specifically, no digital resources were used for its design, but it is particularly interesting to note the use of models at different scales, including a 1:1 scale model of the lattice.

TOOLS/TECHNOLOGIES USED FOR THE IMPLEMENTATION OF THE NEW USE

They were not used in the development of the intervention project, but were used as support material for the development of the museographic project.

DISSEMINATION / PROMOTION ACTIVITIES (WORKSHOPS, CONGRESS, PUBLICATIONS, PRIZES)

Prizes:

- > Concurso de ideas con jurado, 1º Premio. 2009
- > Obra del Año 2015 en Plataforma Arquitectura. Finalista.
- > Premios THE PLAN AWARD 2015. Finalista en la categoría Old & New. Italia 2015
- II Premios de Arquitectura Colegio Oficial de Arquitectos de Sevilla (2011-2015). Finalista en la categoría de Rehabilitación de Promoción Pública

Papers:

- > Hernández-Valencia, Miguel; López Martín, Esther; Pötter, Juliane; Domínguez Saborido, Francisco José; and González Aguilar, Ángel (2013). "Triana Ceramic Museum". *C3 Magazine*, 346, pp. 132-143.
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- > Hernández-Valencia, Miguel; López Martín, Esther; Pötter, Juliane; Domínguez Saborido, Francisco José; and González Aguilar, Ángel (2013). "Centre de Céramique de Triana, Séville, AF6 Arquitectos". *Architecture intérieure. CREE*, 361/362, p. 214.
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Press:

- > *Diario El País* (30/05/2013) by Anatxu Zabaleascoa.

- > Diario ABC (06/07/2013) by Fredy Massad.
- > La Vanguardia (07/05/2014) by Alicia Guerrero Yeste.

Expositions:

- > "De obra. Cerámica aplicada a la arquitectura". Museu del Disseny de Barcelona, 15/09/2016 - 29/01/2017.

Conferences:

- > Estudio AF6. Taller de Arquitectura en proceso. Escuela Técnica Superior de Arquitectura de Sevilla. 16/12/2009
- > Arquitecturas en construcción. Colegio Mayor Universitario Hernando Colón. 16/04/2012
- > AF6 Arquitectura. Colegio Oficial de Arquitectos de Huelva. 17/03/2014
- > AF6 Arquitectura: en construcción. Escuela Técnica Superior de Arquitectura de Sevilla. 07/01/2014
- > El Centro Cerámica Triana como espacio cultural y turístico urbano. Universidad Internacional Menéndez Pelayo. Sevilla, 31/03/2016
- > Cerámica sobre Cerámica. II Ciclo TRANS-HUMANCIAS. Universidad de Sevilla. Grupo de Investigación HUM 965. 16/07/2016
- > Cerámica + Arquitectura. Paisaje Alfar. LXXXVI Exposición de alfarería y cerámica de La Rambla. Ayuntamiento de La Rambla. Diputación de Córdoba. 03/08/2016
- > Acciones. Escuela de Arte de Almería. 08/02/2016
- > Sobre Cerámica: procesando fragmentos. Escuela Técnica Superior de Arquitectura de Granada. 15/01/2018
- > Jornadas Patrimonio Industrial. Los retos del siglo XXI. Diputación de Córdoba. 27/03/2019
- > Ceramics, Handcraft and Technology. VIII Congress on Ceramics and Architecture. Escuela Técnica Superior de Arquitectura. Cátedra Cerámica. Madrid 26/02/2019.
- > La recuperación de espacios industriales de la cerámica para la sociedad de hoy. Seminario: Los paisajes de la cerámica. Instituto del Patrimonio Cultural de España. Madrid 19/11/2019
- > AF6 Arquitectura. Cátedra Cerámica. Universidad Internacional de Cataluña. Barcelona. 6/10/2020

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ACADEMIC WORKS / STUDENTS RELATED PROJECTS / PUBLICATIONS

✕ N/A

OTHER SIMILAR PROJECTS AS A REFERENCE

Restoration of the old Pottery Complex of Cerámicas Montalván for Restaurant and Hotel (2013-2018) by AF6 Arquitectura.

REFERENCE TO WORLDWIDE EXAMPLES



Figure 11. Rehabilitation of the Antigua fábrica de Montalván, Triana, Sevilla (Former Pottery complex Montalván) as Triana Montalván Hotel and Restaurant. Catalogation process of tiles

Author: AF6 ARQUITECTURA
Source: AF6 ARQUITECTURA