SIZATLAS

SANTA MARIA CHURCH AND PARISH CENTRE

1 Boa Nova Tea House and Restaurant
2 Ocean Swimming Pool
3 Alves Costa House
4 Alcino Cardoso House
5 Bouça Housing Complex
6 Faculty of Architecture of the University of Porto
7 Santa Maria Church and Parish Centre
8 Portugal Pavilion, Expo'98
9 Serralves Museum of Contemporary Art
10 Beires House
11 Malagueira Neighbourhood
12 Borges & Irmão Bank
13 Avelino Duarte House
14 Setúbal School of Education
15 Reconstruction of the Chiado area
16 Viana do Castelo Public Library
17 Pinto & Sotto Mayor Bank
18 Adega Mayor

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INTRODUCTION

CONTEXT

Twentieth-century heritage is particularly vulnerable because of its formal and material solutions, but also due to the fact of having scarce recognition among the civil society and heritage safeguarding bodies. Considering this background, the ICOMOS study "The World Heritage list: filling the gaps – an action plan for the future" (ICOMOS, 2005) and the Global Strategy of the UNESCO World Heritage Committee (WHC) have encouraged State Parties to submit twentieth-century heritage nominations (UNESCO-WHC, 1994).

In this context, the ICOMOS-Portugal presented the "Ensemble of Álvaro Siza's Architecture Works in Portugal" to the World Heritage (WH) Tentative List, in 2017, later submitted to the WH List by the Faculty of Architecture of the University of Porto, in 2024, under the title "Álvaro Siza's Architecture: Modern Contextualism Legacy". This nomination proposal expresses Álvaro Siza's outstanding architecture spanning across the second half of the twentieth century, which testifies to the critical revision of the Modern Movement principles towards a more contextual and humanist approach. This modern contextualism is an exceptional legacy conveyed by Álvaro Siza's architectural works and his 'School', with major impact across different generations of architects, in distinct continents, addressing the needs and the aspirations of local populations. The component parts emerge as a result of the architecture development in the second half of the twentieth century, responding to the specific conditions of local contexts and producing alternative responses to the prevailing axioms of the international Modernism, while also contributing to the Postmodern debate. Siza is a worldwide recognized architect with approximately five hundred projects and built works spread across four continents and sixteen countries, and the subject of more than one hundred distinctions and awards, nineteen Honorary degrees, and hundreds of dedicated publications.

Despite international recognition of the quality of Siza's architecture, there is not yet a complete and systematic inventory and consistent documentation of his built works. The information is usually scattered, partial or incomplete. The existent literature focuses more on formal aspects of the designs, and little on the tectonics and material dimension of his works, including the building's state of conservation and the potential threats affecting them.

With this framework, the project 'SizaATLAS: Filling the gaps for World Heritage' (SizaATLAS) was submitted and funded by the Foundation for Science and Technology (FCT) between 2021 and 2024. This research project aims to address: i) a collaborative platform for interactive dissemination; ii) a comprehensive inventory of all of Siza's built works; iii) a detailed documentation of the 18 buildings selected for the WH Tentative List (which is the main focus of the present booklet); iv) Recommendations for the WH nomination; and v) Dissemination and knowledge transfer.

METHODOLOGY

The research methodology for the documentation booklets is supported by a cross-analysis of different methods and tools: i) archival and bibliographic research; ii) field work observation and surveys; iii) digital documentation such as photogrammetry, virtual tours through 360° photos, 3D BIM didactic model of representative constructive sections and details. This multi-method approach, combining traditional and digital techniques, aims at providing holistic, integrated and comprehensive documentation, providing accessible information for diverse audiences, ranging from specialists to the general public, and a robust framework for management and conservation informed by the attributes of Outstanding Universal Value (OUV) and Álvaro Siza's design principles.

i) Archival Research included the consultation of documentation held by the Serralves Foundation, the Calouste Gulbenkian Foundation, the Canadian Centre for Architecture, or Drawing Matter. In addition, municipal archives and libraries were also consulted to gather as much relevant information as possible. Research included textual and graphic documentation, such as licensing projects, written documents, technical drawings, sketches, photographs, models, and correspondence, Also, comprehensive literature was developed for each building documentation.

ii) Fieldwork encompassed a meticulous exploration of the building's spaces and discussions with staff members, which provided valuable context and enhanced comprehension of the buildings. To ensure a comprehensive documentation process, an extensive photographic survey was conducted, employing drones to capture both aerial perspectives and detailed captions of the sites. Furthermore, this process included an in-depth analysis of construction details, with a particular focus on tectonic features.

iii) The digital documentation protocol was thoughtfully devised to facilitate the systematic organization and seamless integration of all gathered data, culminating in the creation of a comprehensive and easily accessible archive for future reference. The methodology for digital documentation, framed within the SizaATLAS research project, employs combined techniques to document Álvaro Siza buildings, namely: a) photogrammetry, b) 360º virtual tours, and c) BIM didactic models.

BOOKLET STRUCTURE

The booklets are structured in 9 sections.

The INTRODUCTION provides the background, aims and methodology of the SizaATLAS documentation booklets.

The HISTORY AND DESCRIPTION section provides a general context of the building analysed in the booklet, including the following aspects: place and date of construction; landscape, natural features and preexistences; context of the building commission; design and construction phases; detailed description of the design process supported on archival resources; composition, volumetrics and geometry; programme and functional organization; promenade and light; tectonics and constructive detailing; Integrated artworks and furniture; awards and recognitions; recent interventions; international impact of the work.

As regards the section CONSTRUCTION, it aims at providing a tectonic perspective of the buildings through a representative section and details focusing on its Structural System, Walls, Roofs, and Frames.

The DESIGN PRINCIPLES aim to clarify Álvaro Siza's original design intent, being a permanent reference for the conservation of the building and an ins¬trument to manage proposals for change. It should also be considered when establishing planning controls for the sur¬rounding landscape, ensuring the preservation of visual rela¬tionships and future long-term improvements to the setting. To remain faithful and respectful of Siza's thoughts and de¬sign approach, these design principles are based on his own words, namely on a selection of 'aphorisms' collected from his texts, design reports, and interviews.

The ATTRIBUTES section relates to the specific and unique qualities expressed in the OUV for the WH nomination proposal "Álvaro Siza's Architecture: Modern Contextualism Legacy", namely: i) Architecture responsive to a physical, social and historical context; ii) Integration of international and local references; iii) Sculptural volumetric expression; iv) Oriented spatial experiences; v) Total work of art including details, furniture and art works.

STATE OF CONSERVATION is a description of the building's current condition and recent conservation or reuse interventions. In most cases, the buildings have been submitted to recent conservation interventions which adapted them to current legal, sanitary, accessibility or comfort standards.

DIGITAL DOCUMENTATION results from an integrated methodology combining: i) photogrammetry; ii) 360º virtual tours (available through QR Codes); and iii) BIM didactic models. These techniques are adapted to each building with some limitations related with the photogrammetry conditions (vegetation, surface colours, and others) or to the access to the buildings, which was authorized in public buildings, and restricted in private houses and bank agencies.

SOURCES AND BIBLIOGRAPHY refer to the archives and specific literature consulted for each building under analysis.

HISTORY AND DESCRIPTION

The Santa Maria Church and Parish Centre (1994-96), stands in Marco de Canaveses, positioned at the city's entrance, adjacent to the bustling Gago Coutinho Avenue. The construction unfolded in two phases, with the initial phase focusing on the church completion, followed by the construction of the parish centre a decade later.

Spanning 5.470m², the site strategically rises about two meters above its primary access point, offering panoramic views of the city and valley. The complex can be accessed from the south and southeast through a ramp and a wide staircase with two levels. Pedestrian access is also provided from the north and northwest through an existing municipal street. Additionally, access from the northeast crosses the mortuary chapel cloister, which also connects to the nursing home and church via a staircase. The Parish Centre occupies a central location within its urban context, bordered by the main avenue, a pedestrian path leading to a kindergarten, a nursing home, and a few private houses.

Following the April 1974 Revolution, Marco de Canaveses experienced rapid urban expansion, prompting the need for a larger church and parish centre to accommodate a growing congregation. However, as a small-scale parish, securing funding for the project proved challenging. Moreover, the chosen site presented logistical hurdles, including uneven terrain, proximity to a heavy traffic road, and an urban environment characterized by substandard construction quality.

To address these challenges, the parish entrusted Álvaro Siza with the design, in close collaboration with the parish priest Nuno Higino. Despite financial constraints and site complexities, Siza adeptly employed local construction techniques to streamline the project and minimize costs.

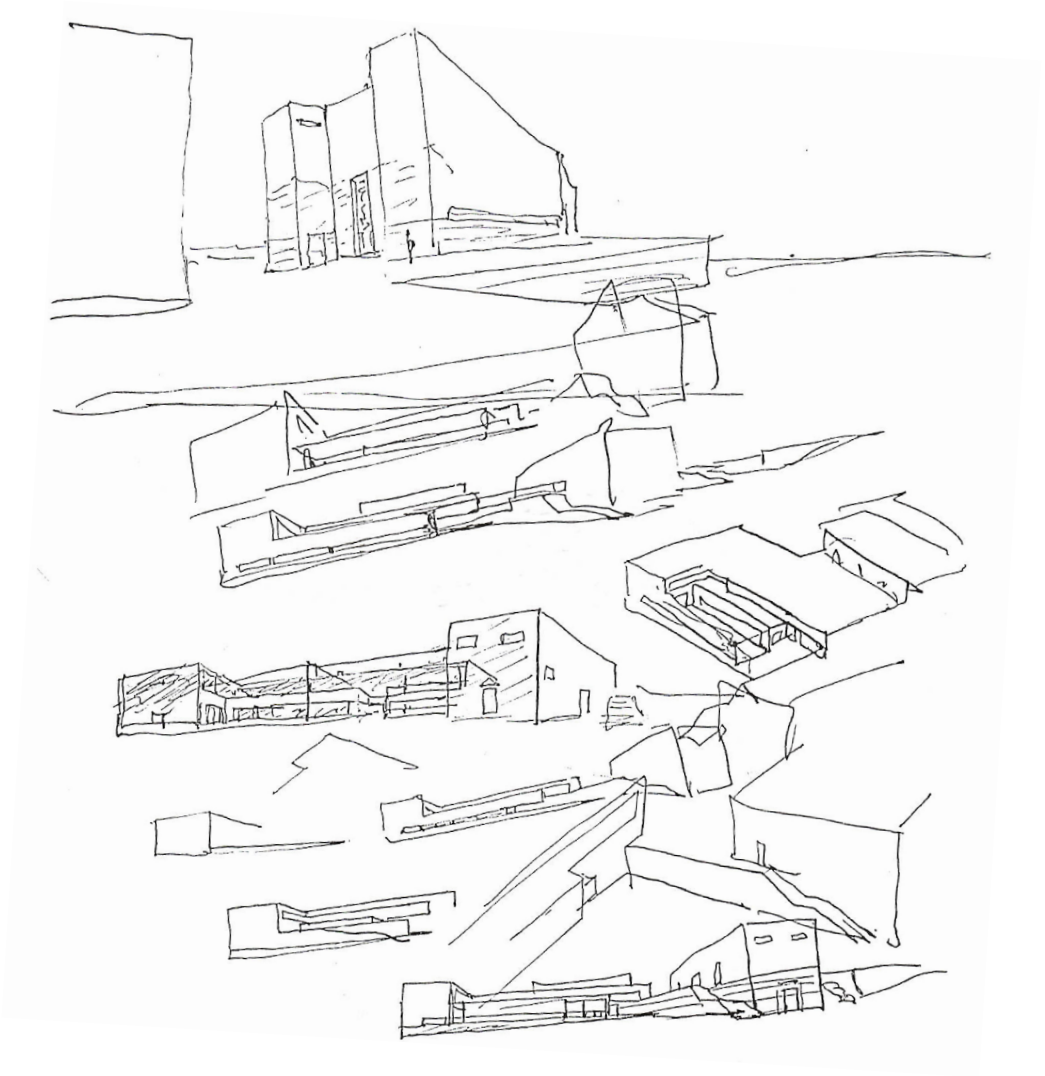
Collaborators on the project included Rolando Torgo, Edite Rosa, Miguel Nery, Miguel Falcão, Rui Castro, Chiara Porcu and Paul Scott.

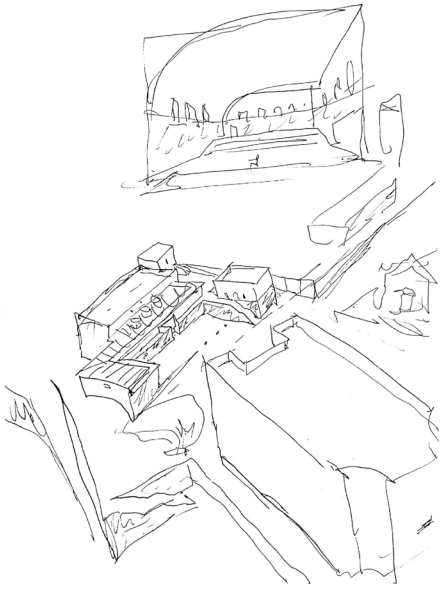
Construction of the Santa Maria Church started on April 10, 1994, and just over two years later, on July 7, 1996, the church's inauguration occurred. Although both the church and the parish centre were integral components of the initial design concept, the latter's construction would only take place several years after the church's completion.

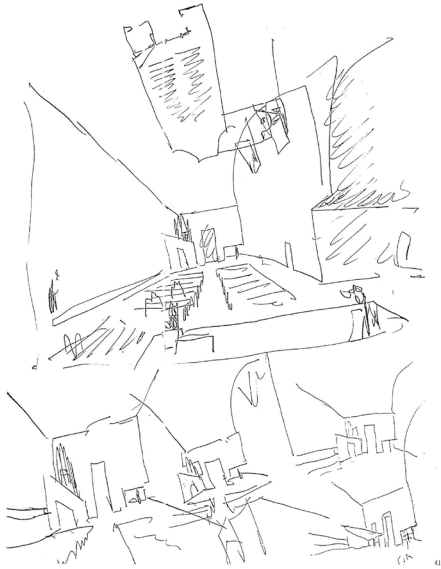
Álvaro Siza's design for the Santa Maria Church and Parish Centre reflects his approach to contemporary liturgical spaces. Rather than rejecting traditional building types and structural elements associated with ecclesiastical architecture, Siza aimed to reimagine the liturgical ritual by shaping the design of religious spaces. This critical approach, rooted in the reinterpretation of liturgical principles, is demonstrated by the deliberate placement of the statue of the Virgin at eye level, fostering a more intimate connection between congregation and religious iconography during celebrations. Siza's design ethos thus contributed meaningfully to the ongoing discourse and renewal efforts ignited by the Second Vatican

02. The ground before the construction of the church

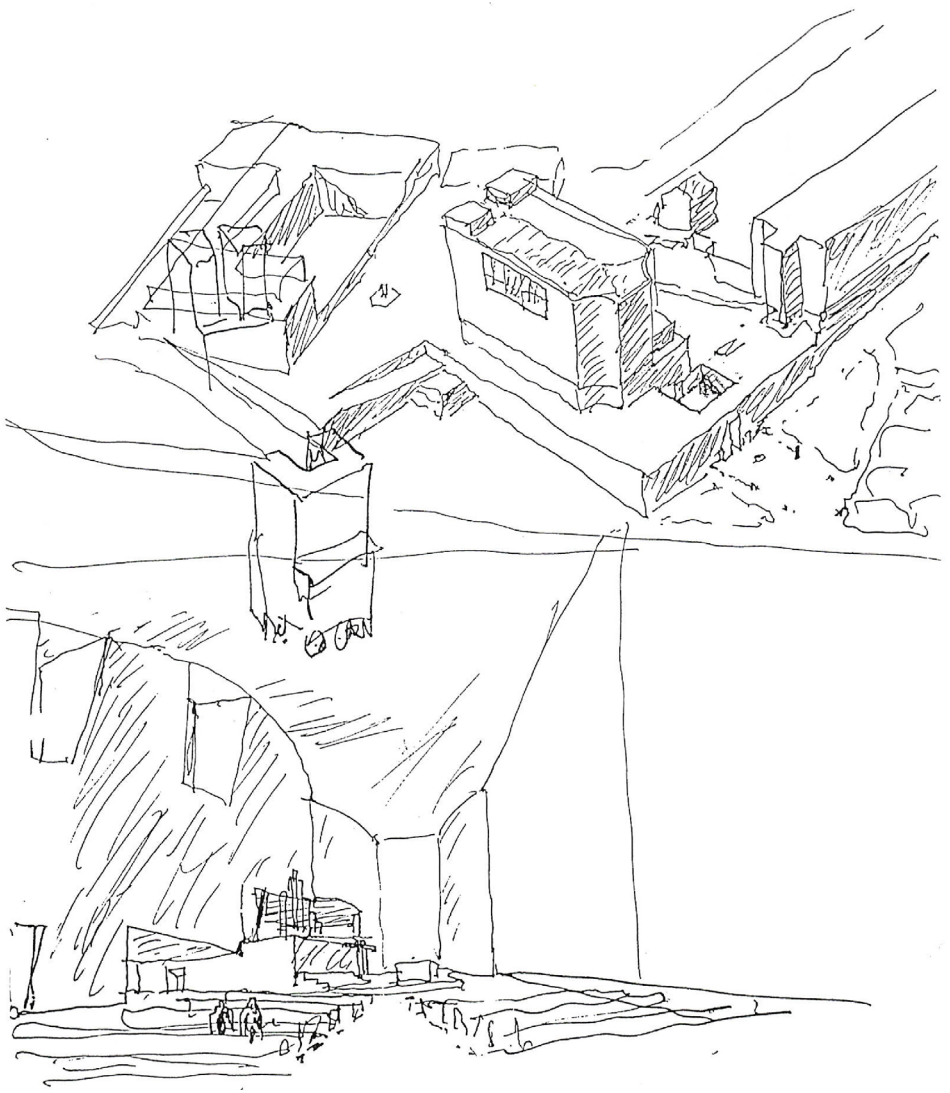
03. Laying of the Foundation stone ceremony, on September 27, 1992.



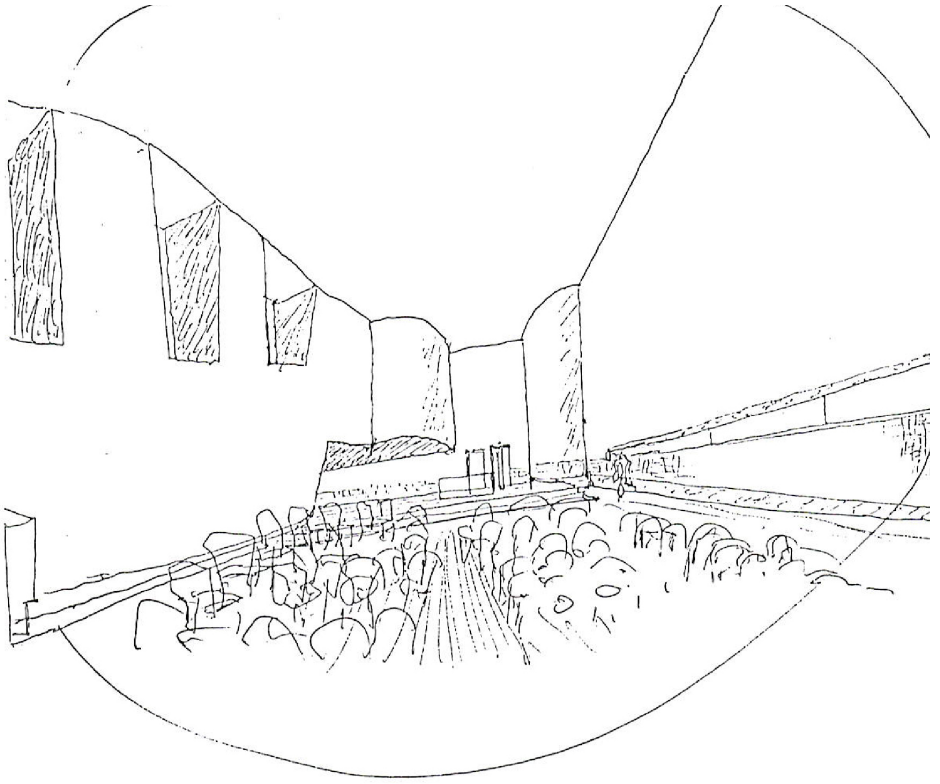




04. 05. 06. Perspective studies for the interior and exterior of the church and parish centre.



07. 08. Exterior and interior perspectives of the church.



09. 10. Interior perspectives of the church.

Council (1962–1965), influencing the evolution of religious architecture in response to dynamic socio-cultural and spiritual demands.

The sculptural form of Santa Maria Church and Parish Centre stands as a distinctive landmark in the neighbourhood, employing simple yet impactful materials such as white stucco and granite to enhance its serene yet monumental presence. The building's composition not only complements the existing context but also engages in a dialogue with its surroundings, evoking traditional Portuguese religious architecture while embodying a modern aesthetic. Despite being based on the layout of the Portuguese single-nave Romanesque and Mannerist churches, it achieves an intelligible modern design with coherent and abstract language based on a reinterpretation of traditional typological models. The façade's curved sections and straight lines create a dynamic interplay of form, enhancing the visual impact and reinforcing the church's role as an architectural focal point.

The spatial organization of the Santa Maria Church and Parish Centre reflects a meticulous integration of diverse functions. The 30 m long rectangular nave serves as the central worship space, with the main entrance strategically located at its southwestern end. To create a monumental appearance, the entrance door, measuring 3m wide and 10m high, is positioned at the centre of a 17.5m high square elevation, configuring a portal of significant impact for visitors. The façade is divided into three sections by two projecting volumes flanking the door, extending to the height of the building, which house the bell tower and the baptistery. This design pays homage to the traditional layout seen in Portuguese Baroque churches, featuring two towers and a frontispiece. While the grand portal is reserved for special occasions, visitors typically enter through a glass door beneath the bell tower. Below the church, at the avenue level, the mortuary chapel is next to a small public garden north of the site. Internally connected to the church by a staircase and elevator, the chapel's main entrance opens to a small, cloistered yard and covered walkway, reflecting Siza's interpretation of funerary rituals through a sequence of distinctive spaces. The Parish Centre includes social areas, an auditorium, Sunday school rooms, and offices, all surrounding a central courtyard, promoting community interaction. The auditorium and Sunday school are at the churchyard's southern end. Inside, the Centre is split into two parts: social spaces such as the atrium, lounge, bar, 240-seat auditorium, and game room are on the southwest side of the courtyard, while Sunday school classrooms and offices are on the southeast side. The priest's house to the northwest has three floors, with each floor height matching the nearby buildings.

The architectural journey is a carefully orchestrated interplay of light and form, guiding visitors through a series of nuanced experiences. This harmony is exemplified in Siza's meticulous attention to natural light, which plays a fundamental role in the design process. Particularly noteworthy are the architectural features illuminating the nave, such as three large openings (3.5m wide and 5m high), cut into the curved form of the northwest wall at ceiling level. Additionally, a continuous horizontal slit, 16m long and

0.5m high, with the windowsill set 1.3m above floor level along the southeast wall, not only provides natural light but also establishes an intended relationship with the surrounding landscape and society. This element acts as a counterpoint to the idea of seclusion associated with such spaces, despite the initial objection of the local community regarding its placement and design. Behind the altar, a pair of slender windows opens onto the blank wall of a lightwell, illuminating the mortuary chapel below and drawing focus towards the altar while imparting a heightened sense of verticality to the space.

The Santa Maria Church and Parish Centre integrate robust construction methods and meticulous detailing to create a harmonious ensemble. Walls and floor slabs are built with structural concrete and brick masonry, rendered and whitewashed. The retaining walls and exterior pavements are made of solid granite blocks, complemented by granite cladding at the building bases. The white volumes of the buildings rise from this solid base and through a canopy of vegetation that surrounds them. The interior finish is made of plain white plaster walls and ceilings, tiles and limestone, and wooden floors. The roof is finished with zinc flashing.

The architect oversaw the furniture detailing (including the ambo, the tabernacle, the chairs and the cross of the altar), the choice of materials and the integration of art, such as the architect's own drawings on the tiles, revealing the design's multi-scalar approach, in which every element was conceived and thought as a part of the integral whole.

Since its completion, the Santa Maria Church and Parish Centre has been extensively photographed and published. The outstanding design qualities of this building led to the attribution of the IberFad Award in 1998 (Foment de les Arts Decoratives) and the Premio Internazionale di Architettura Sacra in 2000 (Fondazione Frate Sole).

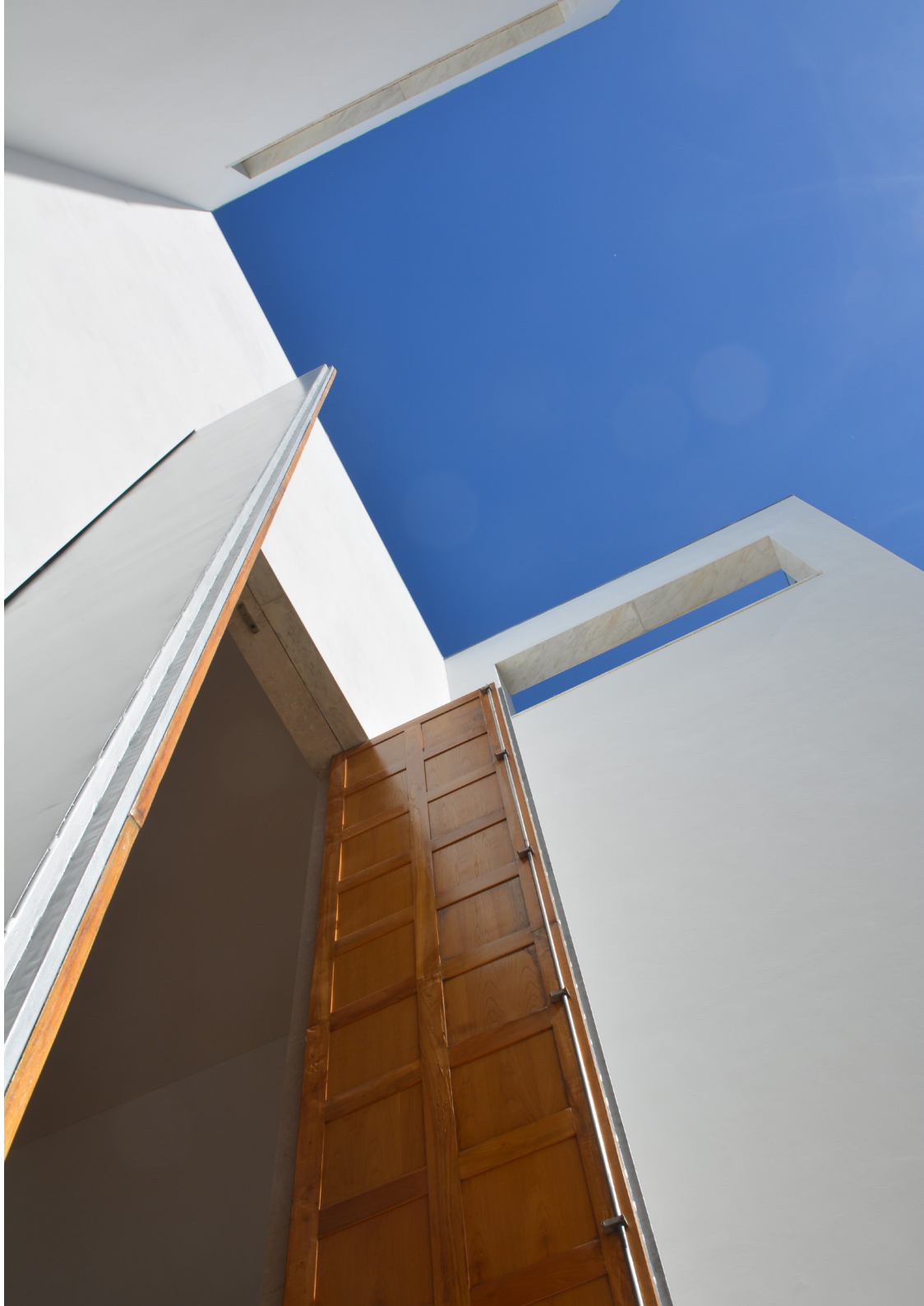
In 2012, the entire parish complex was listed as a Monument of Public Interest (currently in a National Monument listing process). Due to the buildings outstanding relationship with the surrounding territory, a Buffer Zone was defined to protect and safeguard the relationship between the building and its urban context. This Buffer Zone aims to preserve the contemplative character of the site, which is fundamental for reading its symbolic nature and cultural function.

On July 7, 2021, during the 25th anniversary of the church, the Municipal Council requested its listing as a National Monument, considering its cultural value and recognition as a worldwide architectural reference.

In recent years, the Parish Complex was heavily affected by degradation and cracks in different building walls, graffiti, and even loss of coating on some doors. In 2020, under the supervision of the Municipal Council of Marco de Canaveses, Álvaro Siza developed a conservation plan for the church along with the project for the road link between Eng. Manuel Carneiro Street and Santa Casa da Misericordia Street. Under the direction of Álvaro Siza, this project seeked to expand the current road by adding retaining walls and access stairs to the churchyard.

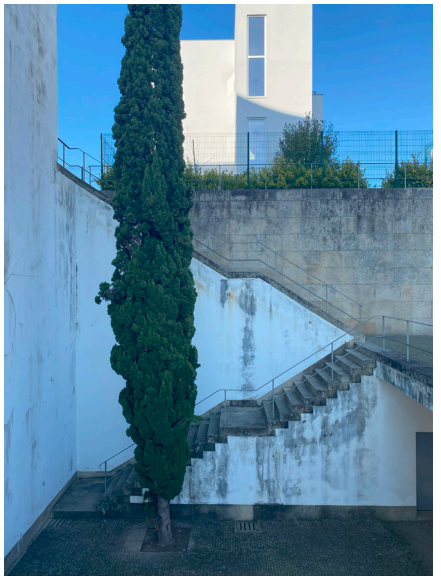
The project aimed to increase road capacity and improve access to the complex. The Santa Maria Church and Parish Centre's conservation was successfully completed and inaugurated on March 19, 2023. These works were funded by the European Regional Development Fund and the Municipal Council of Marco de Canaveses. As Álvaro Siza's inaugural project with a religious programme, it wielded significant international influence. It paved the way for a subsequent invitation to design the Church and Parish Center of Saint-Jacques-de-la-Lande in Rennes, France, thus exemplifying Siza's impact on 20th-century architecture on a global scale.

14. 15. 16. Southwest facade, with the two towers and the main door.

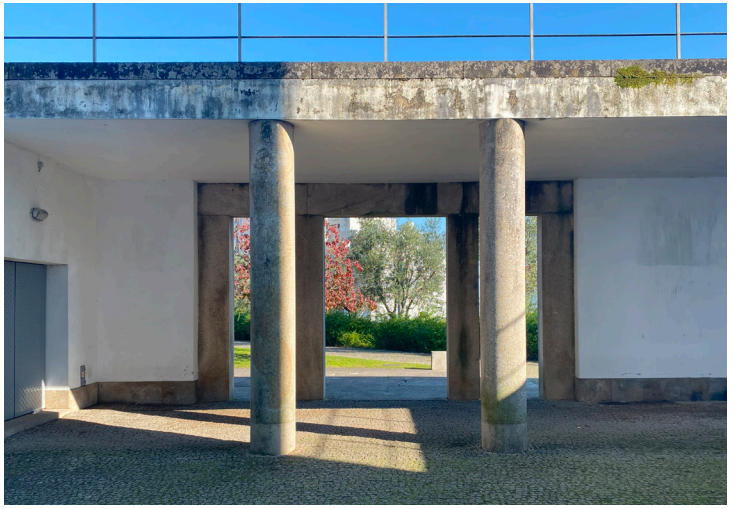


17. East façade.

18. Cloister leading to the mortuary house.



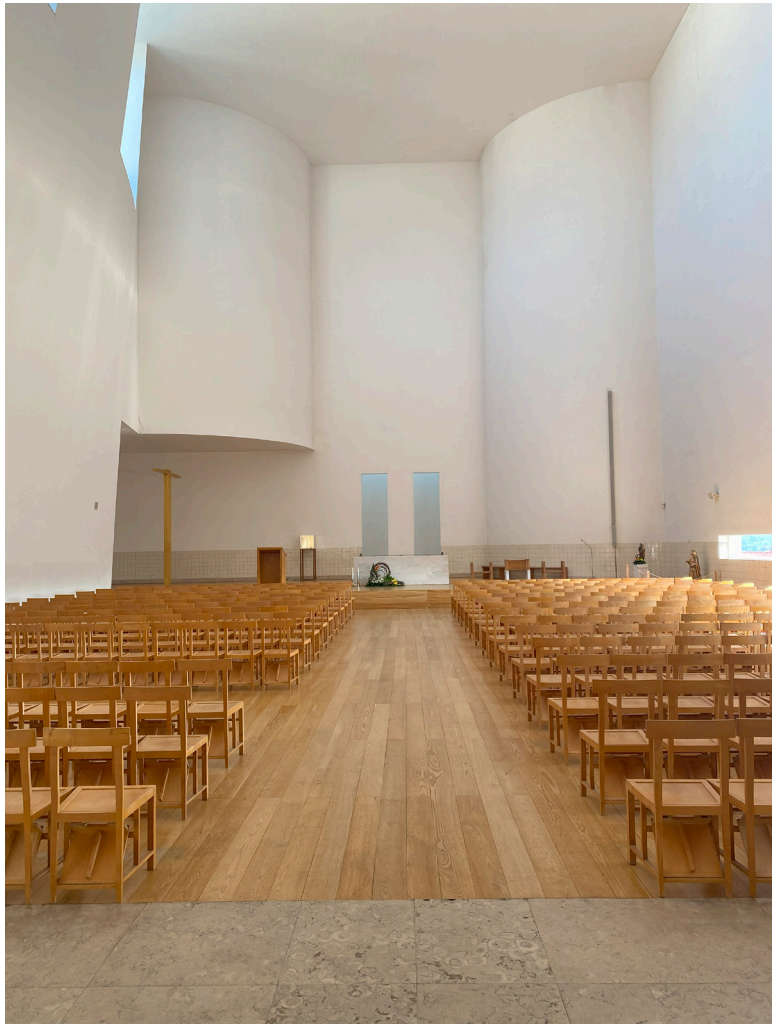
19. Exterior stairs connecting the upper floor of the church with the lower floor of the mortuary chapel.



20. Connection with the garden.

21. 22. Parish Centre and churchyard.

23. 24. View from the parish centre balcony.



25. The nave of the church.

26. The long horizontal window along the southeast façade.

27. The presbitery.

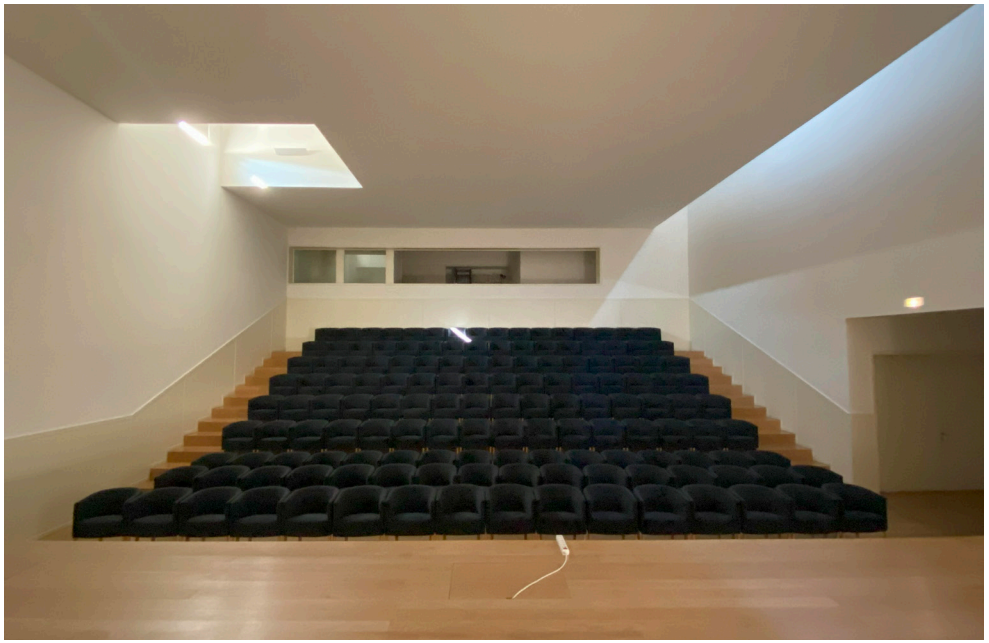
28. The baptistry.

29. Church apse.

30. The Mortuary House.

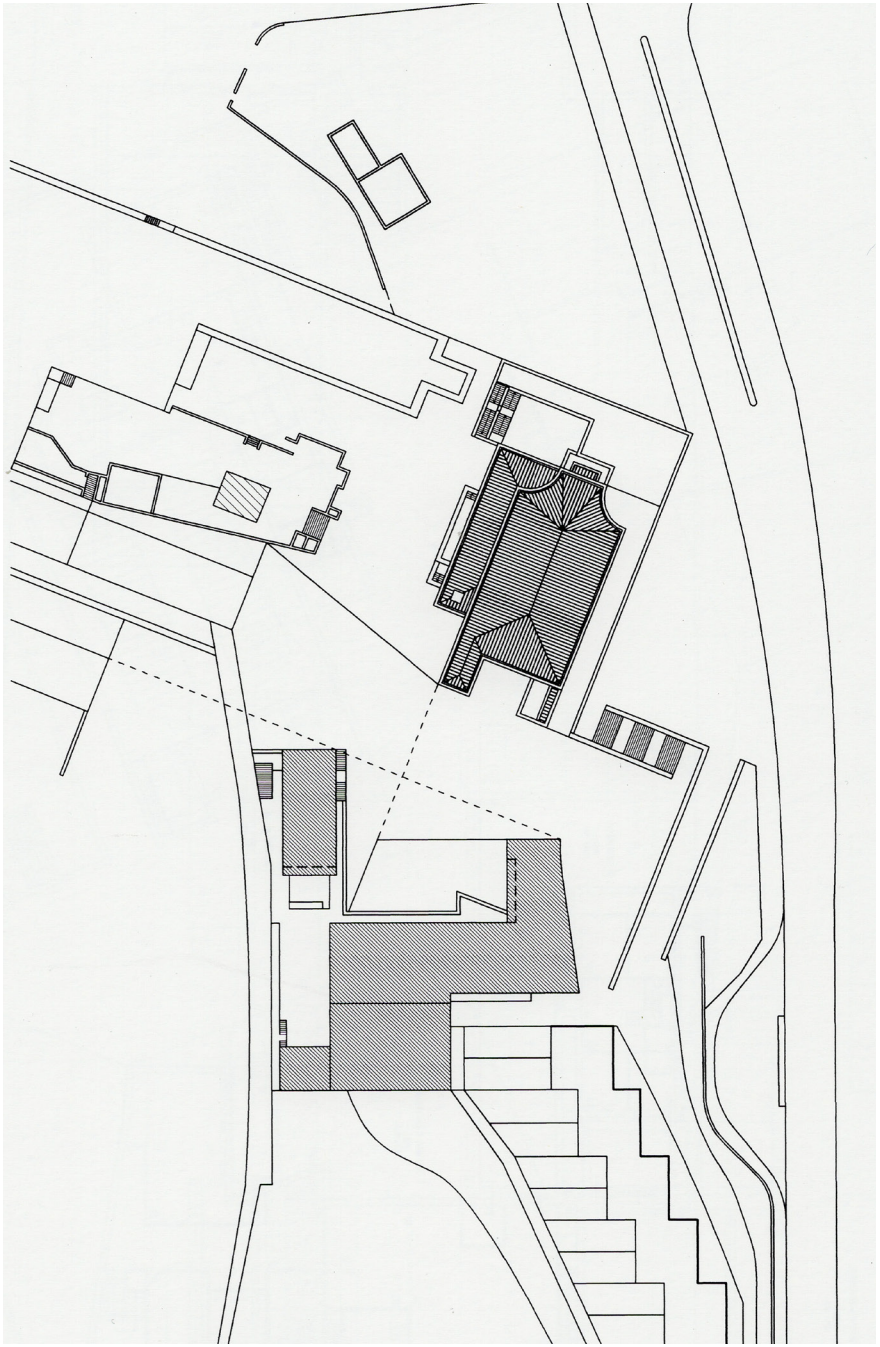
31. Lightwell in the north façade that illuminates the space behind the altar, with two openings, and below this, the mortuary chapel space.

32. 33. Entrance and reception of the Parish Centre.

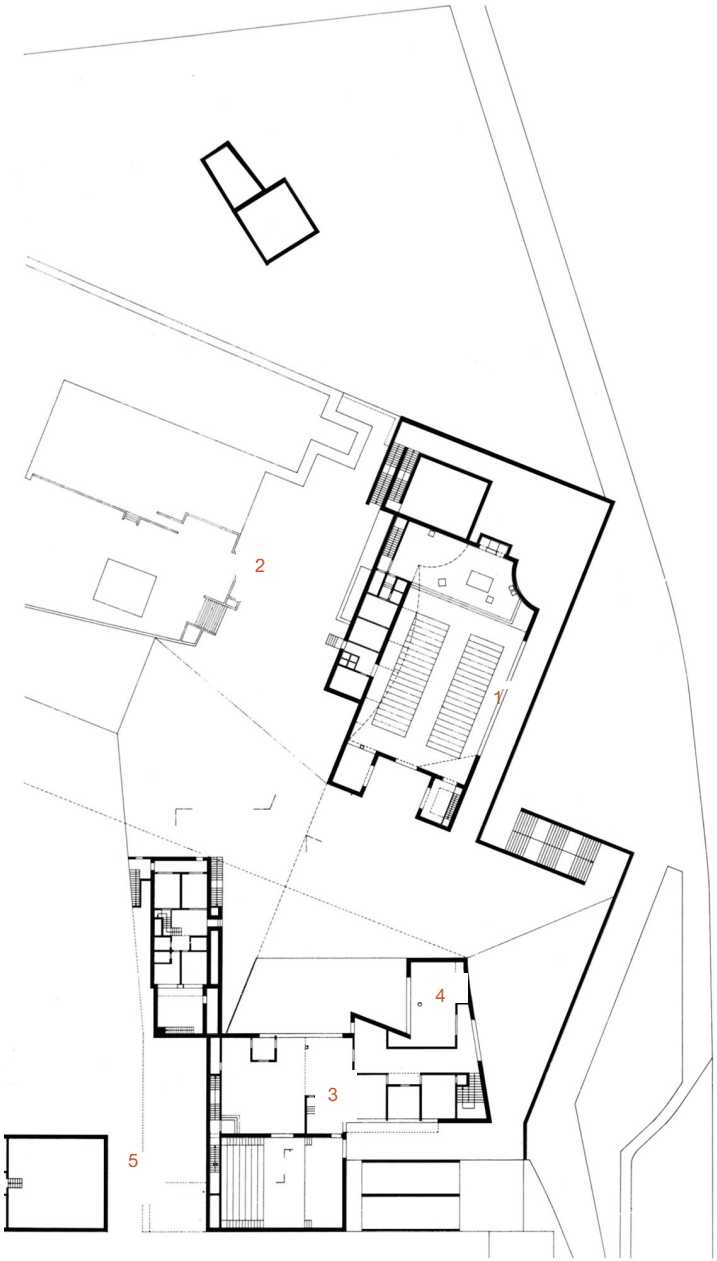


34. Auditorium of the Parish Centre.

35. Parish Centre.

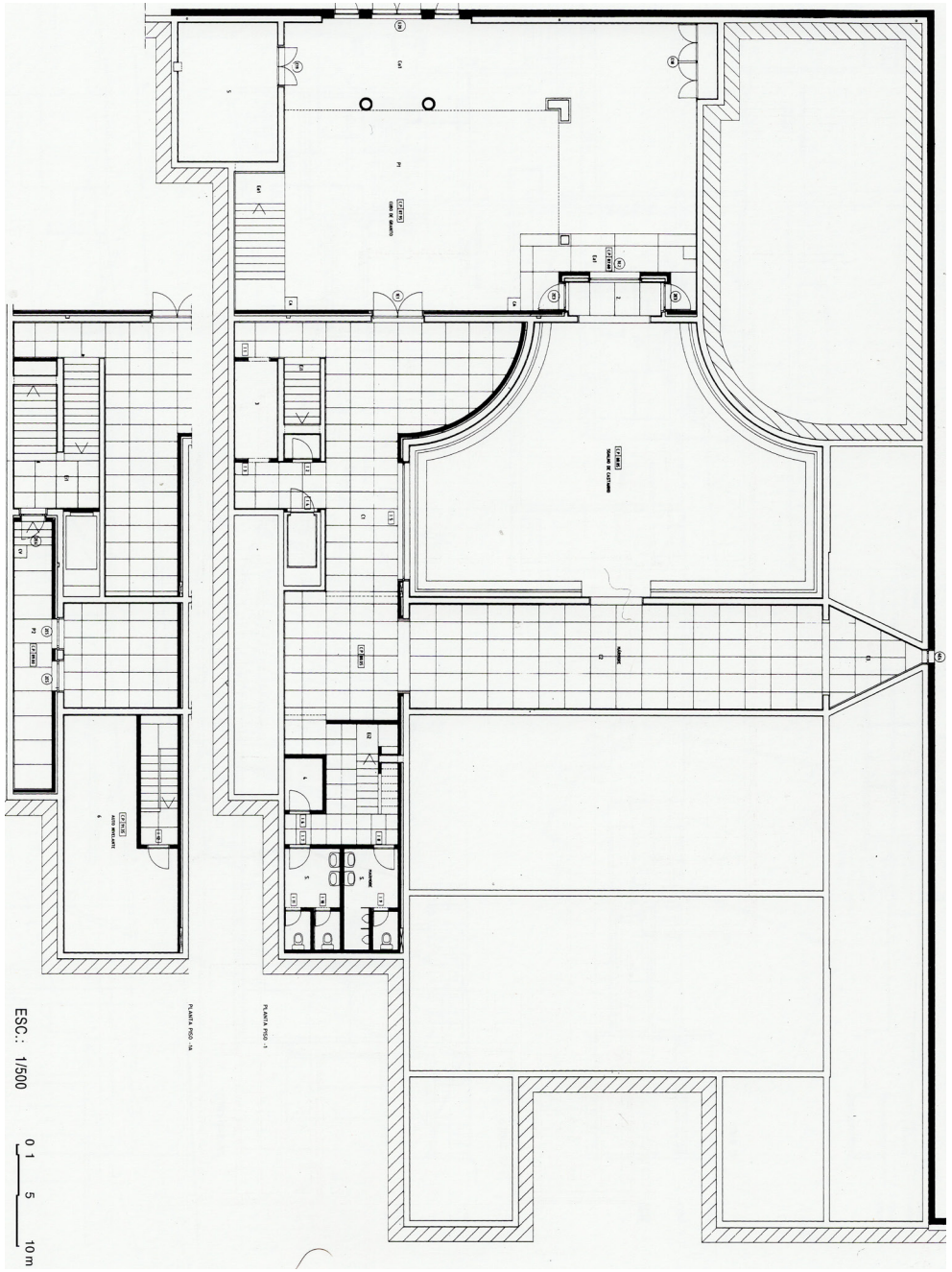


36. Plan of the site.

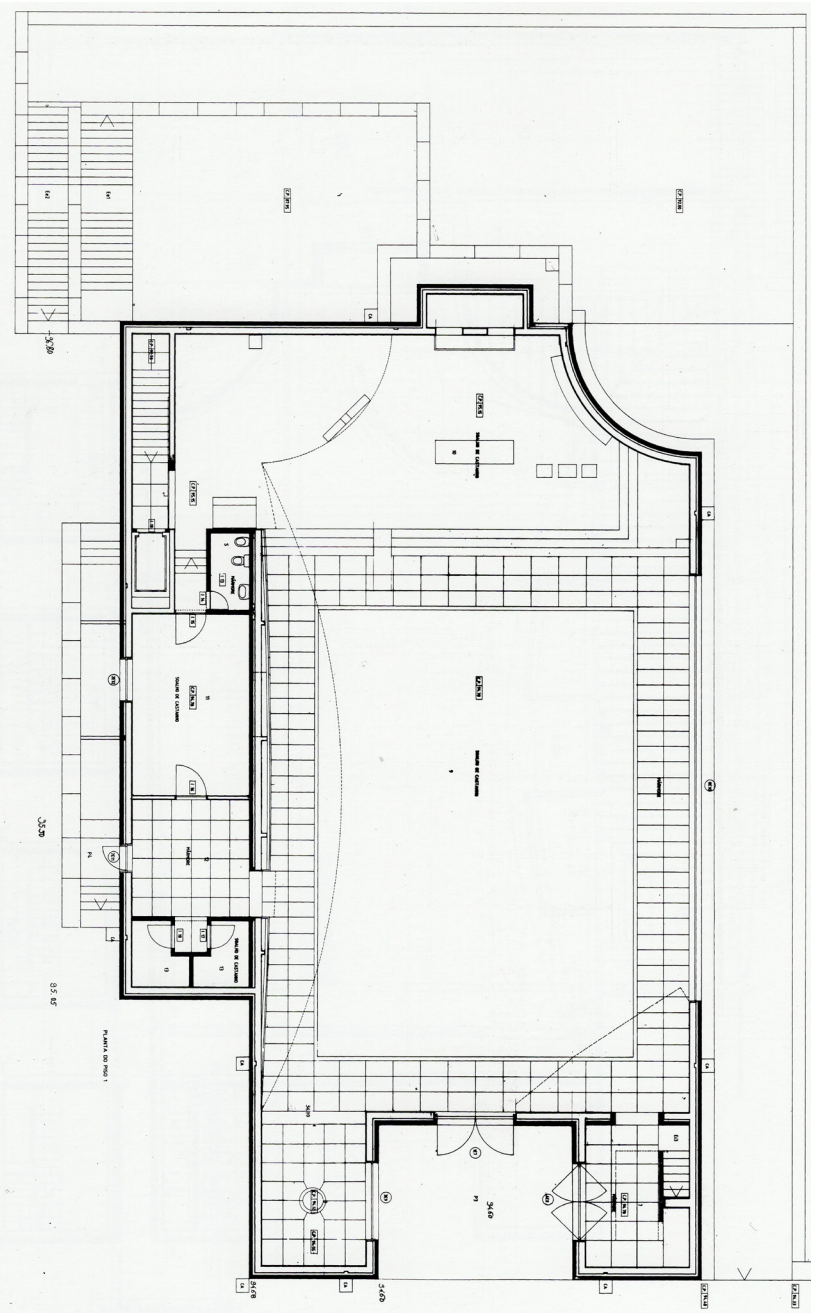


1 Church 2 Sunday -school 3 Priest's House 4 Auditorium (level 1) 5 Auditorium (level).

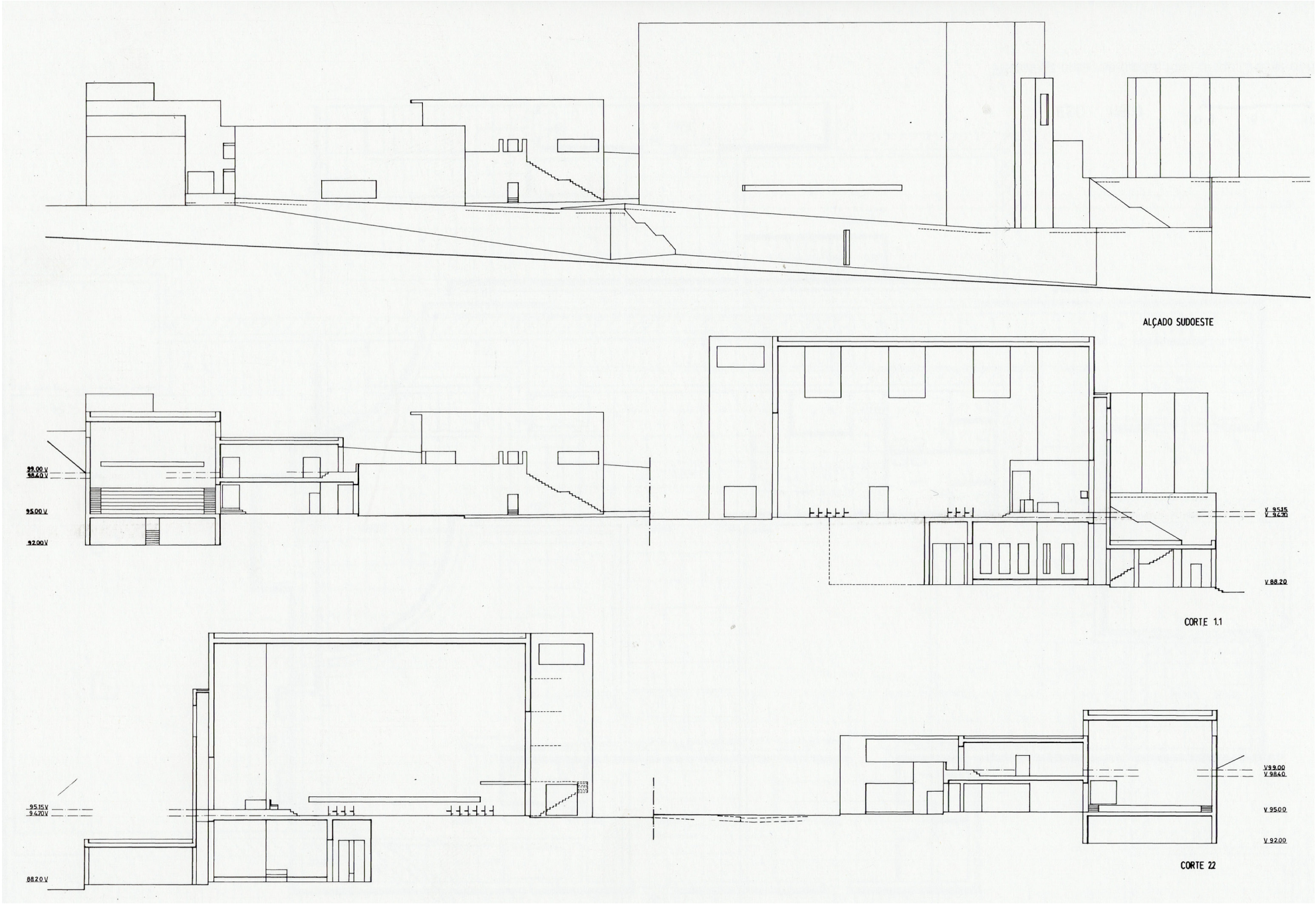
37. Plan of the project.



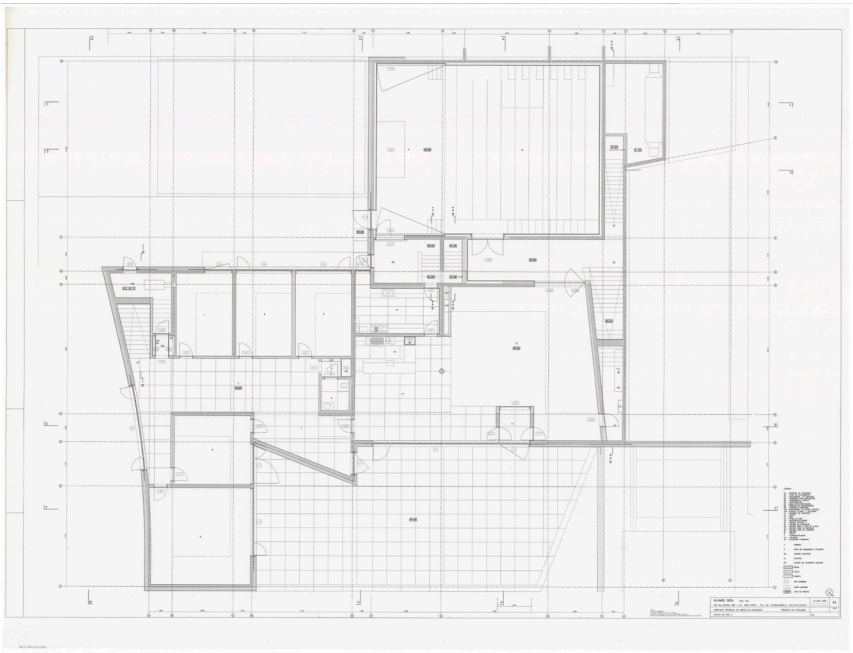
38. Plan of the church.



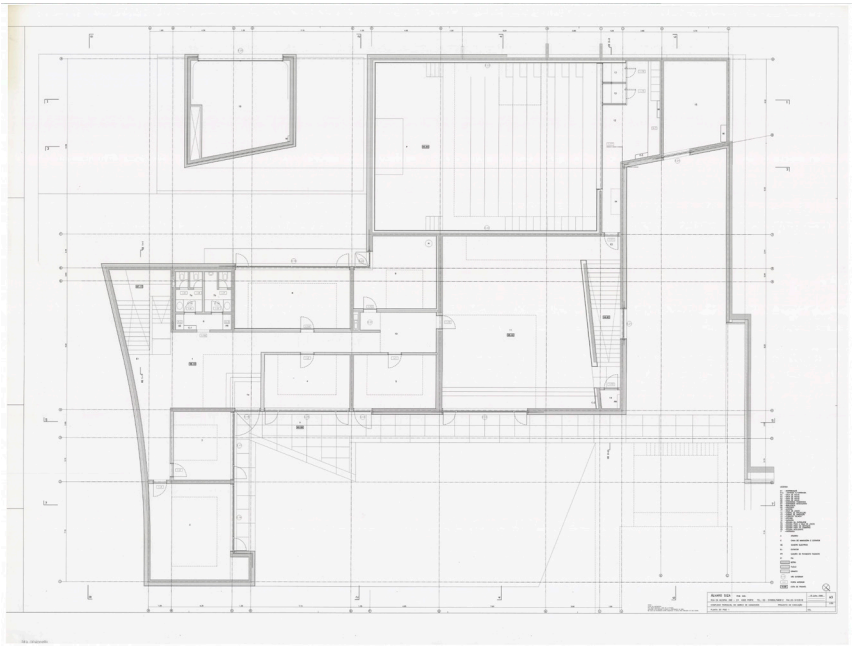
39. Plan of the chapel.



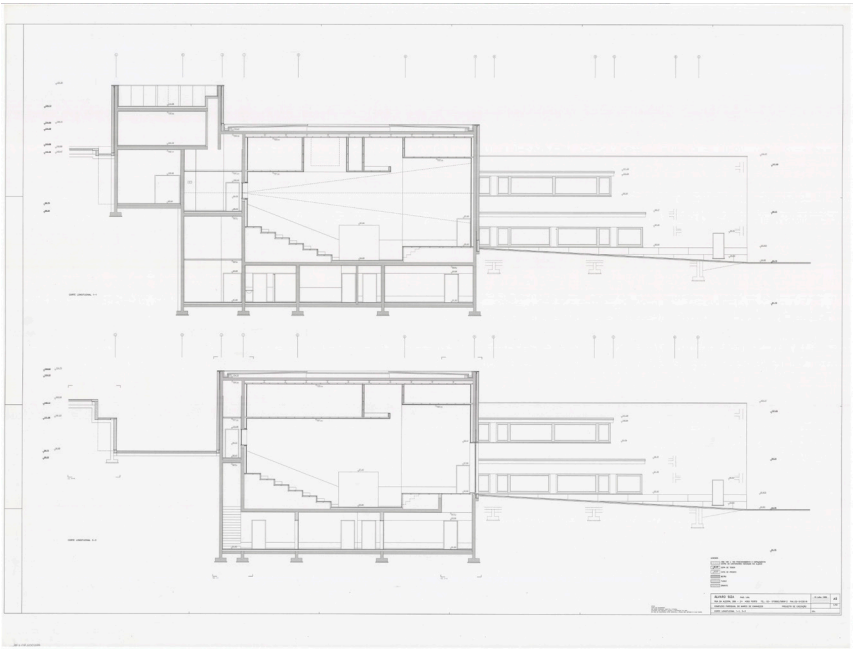
40. Sections of the whole complex.

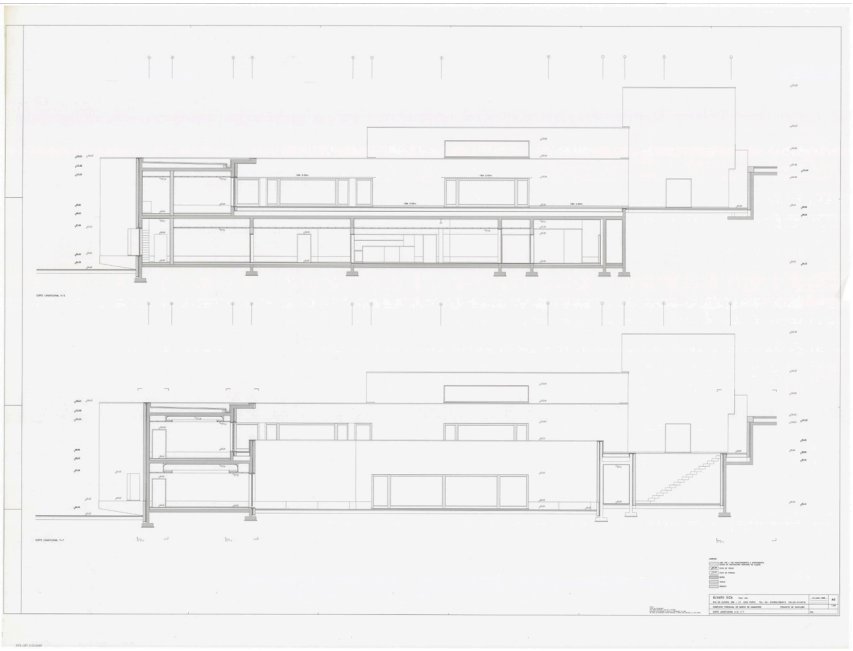


41. Ground floor of the Parish Centre, 1999.



42. Floor 1 plan of the Parish Centre, 1999.





43. 44. Longitudinal Sections of the Parish Centre, 1999.

CONSTRUCTION

STRUCTURAL SYSTEM

The vertical and horizontal structures of the Santa Maria Church consists of “structural exterior walls and reinforced concrete slabs” (Siza & Torgo 1992). The load-bearing exterior walls in reinforced concrete have thicknesses ranging from 15 to 30cm.

Regarding the slabs, they have varying thicknesses: the main floor and the belltower floors have a thickness of 20cm; the slab covering the light well (behind the altar) is 15 cm thick; and the roof slab, supported by HEB 300 beams, is 8cm thick .

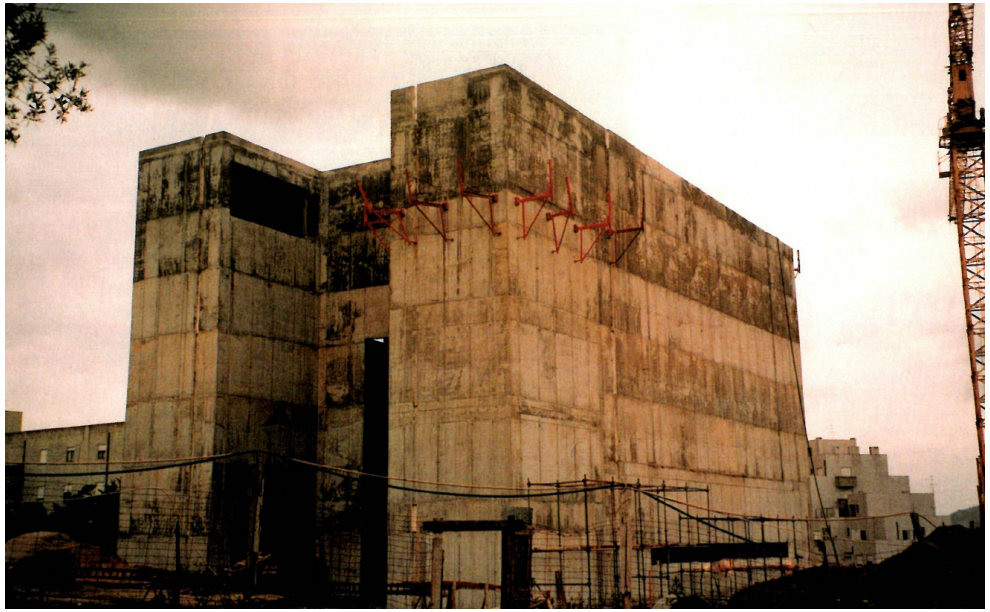
WALLS

The exterior walls are double-layered, consisting of a reinforced concrete wall and a layer of perforated brick with dimensions 30 x 20 x 11cm, with a granite or ‘Estremoz’ marble wainscot, as seen in the reflecting pool. The air gap between these layers is filled with 4cm thick extruded polystyrene for thermal insulation, with the “perforated brick wall suspended with metal brackets” (Siza & Torgo 1992). Externally, these walls are entirely plastered with a fine-textured, painted finish.

Internally, the walls are predominantly finished with plaster, which is stuccoed and painted. This is complemented by wainscoting, either in Viúva Lamego tiles measuring 14x 14cm or in ‘Lioz’ stone. Some tiles feature subtle raised finishes, defining crosses along this cladding.

Such as the exterior walls, the interior walls have the same type of finishes, highlighted by baseboards in varnished chestnut wood.

In the lower level, the mortuary chapel has a bench along its walls, clad in ‘Lioz’ stone, matching the wainscoting.



13.

45. 46. Construction works.

45. 46. 47. 48. Construction works.

FLOORS

The interior floors of the church and mortuary chapel are covered with chestnut wood flooring, while the baptistery and circulation areas are finished with 'Lioz' stone cladding.

The chestnut wood flooring, with dimensions of 2.8 x 16 x 320cm, is fixed onto wooden battens laid over a reinforced concrete layer, except in the altar area, where it rests on a substructure that allows the necessary elevation. The 'Lioz' stone cladding, 3cm thick, is laid directly on the reinforced concrete. The floor geometry also serves to introduce Christian symbolism, as noted by Siza: "The first cross we find upon opening the door is in the marble floor, with joints widened to form a cross" (Siza 2006: 214).

The church also features underfloor heating embedded in the concrete and the altar substructure.

The exterior pavements consist of granite paving slabs and granite cubes, laid on reinforced concrete or sand bed, respectively.

The railings for the altar and the exterior ones in the church courtyard are made of stainless steel profiles (bars and rods), with a sandblasted finish.

The main interior spaces of the church have suspended ceilings fixed to a grid of wooden beams, covered with 'Estafe' panels, finished with stucco and painted.

ROOFS

The entire flat roof of the church is covered with zinc, including the gutters and the capping of the parapet. This zinc cladding, with standing seam , is applied over extruded polystyrene thermal insulation, resting on a sloping layer of cellular concrete with a suitable inclination of 5%.

The nave ceiling features a similar finish to other interior spaces, as previously described.

OPENINGS

The main entrance door of the church is made of iron profiles and steel sheet, clad with titanium on the exterior and wood on the interior.

All exterior glazed frames are made of pine wood, coated with white enamel paint. The exterior openings have jambs and lintels in 'Estremoz' marble with a honed finish, 3 and 4cm thick, respectively. The same marble is used for sills and some thresholds, while others are in 'Lioz', all with a thickness of 7cm.

Interior doors are made of chestnut wood, with either wooden panels or glazing.

DESIGN PRINCIPLES

IEVERYTHING BECAME INTERRELATED, REACTING TO THE COMPLEXITY OF THE EXISTING BUILDINGS

The initial reference was a preexisting building, a residential home for the elderly, with a precise and orderly architecture, located on the upper level of the escarpment, with a considerable extension in relation to the road. Everything else became interrelated from this new level, reacting to the complexity of the existing buildings and finally permitting the creation of a churchyard, overlooking the beautiful valley of Marco de Canaveses. (Siza, 1998)

THIS INHABITED PLATFORM WAS DESIGNED TO EMERGE AS A BUILT NATURAL ENVIRONMENT

The crypt is almost the foundation of the church itself, creating a stable, fixed level upon which it may rest. Additionally, with its granite walls and cloister, a distance is established in relation to the road. Therefore, this inhabited platform was designed to emerge as a "built natural environment" (Siza, 1998)

I TRIED TO PRESERVE CONTINUITY WITH TRADITION

I tried to preserve continuity with tradition. Thus, looking closely at the character of this church, it seems evident that its conception is substantially conservative. This intention clearly emerges from the plan's design, which in reality expresses a rigid axiality. (Siza)

I WANTED IT TO BE RECOGNISED AS A RELIGIOUS BUILDING

There are many churches that are unrecognisable except for the distinctive symbol of the cross. That is what I definitely wanted to avoid. (...) Well, I wanted it to be recognised as a religious building. I think I succeeded. (Siza, 1997)

THE CHURCH TOOK ON THE FORM OF A NEGATIVE SCULPTURE

In the space around the altar, a number of elements participate in the ritual (...) which slowly began to take shape and then defined the space, while respecting the pre-established movements of the mass. Thus, the church took on the form of a negative sculpture, in which relationships of continuity and tension were established between the various parts. (Siza, 1998)

MOVEMENT WAS ESSENTIAL TO MY IDEA

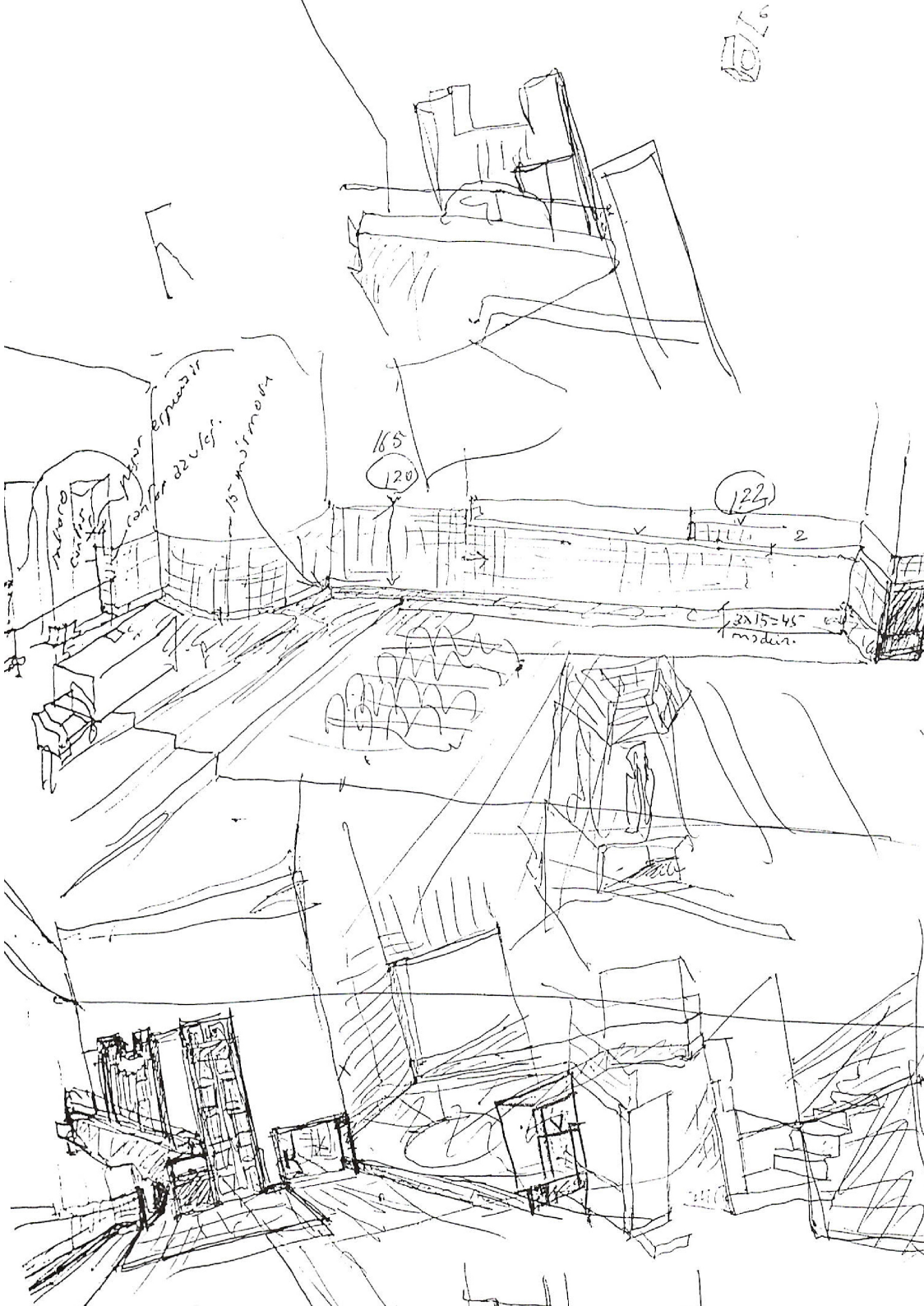
The ramps, stairs, levels, terraces, walls, etc. in stone were disposed to make an understandable sequence of spaces, events and views. Movement was essential to my idea. (Siza, 2000)

THE HORIZON IS PULLED INTO THE INTERIOR

At Canaveses much attention is given to the changing views of the building, but also to the views from the building. For example, in the main space of the Church there is a slender horizontal window low down along the length of the right-hand wall as you are facing the altar. The person who sits down suddenly sees out the hillsides beyond the village. The horizon is pulled into the interior. (Siza, 2000)

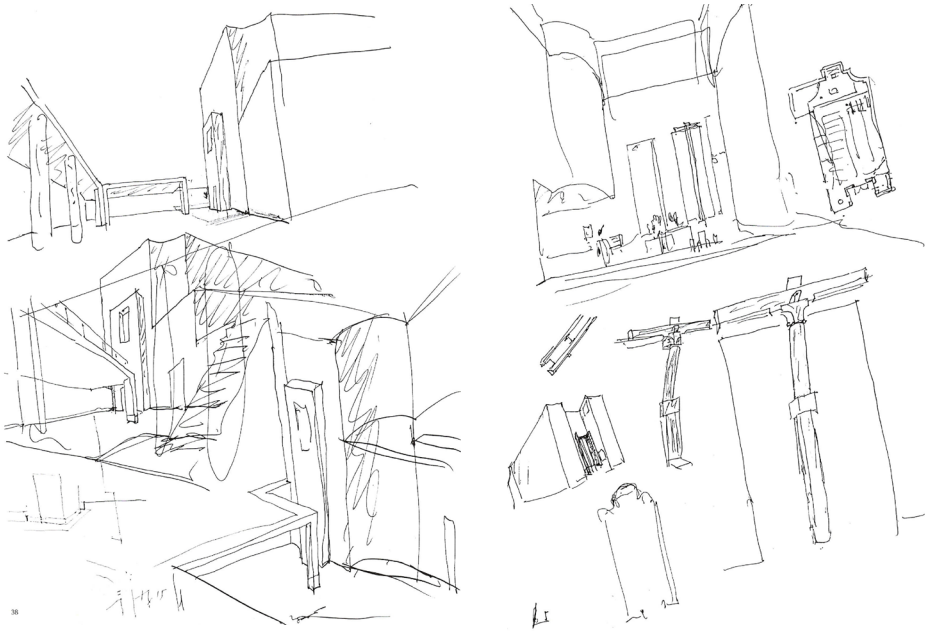
ENSURING THAT THE DETAILS WERE NOT SO APPARENT AS TO COMPETE WITH THE STRUCTURE OF THE SPACE

One of the aims that could not be waived was ensuring that the details were not so apparent as to compete with the structure of the space. I worked intensely on the relationship, encounter and transition of materials. (Siza, 1998)



ATTRIBUTES

The architecture of Álvaro Siza provides a sublime and grounded way of understanding the places where it is settled. The buildings, their paths, and their connections to their surroundings are the object of careful study and interpretation. His architectural designs respect the specific conditions of the place, integrating pre-existences, topography and natural elements, and are deeply engaged by a critical analysis of the surrounding landscape. This contextual approach also comprises the intangible qualities of the socio-cultural background, resulting from a broader interpretation of history, traditions, social practices, culture, and ways of living. Building complexes frequently result from the geometrization of pre-existing elements and characteristics of the site to define viewpoints, alignments and composition principles, with the whole responding to a broader interpretation of the landscape and socio-cultural context.



50. 51. Studies for the church, including details and furniture.

INTEGRATION OF INTERNATIONAL AND LOCAL REFERENCES

The architecture of Álvaro Siza is able to congregate, allude to and epitomize, in a single design, both modern and antique precedents. His approach is not focused on casual borrowings of historical forms or previous styles, rather on the ideas behind those forms which are transformed into new proposals. Buildings are able to renovate and reinterpret Modernism through a genuine and original architectural composition method, coherently non literally revisiting and summarizing styles, memories, building traditions and local references (including vernacular construction features), during a period of profound social, political and aesthetic changes.

SCULPTURAL VOLUMETRIC EXPRESSION

The architecture of Álvaro Siza has a sculptural quality that results from a very particular combination of volumes, rhythms, and curvilinear and asymmetrical shapes in the rigour and clarity of its outlines. This compositional strategy, though, is not the result of mere addition of volumes, as the form as a whole is retained through the use of inflected geometries which ensure the articulation between the parts.

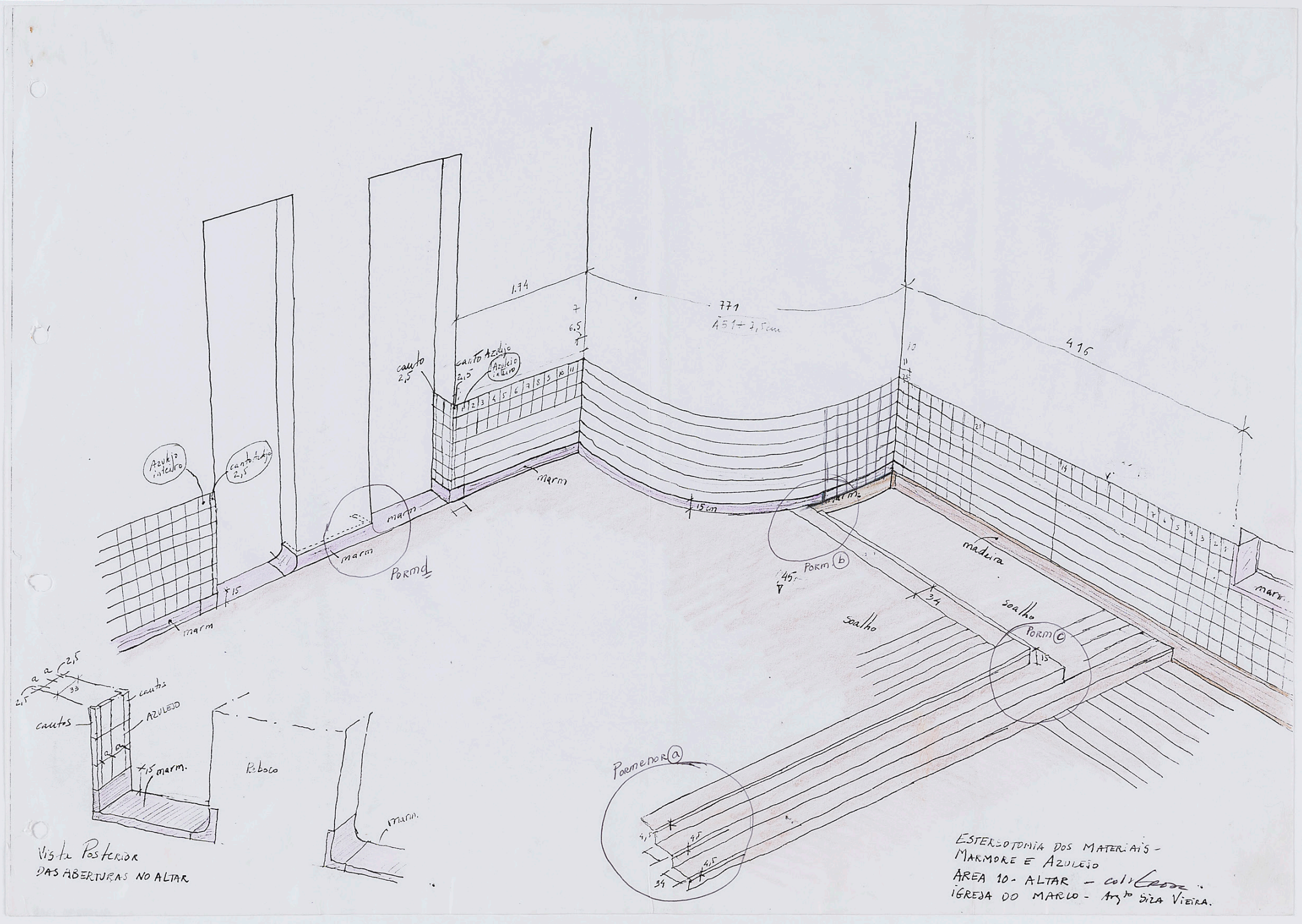
This plastic dimension of his work is far from being superficial or an end in itself, as it is rooted in the ideas that beauty is the guarantee of absolute functional efficacy, and that form should not be limited to following function, but should instead transcend and free itself to be appropriated by users and adapted to new future uses.

ORIENTED SPATIAL EXPERIENCES

The architecture of Álvaro Siza is inseparable from the idea of displacement of the body through spaces, with the use of movement, light and visual openings. His works are designed as sequential experiences of space, revisiting the rationalist theme of the promenade architecturale, taking it to new heights through zig-zag paths and an imaginative use of the section. The engagement of the body, in overlapping perspectives, long and short or up-and-down movements, open and closed or light and dark spaces, achieves exciting spatial experiences. Light, both natural or artificial, is of the utmost importance and takes part in the spatial experience in multiple ways, coming through horizontal slits set at eye level, very high clerestory windows framing the sky, continuous glass planes that dilute the separation between interior and exterior, strategically positioned skylights, or artificial lighting concealed in complex ceiling geometries. Besides bringing in light, these openings are carefully thought of in order to frame specific aspects of the surrounding landscape, or as components of long perspectives that go beyond the limits of the building and into exterior spaces, establishing a carefully planned visual indoor-outdoor relationship.

TOTAL WORK OF ART INCLUDING DETAILS, FURNITURE AND ART WORKS

The architecture of Álvaro Siza is the result of a multi-scalar design approach, intertwined with the idea of gesamtkunstwerk ("total work of art"), in which every detail (from construction to furniture or artworks) is thought and designed by the architect as part of a whole. The whole and the parts generate and influence each other, introducing spatial tensions amidst the smallest elements, for their superimposition and interconnectedness. Finishings are drawn with exquisite attention to details, inventing trims, connections and transitions between materials and coatings, with exclusive solutions, at times provocative, irreverent and surprising. This particularity is significant and specific to his work, and originates in the "know-how" of Portuguese artists and artisans, imbuing finishings with a surprisingly familiar quality.



ESTEREOTOMIA DOS MATERIAIS -
MARMORE E AZULEJO
AREA 10 - ALTAR - col. Casa
IGREJA DO MARCO - Arqto SIZA VIEIRA.

AUTHENTICITY AND INTEGRITY

AUTHENTICITY

The Santa Maria Church and Parish Centre maintain the authenticity of its form and design. No interventions or alterations have been made to modify these components since the complex has not undergone any major intervention since its construction, allowing it to maintain its original design.

The Santa Maria Church and Parish Centre preserves most of the original materials. The recent conservation works of 2022, completed in 2023, determined the replacement of thermal insulation in the façades, maintaining the original dimension of the finishings. These conservation works included the painting the façades and window frames following the original design.

The Santa Maria Church and Parish Centre fully maintains its original use and function. The complex also has catechism classes and meeting areas linked to the religious community that are still in operation.

The urban context of the Santa Maria Church and Parish Centre is well preserved. At the time of construction, the area already was a residential urban zone in development. Now, however, a protection zone prevents any invasive interventions resulting from real estate pressure, ensuring the preservation of the setting and landscape. The existence of a significant number of vacant plots presents some development pressures in the area. They are being monitored in the Santa Maria Church and Parish Centre Management Plan to ensure the preservation of authenticity of location and setting.

The Santa Maria Church and Parish Centre has kept its spirit intact, stimulating reflection through its high ceilings, natural light and openings with views over the valley. It is still possible to have the same contact with landscape and light since the building has not suffered major alterations, allowing it to maintain the original feeling and spirit, shaping spaces of peace and reflection for the community. As a church and parish centre, it fully aggregates the spirit and feeling of local communities in their religious practices.

The Santa Maria Church and Parish Centre have been improved with new thermal insulation and painting of its façade. The replacements in the building were carefully thought to maintain the authenticity of tradition and techniques. The management system performed by the Fornos Parish maintains intact, with a lively coordination between the priest, the church fabric (responsible for maintenance actions), the keepers.

INTEGRITY

The Santa Maria Church and Parish Centre retains a very high degree of integrity as it is maintained in good condition, including all elements necessary to express its values and significance. The building itself retains a high degree of original fabric, including interior fittings and fixtures.

The component part limits defined by the Buffer Zone include all the necessary elements that express the significance of the Santa Maria Church and Parish Centre, namely the church, the auditorium, the Sunday school, the parish house and surrounding area. The building did not suffer any significant change during its lifetime.

In order to solve problems that arose from the natural ageing process of the building, the component part underwent conservation works between 2022 and 2023. Siza was involved in the process and due to the careful character of the intervention, aiming at restoring and safeguarding the original design, there was no damage to the integrity of the buildings.

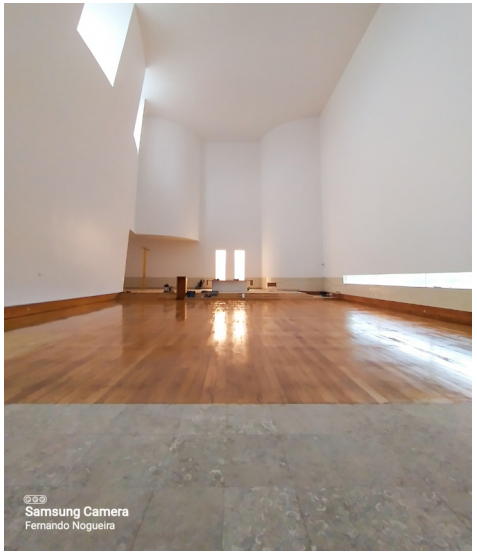
STATE OF CONSERVATION

The Santa Maria Church and Parish Centre has recently undergone maintenance and conservation works (2022-2023) supervised by Álvaro Siza and implemented by the Municipal Council of Marco de Canaveses. These works were necessary as the building exhibited signs of decay, such as cracks in he walls and loss of coating on some doors. The intervention started in 2022 and successfully restored the building to an exceptional level of conservation, preserving its integrity.

Replacing existing construction materials and systems was conducted to ensure compatibility with the remaining ones. Despite minor repair interventions over the years, he external coating presented some damage. The original stone cladding was maintained, and the thickness of 19 cm of the external plaster was respected. The implemented solution had three variants, validated after implementing surveys: a) superficial removal of plaster and application of a new layer reinforced with mesh; b) complete removal of the coating and replacement with an "ETICS" system with expanded clay aggregate thermal insulation; c) the same solution with extruded polystyrene thermal insulation. Where there were no structural problems with the supports of the external coating, the solution involved sandblasting the exterior plaster layer. Water-repellent lime plaster was used on all exterior walls, including applying fibreglass mesh glued with epoxy resin and surface preparation with silicate paint. These works included the characterisation of the water tightness of the external envelope in exterior openings (with water projection tests) and in the flat roofs (with permeability tests conducted to assess the overall condition of the waterproofing and finishes).

57. Intervention on the exterior wall of the parish centre.

55. 56. Replacement of exterior wall cladding materials for the church and parish centre.



58. 59. Interior intervention in the church: before and after scaffold removal.

DIGITAL DOCUMENTATION

The digital revolution significantly impacts Cultural Heritage safeguarding offering advanced documentation and communication techniques. Modern heritage presents a rich opportunity for study and interpretation due to its diverse documentary, physical, and oral resources.

The methodology for digital documentation, framed within the SizaATLAS research project, employs combined techniques to document Álvaro Siza buildings, namely i) photogrammetry, ii) 360º virtual tours, and iii) BIM didactic models.

The development process involves is supported on previpus analysis of archival and bibliographc documentation and field work observation. This integrated metholodology provides holistic and in-depht analysis of the architectural works, expressing their design principles and OUV attributes, spanning form the relation with the context, the local and international references, the oriented spatial experiences, the volumetric expression and multiscalar approach, including construction and details. Also, it aims at info-accessibility and didactic dissemination of Siza's Architecture, allowing for interactive experiences to users all over the word.

360º VIRTUAL TOURS

Virtual tours are an increasing instrumental in the documentation and preservation of cultural heritage, contributing communication, and conservation monitoring.

The development of the 360º virtual tours captions was guided both by the OUV attributes and the design principles of each building.

Images for these tours were acquired by a Ricoh Theta camera, ensuring precise timing and favorable weather and light conditions. Subsequently, the virtual tours were processed and enabled using software developed by detalhar.pt. The QR codes in the booklet allow for interactive virtual tour experiences of the buildings, focusing on the main attributes and design principles.

60. 360º Virtual Tour.

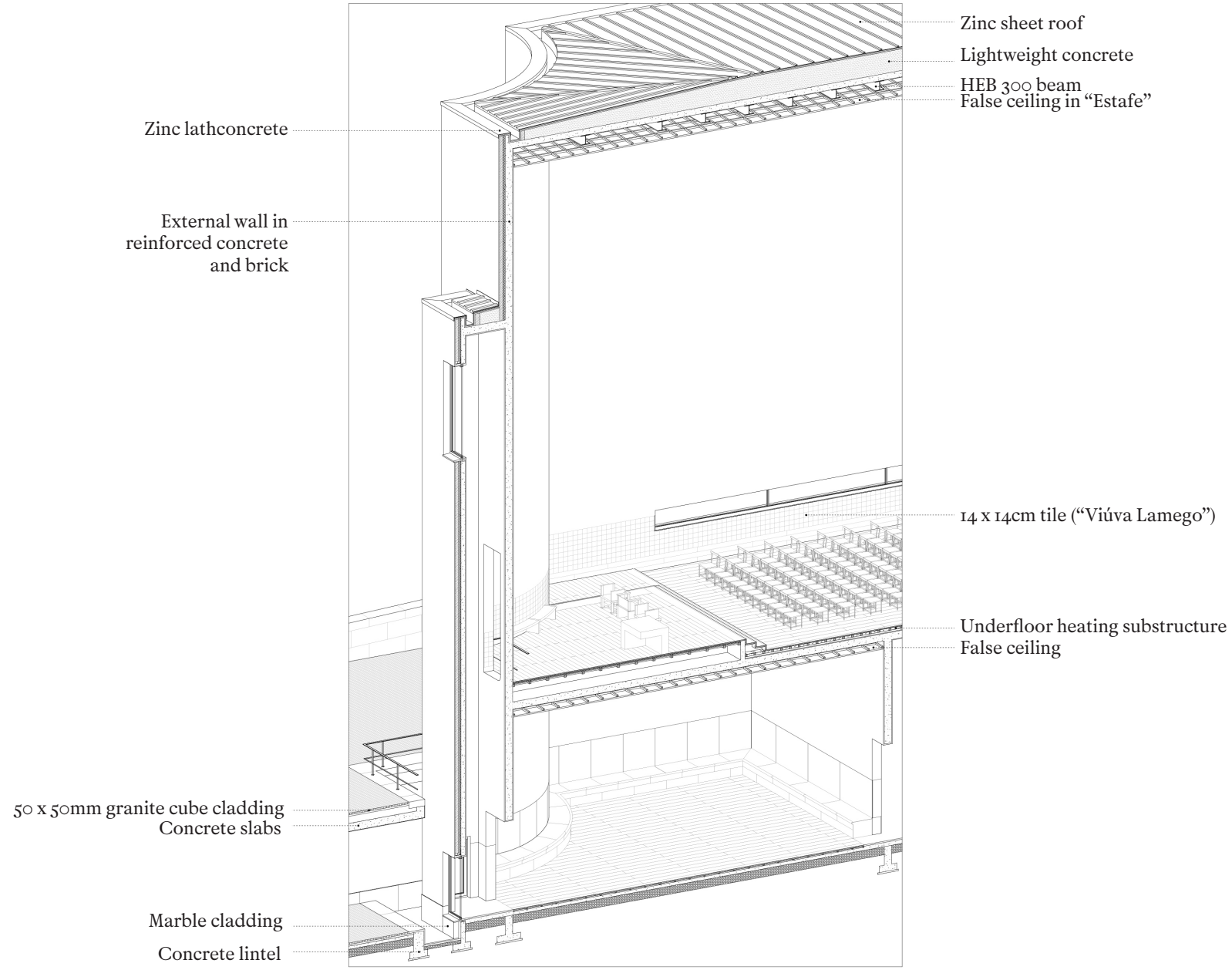
Virtual Tour

DIDACTIC MODELS

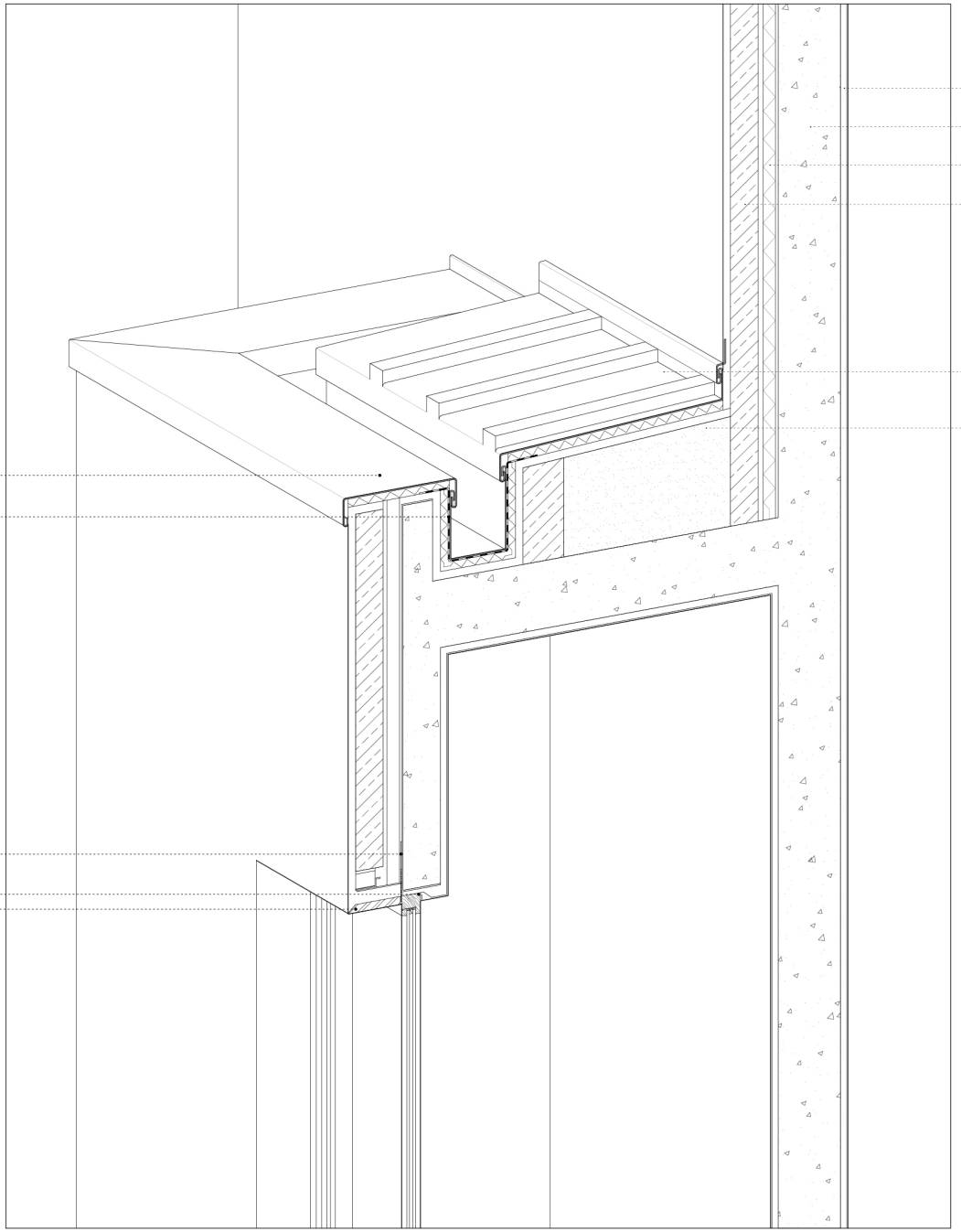
BIM didactic models have as their main objective to conduct a thorough tectonic perspective of a representative section of the building, namely on its construction and material features. Also, by comparing diverse solutions proposed for different buildings within the SizaATLAS research project, the models enable a holistic evaluation of Siza's architectural achievements, emphasizing the integration of form, function and construction.

Drawing representation takes inspiration from Edward Ford's "The Details of Modern Architecture" these models prioritize clear language to disseminate knowledge effectively. The development process of the models involves cross-referencing analysis between archives and bibliography research combined with field work observation.

The Didactic Models offer an integrated approach to examining the architectural tectonics of Siza's designs. Hence, they meticulously detail material layers and construction methodologies, encompassing structural system, walls, roofs, frames and the respective intricate details.



61. Didactic model, 2023.



62. Didactic model (detail), 2023.

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SIZATLAS
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Siza ATLAS: Filling the gaps for World Heritage

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