



# TORRES COLÓN

1969 - 2019

FIFTY YEARS  
SINCE ITS CONSTRUCTION

An international landmark in Architecture and  
Engineering structure of the twentieth century



11.4 — 21.7.2019

## EXHIBITION

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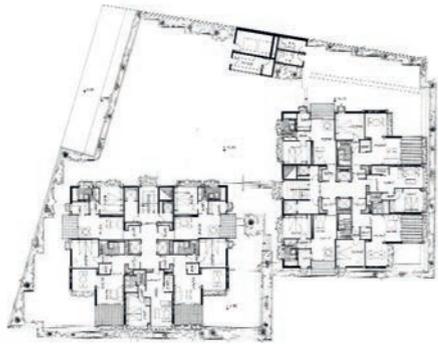
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“Two strange twin strange elements in reinforced concrete  
began to rise suddenly in the center of Madrid”

Colón Towers has been one of the city's most controversial works of architecture. On the one hand, during the construction process, the towers were the focus of a bitter controversy triggered by the City Council, widely reported in the media, which went so far as to order their partial demolition. Secondly, the construction system used in Colón Towers was a total technical novelty in Spain. Rarely have the structural characteristics of a building attracted so much attention amongst the lay public, although the uniqueness of the Colón Towers suspended structure attracted the attention of technicians as well. As the journal of the Madrid Colegio de Aparejadores explained in 1973, "First there were two incredibly slender concrete





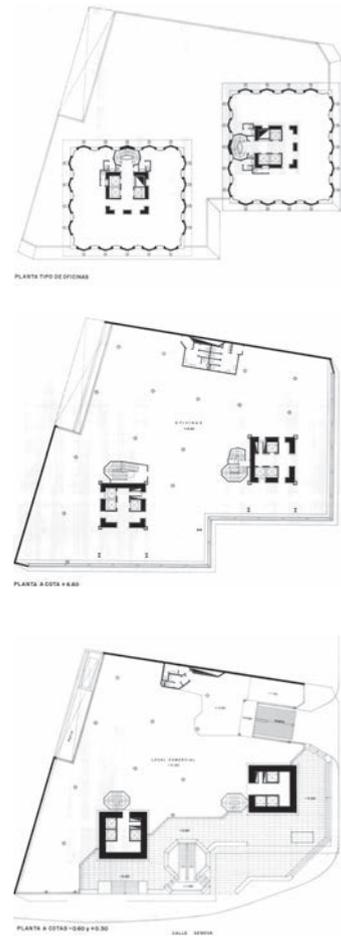
Proposed residential floor plans



fingers that powerfully attracted the attention of Madrid's citizens. Square platforms appeared on top of these two towers. This image remained in place for several years due to certain administrative hitches that blocked further works. Once they were overcome, people were astonished to find something that seemed impossible, was done with these buildings: the house was built from the roof downwards".

At the 1975 World Conference on Architecture and Public Works in New York, the Eduardo Torroja Institute presented the project as the Spanish contribution, where it was judged to be, "The building with the most advanced construction technology up to 1975" in prestressed concrete.

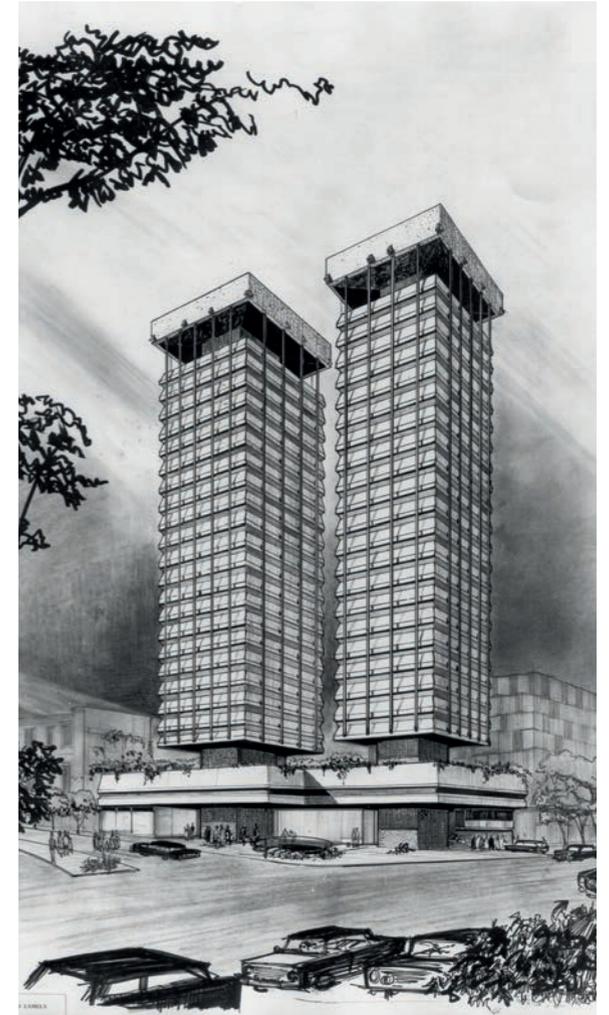


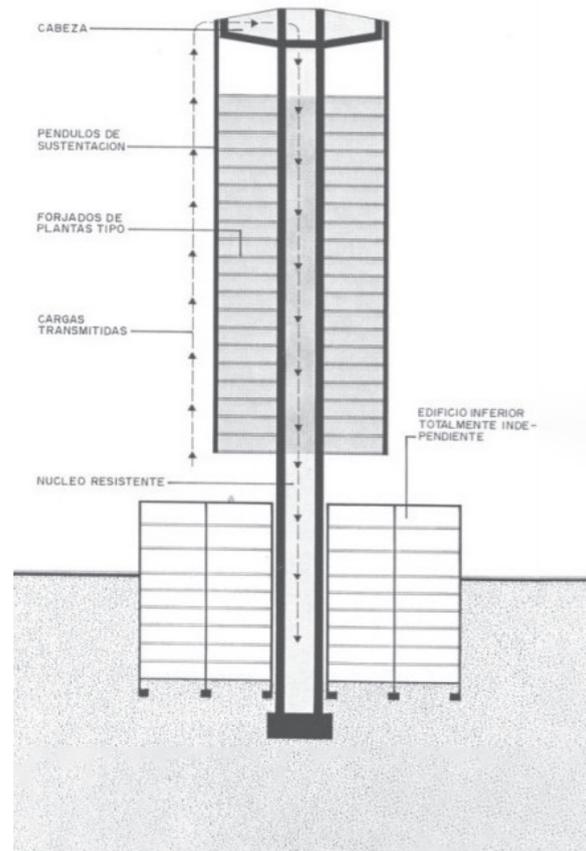


Proposed office floor plans



The Colón Towers stand on an irregular 1,710 - sqm site of unrivalled planning importance the center of the national capital with a background of important urban views. The project was expected to be adapted to a predictable urban context that never arose due to successive changes of criteria by the City Council. The Council tackled the traffic problem at the Plaza de Colón intersection by changing the alignments on the west side. This resulted in the forced hand-over of 29% of the site where the towers were to be based, while the adjacent building was expected to be demolished and replaced under the new alignment conditions. This demolition never prospered, and resulted in the lack of coherence in the final appearance of





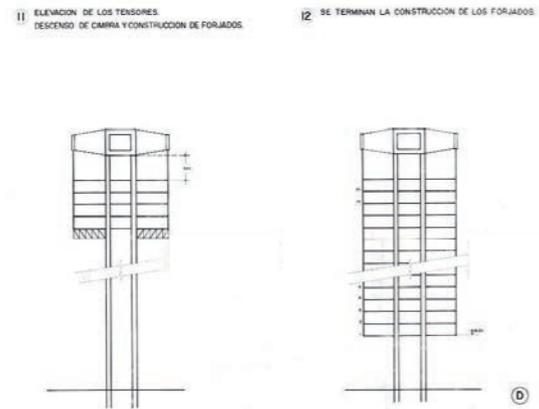
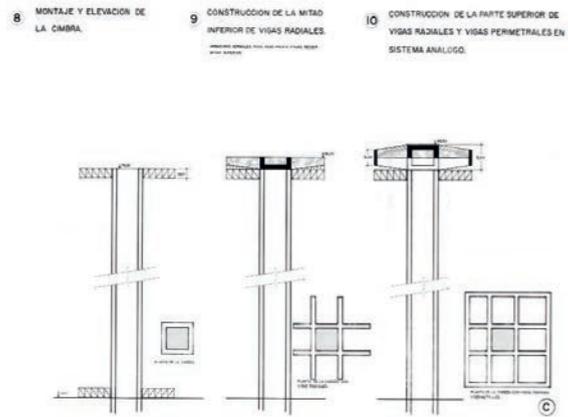
Structural scheme



the block as a whole, with a violent change of alignment and also in the architectural concept of buildings which were never meant to be together.

In order to compensate for the expropriations on the Towers' allotment, the City Council decided that, The building should be "an architectural unit with a powerful verticality", which would to some extent provide visual compensation for the longer, lower volume of the Colón Center on the opposite side of Genova street. Given that the municipal regulations set a volume limit but not an explicit height limit, Estudio Lamela found that if a single tower were to be built as suggested by the City Council, the streetscape would have been se-



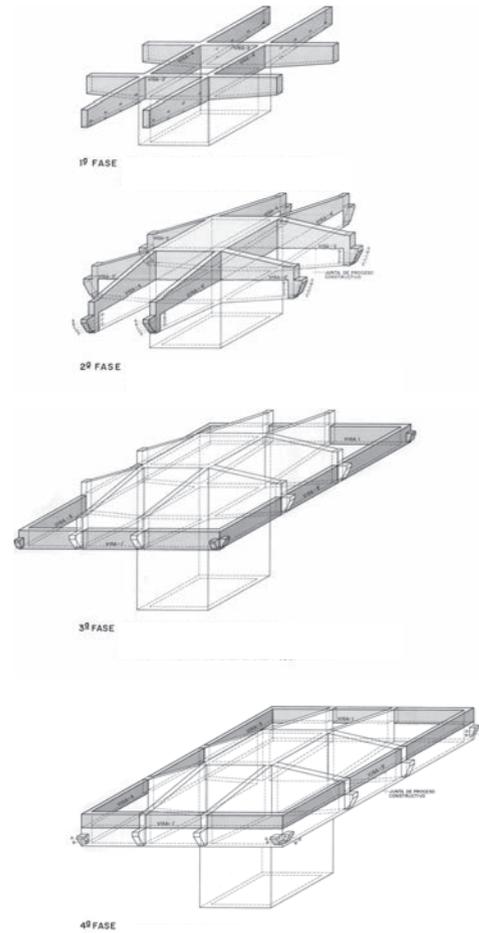


Construction phases

riously harmed by the insertion of a building with massive proportions. For this reason, our Studio proposed the duplication of the volume to lower its height. Ultimately, following long debates with the City Council which initially rejected the proposal, it was finally accepted that the project would consist of two lower towers instead of one tall block.

Primarily, the towers were initially to be for residential use, although permission was granted for supplementary business uses on the lowest floors. The analysis of the programs requirements and its adaptation to the existing allotment showed our Studio that there was an irresolvable contradiction between the requirements brief and the use of





Construction details of the structural heads

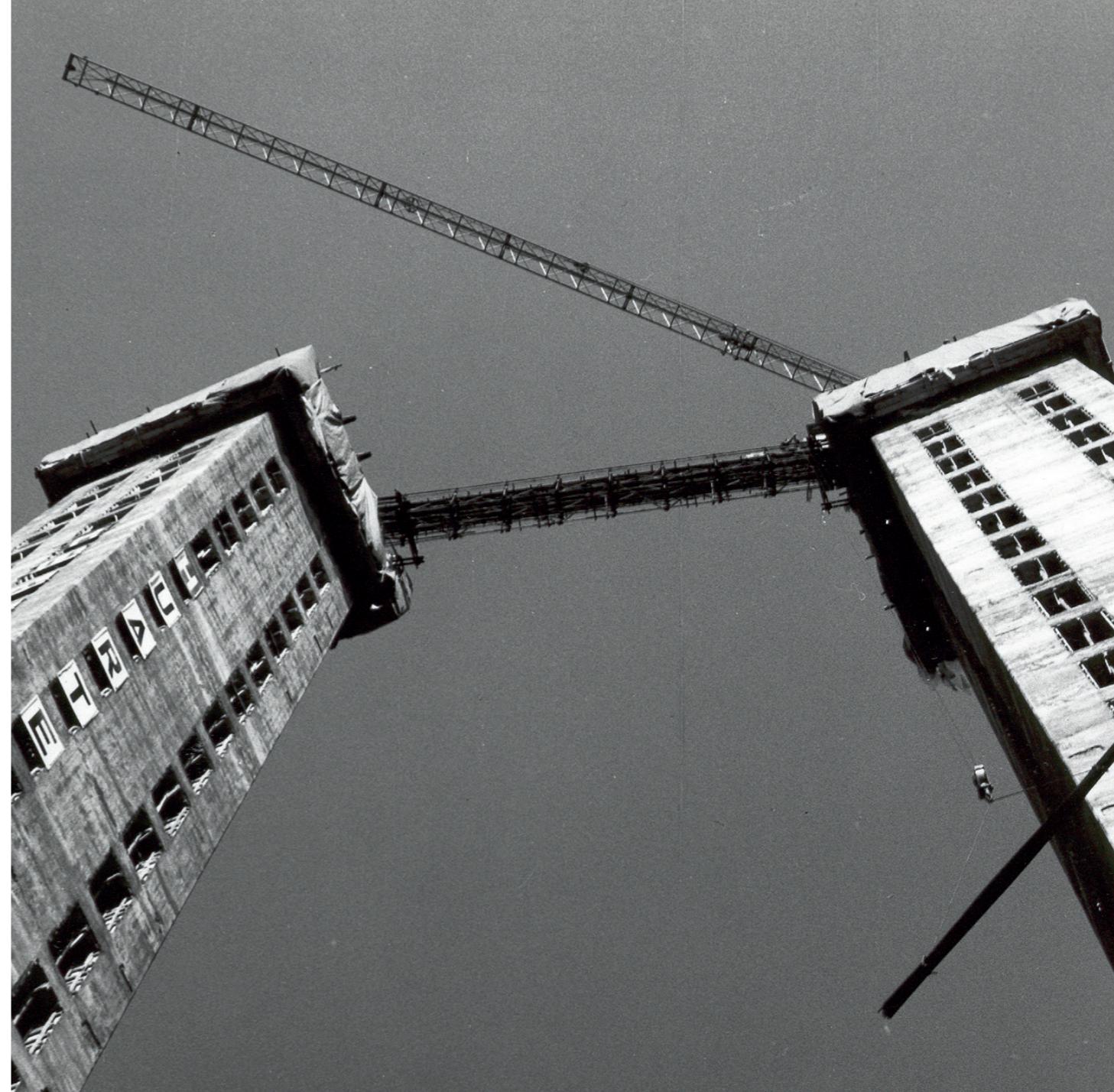
conventional structures.

The optimum structural solution was different for each part: while the bottom floors for shops and car parks needed large spans between pillars, this involved an unnecessary cost increase in the towers.

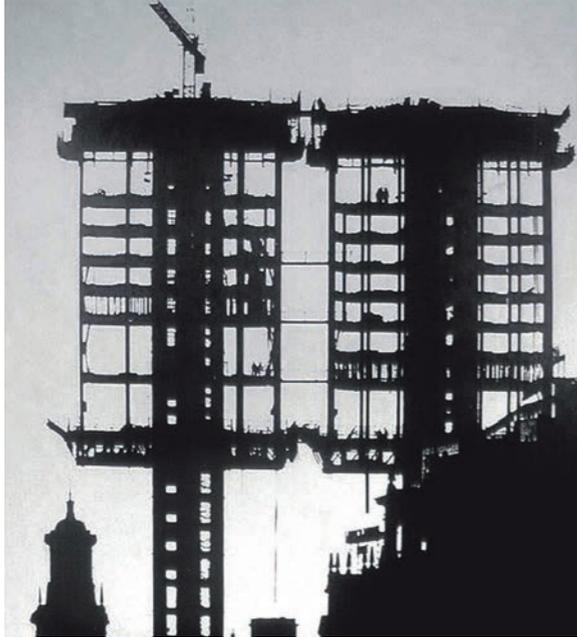
Conversely, if the structure were to be adapted to them, the lower floors would become unusable. This problem, unsolvable by conventional means, led to the apparently utopian idea of suspending the towers, which would permit a double structure by means of which the two parts could be made independent. Finally the complex consisted of three almost independent buildings: the plinth and the two towers.

The choice of the suspended solution maximized usage of the reduced site and provided the only way to comply with the complex requirements of the municipal regulations.

The structural system of the towers was designed entirely in reinforced concrete, using high-resistance post-stressed concrete. This enabled the Studio to move away from the most widespread technique for suspended building that used steel structural headers, and instead adopted a suspended architecture solution.



## THE OBLIGATORY PROTECTION OF COLÓN TOWERS



The envoy of the Regional Council of the Historical Heritage of Madrid's Community, in their plenary session the 4th of July 2017, agreed unanimously:

*"Urge Madrid's assistance so that the Torres de Colón are included in the catalog of good and spaces protected from Madrid with the degree of partial protection with a specific document, as an element to protect the internal structure of the property".*

Torres Colón is a fundamental milestone in the history of Architecture and Structural Engineering at a global level, and without doubt it is one of the most important achievements of the 20th century; it is a unique example in the world, being not only one of the few buildings suspended from its head, but being the one with the largest number of floors hanging in a reinforced concrete structure.

It is considered the masterpiece of Antonio Lamela, one of the most significant Spanish architects of the twentieth century.

For all these reasons, its maximum protection is urgent and inexcusable, and this was dictated by the Plenary of the Regional Council of Historic Heritage of the Community of Madrid, which unanimously at its meeting of July 4, 2017 urged the City Council of the Capital to start without delay the protection procedure on "the internal structure of the property", that is, the original work completed in 1975 and that is currently intact under its current skin.

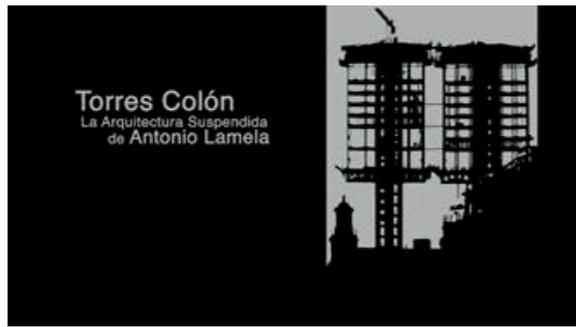
Since then a large number of relevant and important professional, academic and scientific institutions linked to the world of Art, Architecture and Engineering, have firmly supported its protection and the necessary maintenance of its original essence as two equal, slender, independent and suspended towers.

The society of Madrid and entire Spain have the obligation, through its instruments and administrative and political mechanisms, to ensure the preservation for future generations of this great work of art and technique not only Spanish but worldwide.

Madrid, April 2019

## SOME OF THE MOST RELEVANT INSTITUTIONS AND ORGANIZATIONS WHICH SUPPORT THE PROTECTION OF COLÓN TOWERS

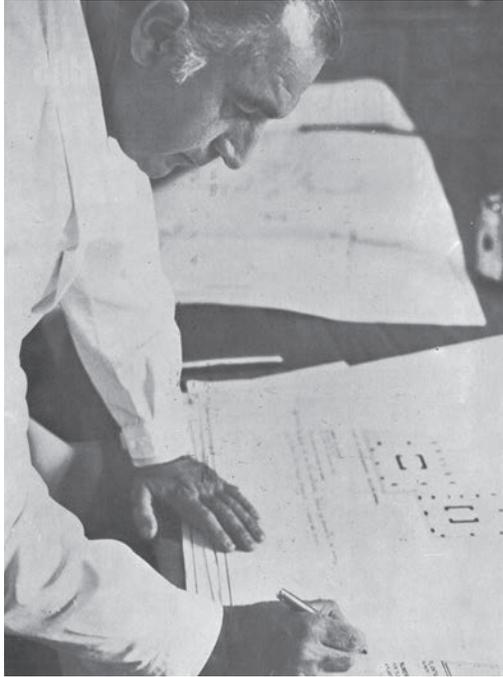
- COMITÉ NACIONAL ESPAÑOL DE ICOMOS
- CONSEJO SUPERIOR DE LOS COLEGIOS DE ARQUITECTOS DE ESPAÑA
- REAL ACADEMIA DE DOCTORES DE ESPAÑA
- ASOCIACIÓN HISPANIA NOSTRA
- FUNDACIÓN EDUARDO TORROJA
- FUNDACIÓN MIES VAN DER ROHE
- FUNDACIÓN ARQUIA
- ASOCIACIÓN ESPAÑOLA PARA LA PROTECCIÓN DEL PATRIMONIO ARQUITECTÓNICO DEL SIGLO 20 (AEPAS 20)
- COUNCIL ON TALL BUILDINGS AND URBAN HABITAT-ESPAÑA
- COLEGIO OFICIAL DE ARQUITECTOS DE MADRID
- CONSEJO ANDALUZ DE COLEGIOS OFICIALES DE ARQUITECTOS
- COLEGIO OFICIAL DE ARQUITECTOS DE LEÓN
- COLEGIO OFICIAL DE ARQUITECTOS DE EXTREMADURA
- Escuela Técnica Superior de Ingenieros de Caminos, Canales y Puertos de Barcelona. UNIVERSIDAD POLITÉCNICA DE CATALUÑA
- Escuela Técnica Superior de Arquitectura de Valencia. UNIVERSIDAD POLITÉCNICA DE VALENCIA
- Escuela Técnica Superior de Arquitectura de La Coruña. UNIVERSIDAD DE LA CORUÑA
- Escuela Técnica Superior de Ingenieros de Caminos Canales y Puertos de Madrid. UNIVERSIDAD POLITÉCNICA DE MADRID
- Escuela Politécnica Superior. UNIVERSIDAD FRANCISCO DE VITORIA
- Departamento de Construcción y Tecnología Arquitectónicas. Escuela Técnica Superior de Arquitectura de Madrid. UNIVERSIDAD POLITÉCNICA DE MADRID
- Departamento de Tecnología de la Arquitectura. Escuela Politécnica Superior de Edificación de Barcelona. UNIVERSIDAD POLITÉCNICA DE CATALUÑA
- Departamento de Construcciones Arquitectónicas. UNIVERSIDAD POLITÉCNICA DE VALENCIA
- Departamento de Tecnología de la Construcción. Escuela Técnica Superior de Arquitectura de La Coruña. UNIVERSIDAD DE LA CORUÑA
- Grupo de Investigación de Estructuras Arquitectónicas, perteneciente al Departamento de Construcción y Estructuras Arquitectónicas, Civiles y Aeronáuticas de la UNIVERSIDAD DE LA CORUÑA
- Departamento de Urbanismo y Representación de la Arquitectura. Escuela Técnica Superior de Arquitectura. UNIVERSIDAD DE VALLADOLID



Documentary video available on youtube:  
"La arquitectura suspendida de Antonio Lamela"



Estudio Lamela Team before TC. 1970  
Amador Lamela. Antonio Lamela. Rudolph Flinterman. José Veiga



Antonio Lamela on a drawing of TC