

SEVILLA



**IDA: ADVANCED
DOCTORAL RESEARCH
IN ARCHITECTURE**

Antonio Tejedor Cabrera, Marta Molina Huelva (comp.)

IDA: Advanced Doctoral Research in Architecture
Sevilla: Universidad de Sevilla, 2017.

1.408 pp. 21 x 29,7 cm

ISBN: 978-84-16784-99-8

All right reserved. No part of this book may be reproduced stored in a retrieval system, or transmitted, in any form or any means without prior written permission from the Publisher.

EDITOR

Universidad de Sevilla

COMPILERS

Antonio Tejedor Cabrera

Marta Molina Huelva

DESIGN AND LAYOUT BY

Pablo Blázquez Jesús

María Carrascal Pérez

Daniel Longa García

Marina López Sánchez

Francisco Javier Navarro de Pablos

Gabriel Velasco Blanco

ADMINISTRATION AND SERVICES STAFF

Adoración Gavira Iglesias

Seville, november 2017

© 2017. IDA: ADVANCED DOCTORAL RESEARCH IN ARCHITECTURE

SEVILLA

IDE

ORGANIZED BY

iuacc
INSTITUTO UNIVERSITARIO
ARQUITECTURA Y CIENCIAS DE LA CONSTRUCCIÓN

 **uidus**
Escuela Internacional de Doctorado

arquitectura
Escuela Técnica Superior
Universidad de Sevilla

COLLABORATORS



Consejo Andaluz
de Colegios Oficiales
de Arquitectos



fundación **arquia**

All manuscripts have been submitted to blind peer review, all content in this publication has been strictly selected, the international scientific committee that participates in the selection of the works is of international character and of recognized prestige, an scrupulous method of content filtering has been followed in terms of its veracity, scientific definition and plot quality.

COMMITTEES

CONFERENCE CHAIRPERSONS

Antonio Tejedor Cabrera, *Coordinator of the PhD Program in Architecture and Director of the University Institute of Architecture and Construction Sciences, Professor Department of Architectural Design, University of Seville*

Marta Molina Huelva, *Secretary of the University Institute of Architecture and Construction Sciences, Professor of the Department of Building Structures and Geotechnical Engineering, University of Seville*

ORGANISING COMMITTEE

María Carrascal Pérez, *Department of History, Theory and Architectural Composition, University of Seville*

Mercedes Linares Gómez del Pulgar, *Department of Architectural Graphic Expression, University of Seville*

Ángel Martínez García-Posada, *Department of Architectural Design, University of Seville*

Pilar Mercader Moyano, *Department of Architectural Constructions I, University of Seville*

Domingo Sánchez Fuentes, *Department of Urban Planning and Spatial Planning, University of Seville*

Manuel Vázquez Boza, *Department of Building Structures and Land Engineering, University of Seville*

CONFERENCE SECRETARY

Pablo Blázquez Jesús, *Ph.D. student, Department of Architectural Design, University of Seville*

Marina López Sánchez, *Ph.D. student, Department of Architectural Design, University of Seville*

SCIENTIFIC COMMITTEE

José Aguiar-Universidade de Lisboa
Benno Albrecht-Università IUAV di Venezia
Francisco Javier Alejandro Sánchez-Universidad de Sevilla
Darío Álvarez Álvarez-Universidad de Valladolid
Antonio Ampliato Briones-Universidad de Sevilla
Joaquín Antuña-Universidad Politécnica de Madrid
Ángela Barrios Padura-Universidad de Sevilla
José María Cabeza Laínez-Universidad de Sevilla
Pilar Chías Navarro-Universidad de Alcalá
Juan Calatrava Escobar-Universidad de Granada
María Carrascal Pérez-Universidad de Sevilla
Helena Coch Roura-Universitat Politècnica de Catalunya
Jorge Cruz Pinto-Universidad de Lisboa
Carmen Díez Medina-Universidad de Zaragoza
Fernando Espuelas Cid-Universidad Europea
Alberto Ferlenga-Università IUAV di Venezia
Luz Fernández-Valderrama-Universidad de Sevilla
Vicente Flores Alés-Universidad de Sevilla
María del Carmen Galán Marín-Universidad de Sevilla
Jorge Filipe Ganhão da Cruz Pinto-Universidade de Lisboa
Carlos García Vázquez-Universidad de Sevilla
Sara Girón Borrero-Universidad de Sevilla
Francisco Gómez Díaz-Universidad de Sevilla
Amparo Graciani-Universidad de Sevilla
Francisco Granero Martín-Universidad de Sevilla
Francisco Hernández Olivares-Universidad P. de Madrid
Miguel Ángel de la Iglesia-Universidad de Valladolid
Paulo J.S. Cruz-Universidade do Minho
Francesc Sepulcre-Universitat Politècnica de Catalunya
Ángel Luis León Rodríguez-Universidad de Sevilla
Mercedes Linares Gómez del Pulgar-Universidad de Sevilla
María del Mar Loren Méndez-Universidad de Sevilla

Margarita de Luxán García de Diego-Universidad P. de Madrid
Madelyn Marrero-Universidad de Sevilla
Juan Jesús Martín del Río-Universidad de Sevilla
Luis Martínez-Santamaría-Universidad Politécnica de Madrid
Ángel Martínez García-Posada-Universidad de Sevilla
Mauro Marzo-Università IUAV di Venezia
Pilar Mercader Moyano-Universidad de Sevilla
Antonello Monaco-Università degli Studi di Reggio Calabria
Marta Molina Huelva-Universidad de Sevilla
José Morales Sánchez-Universidad de Sevilla
Eduardo Mosquera Adell-Universidad de Sevilla
María Teresa Muñoz Jiménez-Universidad Politécnica de Madrid
Jaime Navarro Casas-Universidad de Sevilla
José Joaquín Parra Bañón-Universidad de Sevilla
Víctor Pérez Escolano-Universidad de Sevilla
Francisco Pinto Puerto-Universidad de Sevilla
Mercedes Ponce Ortiz de Insagurbe-Universidad de Sevilla
Juan Luis de las Rivas Sanz-Universidad de Valladolid
Carmen Rodríguez Liñán-Universidad de Sevilla
Javier Ruiz Sánchez-Universidad Politécnica de Madrid
Joaquín Sabaté Bel-Universitat Politècnica de Catalunya
Victoriano Sáinz Gutiérrez-Universidad de Sevilla
Santiago Sánchez Beitia-Universidad del País Vasco
Domingo Sánchez Fuentes-Universidad de Sevilla
José Sánchez Sánchez-Universidad de Sevilla
Juan José Sendra Salas-Universidad de Sevilla
Julián Sobrino Simal-Universidad de Sevilla
Federico Soriano Peláez-Universidad Politécnica de Madrid
Rafael Suárez Medina-Universidad de Sevilla
Miguel Ángel Tabales Rodríguez-Universidad de Sevilla
Antonio Tejedor Cabrera-Universidad de Sevilla
Jorge Torres Cueco-Universidad Politécnica de Valencia
Elisa Valero Ramos-Universidad de Granada
Manuel Vázquez Boza-Universidad de Sevilla
Narciso Vázquez Carretero-Universidad de Sevilla
Teófilo Zamarreño García-Universidad de Sevilla

LT 3

PATRIMONIO Y
REHABILITACIÓN

HERITAGE AND REHABILITATION / PATRIMONIO Y REHABILITACIÓN

- p. 565-574: **NEW KNOWLEDGE ABOUT THE CHURCH OF SANTA MARÍA IN CARMONA** / p. 575-585: NOVEDADES EN TORNO A LA IGLESIA DE SANTA MARÍA DE CARMONA
Ojeda Barrera, Alfonso
- p. 587-596: **GEOMETRY AND CONSTRUCTION THROUGH THE SACRED SPACE OF ANDRÉS DE VANDELVIRA** / p. 597-607: GEOMETRÍA Y CONSTRUCCIÓN A TRAVÉS DEL ESPACIO SACRO DE ANDRÉS DE VANDELVIRA
Estepa Rubio, Antonio
- p. 609-619: **AN APPROACH TO THE IDEAL CONCEPT OF URBAN PLANNING IN THE 18TH CENTURY: COLONIAL SETTLEMENTS IN ANDALUSIA** / p. 620-630: APROXIMACIÓN AL URBANISMO IDEAL EN EL S. XVIII: LAS NUEVAS POBLACIONES DE COLONIZACIÓN EN ANDALUCÍA
Quevedo Rojas, Carlos
- p. 631-642: **POWER PLANT REUTILIZATION STRATEGIES ENEL POWER PLANTS AND PORT OF GENOA CASE-STUDY** / p. 643-655: ESTRATEGIAS DE REÚSO DE LAS CENTRALES ELÉCTRICAS. LAS CENTRALES ENEL Y EL CASO ESTUDIO DEL PUERTO DE GÉNOVA
Olivieri, Davide
- p. 657-664: **TECHNICAL-TECHNOLOGICAL AND MATERIALS COMPARATIVE ANALYSIS BETWEEN ITALIAN AND SPANISH MEDIEVAL SHIPYARD (THE CASE OF VENICE AND SEVILLE)** / p. 665-673: ANÁLISIS COMPARATIVO TÉCNICO-TECNOLÓGICO Y DE MATERIALES ENTRE LOS ASTILLEROS MEDIEVALES ITALIANOS Y ESPAÑOLES (LOS CASOS DE VENECIA Y SEVILLA)
Debenedictis, Domenico; Robador González, María Dolores; Pagliuca, Antonello
- p. 675-684: **STRATEGIES FOR CONSERVATION OF RELIGIOUS HERITAGE IN THE METROPOLITAN AREA OF LYON/SAINT-ÉTIENNE (FRANCE). SHORT RESEARCH STAY AND METHODOLOGICAL TRANSFER** / p. 685-695: ESTRATEGIAS PARA LA CONSERVACIÓN DEL PATRIMONIO ECLESIAÍSTICO EN LA METRÓPOLIS LYON/SAINT-ÉTIENNE (FRANCIA). LA ESTANCIA BREVE INVESTIGADORA COMO VÍA DE TRANSFERENCIA METODOLÓGICA
Mascort-Albea, Emilio J.; Meynier-Philip, Mélanie
- p. 697-709: **HYDRAULIC HERITAGE AND THE CONSTRUCTION OF THE TERRITORY: THE IRRIGATION COMMUNITIES** / p. 710-722: EL PATRIMONIO HIDRÁULICO EN LA CONSTRUCCIÓN DEL TERRITORIO: LAS HEREDADES
Delgado Quintana, Guacimara
- p. 723-731: **SUSTAINABILITY AND CONSERVATIVE REHABILITATION OF EXTREMADURAN PATRIMONIAL RURAL ARCHITECTURE AGAINST CLIMATE CHANGE. VEGAVIANA, CASE STUDY** / p. 732-741: SOSTENIBILIDAD Y REHABILITACIÓN CONSERVADORA DE LA ARQUITECTURA RURAL PATRIMONIAL EXTREMEÑA CONTRA EL CAMBIO CLIMÁTICO. VEGAVIANA, CASO DE ESTUDIO
Bote Alonso, Inmaculada
- p. 743-754: **TOWARDS A METHODOLOGY FOR THE ASSESSMENT OF VISUAL IMPACT CAUSED BY RENEWABLE ENERGY FACILITIES ON THE LANDSCAPE IN CULTURAL HERITAGE SITES** / p. 755-766: HACIA UNA METODOLOGÍA DE VALORACIÓN DEL IMPACTO VISUAL CAUSADO POR INSTALACIONES DE ENERGÍA RENOVABLE EN EL PAISAJE EN EL ENTORNO DE LUGARES PATRIMONIO CULTURAL
Diego Rodríguez, Jesús Carlos; Chías Navarro, Pilar
- p. 767-772: **THE URBAN RENOVATION IN PUEBLA, MEXICO. THE HISTORICAL CENTER AS EXPERIMENTAL SPACE. THIRTY YEARS OF CITY TRANSFORMATION** / p. 773-779: LA RENOVACIÓN URBANA EN PUEBLA, MÉXICO. EL CENTRO HISTÓRICO COMO ESPACIO EXPERIMENTAL. TREINTA AÑOS DE TRANSFORMACIÓN DE LA CIUDAD
Cortés Moreno, Jorge David
- p. 781-790: **THE ORNATE IN THE ARCHITECTURE OF TENERIFE AND GRAN CANARIA: 1865-1935** / p. 791-800: EL ORNATO EN LA ARQUITECTURA DE TENERIFE Y GRAN CANARIA: 1865-1935
Sabina González, José Antonio
- p. 801-807: **THE CONSERVATION OF THE CONSTRUCTIONS LOCATED ON PROTECTED NATURAL AREAS: RESEARCH EXPERIENCE IN DOÑANA** / p. 808-815: LA CONSERVACIÓN DE LO CONSTRUIDO EN LOS ESPACIOS NATURALES PROTEGIDOS: EXPERIENCIA DE INVESTIGACIÓN EN DOÑANA
Rincón Calderón, José María; Galán Marín, Carmen; Sanchez Fuentes, Domingo
- p. 817-827: **TRANSHUMANCE HERITAGE IN THE STRUCTURING OF THE LANDSCAPE, CITIES AND ARCHITECTURE** / p. 828-838: EL PATRIMONIO DE LA TRASHUMANCIA EN LA VERTEBRACIÓN DEL TERRITORIO, LA CIUDAD Y LA ARQUITECTURA
Gutiérrez Pérez, Nicolás
- p. 839-848: **INTERVENTION IN THE HERITAGE OF RURAL COLONIZATION ARCHITECTURE. THE VILLAGES OF LOS MONEGROS** / p. 849-859: INTERVENCIÓN EN EL PATRIMONIO DE LA ARQUITECTURA RURAL DE COLONIZACIÓN. LOS POBLADOS DE LA COMARCA DE LOS MONEGROS
Prieto Mochales, Luis
- p. 861-870: **MODERN ARCHITECTURE IN MANZANILLO, COLIMA, MEXICO 1930-1970 (TRANSFER AND ADAPTATION)** / p. 871-880: ARQUITECTURA MODERNA EN MANZANILLO, COLIMA, MÉXICO 1930-1970 (TRANSFERENCIA Y ADAPTACIÓN)
Yáñez Ventura, Marco Antonio; López García, J. Jesús
- p. 881-893: **FIRST INTERNATIONAL ARCHITECTURAL JOURNEY OF JUAN MADRAZO** / p. 894-906: PRIMER VIAJE INTERNACIONAL ARQUITECTÓNICO DE JUAN MADRAZO
Fernández Martínez, Margarita María
- p. 907-918: **HOUSES, COURTYARD TENEMENT HOUSING, INNS AND SHOPS IN 16TH SEVILLE. ARCHITECTURE, DRAWING AND GLOSSARY OF MASTER BUILDERS** / p. 919-930: CASAS, CORRALES, MESONES Y TIENDAS EN LA SEVILLA DEL SIGLO XVI. ARQUITECTURA, DIBUJO Y LÉXICO DE ALARIFES
Núñez González, María
- p. 931-939: **TOWARDS THE CONSTRUCTION OF ATLAS OF SURVIVING ARCHITECTURES** / p. 940-949: HACIA LA CONSTRUCCIÓN DEL ATLAS DE ARQUITECTURAS SUPERVIVIENTES
Tejera Mujica, Noemi
- p. 951-960: **TRANSFORMATIONS OF THE ALCÁZAR OF SEVILLE THROUGH ITS IMAGES (1902-1969)** / p. 961-971: TRANSFORMACIONES DEL REAL ALCÁZAR DE SEVILLA A TRAVES DE SUS IMÁGENES (1902-1969)
Bañasco Sánchez, Pablo
- p. 973-980: **THE ARCHITECTURE OF POWER. THE ISLAND INSTITUTIONS AND AUTONOMOUS BODIES. ANALYSIS OF THE CASES: GRAN CAÑARIA, TENERIFE AND MADEIRA** / p. 981-987: LA ARQUITECTURA DEL PODER. LAS INSTITUCIONES INSULARES Y ORGANISMOS AUTÓNOMOS. ANÁLISIS DE LOS CASOS: GRAN CANARIA, TENERIFE Y MADEIRA
Hernández Cruz, Ricardo Kevin
- p. 989-998: **PROPOSAL FOR AN INDICATORS SYSTEM OF URBAN INTEGRATION OF THE MARITIME PORTS HERITAGE** / p. 999-1009: PROPUESTA PARA UN SISTEMA DE INDICADORES DE INTEGRACIÓN URBANA DEL PATRIMONIO PORTUARIO MARÍTIMO
De las Peñas García, Jesús
- p. 1011-1020: **EMPIRICAL METHOD APPLIED IN RESEARCH ON RESIDENTIAL ENERGY RETROFITTING** / p. 1021-1031: MÉTODO EXPERIMENTAL EN LA INVESTIGACIÓN SOBRE REHABILITACIÓN ENERGÉTICA RESIDENCIAL
Escandón, Rocío; Blázquez, Teresa; Martínez-Hervás, Mónica; Suárez, Rafael; Sendra, Juan José
- p. 1033-1042: **AESTHETICS OF RUINS AND ETHICS OF ARCHITECTURAL DESIGN: NEW INTERVENTIONS ON ARCHAEOLOGICAL HERITAGE** / p. 1043-1053: ESTÉTICA DE LAS RUINAS Y ÉTICA DEL PROYECTO ARQUITECTÓNICO: NUEVAS INTERVENCIONES EN EL PATRIMONIO ARQUEOLÓGICO
Bagnato, Vincenzo Paolo

TOWARDS THE CONSTRUCTION OF ATLAS OF SURVIVING ARCHITECTURES

Tejera Mujica, Noemi (*)

The Doctorate School of Las Palmas de Gran Canaria University, noemi.tejera@gmail.com

Abstract: Behind the origins of the museum, we can find the reuse of buildings as the main strategy. In the history of architectural conservation and its inherent relation to the concept of heritage, we can identify different positions where there was talk about the importance of identity, authenticity, the territorial context - the concept of environment – the value of the use and the need to document the monument in each of its stages, understanding the monument as a document. Thus, after the identification of a large number of case studies in the European context - with special profusion in Spanish territory - from the late 1980s / early 1990s to the present day, we have defined the term Surviving Architectures.

The Surviving Architectures are architectures of heritage value that, at some point in their history, were completely empty of content - or were on purpose emptied- and completely disconnected from the use for which they were projected, thus remaining outside the urban discourse and their social role, to be transformed into Art Centers, Cultural Centers and Museums of Contemporary Art. The construction of the Atlas of Surviving Architectures will help to strengthen the concept beyond the processes of change linked to the museum's functional class and its evolution.

Keywords: Surviving Architectures, Re-use Architecture, Heritage, Museum, Atlas.

1. Art in the reuse of buildings

Edward Hollis pointed out the following paradox at the heart of the theory of architecture:

The buildings are designed to last and therefore survive the substantial appearances for which they were created. Then, released from the bonds of immediate utility and the intentions of their masters, they are free to do whatever they want. The buildings survive a long time for the purposes for which they were created, the technologies under which they were built and the aesthetics that determined their form. (Hollis 2012)

Behind the origins of the museum is located the reuse of the buildings, since the first museums were housed in existing buildings. The old palaces¹ were the first containers of art, after the leap from domestic space and the individual experience of private collections (art cabinets or Kunstschränk, Cabinets of Curiosities or Wunderkammern) to the public or semi-public space and collective experience. With this leap, however, the idea of a vision or interpretation of the world, inherent in the first collectors², disappears.

The germ of the definition of a museum as a contemporary institution is not recognized until it was brought up at the arrival of the illustration by science and the exaltation of nationalism. Before being consolidated as such, this idea was already perceived in the Ancient World with the first public museum of which we have a reference, Museion of Alexandria - the sacred place of the muses -, which is recognized as a public propaganda apparatus and, paradoxically, was also part of a palace.

The International Council of Museums, ICOM, updates the definition of a museum since its inception in 1946³. The last reference definition for the international community is produced in 2007 within the framework of the General Assembly in Vienna, where the museum is consolidated as:

A permanent, non-profit institution at the service of society and open to the public, which acquires, preserves, studies, exhibits and disseminates the material and immaterial heritage of humanity for the purposes of study, education, and recreation. (ICOM 2007)

¹ Such as the Uffizi Gallery, the Louvre, the Prado Museum or the Hermitage.

² This vision was not limited to the accumulation of works of art, for "There was no net distinction between a devout object, a strange discovery, and a work of art." (Eco 2012)

³ It was not until 1951 that the function of preservation was first introduced: "The word Museum points out here any permanent establishment, managed in the general interest, for purposes of preservation, study, improvement by various means and in particular of the exhibition to the public for his delight and instruction (...)". (ICOM 1951)

From this definition, we can see that in the museum different functions intervene. Goethe in *Art and Antiquity* (1822) pointed out the problem of the exhibition in the museums in relation to the different levels of presentation or reading that a public with a great cultural diversity demanded. Since its origin as a temple of the muses - linked to memory - where the relationship with conservation and exhibition was implicit, other questions have been added as the concept has evolved. The interrelation and specificities of each of these functions show the complexity of the state of the matter and warn us of the impossibility of studying, in a biased way, the reality of the museum.

Concerning the public's role in defining and executing art, Marcel Duchamp stated:

The creative act is not performed by the artist alone; the spectator brings the work in contact with the external world by deciphering and interpreting its inner qualifications and thus adds his contribution to the creative act. (Duchamp 1959)

Taking to our terrain the assertion of Duchamp: the public from the museum is the one that inhabits the art; and it is the museum that must respond as a space to the requirements so that art (or in less abstract extensions, specific cultural programs) can be inhabited correctly.

In the evolution of the museum functional class we notice a series of parameters that trace the possible discourses of museums and, in most cases, delimit the different forms of interaction between art, museum space and territory: content-container; city-landscape; place of worship-place of recreation; aesthetic individual-cultural experience; intimate space-collective experience; specific space-generic space; space interior-outer space; technique and cultural discourse.

2. Looking back into the past

Beyond building the theoretical framework on the history of architectural conservation and its inherent relation to the concept of heritage⁴, this section will rescue the different moments that reflect the first ideas that point to the transformation of the architecture of heritage value as a strategy to restore their meaning back to them - and even to incorporate a new one -, reestablishing the link between the monument (architectonic object), the territory (architectural set) and the inhabitants. In addition, the first indications will be collected on how these transformations should be translated into a document. However, as an introduction and contextualization of the ideas and theories that are considered most relevant to this point, a series of brushstrokes will be made around its origin, evolution, and construction.

We find in the papal bulls the first notes aiming towards the defense of antiquity and the need to preserve. Cardinal Carmalengo Spinola at the beginning of the eighteenth century pointed out for the first time in his edict the defense of the ruin as a historical document in its scientific role as an illustrator of the news of history, as well as a symbol of the soul of the city. These concepts will be emphasized in 1733 in the edict of Cardinal Annibale Albani where the defense of antiquity is based on its capacity as a document of knowledge and, furthermore, as an attractive inciter to attract the outsiders to go to the city, thus pointing the origins of patrimonial tourism.

A.C. Quatremere de Quincy, secretary of Le École des Beaux-Arts and author of the encyclopaedia *Dictionnaire Historique D'architecture* (1832), together with the tradition of the encyclopaedia of Diderot and Le Rond d'Alembert, collects in *Lettres Miranda et Canova* 1796) his complaints about the decontextualization of the monument with respect to the place to which it belongs, and concerning the abduction of the antiquities of Rome and Athens. This moment is of vital importance, since, for the first time, there is an interest in linking the monument to the place. Thus, the idea of heritage is placed in an equation where society and culture intervene at a specific time.

From the s.XIX on, several key positions emerge on the subject. In general, we can speak of restorative theories against conservative theories in a context where the meanings of the terms restore and preserve acquires very specific and finalist positions.

Viollet-Le-Duc coined the "restoration of style", whose maxim is to return to the building the complete state it could have had, and even one that it never had, and which would be based on an active vision of the architect and his interpretation.

Restaurer un édifice, ce n'est pas l'entretenir, le réparer ou le refaire, c'est le rétablir dans un état complet qui peut n'avoir jamais existé à un moment donné. (Le-Duc 1866)

The idea is about building what's unfinished, not in any way, but after a process of study and documentation. It is important to take into account that Le-Duc based his decisions on the deep knowledge of medieval architecture, analyzing the building from its multiple foreshortenings, and then

⁴ One of the approaches to the definition of heritage developed by Annalisa Cicerchia is as a "set of processes". That is, to the relation between things rather than their sum. "(...) dal riconoscimento di cultural heritage eat risultato di un lunghissimo process of social construction, determinate temporally and spazialmente. This means che il patrimonio, lungi dall'essere a collezione di cose, è a insieme di procesi ". (Cicerchia 2001)

restoring not only in appearance but also in structure. In this way, Le-Duc defended the idea that every building, or every part of it, must be restored in its style.

Ce programme admet tout d'abord en principe que chaque édifice ou chaque partie d'un édifice doivent être restaurés dans le style qui leur appartient. (...) Il est donc essentiel avant tout travail de réparation, de constater exactement l'âge et le caractère de chaque partie, d'en composer une sorte de procès-verbal appuyé sur des documents certains, soit par des notes écrites, soit par des relevés graphiques. (Le-Duc 1866)

In opposition to this theory, John Ruskin considers the patina of the time like a fundamental ingredient of the monument. He understood conservation as the opposite of restoration since the intervention is a greater damage than the ruin of the building. In *The Seven Lamps of Architecture* (1849) he proposed that the monument should be left to die freely and not touch its stones, but to scatter its remains because they do not belong to us.

In the golden patina of the years is where we have to look for the true light, color and merit of architecture (...) For a period of this duration is for which we must build. (Ruskin 1849)

This almost sacred and untouchable treatment of architecture is a constant throughout Ruskin's work, which did not hesitate to give architecture a delimiting and transmitting range of history. The conservation in Ruskin allows the transformation of the monument into a document.

Every noble form of architecture is in some way the embodiment of politics, of life, of history, and of the religion of peoples. (Ruskin 1849)

This perception of Ruskin has a strong poetic, romantic and moralistic charge. He also proposed what would be the tools of memory, with poetry and architecture as fundamental elements, since their absence causes the memory.

There are only two great conquerors of the tendency of mankind to forget: poetry and architecture and in a certain way architecture embodies the first (...) we can live without it, but we cannot remember without it. (Ruskin 1849)

Between the end of the s. XIX and early s. XX, Camilo Boito introduces the so-called scientific or archaeological restoration as a modern phenomenon, trying to reconcile Ruskin's more fatalistic position against Le-Duc's unitary stylistic interventionism and in the line anticipated by Victor Hugo in *Guerre aux demolisseurs* (1832). His thinking originated with the operation of Stern-Valadier in the Arch of Titus in Rome. Boito condemned the historical fakery and his first axiom was the preeminence of the historical instance, the safeguarding of the documentary authenticity of the work of art and the understanding of the monument as an archaeological object. It is the first time that the value of what's added and the subsequent transformations are pointed out as an irreplaceable part of the historical authenticity of the monument and that, therefore:

It can be said, in general, that the monument has its stratifications, like the earth crust, and that all of them, from the deepest to the most superficial, possess their value and must be respected. (Boito 1893)

Thus, as a way of defending historical authenticity, the need to undertake the detailed study of the documentation of the monument is established, comprising all the chronological stages and the transformations experienced in its DNA. Boito develops the following eight basic points: the difference of style between the new and the old; the difference between the materials used; the suppression of ornamental elements in the restored part; the exhibition of the remains or parts that have been dispensed or eliminated; the incision in new pieces that are placed; the placement of a descriptive epigraph; the complementary exhibition next to the building with photographs, plans and documents on the process of the work and publication on the works of restoration and notoriety, highlighting the value of the authentic, asking to leave a clear evidence of the intervention made.

In short, the scientific restoration tries to leave documentary evidence, without seeking the imposition of a fictitious unit of style and oblivious to the complexity of the monuments that face the passage of time. These eight basic points emphasize the value of the authentic and evidence the intervention. Boito pointed out clearly the intentionality of collecting the different natures or states of the transformation of the monument, both from the intervention, understanding the monument as a historical document - through strategies such as the choice of a clearly differentiated materiality, simplicity in forms ... - as well as by means of the publication of the documents that include this transformation process - photographs, plans, remains or pieces that have been removed, documents about the process ... -.

From the writing of Aloïs Riegl, *The Modern Cult of Monuments: Character and Origin* (1903), a critical reflection was made on the notion of historical monument and on the values that society recognizes in them. Values that, as we have seen so far, end up defining the different strategies on how to position ourselves before them. Riegl explores the essence of historical and artistic value by developing the theoretical basis from which restoration must be positioned.

The artistic monument is ... a historical-artistic monument whose value is not ... an artistic value, but a historical value. From this it could be deduced that the distinction between historical and artistic monument is inaccurate since the latter are included in the former and are confused with them. (Riegl

1903)

Thus, those indicated by Riegl constitute a panoptic vision of the values historically attributed to the monument. He distinguished the following values: memorial in relation to the cult of monuments (recognition of their historical past) and contemporaneity (values acquired by monuments regardless of their past heritage). The first corresponds to the value of antiquity (recognition of the signs of time that anticipated the dominant value in the twentieth century), the historical and the intentional memorial value (the inspiration to the monument's immortality, that is, its maintenance always present and alive); the second corresponds to the instrumental (the capacity of the monument to be reused and the practical use in the present) and the artistic (innovation and relative in the artist-people binomial ...)

Both the intentional recall value and the instrumental value impose restoration, the first as a constant return to the origin of the monument and the second as an instrument to make it work. We must not lose sight, therefore, that the function is the ultimate purpose for which the monument is projected.

Gustavo Giovannoni⁵ continued the work begun by Camilo Boito. He sided with the idea of consolidation and conservation of the monument as a historic document as opposed to the restoration. Thus he took a step further in the line built by the Boito axioms while instituting scientific restoration. The difference of style between the new and the old one is the backdrop that marks the honesty of the monument against the falsification of the work of art through the unit of style. Giovannoni proposed to designate the date in the aggregates to distinguish them from the old parts. Thus, for these new contributions, he proposes to work with lines of simple character, so that, far from the search for a decorative ornament, bet on the value of the whole. He also insisted on objective documentary work (drawing of plans, very precise descriptions ...) as a project tool, leaving behind the transformation by hypothesis and using, where necessary, neutral zones to restore the unity of the monument. It also allowed the consolidation with means and procedures of construction techniques of the moment, although doing the minimum necessary to not sacrifice the authenticity of the structures. In his interpretation of the monument, he respected all works that have artistic value even though they belong to different periods, whether or not they tended towards the original stylistic unity. In this way, he considered the artistic life developed throughout the different transformations of the monument and not only the first phase.

The greatest innovation in his speech is the concept of environment, from a totalitarian vision of the monument and both in its historical development and in its surroundings. Giovannoni argued that isolating a monument is mutilating it, and therefore, urban settlements must be preserved and restored. He classified the monuments into dead (of missing cultures) and living ones (those who perform the activity as a living organism), so that the function adheres to their belonging to a culture, time and place. He proposed several systems of interventions: consolidation, recomposition, completion, the release of elements and innovation.

Giovannoni was one of the drafters of the first document with norms and principles to be followed by nations, the Athens Charter⁶ (1931) which sought to combine principles and doctrines for the preservation and restoration of monuments, both from artistic heritage and archaeological. Subsequently, in the International Charter for the Conservation and Restoration of Monuments and Sites, of Restoration, the Venice Charter⁷ (1964), the concept of heritage was expanded with the idea of protecting and preserving, not only monuments but also urban and rural areas. Priority is given to conservation as opposed to restoration. Lastly, the recognition of the appropriateness of adapting the built heritage to new functions in article five was highlighted, while in article sixteen, he underlined the need to accurately document all phases of the work carried out, consigning all the information in an

⁵ Cesare Brandi, director of the Central Institute of Restoration, joined Giovannoni in order to formulate an intermediate position between stylistic restoration and ruin, stating: "Restoration is any intervention aimed at restoring efficiency to a product of human activity. in the case of works of art (...), such as architectures (...), it will be clear that restoration of functionality, even if it is also included in restorative intervention, represents, in short, only a secondary or collateral aspect, never the primary and fundamental in regard to the work of art as such "(Brandi 1963). It defines restoration as the methodological moment of the recognition of the work of art in its double polarity: aesthetic and historical. The condition of having been made in a certain time and place makes the monument unrepeatable.

⁶ The International Congress of History of Art (Paris, 1921) and the Meeting of Studies on Restoration of Movable Property (Rome, 1930) were precedents necessary to promote the International Conference of Experts on the Protection and Conservation of Monuments of Art and History, held in Athens in 1931. Paul Leon, Leopoldo Torres Balbás and Gustavo Giovannoni, among others, drafted the first document with norms and principles to be followed by nations, which highlight two fundamental aspects: an internationalist view of conservation and the petition that these issues be addressed among specialists through international cooperation.

⁷ The criteria of Boito are included in the Charter of Venice. Drafted as a conclusion of the II Congress of Architects and Technicians of Historical Monuments and under the auspices of UNESCO. This letter is signed by 13 nations, UNESCO and the International Center for Studies for the Conservation and Restoration of Cultural Property.

accessible way for the investigation and, hence, the recommendation of its publication.

At the next meeting on the Conservation and Use of Monuments and Places of Historical and Artistic Interest, the so-called Norms of Quito (1967) were issued, emphasizing the ratification, as an obligation of the state, of the need to protect its environment and cultural property. It was analyzed, for the first time, the built heritage as part of an urban space and from multiple visions (tourism, education, social role, economic role, tools of value, etc.). From this moment, the building will be destined to fulfill a social function besides the particular one.

To put in value a historical or artistic asset is equivalent to enabling it of the objective and environmental conditions that, without detracting from its nature, highlight its characteristics and allow its optimal use (...) The idea is to incorporate an economic value into a current value: an inexhaustible wealth through a process of revaluation that far from diminishing its purely historical or artistic significance, increases it. (UNESCO 1967)

The next international effort was materialized in the Italian Restoration Charters (1972), inspired by Cesare Brandi's *Theory of Restoration* (1963). In this case it was not considered the possibility of giving a utilitarian function to the monument, although the possibility of change of use was accepted if it remained close to the original one, in order to avoid the alterations of the basic characteristics, since the priority is to assure the stability of the elements in danger.

The discussion around the world about Heritage continues to be, on a regular basis, the basis of various forums and meetings, with conclusions and resolutions, to a greater or lesser degree.

After the 17th Convention Concerning the Protection of the World Cultural and Natural Heritage (1972) came the Declaration of Amsterdam (1975) which delimits the conservation of the character of historical sites as inseparable from a social habitat policy. This statement was the starting point for the promotion of the European Charter of Architectural Heritage (1975). Two years later, the Machu Picchu Charter (1977), put the focus on urban growth and its relationship with historical centers, while in the resolutions of the 5th General Assembly of the International Council on Monuments and Sites in Moscow (1978) articulated a kind of guide for the conservation and management of sites of cultural significance, generating a Code of Ethics of Coexistence in the Conservation of Sites of Significance. After the 17th Meeting on the Protection of the World Cultural and Natural Heritage in Paris (1972) came the Declaration of Amsterdam (1975) which delimits the conservation of the character of historical sites as inseparable from a social policy of habitat. It was from this statement that the promotion of the European Charter of Architectural Heritage (1975) was promoted. For its part, in the Machu Picchu Charter (1977), urban growth and its relationship with historical centers were the protagonists, while in the resolutions of the 5th General Assembly of the International Council of Monuments and Sites in Moscow (1978) articulated a kind of guide for the conservation and management of sites of cultural significance, generating a Code of Ethics of Coexistence in the Conservation of Sites of Significance.

The Burra Charter (1979) is based again on the Venice Charter (1964), whose importance and validity is beyond doubt even with the passage of decades, as it is also claimed at the Nara International Conference (1994) and in the consequent Nara Document On Authenticity. We highlight two particularly relevant articles of this document on values and authenticity:

Art. 10. Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories.

Art. 13. Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined. (UNESCO 1994)

The Krakow Charter (2000) also alludes to the spirit of the Venice Charter, but now, driven by the unification of Europe. This document emphasizes the consideration of the cultural diversity and the plurality of associated values, the need to elaborate a conservation project with which to preserve the patrimonial assets that end up materializing in a restoration project. Also of special relevance are the contributions on authenticity in the different types of built heritage:

Art. 6. The intention of preserving historic buildings and monuments, whether in rural or urban contexts, is to maintain their authenticity and integrity, including internal spaces, furniture and decoration in accordance with their original conformation. Such conservation requires an appropriate "restoration project" that defines methods and objectives. In many cases, this also requires appropriate use, consistent with existing space and meaning. Works in historic buildings must pay full attention to all historical periods present. (UNESCO 2000)

The little notions here gathered on these international meetings can help us identify the route that has drawn the approach to heritage to the present day, as well as some of the reflections for its proper conservation and cataloging. Transformations are the monument's reason for being⁸. We can argue that building, transforming and conserving are complementary activities.

3. On Surviving Architectures

Naturally, the reincorporation and preservation of the heritage are only one of the factors leading to a set of actions of greater complexity and scope. Especially influential was "the contemporary attitude of art", generated in the second half of the twentieth century with the exodus of artists from the museum spaces in search of "real sites." In this movement, container and content establish a new dialogue, altering the museum functional class and giving space a co-protagonist role of artistic discourse.

Surviving Architectures will be defined as architectures of patrimonial value that, at some point in their history, were completely empty of content - or were purposely emptied - and totally disconnected from the use for which they were projected, losing their social role and left out of the urban discourse, to be transformed into Art Centers, Cultural Centers and Museums of Contemporary Art. These operations are tools of social construction through art, to be understood as opportunities for renovation and transformation in the architectural, economic, urban and social context.

Surviving Architectures must attend to the dialectic between the new and the old, to contemplate its significant dimension, its symbology, and its poetics, but also it is necessary that they respond to the use that brings them back to life for the society. To inhabit these architectures is to attend to the last end for which they were created and, in this sense, it is interesting to quote Heidegger in *Building, dwelling, thinking*, where he developed the idea that to construct and to inhabit are inherent activities, so to consider them separately is to blur the essential relationships:

We attain to dwelling, so it seems, only by means of building. The latter, building, has the former, dwelling, as its goal. (Heidegger 1951)

The transformation in its programmatic genesis must attend to the specific functionalities of the use to which it will be destined, that is to the spatial and movement relations, content, materiality, illumination, etc., but also to the relation with the urban environment attending to the imaginary and the collective significance.

In his conference *Building on the built*, Rafael Moneo emphasizes the work of the layers of history and their relations with architecture beyond mere systematic operations.

The construction forces us to admit continuity with the past, a continuity that has to be solved in architectural terms (...) This continuity, however, is not always established in contextual terms, in terms of completing the existing framework of action, but in terms of understanding the project, its specificity, from a strict architectural key implicit in the assumption of the existing reality. (Moneo 2006) We'd like to point out the importance of the definition of creative reuse by the architect Derek Latham, who we consider a remarkable antecedent to approach what we understand by Surviving Architectures.

Creative Re-use requires an understanding of how to respect and renew what is already here and vision for where and how to transform the legacy of the past into the promise of tomorrow. (Latham 1999)

It should be noted that the work of Latham is not strictly limited to architectures of heritage value, as in our case, nor to the Surviving Architectures that become cultural spaces: museums, cultural centers, and centers of contemporary art. Latham talks about common buildings to which a new creative use is incorporated.

There is an extensive production - with special profusion in the Spanish territory - of experiences of what we have defined as Surviving Architectures. By way of selection, and in chronological order, we should not overlook the following interventions: the Museu Nacional d'Art de Catalunya in Barcelona (1934-2004), the Musée D'Orsay in Paris (1897-1986), the CAAC in Seville (1399-1997); the CCCB in Barcelona (1802-1994); the Hamburger Bahnhof in Berlin (1846-96); the Museum Küppersmühle for the Grothe Collection in Duisburg (1986-1999); the Complesso Museale Santa Maria della Scala in Siena (1090-2000); the Museo Nacional de la Escultura in Valladolid (1842-2009); the Museo de Arte Contemporáneo Español Patio Herreriano in Valladolid (1496-2002); the Caixa Forum in Madrid (1900-2008); the Matadero in Madrid (1925-2009); the Antoni Tàpies Foundation in Barcelona (2007-2010); Tabacalera in Madrid (1790-2012); and the Tate Modern in London (1947-2016).

⁸ Concerning this idea "Neither the building nor the historic city can present themselves equal to itself in time; its condition of originality is in its very transformation." (Martin 2014)

4. Approach to the island context

The city of Las Palmas de Gran Canaria, throughout its history, has been betting on a series of art centers, cultural centers, and museums, advocating the formation of Vegueta-Triana and Puerto-Canteras as main networks. However, not all centers or museums have been implemented or consolidated in the same way; some have a fundamental weight in the cultural activity of the city, while others are residual, or have hardly any content. It should be considered, therefore, that the network of museums, cultural centers, and centers of contemporary art, today, does not generate all the synergies necessary for its optimal consolidation. The succession of spaces is nothing more than a kind of architectures where political, social, economic or even chance, at the time of their foundation, have taken sides.

Vegueta-Triana counts, in chronological order, with the following cultural infrastructures: Museo Canario (1879); La Casa de Colón (1951); the Pérez Galdós House-Museum (1964); Museo Diocesano de Arte Sacro (1984); CAAM (Atlantic Center for Modern Art) (1989); the Mapfre Guanarteme Foundation (1998); San Martín Centro de Cultura Contemporánea (2011); The Juan Negrín Foundation (2014) and the Museo de la Ciudad y el Mar Castillo de Mata (2015); while in Ciudad Jardín we can find the Museo Néstor (1956); in the neighborhood of Los Arenales we find the Casa África (2007); and Puerto-Canteras has: the Museo Naval de las Islas (1940); La Regenta Art Center (1987); the Museo Elder de la Ciencia y la Tecnología (1999); and the Fundación Martín Chirino de Arte y Pensamiento (2015).

Most of these efforts are identified as what, within the framework of this study, we will define as Surviving Architectures⁹, from the Museo Canario as an addition to domestic houses - including that of its founder Doctor Gregorio Chil y Navarro -, to the Museo de la Ciudad y el Mar Castillo de Mata on the castle that bears his name. In the background of these transformations, the intervention is understood as an instrument of patrimonial protection policy (with greater or less success depending on the optics with which we examine the Surviving Architecture - some of these have been purposely emptied, while others have taken so long in being created that they end up conforming as a sum of unconnected fragments-).

The insular condition makes us understand the capital scenario as if it were a small research laboratory so that we can - with the look set from this to other places - make the transfer of our reflections in a game of scales that goes from the private to the general and vice versa. These Surviving Architectures are echoes of proven experiences in the European context, a natural consequence of the huge amount of heritage with a vocation to be rethought. Not in vain, the transformations are the *raison d'être* of the monument.

The following is an enumerated list of each of the Surviving Architectures we have dated to date and their positioning in time both in the island versus the national level.

⁹ Although it may seem that of all the museums and art centers named, the only intervention that is carried out *ex profeso* is the Museo Néstor (within the architectural group called Pueblo Canario, projected by Néstor himself with his brother Miguel Martín Fernández de La Torre), the reality is that, before coming to materialize as such, it was thought of as the first museum of fine arts in the city.

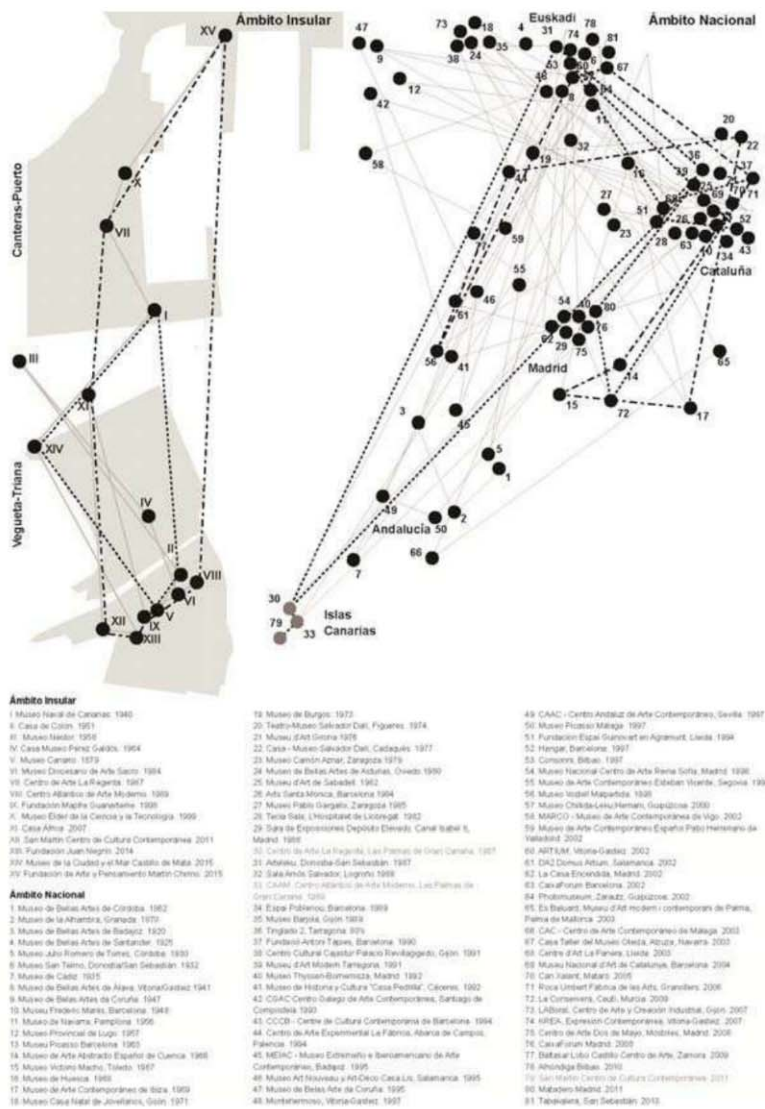


Figure 1 Insular versus national level

5. By way of conclusion. Lessons from the past to build the future. About the Atlas

Given the profusion of examples that we have been able to identify, we can detect the same logic of approximation to architectures of patrimonial value that, either by a combination of economic-political-social reasons or by other causes, at one point in their life they became obsolete - frozen in time - to be later recovered through a transformation in their programmatic genesis towards Museums, Cultural Centers and Contemporary Art Centers. They are architectures emptied of content that, while waiting to become again part of the discourse of the city, are identified as opportunities in a re-reading and valorization, of their own patrimonial condition from the incorporation of new uses in their discourse.

These intervention strategies attest to a vocation to be - and remain - part of the city, their history, architecture and collective imagination. Bright examples show the benefits of this type of approach that multiply the narratives that space can contain and the parallel discourses that it can develop the relationship between container and content, incorporating spaces with amplified meanings.

We are interested in studying life behind buildings; to investigate in their history as a chronology of events after their identity -what they were and what they are- and to identify the elements of permanence in front of the elements of change. We understand this course of new and variable relations in time and space as a process of open nature and therefore we are interested also in what they will be since heritage is a tool to build the future from the past in the present.

The Atlas cannot be limited to a mere compendium of case studies, not even a compilation intended in the manner of Durand in his *Recueil et Parallèle*. It will be an open critical document; a kaleidoscopic

vision as a summation of maps of different scales -insular, national and international- that, through elective affinities, locates and contextualizes the dialogue between the different stages after successive interventions and the parameters that define their territorial, architectural, landscape i and programmatic identity that constitute their DNA.

The elaboration process and the elaboration of Atlas itself would raise and answer some of the following questions: Do Surviving Architectures amplify their meaning through the complexity of their response? Is it only about the preexisting form or rather the possibility of change? What is the capacity that these architectures have in the reformulation of the central spaces of the city?

The criteria on which to base the bases and requirements of this Atlas will be on the cross between the look on the genealogy of the museum and the experiences contemplated in the confluence of ideas and reflections reflected in the proposals of the great masters of the Modern Movement.

6. References

- Dezzi M (2005) Conservar, no restaurar. Hugo, Ruskin, Boito, Dehio et al. Breve historia y sugerencias para la conservación en este milenio. En: Loggia, Arquitectura & Restauración. Accesible vía: <https://doi.org/10.4995/loggia.2005.3491>. Último acceso 13 de julio 2017
- Beghain P (1997). Guerre Aux Demolisseurs !: Hugo, Proust, Barres, Un Combat Pour Le Patrimoine. Paroles D'Aube, Lyon
- Benjamin W (2001) Tesis de la filosofía de la historia. En: *Discursos interrumpidos I .Filosofía del arte y de la historia*. Taurus, Madrid
- Brandi C (2008) Teoría de la restauración. Alianza Editorial, Madrid
- Cicerchia A (2002) Il bellissimo vecchio: argomenti per una geografia del patrimonio culturale. Franco Angeli, Milano
- De Solá-Morales I (1982) Teorías de la intervención arquitectónica. Quaderns d'arquitectura i urbanisme. Col·legi d'Arquitectes de Catalunya. 155: 30-37.
- Duchamp M (1959) The Creative act. Accesible vía RADICALART: <http://radicalart.info/things/readymade/duchamp/text>
- Eco U (2012) Construir al enemigo. Lumen, Barcelona
- Giovannoni G (1913) Restauri di Monumenti. Disponible vía: BOLLETINODARTE www.bollettinodarte.beniculturali.it/opencms/multimedia/BollettinoArtelt/documents/1344509031124_02-Gustavo_Giovannoni_p._1.pdf Consulta el 5 de mayo 2015
- Heidegger M (1994) Construir, habitar, pensar. En: *Conferencias y artículos*. Ediciones del Serbal, Barcelona, p.127-143
- Hollis E (2012) La vida secreta de los edificios. Ediciones Siruela, Madrid
- Latham D (1999). Creative Re-Use: Working with the Building. Journal of Architectural Conservation 2: 10
- Le-Duc V (1967) Dictionnaire raisonné de l'architecture française Xle au XVle siècle. F. de Nobeles, Paris
- Martín, M J (2014) Tiempo y patrimonio. Future Anterior 2:40-47
- Roseras E (2010) Metamorfosis arquitectónica: nuevos usos culturales para viejos edificios Disponible vía: ARTIUM <http://catalogo.artium.org/dossieres/4/metamorfosisarquitectonica-nuevos-usos-culturales-para-viejos-edificios>. Consulta el 1 Abril 2017
- Moneo J, R Solà-Morales I (1976) Apuntes sobre Pugin, Ruskin y Viollet Le Duc . ETSAB, Barcelona
- Moneo, R (2006) Construir sobre lo construido. AT Arquitectes de Tarragona 10:5-13
- Riegel A (1987) El culto moderno a los monumentos. Caracteres y origen. Machado Grupo de Distribución, Madrid
- Rossi A (2004) La arquitectura de la ciudad. Gustavo Gili, Barcelona
- Ruskin J (1997) Las siete lámparas de la arquitectura. Alta Fulla, Barcelona
- Selvático P (1863) Sulla conservazione dei monumenti e degli oggetti de Belle Arti e sulla riforma del línsegnamento accademico. En: Revista dei Comuni Italiano Disponible vía: Google Play play.google.com/store/books/details?id=S8AQAQAIAAJ&rdid=bookS8AQAQAIAAJ&rdot=1. Consulta el 12 de junio 2015

Acknowledgments: This article is part of the work carried out under the *Master's Degree in Artistic and Architectural Heritage. Museums and Art Market* as well as the development of the thesis *ATLAS OF SURVIVING ARCHITECTURES ARCHITECTURES European experiences from the late 80's / early 90's until now*.