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BOOK OF ABSTRACTS

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INTRODUCTION

The Ripam 9 Conference has been organized by the Lisbon School of Architecture, Universidade de Lisboa, on March 23rd – 25th, 2022, <http://www.fa.ulisboa.pt>

The RIPAM are both meetings and a network of people and institutions working for the knowledge and the preservation of the Mediterranean architectural and urban heritage. Since 2005 the Ripam community organizes main conferences, each two years, and intermediate conferences, in between. Ripam vision, organization, history and perspectives are represented on the <http://www.ripam.org> website.

This book contains the abstracts of the communications presented to the conference. It is intended to be a working tool for scientists. The abstracts order follows the conference program.

Conference best articles have been published together with RIPAM 10 conference proceedings:

<https://www.mrforum.com/product/ripam10/>

SESSION 1 – March 23rd

PRO HERITAGE PROJECT

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Keywords:

traditional skills, energy efficiency, Horizon 2020 project

Abstract:

New professional perspectives and desires led craftsman's professions to almost disappear in Europe, a continent with numerous historic buildings across all member states, of which about 150 are cultural World Heritage or carry the European Heritage Label. On the other hand, growing understanding of heritage values and construction methods of culturally relevant buildings, drives to a bigger demand for these ancient skills, making them recent needs.

But those skills require new competences, both conceptual and technological, because at the same time, energy use and climate change became an important issue (again) and EU Commission, national governments and international organisations started to look at the topic more closely. This peaked in 2011 in the sustainable energy policy of the European Commission and the legislation for increase of energy efficiency in EU member states.

Integrating historic buildings into the national climate change and energy policies seems therefore quite necessary and a challenge, as far as appropriate techniques and procedures are concerned, which can only be met through excellently trained craftsmen and in the long run apprentices of the crafts concerned, since applying proper solutions and new technology in this environment is much more challenging than in modern buildings, as all the specialities need to be taken into account.

With these concerns in mind, a European project co-funded by Horizon 2020 Program called PRO-Heritage was created aiming to offer initial and permanent education for professionals and craftsmen providing traditional competences and skills for built heritage, based on the Best Practice of partner organisations. Additionally, PRO-Heritage is going to establish a structure and environment (incl. accommodation) for regular journeyman's travel in Europe, in order to further support the exchange of competences and skills across the continent, as in former times and to the benefit of the built heritage in Europe. This will serve, together with digital support for learning and later-on for matching the needs of heritage owners and competences/skills of professionals and craftsmen, the European idea of sharing cultural heritage and conserve these historic assets for future generations.

This education will be certified by an EU wide organisation called ECQA, European Certification and Qualification Association.

THE ARCHITECTURAL HERITAGE IN RURAL LANDSCAPE: CEREAL WAREHOUSES

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Keywords:

Cereal warehouses, landscape memory, rural heritage, vernacular architecture

Abstract:

Cereal production had, and in some places still has, great economic importance in the countries of the Mediterranean basin. The warehouses where this production is kept have a particular architecture that, due to its characteristics and dimensions, is of great relevance to the landscape. In the pre-industrial phase, with peasant agriculture, these warehouses to store cereals, fitted into the so-called vernacular architecture, were located mainly near production sites, in villages where the farmers lived, and had dimensions, models and used materials for its construction, very diversified according to the regions.

With the development of capitalist agriculture that produces for the regional, national or international market and the development of reinforced cement technology in the first half of the 20th century, silos for cereals passed to “industrial” architecture and have other locations, namely in the agglomerates of larger dimensions such as towns and cities where the production of the entire region was stored and therefore to have very similar shapes in many regions and when in disuse, they become a problem for clusters.

The socio-economic transformations that were felt from the middle of the last century in rural areas in Portugal, with many populations abandoning agricultural activity and migrating to the cities, changed the type of agriculture that is practised and, consequently, some connected buildings the storage of farm products were left unused.

This communication focuses on the issue of preservation and requalification of the architectural heritage related to cereal production. It surveys and analyses the geographic distribution of cereal production in Portugal and its relationship with the types of warehouses where this production was stored; such as the importance of grain granaries and silos as the material heritage of the rural societies where they were built, as well as their importance for the collective memory of towns and cities where they still exist.

The relationship between the types of landscape, cereals and the preservation of warehouse architecture is a very current theme because the cereals consumed in southern Europe are largely imported, which led to the abandonment of warehouses that were located next to or close to production from the railway stations, where they were drained.

This communication also analyses how these buildings of large dimensions and visual impact on the landscape, when deactivated, have been a focus of interest for rehabilitation and their reuse and their importance for the socio-economic transformation of the places where they are located and their respective populations.

MULTI-ANALYTICAL STUDY OF WALL PAINTINGS FROM THE AL-QARAWIYYIN OF FES AND THE ROMAN SITE OF VOLUBILIS IN MOROCCO

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Keywords:

Painted plasters; Analytical characterization; pigments; painting techniques; al-Qarawiyyin of Fez; Volubilis

Abstract:

The analysis of pigments and plaster layers in ancient wall paintings can provide a valuable scientific background revealing the original materials, and helping to go back to the painting practices of the time. The present work relates to wall paintings from two south Mediterranean historical sites which are the al-Qarawiyyin mosque in Fez and the Roman site of Volubilis. Both sites are parts of the UNESCO classified world heritage, welcoming a lot of tourists from all over the world.

Two sets of wall painting fragments, originating from the above places, have been investigated by crossing different analysis techniques. The fragments, sampled during recent excavations, exhibit different sizes, shapes, colours and shades. Elemental compositions were determined by X-Ray Fluorescence (XRF), while crystalline and coloring phases were identified by means of X-Ray Diffraction and micro-Raman spectrometry. Cross-sections of some representative samples from each period were also analyzed by crossing both of Polarized Optical and Scanning Electron Microscopies in order to study the stratigraphy of the wall paintings.

Combining all the above techniques made it possible to achieve an in-depth characterization of the paint layers and plasters, revealing similarities and differences between Islamic and Roman wall paintings. In terms of coloring materials, the pigments identified are natural ones. Red ocher, cinnabar, Bistre-carbon black and calcite have been recognized in both historical sites. However, while green earth, yellow ocher and Egyptian blue were found in the fragments originating from Volubilis, azurite along with lapis lazuli blue pigments and minium red one were highlighted in the fragments from the al-Qarawiyyin mosque. It seems thus while the former pigments observed in the case of Volubilis are commonly used in the Roman period, the colouring materials highlighted in the case of the al-Qarawiyyin square include pigments such as cinnabar, minium and lapis lazuli not shared in the Islamic period in Morocco.

Concerning the painting techniques, the stratigraphic explorations have shown a layer of plaster followed successively by a layer of lime and the pigmented coating in the case of the samples from the al-Qarawiyyin mosque, while all layers are lime-based in the case of the Roman fragments. Moreover, differences in the abundance and size of aggregates, as well as the number of layers, are also observed between the two sets of samples. Consequently, the obtained results lead to the assumption that in the Islamic period the practice may relate to the lime-secco-painting technique, while in the Roman period the fresco technique was obviously adopted.

IN ORIGINE LE MONTAGNE AVEVANO GRANDI ALI

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Keywords:

Puttinga, erosion, permanence, masonry techniques

Abstract:

On the border between Italy and France, in the Municipality of Ventimiglia, there is the Cliff "Punta Della Rocca", a suggestive place characterized by Pliocene strips overlooking the sea, attributable to sedimentation conditions such as torrential delta, in which the clayey-sandy deposits appear interstratified to the conglomerates.

Here, even more than elsewhere, it is evident how geology has determined the morphology of the places, defining their conformation, vegetation cover, anthropization, the availability of natural building materials, and therefore the landscape and architectural context in its broadest meaning.

The area, characterized by a high geological fragility, has a dizzying morphological evolution and on several occasions during the twentieth century required major consolidation interventions. Since 2017 it has been the subject of in-depth geotechnical instrumental monitoring activities which will be accompanied by rigorous archaeological studies: the size and type of the elements already collected have made it possible to perform a partial reconstruction of the ancient landscape, which is ascertained to be frequented in archaic times, in a general framework of settlement dynamics that historically seemed to be changing and decidedly influenced by the morphology of the territory.

There is a close connection between the line of the geological outcrop characterized by soft rocks and the one in conglomeratic puddinga - mechanically more resistant - with the development of Ventimiglia Alta and its defensive architectures made of blocks obtained from the same lithotype of which the cliff is made.

And again: the thin sandy horizons present within the Pliocene conglomerates allow the development of high-altitude spring aquifers, an integral part of the strategic location, guaranteeing a safe water supply even during periods of siege.

The contribution, in addition to reconstructing the transformation of the environmental and landscape context of reference, aims to compare the characteristics and evolution of the cliff in "natural" state and the "anthropized" one as a building material: on one side through a historical-cartographic investigation that allows the study of the "natural" transformations of the morphology of the territory, on the other through the analysis of the masonry techniques that characterize the defensive architectures still present in the area, aimed at determining the resistance to aging of the same puddinga, artificially modeled and integrated into the constructions.

The interchangeability between the natural puddinga and a cement conglomerate, artificially constituted using rough and rounded calcarenite aggregate, suggests interesting constructive symbiosis, even more, necessary in a highly valued, but fragile and changeable landscape.

In origine le montagne avevano grandi ali. Volavano per il cielo e si fermavano sulla terra, seguendo il loro piacere. Allora la terra tremava e vacillava. Indra recise le ali delle montagne. Fissò le montagne alla terra per renderla stabile. Le ali diventarono nubi. Da allora le nubi si raccolgono intorno alle cime (Calasso 1983).

This was the order established according to Vedic beliefs. Much of that original order has since been forgotten or even subverted.

The mountains are moving again: however, a new order is not established, but chaos, the current unmentionable, the age of inconsistency.

SESSION 2 – March 23rd

IDEOLOGY IN REPRESENTATION: THE TRADITIONAL ALGARVE CHIMNEY AND THE PORTUGUESE NEW STATE

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Keywords:

Traditional architecture, chimney, Algarve, dictatorship, New State

Abstract:

Stretching from 1933 to 1974, the Portuguese New State had a clear ideology that rippled throughout every aspect of daily life. The State's focus on tradition even reached as far as to influence the way the perceived traditional architecture, and paved the way to the Algarve chimney's position as the quintessential representation of the local architecture even today. This paper aims to reflect how this close association developed, between the chimneys in Algarve and its local architecture during this specific time period, as well as taking a closer look into the types of descriptions made of the local chimneys. Considering iconographic depictions as well as written descriptions of these architectural elements. Along with key moments in which the chimney was included in specific moment that the New State promoted, like the Portuguese World Exhibition and the opening of the Folk Arts Museum in Lisbon. The relevance of this investigation to RIPAM resides in the cultural aspects of the chimney as an architectural element. This because of the relevant part it played in the lives of the locals who owned one, as well as the significance of the chimney for the New State government who saw it as an element that was very much aligned with its ideology and vision for Portugal in general.

As for methodology, this essay will rely on different types of literature produced either during the aforementioned time period or written about the same. Previous investigations have shown how important it is to take an inter-disciplinary approach to the study of vernacular element such as the chimney, and this will also be applied in this case. Focussing mainly on works dealing with traditional architecture, as well as some of the different cultural projects from this time (such as the aforementioned world exhibition, as well as the contest for the Most Portuguese Village of Portugal). Reference to other types of iconographic materials will also be included, such as promotional photographs and posters as well as documentaries of the time.

LES TRANSITIONS SPATIALES : ÉLÉMENTS D'ORGANISATION ET D'HIÉRARCHISATION SPATIALE. CAS DES PATIOS ET PLACES URBAINES DANS L'OUEST DU POURTOUR MÉDITERRANÉEN.

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Keywords:

Transition spaces-Spatial hierarchy-Courtyard house-Urban square

Abstract:

The design and delimitation of interior and exterior spaces and the definition of the relationships and articulations between them have always been a human necessity. Spatial transitions help meet this need and are essential elements in every design.

The Mediterranean rim presents an architectural and urban diversity, which manifests itself in the use of spatial transitions.

This article focuses on the specificities of spatial transitions in the western part of the Mediterranean rim and more specifically the south of the Iberian Peninsula and northern Morocco.

By taking into account the social structure, the cultural and climatic specificities and through a comparative study of the patio of the patio house and the urban square typical of the old centers of the area studied, this article attempts to highlight the definition elements, integration and the role of these transitional spaces in the creation, organization and hierarchy of urban and architectural space.

FROM THE GREAT SYNAGOGUE OF ALGIERS TO JAMMA LIHOUD, ARCHITECTURAL MONOGRAPHY OF A CENTURIES-OLD BUILDING

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Keywords:

Great synagogue, Algiers, monography, Arabian style, social influence.

Abstract:

This article proposes a monographic study of the great synagogue of Algiers. An important architectural and symbolic construction, which is not only representative of the changes experienced by the Jewish community and their places of worship after 1830, but also of the contradictions of the colonial administration toward them. The monumental character, the use of many elements of the local architecture, and the Moorish style, have made of it a singular building in this middle of the Algerian nineteenth century imbued with the Parisian inspiration on architecture. Based on unpublished archival documents, this article attempts to shed light on the architectural challenge of Viala de Sorbier, it questioned also the influence of the historical and social context on the architectural choices, meaning and deep meanings.

Designed in an Arabian style, on a plan close to the plan of the traditional North African synagogues, the building was converted into a mosque after independence, without major consequences on its formal appearance. The resistance of social memory ensures the persistence of the memory of the place, which continues to be call the mosque of the Jews. Using the architectural drawing realized in situ, the communication proposes a detailed analysis of the spatial context, of this conversion.

MEDITERRANEAN HERITAGE IN THE ARCHITECTURE OF MADEIRA AND CANARY ISLANDS: THE COMPACT HOUSE AND THE COURTYARD HOUSE IN THE ERA OF THERAPEUTIC TOURISM

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Keywords:

Mediterranean architecture, therapeutic tourism, Madeira, Canary Islands

Abstract:

In the nineteenth century, the well-known "quintas" of Madeira Island were mainly constituted of small suburban one family houses, surrounded by a garden, and occasionally including some land area which, in most cases, had little or no agricultural value. They were situated in the outskirts of Funchal, the island capital, and were rented to the infirm for a whole season, usually the winter, and played an important role as lodging arrangements for the sick. This development can be considered characteristic of Madeira since in the Canary Islands, the trend emerged much later: the "finca canarina" comprised primarily the centre of an agricultural enterprise until the last two decades of the century.

In the architecture of the "quinta", influences of English origin can be found, especially the romantic villa from the Georgian period. This architecture of British origin would in turn be crossed with that of the so called "macaronesia house", which derives directly from the Mediterranean/Portuguese tradition: a compact house, almost a purist structure in its simple lines, a square or rectangular plan in two stories, covered by a pitched roof with its characteristic gentle curve, solid stone walls, and wooden floors.

It was this combination that gave birth, in the nineteenth century, to a very distinct synthesis: the Madeiran "quinta". In fact, both traditions end up comprising the same Mediterranean matrix: in most cases, the English model gets its inspiration from the Italian villa style, as represented in the eighteenth-century landscape painting of Poussin or Claude Lorrain. We can trace the origin of this compact type to the villa Fiesole, built in the middle of the fifteenth century in the outskirts of Florence, in a site chosen for its panoramic views: a square plan building block where, as James Ackerman wrote -"for the first time the Medici's villas completely open to the exterior and without a central court".

In contrast to the Madeiran "quinta", and based on a different Mediterranean tradition, the dominant courtyard house type of the Canary Islands had a specific feature: it was

not easy to adapt it to the level of comfort and privacy required by the Victorian travelers and "invalids". In fact, accounts of these travellers reveal the strong empathy they showed for the Madeiran house, whose interiors were easily adapted to their standards - while outside the simple and anonymous features of its facades were preserved.

Based on comparative research about the architectural history of Madeira and Canary Islands, as well as on nineteenth century travel writing, this paper will trace the evolution of the two Mediterranean house types, focusing on the way they were viewed and inhabited by the first travelers and "health tourists" that visited the Atlantic resorts.

THE REHABILITATION OF HOMES THREATENING RUIN IN THE MELLAH DISTRICT OF RABAT: PROGRESS AND LIMITS

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Keywords:

Heritage -rehabilitation - homes threatening ruin - Mellah - Rabat

Abstract:

The Mellah is a district, within the Medina of Rabat, created in 1808 during the reign of Sultan Moulay Slimane, designed to bring together the entire Jewish community of the city so that they can live in peace in a common space. This community was not only an integral part of the history of the medina of Rabat, but also that all of Morocco. Mellah neighborhood concentrates a whole range of potentialities by its history, its identity, its inheritance as well as its geographical situation (in front of the valley of Bou Regreg).

However, after the exodus of Jews in the 1950s, the Mellah became more related to misery and social problems as new populations have settled there, asserting the risk of its implosion. It has been considered, for several years, as one of the most degraded districts of the medina of Rabat on both urban and architectural level. Indeed, several houses within this neighborhood are in a very advanced state of disrepair or even in ruins.

To overcome these issues, the Ministry of Urban and Regional Planning, Housing and City Policy endorsed a specific financing agreement in May 2018, relating to the management of housing threatening ruin in the old medina of Rabat. This program is part of a National strategy initiated in application of royal directives recommending urgent interventions, following the collapse of some buildings in Moroccan old Medinas. This strategy has resulted in: the promulgation, in 2016, of Law No. 94-12 relating to “Buildings Threatening Ruins” (habitat menaçant ruine) and the Organization of Urban Renovation Operations; The creation, in 2018, of an ad hoc structure, namely: the National Agency for Urban Renovation and Rehabilitation of Threatening Ruin Buildings; as well as the launch of several programs at a national level with the signing of agreements for intervention in this type of construction.

Regarding the Mellah district of Rabat, the agreement relating to its rehabilitation provided for an overall cost of 130 million dirhams (approximately 100.000 euros). The project funding come from the Ministry of Urban and Regional Planning, Housing and City Policy (50 Mdh), the Regional Council of Rabat-Salé-Kénitra (30 Mdh), the council of the city of Rabat (20 Mdh) and the Bou Regreg Valley Development Agency (30 Mdh). The delegated management of the project has been assigned to the Société Rabat-Région-Aménagement and to the Bou Regreg Valley Development Agency.

This operation concerns over 1560 listed buildings, including 828 of them that are classified in an advanced state of degradation which requires very urgent intervention (category A).

This communication attempts to answer the following questions: What are the characteristics of the rehabilitation process of the Mellah district of Rabat? What are the challenges and constraints that this program has faced, on an economic (insolvency of the households concerned, insufficient sources of financing), social (difficulties related to rehousing, mobilization of the target population) or technical levels (lack of technical expertise in the matter)?

FORMS OF MEDITERRANEAN HOUSING IN THE PEARL RIVER DELTA - FROM THE S.S. PATRIS II TO THE WORLD

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Keywords:

Modern Architecture, Heritage, Housing, CIAM, Asian Studies, Built environment

Abstract:

The following proposal is based on the study and appreciation of the Architectural Heritage of the 20th century. The work plan proposes a critical analysis related to the documentation and conservation of buildings, projects and urban plans of Modern Architecture in Asian territories, introduced under different influences and the forms of the European born Modern Movement.

During 1933, the 4^o Congrès Internationaux d'Architecture Moderne (CIAM) was taking place over the Mediterranean Sea, on board of the cruise S.S. Patris II. While sailing from Marseille to Athens, the European Architecture's pioneers were establishing some principles and aspects of a nitid change that was forthcoming along architecture. New social, political and cultural needs were demanding the adoption of a new architectural paradigm which could respond to the future worldwide challenges. Modern Architecture appear under a new architectural Mediterranean language, thinking on solutions of "design from the cup of coffee to the urban plan" (W. Gropius).

The present project consists on a critical analysis of urban development and the first statement of architectural modernity in the area of modern housing, in two Pearl River Delta's areas: Macau, former Portuguese colony, historic meeting point between East and West; and Hong Kong, commercial and financial reference point in the Asia-Pacific region since the 1930s.

The focus would be on present an inventory and a systematization of a set of inaugural housing works presenting the adaptation to a different culture, climate and environment of modern technical characters defined on the Mediterranean trip on board of the S.S. Patris II.

The outline presentation aims to document and value architectural and urban ecosystems of relevant social, cultural, economic, technical and environmental significance of the built scenario; their interactions with the public interest, memory and history, cultural diversity and local characteristics.

In addition to the works presented and documented, the proposal plan intends to present a comparative chronology of the urban architectural scenario, between the areas under analysis and the international outline.

Those emerging forms of inhabiting space in contemporary urban territories, represent the results of the evolution of social requirements. The built environment produced after the World War II, in the area under analysis, represent the first steps made by Asian Modernism. Due to a tide of redevelopment guided by high commercial profit and the economic uncontrollable growth, the buildings built up during the 1950s/1960s have been, or are being, replaced by a new generation of skyscrapers; some of them stood for not even 30 years. This modern heritage deserves further consideration.

A clear contribute to the architectural history of this period need to be realized. The paper has the ambition to reveal pieces of a unique design and architectural development, to provide and valorise new heritage references inspired by a Mediterranean architectural soul; but also, to enrich discourses as aesthetics of high-density environments or the city-state urban development.

The modernizing process of the Pearl River Delta includes Mediterranean influence and inspiration. A common Modern Architectural matrix created a unique urban framework which should be understood and valorised.

SESSION 3 – March 23rd

THE TRAVERTINE IN THE TUSCAN ARCHITECTURE (ITALY)

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Keywords:

travertine, calcareous tufa, Tuscan architecture

Abstract:

Travertines are encrusting limestone rocks that are formed by precipitation of calcium carbonate in correspondence with thermal springs. As reported by Plinio il Vecchio and Strabone, the name derives from Lapis tiburtinum, that is the stone of Tibur, the Latin name of Tivoli, a city located near Rome, from which this stone has been extracted from the Roman time until today. Travertine is a hard material, easy to polish, resistant to atmospheric agents and with a beautiful whitish colour. Thanks to all these characteristics, over the centuries, it has been used in architecture with both structural and decorative functions, particularly in the north-central Italian peninsula where there are many outcrops of this rock.

The Etruscans used travertine for the city walls, stones and funerary urns. In ancient Rome, travertine was the stone of monumental buildings (bridges, triumphal arches, theatres and amphitheatres, arcades, tombs façades) and flooring, but it was also used in private buildings. In the Middle Ages it was the monumental building material of Ascoli Piceno, Perugia, Ancona, Rieti, in relation to a local extraction. Travertine then becomes the stone of the Roman Baroque and rationalist architecture, just think of the University City of Piacentini and the E.U.R complex (Universal Exposition of 1942).

This contribution examines the use of travertine in the Tuscany region as a structural and decorative element in civil and religious architecture from the Middle Ages to the contemporary age. In addition, the conservation problems of this material mainly

consisting in a chromatic alteration linked to the formation of biological patinas will be discussed.

In the Italian territory, Tuscany is the region richest in travertine deposits, some of which are still in formation. This is because Tuscany has been affected by an important tensive tectonics that gave rise to the formation of intermountain basins delimited by systems of direct faults and has favoured the upwelling of magmas that have significantly increased the geothermal gradient. The Etruscans and later the Romans took advantage of this wealth of the region. Among the best known thermal areas we can mention the Fontes Clusinae (today's Terme di Chianciano), the thermal baths of Saturnia, Roselle, the Aquae Volaterrae and the Aquae Populaniae, represented in the "Tabula Peutingeriana", a medieval copy of a military road map of the Roman imperial age and found in archaeological excavations near Sasso Pisano, the spas of San Giuliano, those of San Casciano dei Bagni.

In Tuscany, perhaps the most ancient use of travertine in architecture is represented by the Porta dell'Arco in Volterra, one of the main city of ancient Tuscany (Etruria), seat in the Middle Ages of an important bishopric. An impressive example of the use of travertine in Tuscany is the town of Massa Marittima built on a large travertine bench: it has been used as dressed stone for religious and public buildings, in the contours of the openings, in the decorations, in the columns and pillars. The whitish colour of the stone gives a particular brightness to the town that emerges from the dense Mediterranean scrub that slopes down towards the Gulf of Follonica.

ANATOMY OF IDENTITY VALUE AND TERRITORIAL SIGNIFICANCE: THE CASE STUDY OF THE PORTUGUESE "TAUODROMES"

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Keywords:

Portugal, Territorial significance, Identity value, Heritage awareness, Taurodromes

Abstract:

For over 25 millennia, civilizations across the Mediterranean have established a relationship with the figure of the bull. This relationship was materialized in its magical-religious, anthropological, political, social, cultural, symbolic, ritual and folk dimensions. Architecture understood as the manifestation of a process and product of humans has been capable of encapsulating and expressing the territoriality of this Human-Animal relationship.

In the case of the Iberian Peninsula, and more specifically in Portugal, these manifestations that have elapsed over time started to assume a peculiar formal configuration from the 17th to 18th centuries. Through the construction of the first fixed bullrings, with the constitution of the first cattle ranches, and with the redefinition of the cork oak forest in Portugal ("Montado") and in Spain ("Dehesa"), in a sustainable vision of a territory sparse in resources. This complex and multidimensional relationship of the Human-Taurus is called Tauromachy, which encompasses both popular and professional manifestations. It is the set of spontaneous, popular or erudite architectural constructions that we will call "Taurodromes".

Thus, our goal was to investigate and understand the dimension and territorial extension of the taurodromes in Portugal. What is their meaning, and how do they assume its different manifestations and peculiarities. And focusing on evaluating the existence of its own architectural identity, hitherto unnoticed and not studied.

In methodological terms, this research was structured in several phases. In the initial phase, we carried out a field survey and satellite image tracking, georeferencing all the case studies identified in a geographic information systems software. As a result, we were able to identify more than seven hundred cases. In the next phase, we dissect these "taurodromes", through a formal, dimensional, conceptual and programmatic analysis to build an envision of their architectural anatomy. In the third phase, we elaborate a proposal in terms of taxonomic organization, based on its typification, characterization and genotype. This able us to propose a set of conceptual and architectonical definitions for each type of "taurodrome".

The final discussion was established in conceptual terms for heritage awareness. Focusing on their identity value and territorial significance.

EL KOUCH (MSILA) A KOROUGHLI DISTRICT TO BE PRESERVED

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Keywords:

Conservation, heriage, urban renewal, el kouch, msila

Abstract:

The inhabitants of the old districts, which form the central nucleus of the city of Msila since the Turkish period, try to preserve this heritage as a symbol of their symbolic values on the one hand and as a refusal and neglect by the collective memory of the legacy of the French colonizer.

This paper tries to focus on the attempts to conserve certain elements of the past of the el kouch district, one of the kouroughli districts (1) of the old core of the city of Msila, threatened by an uncontrolled and accelerated urbanization. In this sense, we will try to do a typo-morphological study, in order to bring out the urban and architectural specificities. Subsequently, we will try to identify avenues of conservation that fit well with the issue of urban renewal.

(1): kouroughli means Turkish father and Arab mother

RESTORATION STEPS AND PROCESSES OF MARRAKECH ANCIENT MEDINA FONDOUKS (MOROCCO): APPLICATION TO FONDOUK EL KEBBAJ

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Keywords:

Marrakech, Medina, Earthen architecture, Analysis, Degradations, Conception, Restoration, Rehabilitation, Techniques, Sustainability, soil, lime, sand, baked clay, mud brick, earth construction materials

Abstract:

The principles of analysis, conservation and restoration of any architectural heritage are based on a multidisciplinary approach with a well-defined objective: the building sustainability as a whole. The level of a building authenticity qualified as historic is not governed by universal criteria, its value depends strongly on the integrity of all the parts of its structure, which by its history is often complex. It is in this sense that any intervention requires the implementation of studies and projects respecting precise steps to which corresponds an appropriate research for the collection of data and information, the identification of the causes of the disorders, the determination of the choice of the measures to be taken, and finally the control of their effectiveness. These rules clearly established by the ICOMOS charter (International Council on Monuments and Sites) in 2003 aim at a minimal impact on heritage.

The Medina of Marrakech (Morocco), the historic heart of the ochre city, has been listed as a UNESCO World Heritage Site since 1985 and its Jamaa El Fna square as an intangible heritage of humanity since 2008. Interventions for its development and renewal have followed one another for about two decades: The Rehabimed Pilot Operation (2001), The Marrakech City of Permanent Renewal Program (2014-2018),

The Requalification of the tourist circuit and spiritual circuit of the Marrakech Medina seven saints (2017-2019) and the Program for the Development of Marrakech Medina (2018-2022)

Fondouks, or caravanserais, are deeply integrated in the process of enhancing the Medina. These buildings built around a courtyard were used to house caravaners who came from outside to conduct their commercial transactions in Marrakech. Today, Fondouks have mostly become workplaces for craftsmen. For the most part, this change of use does not suit the initial design of the structure. These buildings are designed accordingly to a structural system of load-bearing walls. The stability with respect to vertical and horizontal actions results from the overall work of all construction elements. Individual failure of one of the elements can easily affect the others. This may lead to a cascade collapse of either a part of the structure or even the entire structure.

Fondouk El Kebbaj, with more than two centuries of existence in the district of Sidi Bensaleh, was not protected from the effects of time and several parts inevitably fell into ruin. Its restoration and rehabilitation, along with other Fondouks, is facing great challenges: the need for a design faithful to the initial design to preserve the ancient built heritage, while providing modern comfort and safe conditions.

In order to meet these challenges, the various ancient building steps and processes are identified, in terms of both architecture and materials used. This ensures that restoration is consistent with the initial design, as well as helps determine the possible ageing and degradation causes. Based on historical and technical considerations, the ancient design choices are justified. Finally, solutions and treatments are provided for a more optimized design within the framework of the program of development of the Medina of Marrakech.

STRATIFICATIONS HISTORIQUES ET ÉTUDE DE PLANS PERMANENT DE SAUVEGARDE ET DE MISE EN VALEUR DE SECTEUR SAUVEGARDÉ - CAS DU SECTEUR SAUVEGARDÉ DE "LA VIELLE VILLE DE SIDI EL HOUARI"

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Keywords:

Plan Permanent de sauvegarde, Stratifications historiques, Vielle ville de Sidi El Houari, Zone réglementaire.

Abstract:

Les Plans Permanents de Sauvegarde et de Mise en Valeur des Secteurs Sauvegardés constituent l'outil de gestion et de protection des ensembles immobiliers urbains et ruraux. Les modalités de leur établissement ainsi que leur contenu sont définis par la réglementation, en revanche leur démarche est abordée lors de l'étude du plan de sauvegarde élaboré sur trois phases : Diagnostic et mesures d'urgence, Etude historique et typologique et avant-projet, Rédaction finale du plan.

Cette étude consiste en une analyse de l'apport de l'étude des différentes stratifications historiques dans l'élaboration des plans de sauvegarde d'un secteur sauvegardé. Le centre historique de la ville d'Oran constitue un exemple emblématique de par sa morphologie urbaine, résultat de plusieurs stratifications historiques, façonnées par la succession de diverses civilisations, à savoir la civilisation Arabo-musulmane, Ottomane, Espagnole et Française, sans négliger les interventions effectuées après l'indépendance du pays. L'étude de ces stratifications constitue l'élément clé dans l'élaboration du plan de sauvegarde. De ce fait, cette étude contribuera à tracer des lignes directrices pour l'étude du plan de sauvegarde de « la vieille ville de Sidi El Houari » non élaboré jusqu'à présent, malgré que la création du secteur sauvegardé fût en 2015 en vertu du Décret exécutif n°15-13.

Cette étude aborde le processus de gestion du patrimoine dans un cadre universel et national, et se base sur une approche documentaire et historique visant à analyser l'évolution du secteur sauvegardé.

A travers cette étude on démontrera l'impact des différentes chartes et lois internationales sur la réglementation régissant les secteurs sauvegardés en Algérie. Cette étude suggère cependant l'importance de la superposition des différentes stratifications historiques avec les plans définis par le POS, afin de déterminer les zones réglementaires composant le secteur sauvegardé de « la vieille ville de Sidi El Houari ».

FOR AN ARCHITECTURAL MEMORY: MAPPING OF THE 20TH CENTURY PORTUGUESE ARCHITECTS, POLARIZED IN LISBON

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Keywords:

Portuguese Architecture; Memory; Architectural Collections; Heritage; 20th Century Portuguese Architects.

Abstract:

Portuguese architecture has been acquiring, in recent years, a growing worldwide recognition, especially from the work of architects such as Aires Mateus, Carrilho da Graça, Siza Vieira or Souto de Moura.

Lisbon, as one of the main centers of architectural production that, throughout the country's history, has sustained a recognizable architectural practice and body of knowledge, does not currently have an institution that houses, consolidates and systematically and effectively studies the documentation related to this activity.

More than ever, it is important today to understand the safeguard of what is the Architecture of the last century and that comprises "the last generations of paper", that is, the work of architects who have all their projects in physical support. The rescue of these elements represents ensuring the future of the past.

This reality led FAUL to found in 2015 the Project PORARQ with the aim of identifying, studying, and disseminating the collections of Portuguese architects, centered in Lisbon, which have been deposited in this institution, by the architects themselves or by their heirs, sometimes in emergency interventions, for lack of other structures that, for the moment, ensure it. Currently, we already have 16 relevant collections on deposit.

This work has involved researching and getting to know, besides the main figures, the professional collaborations and respective projects, or even the private or public nature of their activity. Since its foundation, the Project has disseminated the results of its scientific production on these architects through publications and exhibitions,

some of which were held in partnership with other public institutions. However, the absence of scholarship holders and of specific equipment permanently allocated to the Project has not made it possible to advance at the desired speed.

This is an urgent opportunity, since these documents require careful and timely preservation which, if not accomplished, will lead to their loss, with the consequent obliteration of cultural heritage and knowledge, which should be accessible to all. Architects and their collections, as protagonists of 20th century Portuguese Architecture, a period when the professionalization of Architecture took root and architectural practice gradually intensified, both in Portugal and in the territories that were then colonies (namely the second half of the century, coinciding with the period after World War II, a time of economic expansion that also reached the territories under Portuguese administration until the first half of the 1970s); are fundamental to understand the social and cultural evolution of a country that changed so much throughout this century. Not to contemplate the architectural production of this century is to forget stages, scenarios, and spaces that hosted its historical events and their protagonists.

In short, the project aims to contribute significantly to the preservation of the Memory, Knowledge and Dissemination of 20th century Portuguese Architecture, both among the scientific community and architects, as well as the interested public, nationally and internationally.

SESSION 4 – March 24th

THE OBSERVATION OF MEDITERRANEAN URBAN SPACES

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Keywords:

Urban Space, Vision, Square, Medina, Visual Fixations

Abstract:

This work intends to show how ordinary people, look at, and see mediterranean urban spaces, in a physiologic and mechanical approach, after a study developed with eye tracking methodology. The visual activity has some important characteristics in the way we see as in the way we look for plastic elements of vision.

This study involved a group of 30 people, of different ages and vocational training, which performed observations of 2 different urban spaces in Lisbon, of 20 seconds each, which resulted in a total number of 30.000 frames , of visual information, to analyse.

The mediterranean urban spaces, used in this research, were of different geometric urban composition: 1 - one of the largest squares in Europe, which is the main square in Lisbon, of orthogonal design of Pombalism - Terreiro do Paço; 2 - a square of organic design, modeled by topography, with their access streets and ladders, which was part of the ancient Medina of Lisbon and now is the famous neighborhood of Alfama.

In this work, is analyzed and presented the shapes we see these spaces, the hierarchy of the visual elements, and some comparative approaches between these two cases.

THE MALMANTILE FORTRESS, ANALYSIS OF THE SURVEY, FORTIFICATIONS AND VILLAGE INSIDE THE WALLS

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Keywords:

Laser scanner survey, Malmantile, Village walls, Fortifications, Arno valley, Leonardo 8P drawing

Abstract:

The "castle of Malmantile", rises on the hills of Lastra a Signa, in the Florentine countryside and was built with the precise intent of strengthening the defence system of the city of Florence against its rival Pisa. The fortress is one of the most interesting examples of late medieval fortification that has best preserved the entirety of the original layout. The castle of Malmantile was originally built as a military outpost along the ancient road that connected Florence to Pisa, the Via Vecchia Pisana. With the conquest and annexation of Pisa to Florence, following the natural downgrading of its military defence role, the fortress became a fortified village that was the most important reference point for the fertile surrounding countryside. The settlement rises on a hill the summit of which has a slightly rounded morphology with a wide area that can be defined as flat. It is clear that in all probability, the morphology of the site facilitated the construction of a fortification with a rectangular layout and almost perfectly regular walls. The Fortress was built to control and protect the Florentine area from the nearby city of Pisa and is located along the ridge path that from the top of the "Lastrigiane" hills flanks the river Arno in its intricate path through the gorges of "Gonfolina". The course of the river Arno, in the stretch from Montelupo to Signa, is protected by numerous fortified strongholds, and to the north, culminates in the Castle of Signa, which was built to defend the port and the only bridge, then present on the river, between Pisa and Florence. The late-Gothic circle of the fortification dates back to 1424 and is one of the first examples of a town wall with a protruding bracket, the most popular type in Tuscany for the whole of the following century. It also seems from some documents that Brunelleschi himself supervised their construction. Finally, the essay considers the possibility that the fortress of Malmantile could be the fortified village represented by Leonardo da Vinci in the famous "Disegno di Paesaggio 8P [Drawing of a landscape 8P]. The acquisition of survey data was carried out in three different campaigns, the first two carried out between 2009 and 2010 and the last, to complete and update the former, carried out in July 2018. The data collected in the three survey campaigns were integrated so as to create a database with a wealth of information, able to bear witness to possible transformations that may have occurred in the period of time elapsing between the first two survey campaigns and the third. The reconstruction from the survey was carried out so as to give a complete picture of the site, its construction characteristics and its state of preservation/decay. The fortress has been represented in 2D format, with plans, elevations and cross-sections added to which environmental sections were added so as to represent the position of the fortification in relation to the surrounding territory. Representations were made of the house fronts outside the fortress but also of the house fronts along the only road that crosses it. The print-outs have been arranged in such a way as to give an

adequate representation of the exhaustive thematic maps discussing the relative themes: the wireframe drawings, the orthophotos of the house fronts represented, the different types of materials used and the decay present. This representation program made it possible to adequately document the condition of the Fortress today.

THE FORT AND THE CITY OF SÃO LUÍS, MARANHÃO-BRAZIL (17TH-21ST CENTURY): A TRAJECTORY OF RESISTANCE THROUGH FRANCISCO DE FRIAS DE MESQUITA'S TRACE

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Keywords:

Francisco de Frias de Mesquita, Urban Heritage, Historic Centre of São Luís, Maranhão-Brazil, Fort of São Luís

Abstract:

The Historic Centre of São Luís is constituted by one of the largest historical and architectural ensembles in Brazil. This treasure of the Brazilian architecture, alongside its historical and artistic content as well as its landscape, was first recognized in 1974, when the Brazilian government inscribed part of its perimeter in the tomb book. In 1986, the Government of the State of Maranhão expanded the protection zone, compared to the previous one. Later, in 1997, part of the city's historic perimeter received the international title of World Heritage Site granted by UNESCO. This last title was attributed for the preservation of the original urban layout of the chief engineer of Brazil in the 17th century, Francisco de Frias de Mesquita (c.1578 - c.1645). Which, in its civil architectural ensemble, encompasses one of the largest clusters of colonial buildings preserved with Pombaline style influences. The city is considered a landmark of territorial political occupation in Brazil, having in its colonial trajectory an intimate relationship with fortifications, which strategically conditioned its implantation. By observing the layout of the contemporary city, it is possible to recognize the Frias' outline as a guiding element for the expansion, showing its morphological evolution and the strong influence of the traditional city in the development. The aim of this study was to evaluate the historical trajectory of the Fort of São Luís and its city between 1615 and 2021. Identifying the influencing factors that resulted in the preservation of the trace originally established by Francisco de Frias de Mesquita. The research methodology was built based on documentary and bibliographic survey, in which primary and secondary sources were used to build chronological scenarios of the city. At the same time, it allowed the identification of the consequences of public policies and the natural social dynamics of the city. Consequently, it was possible to identify the main factors for the preservation of Frias' symbolic legacy. In this context, the evolution of the city of São Luís is discussed, reviewing the city's history, its morphological transformations in terms of its layout and management policies, and the impacts that resulted in the preservation of original perimeter of the city. From this perspective, the study seeks to demonstrate that the original urban layout from the

citadel guided the evolution and development of the city outside the original perimeter, evidencing the strategic vision of Frias de Mesquita.

WHAT THE ROMAN TEMPLE OF ÉVORA LOOKED LIKE IN THE NINETEENTH CENTURY?

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Keywords:

Graphic restoration, James Murphy, archeological restoration

Abstract:

Although the practice of rigorous architectural surveys was common in the last decades of the eighteenth century, the exercise of graphic restoration often appeared in many monuments' surveys carried out then. In a time when the means of reproduction and dissemination of information were still very limited, these images became real documents that facilitated the enjoyment and study of a building and of the evolution of architecture over the centuries.

In this context, on his second trip to Portugal, the Irish architect James Murphy drew the Roman Temple of Évora, which he later graphically restored according to the principles of Vitruvius and published in his work *Travels in Portugal; Through The Provinces of Entre Douro e Minho, Beira, Estremadura, and Alem-Tejo, In the Years 1789 and 1790, in 1795*. This image was later reproduced several times in other publications, including in foreign ones, becoming the “real image” of the temple, directly influencing the interventions carried out over the following century.

To understand the importance of these issues, I intend to carry out a visual study based on the comparison of images of this monument published in the nineteenth century with some written descriptions from previous periods, as well as to analyse documentation of the nineteenth century's interventions. My goal is to understand how the graphic image influenced the “real” image achieved in 1871 when its physical restoration was carried out, and how the “ideal” image of the past and the search for the Roman antiquity of the city, as a form of national superiority, marked this intervention and the restoration criteria followed by its protagonists.

MEMORY AND ARCHITECTURAL RECONSTRUCTION: A CRYPTO-HISTORICAL READING OF THE FORT OF SÃO FRANCISCO IN SÃO LUÍS, MARANHÃO-BRAZIL

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Keywords:

Francisco de Frias de Mesquita, Fort of São Francisco, Architectural Reconstitution, Crypto-history, Maranhão-Brazil

Abstract:

The Fort of São Francisco was a building that was part of the first Portuguese defense system in the city of São Luís, Maranhão (Brazil), back in the 17th century. The early version of the building, although incomplete, was supposedly started by the French (1612-1615). After the Portuguese conquest of the territory, the site underwent a series of works, having been rebuilt by the design of the chief engineer Francisco de Frias de Mesquita (c.1578 - c.1645), becoming known as Forte de São Francisco. After a poorly documented historical trajectory, records indicate that the last version of the fortification was abandoned in the 19th century, already in ruins. Currently, its original position is unknown due to the various urban operations carried out mainly from the second half of the 20th century onwards. The fortification has great relevance in the collective memory of this territory, as it is closely linked to the foundation and development of the city. The present study aimed to reconstitute the architecture of the Fort of São Francisco; identifying its position and historical trajectory, thus affirming its cognitive value for the city. The concept of reconstitution used is framed in the Crypto-History defined by Serrão (2001) for Art, and transported to the scope of Architecture by Januário (2008, 2015). Among the aspects of the Crypt-History of Architecture, the reconstruction starts from the analysis of the fragments of the work to rediscover and reconstitute its initial structure. In this context, the methodology used in this study was based on documentary and historiographic research, making use of primary and secondary sources, and correlating cartographic references and plans to identify their position and form as a subsidy for the construction of an architectural model. Mentions were noted in historical documents, bibliographies, government administrative records, old cartographies, and iconographic perspectives of the city. The architectural reconstruction consisted of the integration of all the information acquired for the construction of a model of Fort São Francisco according to its last architectural record. The research allowed the recovery of the fort's historical trajectory, as well as the estimation of its position. Among the results, it was possible to outline some of its constructive perspectives from different periods, to develop an approximate reconstruction of the historical reality of Fort São Francisco. Regarding

the design, it was possible to cross references from other works by Frias, observing similar aspects such as the design of the polygonal and the position of the defensive elements. The study showed the great importance of documentary records for the preservation of historical-architectural memory, as a means of recovering missing monuments.

RESEARCHING AN ANCIENT AMPHITHEATRE AS AN EXAMPLE OF COOPERATION BETWEEN ARCHAEOLOGY AND ARCHITECTURE

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Keywords:

Archaeology, Architecture, Knowledge, Uncertainty, Visualisation

Abstract:

This paper aims to shed light on one of the most influential building typologies of the Mediterranean region, the Roman Amphitheatre, on the basis of the monographic architecture of an architectural heritage of a very particular form from the point of view of archaeological and historical heritage in collaboration with the computing design of contemporary architectural design. This special building shows that uncertain archaeological knowledge alone is not sufficient to generate a hypothesis for an entire building that also meets architectural requirements. It is architectural design thinking that is able to tie up the many loose ends in order to establish a complete and consistent spatial hypothesis. Nevertheless, the hypothesis remains one variant among many, for a hypothetical design version must always make assumptions, even if these are scientifically based, generally supported by analogies or by means of common plausibility and probability, whose variants, possible through combination, go to infinity. It is therefore not intended to represent the final conclusion of research, but rather the starting point for further research. What is special about this amphitheatre is its topographical embedding in the terrain. Unlike in most other cases, where the topography was used by the Romans to build an at least singlesymmetrical complex, which is achieved by aligning the amphitheatre with its axes on a slope or even on a valley basin, here the orientation is twisted in relation to the terrain. And even though it most likely ended up being an amphitheatre that redeems its twofold symmetry from the outside, the entire construction is asymmetrical. While the cavea and those axes of the outer façade that protrude beyond the site would have been regular, the development, i.e. the access to the individual sections for visitors, was most likely heterogeneous throughout. No two walkways were alike, only a few entrances resembled those of other amphitheatres, while the asymmetrical arrangement probably necessitated an extraordinarily large number of individual solutions. The findings are sufficient to indicate precisely this extraordinary circumstance, but not to solve it. Nevertheless, the hypothetical architectural design variant offers a proposed solution that is able to unite all open questions and remarkable findings in a plausible overall model. The visualisation reflecting the hypothesis displays the hypothetical character as such. The representation is thus in no way to be confused with the simulation of architecture, nor does it show how the amphitheatre might actually have looked. Rather, it shows the design idea, complete in its structure but at the same time

as abstract as necessary to avoid being mistaken for sure certainty as a photorealistic simulation. This method has already been successfully practised with earlier, less critical building structures of various eras. The project, funded for three years by a private culture foundation, is being developed in close cooperation with scientists from internationally renowned institutions, as was the case with other archaeological sites of world cultural heritage from different eras, which the authors have already successfully visualised using their method and prominently exhibited in various museums.

SESSION 5 – March 25th

KEY PARAMETERS FOR SUPERVISING ARCHITECTURAL DISSERTATIONS WORKING ON HERITAGE

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Keywords:

Architectural and urban heritage, Architectural dissertations, Supervision, Heritage complexity, Strategic analysis tools, key parameters

Abstract:

Architectural and urban heritage opens up a wide field of exploration, analysis and design of new projects for architecture students in their final dissertation. This novelty concerns the students' ways of analyzing, exploring and considering this heritage in addition to architectural and urban space they regularly design. Based on three architectural dissertations, this paper presents three types of Tunisian architectural and urban heritage. The first one is an industrial architectural heritage located in the colonial city of Sfax, the capital of southern Tunisia; the second one is the Sfaxian "J'nein", which is a heritage-combining habitat, agriculture and a specific family way of living. The last one is the Berber village of Kesra, perched at an altitude of 1100 meters on the rocky plateau "Jebel Kesra" in the center of northern Tunisia. By presenting these three heritages, this work intends to test a specific way of supervising and coaching future architects who are interested in urban and architectural heritages. The aim is to define key parameters for such a supervision and to determine its characteristics. Starting from a pre-established questioning and basing on in situ observation, exploration, identification and categorization of studied heritage, students can imagine and design its future. As the directors of such dissertations, we have to consider several aspects that the complexity of architectural and urban heritage inherently requires. The first aspect is the history of the place, including the transformations it has undergone over time and its spatial and material components as it appears currently. The second aspect is the experience of the place, entailing all the activities and social practices it has hosted and may have generated. The third aspect relates to the perception of individuals, those of today and those who have lived there in the past. The fourth and last aspect is the student's perception of the heritage, which is about the way he/she considers it, his/her arguments for choosing it as working support and the personal interest he/she has in it. In order to ensure the consistency of the student's work process and results, we recommend them to use proven strategic analyzing tools, mainly SWOT and Urban Transect. We orientate them towards adopting a sensitive and rational approach as well in order to enhance

their creativity (Landau 2007). This work demonstrates that trying to give a new life to a heritage, be it urban or architectural, is not limited to spatial-functional action of reconversion. In fact, it is a complex operation, which takes into account the memory of the place itself, the collective memory of its users and particularly the practices and perceptions of its future users. Through a comparative analysis of students' questioning, approaches and results, we get out key parameters of our supervision method of architectural dissertations dealing with heritage. Our aim is to extract from that, a support tool for both, architectural teachers and architects practitioners who would like working on architectural and urban heritage.

References

D. Salafranca Vázquez, M^a del Carmen García Peña, O. Barba Suñol, Centre de transfert des connaissances malaga, 2014, Méthodologie et bonnes pratiques dans la Planification stratégique urbaine en méditerranée, Al Fayhaa Barcelona Larnaka Málaga Saida Sfax, Sousse ; Fondation CIEDES

D. Salafranca Vázquez, M^a del C. García Peña, O. B. Suñol, Méthodologie et bonnes pratiques dans la planification stratégique urbaine en méditerranée, 2014, Centre de transfert des connaissances malaga, Fondation CIEDES.

L. A. Fakhoury, N. A. Haddad, July 2017, Aspects of the architectural and urban heritage, from documentation and registers to conservation for adaptive and Modern use at the historic cores of salt and irbid/Jordan, International Journal of Architectural Research, Volume 11, Issue 2.

L. Gwiazdzinski, 2019, L'hypothèse des parcours géographiques apprenants en pédagogie et dans la fabrique de la ville : entre innovation partagée et néo-situationnisme, Enjeux et société
Approches transdisciplinaires, volume 6 • numéro 2 • Université de l'Ontario Français.

L. Veldpaus, A. R. Pereira Roders, & B. J. F. Colenbrander, April 2013, Urban Heritage: Putting the Past into the Future the historic environment, Vol. 4 No. 1, 3-18

LANDAU, E. (2007). Creativity a handbook for teachers. World Scientific Publishing.
N. Schultz, May 1997, L'art du lieu Architecture et paysage permanence et mutation, Le Moniteur.

N. Clarke • M. Kuipers • S. Stroux, 2020, Embedding built heritage values in architectural design
Education, Springer, International Journal of Technology and Design Education.

N. Tixier, 2016, Le transect urbain, Pour une écriture corrélée des ambiances et de l'environnement, Sabine Barles ; Nathalie Blanc. Écologies urbaines. Sur le terrain, Economica-Anthropos ; PIR Ville et Environnement, pp. 130-148, 2016. hal-01518091

N. Tixier, 2017, Le quotidien en projets Parcours, coupes, travellings et autres transects, Habilitation à diriger des recherches, Université Grenoble Alpes école doctorale 454

Sciences de l'Homme, du politique et du territoire discipline sciences humaines – architecture.

Report of the Second Consultation on its Implementation by Member States, 2019 UNESCO World Heritage Centre, The UNESCO Recommendation on the Historic Urban Landscape.

LEVITT, T. (2002, Aout). Creativity is not enough. Harvard Business Review .

PAUL, R., & ELDER, L. (2008). Mini-guide de la pensée Critique, Concepts et Instruments. The foundation for Critical Thinking.

PEAVEY, F. (1997). Strategic questioning an approach to creating personal and social change. Vivian Hutchinson.

P. González Martínez, 2017, Built Heritage Conservation and Contemporary Urban Development: The Contribution of Architectural Practice to the Challenges of Modernisation, College of Architecture and Urban Planning, Tongji University, Shanghai, China.

SALAMA, A. (2013). Seeking Responsive Forms of Pedagogy in Architectural Education.

SALAMA, A. (2009). Transformative Pedagogy: Knowledge Construction and Effective Curriculum Delivery in Competetive Higher Education.

SALAMA, A., & Wilkinson, N. (2007). Design Studio Pedagogy: Horizons for the Future. (A. S. Nicholas, Éd.)

Socrate education, ENHSA EAA and; 2008; Teaching conservation/ Restoration of Architectural Heritage, Goals-Contents and Methods, S. F. Musso & L. De Marco, EAA n°38.

STERNBERG, R. (2007). Creativity as a Habit. W. Scientific, Éd.) Singapore: AI - Girl TAN National Institute of Education, Nanyang Technological University, Singapore

VAN GUNDY, A. B. (2005). 101 activities for teaching creativity and solving problem. Tlfebook.

VOGT, BROWN, J., & ISAACS, D. (2003). L'Art de Poser des Questions Efficaces, Cataliser les idées, l'Innovation et l'Action. Mill Valley, Canada: Whole Systems Associations Pegasus Communications.

FORTRESS OF YESTERDAY, HERITAGE OF TODAY, LESSON OF TOMORROW: THE KASBAH OF THE CAÏD OF TAMNOUGUALT BETWEEN YESTERDAY AND TODAY

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Keywords:

Local building materials, Heritage, Kasbahs, ancestral construction techniques.

Abstract:

Local building materials, available everywhere and free of charge, have been the basis of all buildings constructed by man since the dawn of time. These materials, which come from nature, perfectly reflect the links between people and their environment. Known for their respect of the environment and their energy performance, we notice a renewed interest towards them more and more these last years. Architects, scientists, and other actors are now going back in time to further unravel all the mysteries of these materials and construction techniques of yesteryear while conducting parallel reflections as to their updating in the face of current challenges. Morocco, a Mediterranean country but also an African one, still shelters an important urban but especially rural architectural heritage built in local materials and according to ancestral techniques as diverse as similar through the different regions of the country.

The constructions of the South are different from those of the North and the architectural language of the West is not the same as that of the East, each area has a constructive particularity directly related to the climatic, geographical, geological conditions, to the ways of life but especially to the history of the places.

This communication will focus on a kasbah of southern Morocco, called kasbah of Caid Ali of Tamnougualt. The choice of this building illustrates one of the key elements of Moroccan rural architectural heritage, the one of the Kasbahs, a word designating a citadel or fortress housing several ksars, in reference to the houses located within its walls. The particular architectural layout of the kasbah, its history, its role and the ancestral building techniques in local materials will be exposed in this presentation in order to highlight its specificities.

This kasbah was built in 1924 and was one of the command centers of the Mezguida tribe of southern Morocco. It is located in Tamnougualt, a large oasis in the Daraa Valley in the Moroccan Atlas Mountains, 75 km from the city of Ouarzazate in the southeast of the country. First built with local materials, mainly earth, it illustrates well the model of defensive architecture of the time.

This Fortress has undergone partial restoration work in 2014, but still houses a large part in ruins. The aim here is to present some of the work carried out in situ during a study trip in the site, by a group of student architects that I co-supervised with another professor supervising students in geology. The architectural surveys, the restitutions, the restoration and construction techniques of the walls and earthen structures as well as the reflections around the treatment of such heritage elements will also be evoked in this communication. The main objective is the enhancement of this heritage and the

reinvestment of ancestral construction techniques in order to valorize them and eventually re-use them as a sustainable construction model.

THE HISTORICAL LANDSCAPE IN LIGURIA: THE PROMOTION OF COSTAL ARCHITECTURE HERITAGE IN VENTIMIGLIA

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Keywords:

Mediterranean landscape; local architecture; vernacular heritage; conservation; promotion

Abstract:

The coastal landscape of the Ligurian Riviera of Ponente is characterized by a close relationship between the mountain range of the Maritime Alps and the sea. For centuries the peculiarity of the area has been the settle of urban centers and the development of productive activities. During the late Middle Ages the foundation of new settlements promoted the development of the coasts and the rise of a local architectural heritage.

The Ligurian coastal landscape has visibly transformed over time, in particular during the post-war economic boom, the building increase and the related unregulated land use. This meant a deep change and the consequent loss of some elements that characterized it. Therefore, in particular since the last decades of the 20th Century, there has been the intention to recover local assets, both from the architectural and landscape point of view, through specific actions of recovery, conservation and promotion of the vernacular heritage.

These dynamics will be analyzed through the city and territory of Ventimiglia study case. Over this will be examined the environmental components and the ecological degradation due to the anthropic impact and the mismanaged tourist pressure. The three settlement units will be considered: the Roman unit (incorporated into modern building expansion), the Medieval unit (arose around the cathedral) and in the early 20th Century unit grown as a result of the tourism development. Nowadays these phenomena entail different targets for conservation and enhancement policies, which play an international role considering Ventimiglia border position between Italy and France. It is also necessary to consider the close position of Montecarlo which, at the moment, expresses economic interests, real estate investments and development interests on the tourist port of Ventimiglia.

WATER CAPTION SYSTEMS, MEDITERRANEAN TERRACED CULTIVATIONS, RURAL/TOURISTIC COMMUNITIES, NEW FORM OF TOURISM.

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Keywords:

Water caption systems, Mediterranean terraced cultivations, Rural/touristic communities, New form of tourism.

Abstract:

There is a fundamental relation from Mediterranean landscape and the human capability to manage water. Most of the Mediterranean cultivations (olive-trees, vineyards) are dry crops, but a more and increasingly longer and more frequent arid hot period can create critical conditions. Traditional Mediterranean landscape still keep signs of strategic system of water capture, conservation and drainage. Terraced systems assure water to rural villages and to cultivations, for irrigation. The maintenance of people is the only possible strategy to protect these places. Resident communities have changed their everyday-life style, changing their way to exploit landscape resources. Sometimes they have abandoned the terraced areas, and the economic activities to sustain their families. Today most of their incomes derive from tourism. Nevermore the experience in the landscape can be the main theme to offer, to more and more attentive visitors, who like to become affectively involved in the particular character of these places. Furthermore, visitors and/or migrants can become new temporary or permanent participant to the remnant communities, becoming an important part in the conservation of historical landscapes. In this process of transformation of the communities, water is a crucial element and the continuity with the traditional methods, to find, preserve, absorb or remove it, is necessary.

In many Ligurian study-cases we can observe interesting examples, from draining wells to underground cisterns: some of them can be readapted to solve contemporary problems tied to climate change, offering positive living environments to inhabitants and possible tourists. We can find still working systems in the rural areas, like in the citrus cultivation in Vallebona, in the Western Riviera, where the caption from a source and a system of channels, both on the surface and underground, are connected with a traditional pool, immediately below the main buildings, and with a deep well, conducting irrigation to the terraced bands. In Diano Castello, a village built on the ridge of a promontory, a system of cisterns called "lone" are under each house, assuring water to the residents. In the Promontory of the Mesco in Levanto, near the Cinqueterre, an intervention by the FAI (Fondo Ambiente Italiano/Italian Environment Found) gave new life to an abandoned farm, with particular sensibility to the procurement of drinkable water, in a particular situation of being inside a National Park, with no driveway accessibility.

Water is an attractive element, from which we can learn and convey to the guests the deep soul of Mediterranean landscapes

SPECTROMETRIC CHARACTERIZATION OF MOROCCAN ARCHITECTURAL GLAZED TILES

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Keywords:

Glazed tiles, Spectrometric characterization, Moroccan historical sites and monuments, colouring phases, crystalline phases

Abstract:

The present work relates to a multi-analytic characterization of glazed tiles consisting of green monochrome glazed ceramics used in Moroccan architecture to protect ceilings, walls and roofs from rainwater. These tiles originate from five sites and date back to different historical periods: Bou-Inania Medersa in Meknes (14th century), Prison of Qara in Meknes (18th century), Dar El-Beida Palace in Meknes (18th century) and Al-Hibous Cemetery of Mdaghra in Errachidia (19th century). Different analysis techniques were used in view to go back to the ancient technological processes adopted (materials, coloring pigments, firing temperatures, etc..).

Optical absorption spectrometry revealed two different types of chromogenic ions in green glazes, chromium Cr³⁺ in the case of the tiles from Dar El-Beida Palace and Prison of Qara in Meknes, and copper Cu²⁺ in the case of the tiles from Bou-Inania Medersa in Meknes and Al-Hibous Cemetery of Errachidia. Raman microspectroscopy identified different coloring phases with two types of green glazes, escolaite (Cr₂O₃) in the case of the glazes of the Prison of Qara and copper phthalocyanine mixed with a chromium-based pigment in the case of the glazes of the Dar El-Beida Palace.

However, the origin of the green color in the glazes from Bou-Inania Medersa in Meknes and Al-Hibous cemetery of Errachidia may be due to the dissolution of copper in the vitreous glazes. X-ray diffraction, supported by Raman microspectrometry, revealed the mineralogical compositions of the terracotta tiles. Quartz and calcite are the main phases, while hematite and "high temperature" phases (anorthite, gehlenite and diopside) appear as minority ones. These identified phases permit to estimate the firing temperature of the tiles at around 950 °C in an oxidizing atmosphere. The chromatic coordinates of all glazes, represented in the Lab CIE color space, made it possible to discriminate objectively all green colors.

The present investigation of glazes from different historical sites allowed the exploration of the coloring materials, revealed differences in the adopted technological protocols and permitted the establishment of a color reference database to follow glazes degradation and to help while replacing missing or degrade tile pieces.

A MONUMENTAL CONTEXT AS A TEACHING LABORATORY FOR CONSERVATION STUDENTS

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Keywords:

Innovating teaching practices

Abstract:

A project for innovating teaching practices has been recently implemented in the framework of the two years master degree on “Methods for the Conservation and Restoration of Cultural Heritage”, at the University of Genova. The Monumental Cemetery of Staglieno, member of ASCE (association of Significant Cemeteries of Europe), and part of the European network Raphael, famous for its collection of hundreds of artistic sculptures disseminated along the majestic galleries and the planted driveways has been chosen as an open-air location for an intensive cross-disciplinary field activity. Part of it has been dedicated to the assessment of the conservation status of selected multimaterial sculpture during and after restoration, acting with portable instrumentation able to cover structural issues, biodeterioration problems and compositional analysis. The other part has concerned the direct experience with an on-going professional restoration. All activities were supervised by

the teachers of the master degree course, by technicians of the “Soprintendenza Archeologia Belle Arti e Paesaggio of Genova”, and by professionals. The students have participated in all the activities and have had the opportunity to follow impromptu lectures given by the master teachers on mineralogy, petrography, metallurgy, biology, multiband imaging and 3D photogrammetry, strategies for non invasive sampling and have ben provided with the collected data for future laboratory activity. A video clip of the activities, with interviews to participants was recorded and published in the Youtube channel of UniGe. Students have been very proactive and strongly motivated during the activity and the satisfaction they manifested about the project was high and will be of great help to systematize and constantly improve this kind of formation.

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SESSION 6 – March 25th

TRADITION AND KNOW-HOW IN THE CONSERVATION AND RESTORATION OF PLASTER WORKS: MEMORY OF A HISTORICAL PAST IN THE BUILT HERITAGE

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Keywords:

Tradicional materials, tradicional techniques, plaster, build heritage

Abstract:

Throughout our practice in the conservation and restoration of plasters, we are found with methodologies that opt for the use of plaster masses, which are not traditional ones, for the filling of gaps. But why is that? Is it because of the commitment of the deadlines to which the works oblige us, or is it for lack of knowledge of the implementation of the traditional plaster masses? One of the principles of classical conservation and restoration theories is the compatibility that the added material should have with the original. In the market are available masses of easy and fast applications. But will they be the most suitable? Does the hardness and/or plasticity of the same well accompany the traditional masses, which were executed without any control, proportions, and indication of temperatures at the time of its realization? In advanced laboratory studies, it tries to reach materials, with the behaviour and volumetric variations as close as possible to the original. When we are dealing with a material that, both in the movable heritage and in the property, was always executed in an empirical way, with traditional and handcrafted techniques, passed down from generation to generation, nothing more compatible than the use of the mass of plaster, as it was done in the past. And with the contribution of science, it is possible to demonstrate the differentiation between traditional masses through its composition, because currently, the plaster is more industrialized unlike that of the nineteenth century, which was produced more by hand. Before any intervention, the original must be analysed to know the part of its composition and thus discern the additions resulting from the re-established readings. With this article, we intend to show the methodology used by us always following the traditional process and the know-how that is being lost.

UNDER THE MEDITERRANEAN INFLUENCE – EASTERN AND WESTERN EUROPEAN ARCHITECTURE DURING THE 19TH CENTURY

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Keywords:

Idea exchange, Europe, Mediterranean influences, urban morphology, architecture

Abstract:

Architecture plays an important role in the cultural, economic, and even political development of a city and its civil society. From its function as an expression of the collective memory, capturing important historical moments for a city and its residents, and through its position as a medium of communication inside a society and on a transcultural level, architecture often serves as a catalyst for social change. Mediterranean cities as complex compositions of different cultural and historical layers are the living example for this observation.

It is just as fascinating and revealing to analyse the influence Mediterranean architecture and urban morphology have had on the development of European cities in general. European architecture has attained a strong bond to Mediterranean culture over time – from the fascination for Antique art (both Greek and Roman) to the concept of international study travels for Western and Eastern European architects especially during the 19th century. The latter usually led young professionals on inspirational journeys through Mediterranean architecture, visiting Italy for example, and fuelled the fascination for Greek, Portuguese, Spanish and Turkish vernacular architecture and urban density. The rising influence of civil society for the transformation of European cities at the end of the 19th century led to the creation of new public spaces and a renewed interest for the Mediterranean urban morphology as documented in publications such as Camillo Sitte's *City Planning According to Artistic Principles* (Vienna, 1889). This development poses the question - what was the central ideological aspect in the orientation towards Mediterranean role models?

Two architecture and urban planning projects from the period, one from the Western European context (the reconstruction of Geißplatzviertel in Stuttgart (1905-1909)) and one from the Eastern European context (the reconstruction of the Kapana district in Plovdiv (1906-1924)), allow us to answer this question. The comparison of the two designs gives us important insights in the influence idea exchange on a European level has had on the built environment. The orientation towards Mediterranean role models is evident. Both German and Bulgarian architects were clearly fascinated by the density of Mediterranean examples and aimed to interpret this urban morphology in their designs while following contemporary sanitation and infrastructure standards. It seems that the essence captured in both projects is the attentive creation of quality public spaces. The further development of both districts shows how focusing on this aspect has allowed them to remain great urban spaces and public meeting points even

today, offering small islands of Mediterranean joie de vivre in Eastern and Western European cities.

THE CULTURAL HERITAGE AND CITIZENSHIP: THEORY AND PRACTICE IN THE PORTUGUESE CONTEXT

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Keywords:

Cultural heritage; Public Participation; Associative structures

Abstract:

This study deals with a reflection on citizen action for the safeguarding of cultural heritage.

The “Davos Declaration” (2018) along with the “New Urban Agenda” (HABITAT III - 2016) explicitly refer to the importance of citizen participation in safeguarding heritage. The cultural heritage increases collective identification with “place”, improving the experience of living and being in urban spaces and promoting more inclusive and cohesive societies.

The portuguese cultural heritage legislation provides that “the opening of an administrative process for classification or inventory may be requested by any person or entity, public or private, national or foreign”. However, there are two important issues to consider. The first question refers to the fact that this hypothesis provided for by law is not known by the general population. The second is that the request must be accompanied by the characterization of the cultural property, that is, with information and technical documents.

The methodology used - to corroborate or refute the premises - was based on the quantitative analysis of the proponents of 37 processes on proposals for the classification of cultural heritage constructed in Lisbon. The selection of processes was based on 2 criteria. The non-accounting of religious and archaeological heritage. The second criterion considered only the processes in progress in the public administration sector, with competence in the evaluation of the proposals. The typology defined for those responsible for the requests were the public administration of Lisbon; District Councils; heritage defence associations; internal management decisions; researchers; citizens; property owners; other public and private institutions. The results showed that most processes (12 out of 37) were initiated by decision of the services. Secondly, there were citizens and associations that defend the heritage, but with residual value (7 each).

The conclusions seem to refer to the need to sensitize communities to the rights to which they are provided with in the legislation on the subject. On the other hand, it is important to give technical support in the preparation of the processes to be submitted to the Public Administration, under the terms of the Portuguese Law on Cultural Heritage.

A viable solution could be to strengthen associative structures for the defence of cultural heritage. Voluntary associations can contribute to this cause, as demonstrated in 1985. On that occasion, they influenced public policies on cultural heritage in Portugal, obtaining the publication of the first law on the subject.

Currently in Portugal, as António Amaral points out, in Portugal participation rates in associations are «depressing – not to say distressing when compared to other countries», for several reasons.

In previous investigations, it was concluded that some of the reasons for citizens' non-participation are as follows: a feeling that the opinions given by the citizens are not taken into account, the hermetic technical language for non-technicians and the distrust in political representatives, causing a growing distance from citizens.

DESCRIPTIVE AND ANALYTICAL STUDIES OF THE DOMES AND FLOORS OF SOME RELIGIOUS BUILDINGS IN MARRAKECH.

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Keywords:

Marrakech, mosque, dome, Heritage, materials.

Abstract:

Due to its status as the political and religious capital of Morocco and Andalusia for several centuries, the city of Marrakech has a wealthy architectural heritage: ramparts and monumental gates, mosques, Saadian tombs, the ruins of the Badia Palace, the Bahia Palace, the Menara basin and pavilion... UNESCO inscribed its medina on the World Heritage List in 1985. In addition, its famous Jemaa-el-Fna square was signed in 2008 on the Representative List of the Intangible Cultural Heritage of Humanity. This city, therefore, deserves all the interest that the public authorities devote to the rehabilitation of its historical fabric, including its religious buildings.

The study presented in this paper focuses on the architectural characteristics of the domes and floors of Marrakech's sanctuaries while emphasizing their structural and decorative evolution during the different reigning dynasties. These architectural elements, essential components of religious buildings, cover the interior spaces, protect them from bad weather and ensure the comfort of the faithful in the face of the difficult climatic conditions of Marrakech.

Our work has allowed us to determine and describe the architectural and structural components of a wooden framework, very common in the city of Marrakech, called "Berchla". We will also explain the structural principle of a classical flat floor observed in some ancient mosques, called "Warka and Gaiza". This floor is currently being adopted by professionals in several restoration projects in Marrakech with a carefully assembled cedar wood frame.

Our research has also focused on the Muqarnas domes, made of plaster stucco, widely used in religious buildings under the various ruling dynasties. The Almoravids (1042-1147) introduced them from Andalusia. Still, their origin is rather oriental, as the first recognized Muqarnas is found in the 10th-century architecture near the city of Nishapur, in north-eastern Iran, and also in Uzbekistan, in Samarkand. In this sense, the domes of the buildings of the Saadian dynasty (1554-1659) appear to be very interesting, as they are equipped with an ingenious system, called "Tanfikh", which mainly serves to reduce the impact of the sun's rays on the interior spaces.

This study has therefore highlighted an authentic traditional heritage and unique know-how of our ancient craftsmen. They often put into practice many ingenious ideas to help the thermal comfort of the faithful.

MOSQUÉE AL - KUTUBIYYA : ARCHITECTURE ET DÉCORS

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Keywords:

Kutubiyya - Dynastie almohade –patrimoine – monument historique

Abstract:

La mosquée Kutubiyya (des Libraires) frappe aujourd'hui par son unité tant dans le parti architectural que dans ses décors, l'édifice s'impose assurément comme le parangon de l'art almohade (entre 1130 et 1269) et a influencé nombre de mosquées construites au Maroc durant les siècles suivants. Elle fut construite après la chute des Almoravides en 1147 et l'entrée glorieuse des Almohades dans la capitale Marrakech. La mosquée offre des perspectives d'une grande noblesse, soulignées par la pureté des lignes architecturales et l'élégance discrète du décor.

La Kutubiyya connut deux grandes phases de construction. De la première fondation (mal orientée par rapport à la Mecque) ne restent que quelques vestiges. La seconde phase (bâtiment actuel) reprend le même plan et un minaret est érigé dans l'angle sud-est. La mosquée, de plan trapézoïdal, est l'un des plus grands sanctuaires du

Maghreb avec un plan T caractérisant l'édifice. De l'extérieur, la Kutubiyya révèle la hiérarchie de ses espaces internes avec la succession des cinq pavillons abritant les cinq coupoles de la qibla et celle des six pavillons ponctuant la nef axiale. L'emprise au sol de la cour demeuraient plus réduite que celle de la salle de prière, le mihrab se trouvait magnifié par une nef d'axe plus large et par deux arcs qui l'encadraient. Mais l'ensemble avait indéniablement gagné en symétrie et en régularité, et accordait aux coupoles une place plus importante en soulignant la nef de la qibla, à l'intérieur, mais aussi à l'extérieur avec des pavillons dominant toutes les autres toitures.

Sans se priver de l'ornement, le savoir-faire des artisans de l'époque l'utilisait avec équilibre, largesse et légèreté, dans un agencement où le vide avait aussi sa place, où les détails se détachaient par des ombres nettes ou triomphaient le sens de la ligne. Parmi les merveilles de l'édifice, on comptait aussi le riche minbar almoravide et la maqsûra, enceinte de bois qui, par un système de câbles, de poulies et de tombours permettant ainsi d'isoler à proximité du mihrâb un espace réservé au souverain et à son entourage. L'utilisation du pisé, de la pierre, de la brique et du bois pour la plupart de l'édifice donnait à l'art traditionnel tout son aspect distinctif. L'objectif de ce travail est d'exposer une série de dessins explicatifs, schémas ainsi qu'une analyse approfondie de ce monument d'anton afin de comprendre cet édifice dans toute sa complexité, avec l'aide des découvertes faites au moment de la restauration. Des analyses de façon exhaustive de la structure et des matériaux, de la décoration et son état de conservation, en explorant son importance artistique et historique dans le monde islamique.

RELIGIOUS BUILT MIGRATIONS AND INTERSECTIONS: HISTORICAL PORTUGUESE INVESTMENTS IN NORTH AFRICA

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Keywords:

North Africa, Portugal, religious architecture

Abstract:

In 1415, the kingdom of Portugal started a series of European occupations in North Africa, in a territory that today corresponds mainly to Morocco. Until 1769, the date of the evacuation of the fortress-town of Mazagão, the Portuguese settlement process took place according to two parallel vectors: the conquest and the foundation.

In the cities conquered by the Portuguese in North Africa a pragmatic attitude prevailed, oriented towards the sustainability of isolated battlegrounds in hostile territories. The impact the arrival of a new power and creed implied not only a re-evaluation of the built urban space but also a will of breaking with the autochthonous models. However, regarding the conquest and occupation of Islamic cities in Northern Africa, the discussion spins around the effective adaptation of typologies with an Islamic matrix for cities devoid of their native population. The act of consecration of the Main Mosque became one of the strongest symbols of the faith paradigm shift inherent to the change of sovereignty that the new crusade carried. With it, the most pragmatic aspects of the Portuguese occupation were applied: the immediate appropriation of the remarkable buildings inherited and, in this particular case, the maintenance of the sacred place. Thus, today, such buildings show traces of multi-layered strata that tell a history of intersected built heritage.

However, religious buildings were not exclusively hostage to adaptations of pre-existing structures. New solutions for Christian temples or convents were naturally produced in foundational investments such as Mazagão, but also in conquered cities such as Ceuta or Safi, which add a parallel linguistic reading. North Africa did not operate in religious architecture the essayistic and pioneering transition that had taken place in the military built environment. Therefore, in addition to the traditional methodology for appropriating mosques, two different periods can be identified in novel designs: the Late-Medieval and the Early-Modern.

This paper presents a synopsis, necessarily generic, of the Portuguese experience in the Maghreb, as far as religious architecture is concerned, carried out by (dis)continuities, between Islamic, medieval and classic languages. It wishes to present a panorama of cultural migration and/or miscegenation, a process with deep historical roots and exchanges between the two shores of the Mediterranean.

SESSION 7 – March 25th

ANALYTICAL METHODS APPLIED TO TWO ORIGINAL PLASTERS FROM CONVENTO DE CRISTO, TOMAR (PORTUGAL): INTERDISCIPLINARITY BETWEEN HISTORY, ART AND SCIENCE

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Keywords:

Heritage, Analytical Methods, Convento de Cristo, Teaching, Plaster

Abstract:

Analytical Methods applied to Art and Heritage is taking big steps throughout the last decade in Portugal. In Conservation-Restoration's classes, young students are encouraged to use scientific tools to improve their interventions, like incident and raking photography, macrophotography, microscopy (incident light and UV radiation), and microsampling.

In this case study, two original plasters from Convento de Cristo, in Tomar (Portugal) – UNESCO heritage, resultant of old restoration, represented the opportunity to original study plasters from the 16th century.

The project was developed during an internship at Teaching (University of Lisbon), in which we looked for contributions in different fields, such as Art History, Heritage Studies, Analytical Methods, and Conservation-Restoration. This experience was important for the students as hands-on implementation of chemistry and physics put into action on historical heritage (plasters from Convento de Cristo building) because the students were young and it was the beginning of professional practice. In fact, these exercises represent the technical support to make a prior report necessary to build a contract document with the owner or institution.

Moreover, this kind of practice is not common in building rehabilitation: either because it represents an additional financial burden, or because it is not taught in a practical perspective – it is an overload of chemical formulas without output on restoration methods. This can be the reason why it is not a common practice, which we intended to entice young conservators to change that path – “by uncomplicating the complicated”.

THE ECOLOGICAL FOOTPRINT OF BEING (in-transition)

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Keywords:

Atmospheres in architecture, Sense of being & belonging, Architecture in Transition, Placemaking, Human ecology

Abstract:

Housing comfort is achieved by architecture and atmospheres. When thinking about in Cultural migrations and the matrix of belonging to the Mediterranean condition, it is relevant how these two are associated with a comprehensive inscription about space, place, and memory. This immaterial value is not only an invisible artefact, but heritage and technique.

A space is rationality and design defragmentation by an aesthetical assemblage of principles, tendencies, and contemplations. Cannot be casted away from the origin (the place) and the user, who allows those metaphors to gain ground and foundation. Ecological grounded identity also composes place. Landscape, ethics, purpose, and value of space are in permanent interaction with human senses, and for that reason, humanized in an appropriation motivated by its pre-conception scenario.

Time interferes with perception. When returning to a reserved place of imagination, where the past has built its meaning, the ancient became actual and contemporary, routine along space several alterities, forms, functions, and purposes. And then the ancient house is adopted, as a piece of immaterial cultural comfort, as the Norwegian cabin, the Japanese cabin and the American cabin are, something that stays behind but also upfront, where return is completion, because regular and sustainable for several reasons.

How these produced spaces are heritage but also contemporary material to dispose in an in-transition scenario reality related to architecture and inhabiting environments, where migration movements are frequent, certainty less frequent and a need for stable atmospheres in architecture a providing material to enhance sense of belonging or link with place.

This communication proposes to explore these reasons, to interpret them under material availability context, need and spreading performance from the cabin and produced space in place. COVID-19 has become unexpectedly one of these reasons. Not only.

Singularity (from exquisite), material culture, affecting urban integration as important perspective to understand a conceptual value, its diversity and ability to contemplate change. Atmospheres, ecological patterns, Nature in pure condition, principles recovered by a recognition about safe space, place, house as shelter, when comfort is achieved to let space take ground. When heritage values create memories, a certain visual perspective and inherited personal value is settled. Belonging.

Which footprint is constituted by this value and how it influences time, space, and function. How the heritage vernacular product is an argument, how urban experience

is complemented by it and even re-enforced by this completion. How the cabin is device, ancient practice, or just emblematic source, from origin, transforming itself as resource and something undeniable centered on being, in Nature. And framing an urban integration that dispatches principles, suggestions, and dispositions about a livability in transition, from one place to another.

It is expected to propose accurate readings from findings about placement, architecture atmospheres grounded material and enhancement about performance for architecture features, when applied in transition – and following the Cultural migration material and the matrix of belonging to the Mediterranean condition.

CONSERVATION OF HISTORICAL PORT ARCHITECTURE

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Keywords:

Knowledge, architectural heritage, conservation strategies, sustainability

Abstract:

Is it possible to preserve historic buildings, pass on their memory, make their history understood and at the same time give them new functions? How much can the new demands of life and work be reconciled with the maintenance of historical structures? How much in carrying out conservation projects can one count on political will, on popular participation? How can we intervene to help a change of mentality: from transformation and destruction to conservation and respect? These are some of the main questions that we tried to answer with a research project focused on some historic buildings in the port area of Genoa.

The project is part of a broader research plan already started some years ago; this research plan includes several PRAs that is University research projects, of which the scientific director for all is prof. Daniela Pittaluga in some cases in cooperation with professors of other foreign universities. In particular, on the issues of conservation and enhancement of port structures, we worked with the 2016 PRA with a project on "The archeology of architecture in the restoration site" scientific managers prof. Daniela Pittaluga and prof. J. Antonio Quiros Castillo of the Universidad del Pais Vasco-Facultad de Letras, Departamento de Geografia, Prehistoria y Arquelogia, PRA 2018 with a project on "Conservation and restoration: methods of analysis and monitoring strategies" scientific managers prof. Daniela Pittaluga and arch. Cristina Kopreining Guzzi of CISAPSI- Inter-municipal coordination of studies and analysis of the historical heritage of Switzerland Italy, PRA 2019 with a project on "Conservation and restoration: methods of analysis and maintenance strategies of material and restoration:strategies for a quality project".

In this essay we want in particular to address the issue of warehouses serving the port; medieval warehouses, transformed several times in different eras. Today, in many cases, they are faced with yet another change. In particular, the methodology applied for the Salt Warehouse in the Molo District will be illustrated. In this case a detailed historical analysis was carried out in various city archives. This first part of the research was accompanied by a complex archaeological high level analysis. Thanks to the latter analysis, it was possible to identify the first nucleus of the building and the subsequent modifications of the 17th-18th centuries. An urban research has reconstructed the district of the Molo, in the different eras. This district was for several centuries a district of Port Warehouses. Currently, the Porto Antico area of Genoa, adjacent to the Molo District, is a highly tourist area.

The final part of the research project therefore concerned the identification of development strategies that could contemplate on the one hand the conservation of

this important historical architecture, the Magazzino del Sale and on the other the possibility of including it in a development plan that connected to the production reality of the nearby areas. KNOWLEDGE, ARCHITECTURAL HERITAGE CONSERVATION STRATEGIES and SUSTAINABILITY were therefore put together. In all this, we have also tried to keep the conservation of the material and immaterial heritage closely united.

THE IMPRINT OF THE IDEAL CITY ON THE ANCIENT CITY OF GUELMA, ALGERIA

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Keywords:

Architecture, ancient, ideality, platonic, Guelma, Algeria

Abstract:

The starting point of this research is the evaluation of the impact of the imprint of the Platonic city on the architecture of the cities of the southern shore of the Mediterranean, and particularly the ancient city of Guelma (a city in north-eastern Algeria). In this respect, approaching the imprint of Plato's Ideal City (384-377 B.C.) as a constituent of scientific research, immoderately requires a qualitative methodology such as photogrammetry and the application of the visual reality method. To know if the ancient city of Guelma is a Platonic filiation. The epistemological statement of the central postulate of this research is based on the deciphering of the extrapolation of the formal and constructive principle of Plato's ideal city and the examination of the proper value of the model of the ancient city of Guelma physically and structurally concerning constructive knowledge, spatial organisation, shaping and use of materials. According to this scientific approach, how can we evaluate the imprint of the Platonic city on the architectural form of the ancient city of Guelma? For the authentic transmission of a knowledge of the past, the postulate of arrival of the analytical point of view, rests on references and determinations of the ancient architectural form of Guelma inspired by the Platonic inscription.

ECST IN CINQUE TERRE NATIONAL PARK (ITALY) – A BALANCE BETWEEN ECONOMY AND ENVIRONMENTAL PRESERVATION

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Keywords:

Cinque Terre, sustainable tourism, public participation

Abstract:

The Cinque Terre National Park is one of the most popular Mediterranean destinations because of its scenic landscape and its outstanding heritage. While a large part of the local jobs are linked to tourism, the concerns about the impact of the so-called overtourism and the consequences of climate changes have grown among the population, leading in 2014 to the application to the European Charter for Sustainable Tourism in Protected Areas (ECST) which was eventually awarded to the Park in 2015 and is currently undergoing its periodic revision process. The case study provides an insight into such process widely based on public participation and intended to enhance the quality of touristic experience, the protection of natural and cultural values, the support to local economy.

SESSION 8 – March 25th

ARIS KONSTANTINIDIS: THE HETEROTOPIA OF ARCHITECTURAL LANGUAGE AS KNOWLEDGE OF CONSTRUCTIVE IDENTITY

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Keywords:

Aris Konstantinidis, Mediterranean , Greek architecture, identity, heterotopia

Abstract:

In 1975, Aris Konstantinidis published a volume entitled *Elements of Self Knowledge*, in which he collected drawings, photographs, notes and images from a 30-year architectural reflection on the Greek landscape. The thread that builds the narrative's interweaving is the search for truth and essentiality in architecture, which according to Konstantinidis, as we will show in this paper, is not achieved by renouncing complexity, but by the search for impersonality. The architect's university education began at the Munich Polytechnic from 1931 to 1936, where he met one of his most important professors (Adolf Abel). In addition to his university education, he developed a culture of travel that led him to visit places far from the Mediterranean in terms of culture and landscape (Belgium, France, Holland, Austria, Hungary). This need to contaminate oneself with Central European culture did not arise from the desire to become a protagonist of modernist culture, but from the need to learn a 'foreign language' in order to be able to better learn his own. His architectural research is often associated with the Mediterranean character, according to the most common definitions: the relationship with the landscape, tradition and native knowledge as constructive baggage, reflection on living. In reality, his approach to architecture, as we will try to analyse in the text through the analysis of his training and construction path, aims at permanent essentiality, which most often manifests itself as a form of revelation. The text will attempt to reflect on the possibility of defining the Mediterranean as a character oscillating between the universal and the local, with the help of the experience of this architect, a master of Greek architecture, who learns the ancient lessons of his homeland and the modern lessons of Europe in order to give back something that goes beyond a simple synthesis.

FROM TRADITION TO MODERNITY: TEACHING EARTH CONSTRUCTION AS A KEY TO CHANGING CONTEMPORARY ARCHITECTURAL THINKING

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Keywords:

Earth construction, heritage, sustainable techniques, education

Abstract:

This article aims to address the theme of teaching of earth construction in a university context.

It is true that the study of sustainability applied to architecture and heritage is essential to the architects' skills, but it is also essential that ancestral techniques are suitably adapted to the current construction context, inserted in what are considered good construction practices today.

With this, it is intended to present a path in university education in Portugal with the approach to the prospective integration of construction techniques with their necessary adaptations so that they are applicable with pragmatism and constructive realism.

Building with earth assumes a very relevant position in world buildings; however, it is also particularly relevant when it comes to Mediterranean heritage and the migrations that Mediterranean peoples have made all over the globe.

Thus, from the migration of ancestral construction systems to the dissemination of new ways of building, schools of architecture assume a preponderant role in the change in the construction paradigm and, simultaneously, are responsible for an architectural ethics that assumes environmental responsibility.

MATERIAL AND INTANGIBLE EVIDENCE OF DISPLACEMENTS AND MIGRATIONS OF PEOPLES IN THE AREA OF THE FOUR PROVINCES AND IN PARTICULAR IN THE UPPER TREBBIA VALLEY

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Keywords:

Materials, intangible, migrations of peoples, Upper Trebbia Valley

Abstract:

The Apennine area of the Four Provinces ((Alessandria, Genoa, Pavia and Piacenza) between the Italian regions of Emilia, Liguria, Lombardy and Piedmont is a mountainous region, is crossed by several and important crossings of the historical road network and has always constituted a very important trading area between the Po valley, the north of Italy and Europe and the Ligurian and Tuscan Mediterranean coast, where products and cultures from the entire Mediterranean basin converged.

The Alta Val Trebbia, in the context of the Four Provinces, is a key area for connections, although it is not crossed by important Roman roads, it hosts many minor road systems that follow the course of the valley or its branch.

The historical traces left in Val Trebbia attest to its role as an important crossroads, mentioned for the passage of Dante who may have encountered the "dark forest" there, but also the site of the bloody war between the Romans and Carthaginians in 218 BC. The Punic army, led by Hannibal, stood with his elephants, for months in some points of the Upper Valley. This presence is legible in many toponyms and legends of the area, also found around the town of Fontanarossa and the medieval Church of Santo Stefano di Fontanarossa. The ancient church was recently restored by the Italian Ministry of Culture and placed at the center of an important multi-voiced study on architectural events, history, historical-artistic decoration, which has been enriched, thanks to the restoration works, of fragments of a fifteenth-century fresco.

The multicultural aspects of the monument and the area in which it is located will be at the center of this report.

THE CONVENT OF SÃO FRANCISCO DO MONTE IN VIANA DO CASTELO (PORTUGAL): AN INTEGRATED DIGITAL SURVEY FOR THE UNDERSTANDING OF THE ARCHITECTURE AND ITS LANDSCAPE

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Keywords:

Integrated digital survey, religious architecture, ruins, landscape, Franciscan Observance convent

Abstract:

This work displays the first results of one of the main case studies to be deepened within the European project “F-ATLAS, Franciscan Landscapes: the Observance between Italy, Portugal and Spain”. The project aims to study the Italian-Spanish-Portuguese Franciscan Observance network, in order to define an “Atlas” of documentation and knowledge for conservation, protection and promotion of this Cultural Heritage.

The article shows the first analyses of the diachronic evolution of the ensemble formed by the architectural and the landscape features of the conventual complex of São Francisco do Monte. The convent of São Francisco do Monte is located at almost 5Km from the city Viana do Castelo, in the homonymous district, in Northern Portugal. The building works of the convent took place since the end of the 14th century with several expansion and restoration works until the beginning of the 19th century. Since the dissolution of the religious order in 1834, the convent had different owners, and its structure underwent a progressive state of ruin.

An integrated digital survey of the convent and its surroundings was made, accordingly to the “F-ATLAS” project’s established methodology, which involves the use of aerial and terrestrial instruments such as laser-scanners, drones and reflex cameras. The laser-scanners data provide a 3D point cloud with morphological and dimensional characteristics of the architectural objects and of the landscapes; drones and reflex cameras are useful to obtain a complete photographic documentation of the conventual complexes and for the application of photogrammetry techniques, such as Structure from Motion, from which textured 3D mesh models are obtained.

In this specific case, the ruinous state of the convent, in which a fusion between the structure and the surrounding landscape occurred, forced the integration of different surveys techniques: Aerial Photogrammetry (with a DJI Mavic Mini drone) and Terrestrial Laser Scanning (with a Faro Focus M70) and Photogrammetry (with a Nikon D610 reflex camera). The first one enabled the identification of structures and vestiges - partially or completely hidden by the vegetation - from a high point of view, which also resulted in having a global view of the entire complex and of its

surroundings; the second ones allowed a closer survey of the existing structures and of the surviving decorative apparatus.

The integration of these three different survey techniques provided accurate and reliable metric and materic data, which are useful both for 2D and 3D representations with different scales (e.g. technical drawings, virtual tours, ...) and for further analyses on wall stratigraphy and construction phases.

THE INTEGRATED HERITAGE CHALLENGE: LINKING MUSEALIZED OBJECTS TO ITS PRIMITIVE BUILDING

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Keywords:

Integrated heritage; patrimonialization; musealization; contextualization; virtualization of heritage

Abstract:

It is common to consider that integrated heritage is related to objects materiality dependent to the architectural structure of a building, such as «(...) the installations or elements that are an integral part (...)» of the construction, as it is presented in the Resolution of the Assembly of the Portuguese Republic No. 5/91.

The use of the term “integrated” as a criterion to attribute an object-building link makes this definition opened to individual interpretations, as it does not clearly define the nature of the connection. In other words, whether it is based on the material connection, related to the support, or on the immaterial connection, regarding the context of their creation and original use.

In the past decades the contextualization of the objects placed inside historical buildings have become a concern, but it did not lead to the reviewing of the previous conceptual framework. The national and international guidelines are no longer based on the material support dependence and began to contemplate the influence of the building to a correct interpretation of the objects, as it is clearly defined in the Portuguese Law No. 107/2001: «(...) cultural heritage not only includes the set of material and intangible assets of relevant cultural interest, but also, when applicable, the respective context, which, due to the value of testimony, has an interpretative and informative relationship with them».

Regarding this question, we strongly believe that heritage objects integrated in buildings should include all assets whose propose and existence were defined by the building itself, forming a unit, including not only the installations or decorative elements incorporated into the structure, but also the original and existing movable assets, as well as the intangible cultural manifestations associated with it. This conceptual redefinition proposal allows us to establish several building-object connection levels, from which it is possible to analyse the link between the building and its integrated heritage.

Although it is easy to reinforce this building-object link when objects are part of the first, patrimonialization of the mobile objects with relevant historic and artistic value sometimes leads to their musealization or to the relocation in Museums, promoting the loss of the original material and immaterial context.

Technological developments and the ongoing process of digitalization have made possible to develop new strategies for valuing and communicating heritage, based on the new approach on the access for information. To recontextualize the museum objects, recovering the connection with their original building, we created the UP heritage project, which consist in the creation of a user friendly product that provides access to information about the building and its integrated heritage (material and immaterial, placed inside the building or in another location), providing an integrated approach to the interpretation of the patrimonial set.

As an example of this project implementation, we will present two cases of churches and their integrated heritage in Évora, Portugal.

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