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Arts and Crafts of Building in al-Maghrib al-Aqṣā and al-Andalus: Fragments of a Cultural History
Introductory Note

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The Qarawiyyīn in Fez, the Kutubiyya in Marrakech, the Ḥassān Mosque in Rabat, the Great Mosque of Cordoba, the Giralda in Seville, and the Alhambra in Granada are not only symbolically significant in the collective imagination but also recognized by scholars and historians as major landmarks in the evolution of arts and building crafts in al-Maghrib al-Aqṣā and Andalusia. These monuments, emblems of a shared architectural memory, encapsulate the finesse of a building culture and the exuberance of a decorative repertoire that have been perfected over the centuries, giving shape to artistic traditions whose formation, trajectory and meaning continue to fuel a plurality of interpretations and lively debate. How can such technical and aesthetic feats be explained? To elucidate their origins, shouldn't we probe into the most ancient cultural strata, the heritage of the societies that succeeded one another in this pivotal area shaped by exchanges and encounters between the two shores of the Strait of Gibraltar? Is this not, ultimately, what Ibn Khaldūn (d. 808 AH/1406) conceptualised under the term "the art of building," considered in the singular (*Ṣanʿat al-Bināʾ*),[1] a concept that, in his thinking, encompassed[2] all the knowledge, skills and dispositions that constitute the fundamental practices of city life (*al-ʿUmrān)*?[3]

The abundance of bibliographic publications in this field is unanimously recognised. Studies conducted since the early 20th century in this part of the Muslim West reveal, despite significant differences in the pace of research between the northern and southern shores of the strait,[4] a general

[1]. Ibn Khaldoun, *Les prolégomènes d'Ibn Khaldoun. Second part,* translated into French and annotated by Baron De Slane (Paris: Imprimerie impériale, 1863), 369-376.
[2]. Two recent studies reflect the complexity of Khaldunian thought and offer an updated interpretation: Gabriel Martinez-Gros, *Ibn Khaldoun, Anthologie* (Paris: Passés Composés, 2024); Mehdi Ghouirgate, *Ibn Khaldoun. Itinéraire d'un penseur maghrébin* (Paris: CNRS Éditions, 2024).
[3]. The science of social development and civilisations, developed by Ibn Khaldūn in the *Muqaddima,* whose objective is to identify the principles governing the evolution of human societies. See: Djamel Chabane, "The structure of 'umran al-'alam of Ibn Khaldun," *Journal of North African Studies* 13-3 (2008): 331-349.
[4]. On this point, see Patrice Cressier, "Archéologie du Maghreb islamique, archéologie d'al-Andalus, archéologie espagnole?," in *Al-Andalus/España. Historiografías en contraste*, edited by Manuela Marín (Madrid: Casa de Velázquez, 2009):131-145; Salima Naji, "Archéologie coloniale au Maroc, 1920-1956: civiliser l'archaïque: Henri Terrasse, des premières fouilles archéologiques à leur mise en patrimoine," *Les nouvelles de l'archéologie* 126 (2011): 23-28; Safia Boumahdi, "Al-Andalus dans les travaux d'Henri Pérès et d'Henri Terrasse (1932-1966)," *Al-Andalus/España. Historiografías en*

consensus on classifying architectural and aesthetic productions within a clearly distinct artistic school. The question remains as to the extent to which this classification considers the resources of an area with a distinct and unique civilisational status. Clearly, the available knowledge remains scattered, selective and deeply incomplete. By adopting a diachronic angle that favours themes dominated by the notions of diffusion and influence, whether in the Umayyad and Abbasid East or the Roman and Byzantine North, these studies have frequently viewed the circulation of forms and scholarly traditions associated with them as a largely unilateral process. The resulting conclusions have sometimes hindered the emergence of new approaches, as these reference points continue to polarise academic attention and relegate the "vernacular," which is too often neglected, to the background.

From this perspective, the overall uniformity is very apparent; however, it imposes an interpretation that tends to obscure regional specificities, which escape this perception and deserve careful examination. Better still, the grey areas – not to mention the darkest corners – of the history of building arts remain considerable, revealing the extent of the gaps that persist in our knowledge. Who could dispute that the architectural achievements of the peoples on both sides of the Mediterranean, from the withdrawal of Rome from the Maghreb and the Iberian Peninsula to the early centuries of the Middle Ages, have completely disappeared? The Visigoths, who established their kingdom in al-Andalus in the second half of the 5th century, are known only through a few scattered remains. Even the Umayyad emirate period, from 138 AH/756 to 299 AH/912, remains heavily dependent on what survives of the original mosque in Cordoba after the various enlargements it underwent later.[5] Michel Terrasse wrote in 1965 that it was only with the

contraste, edited by Manuela Marín (Madrid: Casa de Velázquez, 2009): 83-104; Henri Terrasse, "Recherches archéologiques d'époque islamique en Afrique du Nord," *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 4, 120e année (1976): 590-611; Ahmed S. Ettahiri, Abdallah Fili, Jean-Pierre Van Staëvel, "Nouvelles recherches archéologiques sur la période islamique au Maroc: Fès, Aghmat et Îgîlîz," in *Histoire et archéologie de l'Occident musulman (VII-XVe siècle): al-Andalus, Maghreb, Sicile* Philipe Sénac (éd.), Villa 4 (Toulouse: Etudes Médiévales Ibériques, Collection Méridiennes, 2012): 157-181; Abdallah Alaoui, Ahmed S. Ettahiri et Abdallah Fili, "L'archéologie islamique au Maroc, les acquis et les perspectives," in *Maroc médiéval: un empire de l'Afrique à l'Espagne*, Coord. Y. Lintz, C. Déléry, B. Tuil-Lionetti (Paris: Musée du Louvre-Hazan, 2014): 44-47; Enrique Gozalbes Gravioto, "Los primeros pasos de la arqueología en el norte de marruecos," in *En La Orilla Africana del Círculo del Estrecho: Historiografía y Proyectos Actuales,* Actas del II Seminario Hispano-Marroquí de Especialización en Arqueología, Celebrado del 5 al 7 de Septiembre de 2008 en Cádiz, ed. D. Bernal et *al*. (Cádiz: Universidad de Cádiz, 2008): 33-61; Hicham Rguig, "al-Baḥth al-arkiyūlūjī bi al-Maghrib: al-wāqiʿ wa al-maʾmūl," *Majallat al-Manāhil* 99 (2020): 20-35; Abdelaziz Touri, "Joudia Hassar-Benslimane (1943-2018) in memoriam," *Hespéris-Tamuda* LIV-2 (2019): 9-11.

5. Built by 'Abd al-Raḥmān I (8th century) on top of the remains of the Visigothic Basilica of Saint Vincent. See: Rafael Castejón y Martínez de Arizala, *La Mosquée de Cordoue* (Leon: Everest, 1973); Rafael Castejón y Martínez de Arizala, "Córdoba califal," *Boletín de la Real Academia de Córdoba* 25 (1929): 255-339; Rafael Castejón y Martínez de Arizala, "Nuevas identificaciones en la topografía de

Caliphate that "l'art musulman d'Espagne, largement ouvert à des influences extérieures, apparaît très éclectique en ses sources: l'héritage des deux siècles précédents, celui de la Syrie oméiyade, les apports de Byzance et parfois du monde abbasside s'y unissent sans cesse."[6]

In al-Maghrib al-Aqṣā, the situation is more complex: what can we really say about the Idrisid work in the two capitals, Walīla (Volubilis) and then Fez?[7] What survives of their secondary residence, the city of al-Basra, located near the small town of Ouazzane?[8] And what remains today of their

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la Córdoba Califal," in I *Congreso Internacional de Estudios Árabes.* Ed. Escobar, J. M. Córdoba en la Baja Edad Media (Córdoba: Comité permanente del Congreso de Estudios Árabes e Islámicos. Caja Provincial de Ahorros de Córdoba, 1989): 371-389; Alberto León and Juan Fco Murillo, "Advances in Research on Islamic Cordoba," *Journal of Islamic Archaeology* 1-1 (2014): 5-35; Basilio Pavón Maldonado, "Between History and Archaeology: The Enigma of the Lost Caliphate of Córdoba (I)," *Al-qantara* 9-1 (1988): 169-98; Basilio Pavón Maldonado, "Entre la historia y la arqueología El enigma de la Córdoba califal desaparecida (II)," *Al-qantara* 9-2 (1988): 403-26; Antonio Fernández-Puertas, *Mezquita de Córdoba: su estudio arqueológico en el siglo XX* (Granada: Editorial Universidad de Granada, 2009); Christian Ewert, "La mezquita de Córdoba: Santuario modelo del Occidente islámico," in *La arquitectura del Islam occidental,* edited by R. López Guzmán and Pierre Guichard (Madrid-Barcelona: Lunwerg, 1995): 53-68.

6. "Muslim art in Spain, widely open to outside influences, appeared very eclectic in its sources: the heritage of the two previous centuries, that of Umayyad Syria, the contributions of Byzantium and sometimes of the Abbasid world, were constantly coming together," Michel Terrasse, "La formation de l'art musulman d'Espagne," *Cahiers de civilisation médiévale* VIII-30 (1965):158.

7. Elizabeth Fentress and Hassan Limane, "Excavations in medieval settlements at Volubilis. 2000-2004," *Cuadernos de Madinat al-Zahra'* 7 (2010): 105-122; Elizabeth Fentress and Hassan Limane, *Volubilis after Rome: The UCL/INSAP Excavations, 2000-2005* (Leiden, Boston: Brill, 2018); Aomar Akerraz, "Note sur l'enceinte tardive de Volubilis," *Bulletin archéologique du Comité des travaux historiques et scientifiques* 19-8 (1985): 429-38; Aomar Akerraz, "La Maurétanie tingitane du sud, de Dioclétien aux Idrisides," thèse de 3e cycle dactylographiée, Paris-Sorbonne, 1986; Aomar Akerraz, "Recherches sur les niveaux islamiques de Volubilis," in *Genèse de la ville islamique en al-Andalus et au Maghreb occidental,* ed. Patrice Cressier and Maria García Arenal (Madrid: Casa de Velázquez and Consejo Superior de Investigaciones Científicas, 1998): 295-304; Ahmed S. Ettahiri, "Vestiges archéologiques sous la mosquée Al Karawiyine," *Architecture du Maroc* 34 (2007): 103-6. Elisabeth Fentress and Hassan Limane, "New archaeological data on the Islamic occupation of Volubilis," *L'Africa Romana* XVI (2006): 2223-44. Elisabeth Fentress and Hassan Limane, *Volubilis après Rome: Les fouilles UCL/INSAP, 2000-2005* (Leiden, Boston: Brill, 2018); Ahmed S. Ettahiri, "Fès à l'aube du Maghreb al-Aqsa," in *Le Maroc médiéval. Un empire de l'Afrique à l'Espagne,* Coord. Y. Lintz, C. Déléry, B. Tuil-Lionetti (Paris: Musée du Louvre-Hazan, 2014): 118-125.

8.-Charles Redman, "Survey and Test Excavation of Six Medieval Islamic Sites in Northern Morocco," *Bulletin d'Archéologie Marocaine* XV (1983-1984): 361-366; Patrice Cressier, "Prospection géophysique sur le site médiéval d'al-Basra," *Bulletin d'Archéologie Marocaine* XV (1983-1984): 361-366; Nancy Benco, *Anatomy of an Islamic Town: al-Basra, Morocco* (Oxford: BAR, International Series, 2004); Johnny De Meulemeester, "Islamic Archaeology in the Iberian Peninsula and Morocco," *Antiquity* 79-306 (2005): 837-43; Daniel Eustache, "El-Basra, capitale idrissite et son port," *Hespéris* XLII (1955): 217-238; Bernard Rosenberger, "Les premières villes islamiques du Maroc: géographie et fonctions," in *Genèse de la ville islamique en al-Andalus et au Maghreb occidental,* ed. Patrice Cressier and Mercedes García-Arenal (Madrid: Casa de Velázquez, 1998), 237; Ahmed S. Ettahiri, "La ville médiévale d'al-Basra et ses deux ports atlantiques (Maroc du Nord)," in *Rotte e porti del mediterraneo dopo la caduta dell'impero romano d'occidente: continuità e innovazioni tecnologicche e funzionali, Genoa,* 18-19 June 2004, ed. Lorenza De Maria and Rita Turchetti (Assessore: Rubbettino editore, 2004):164-186.

last refuge, Ḥajar al-Nasr, near Kasr El Kébir?[9] What evidence of this period of change, a historic turning point in the other provinces of the territory then under the rule of principalities such as the Barghwāṭa of the Atlantic plains or the Banū Midrār of Sijilmassa, to name but two examples? How, in this "dark" phase that lasted several centuries, can we accept without question, Lucien Golvin's statements concerning the Almohad period (from mid-12th to mid-13th centuries) that "l'autorité (des Almohades) résida à Marrakech, mais c'est encore d'Espagne que viendra l'élan civilisateur."[10]

Clearly, the same observation applies to the master builders and skilled workers who were directly involved in the construction projects. While numerous chronicles record the names of those in charge of major works, particularly under the Almohad Empire – al-Ḥāj Yaʿīsh al-Mālqī,[11] Aḥmad ibn Bāssū and ʿAlī al-Ghmārī –[12] they remain silent on their working conditions, status and training. The architect – al-'Irīf, al-Muhandis – remains invisible, deprived of individual recognition.[13] The boundaries between the different branches of the arts and crafts of building remained blurred, with each discipline often intermingling with the others.

It would therefore be more appropriate to speak of a history of the histories of these arts and crafts, given the disparities in the methods of analysis and interpretative frameworks that have shaped our current practices and convictions. This history, invented, written and rewritten by architects, art historians, archaeologists and anthropologists, has been enjoying renewed

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9. Patrice Cressier et *al.*, "*Ḥağar al-Nasr,* 'capitale' idrisside du Maroc septentrional: archéologie et histoire (IVe H./ Xe ap. J.-C.)," in *Genèse de la ville islamique en al-Andalus et au Maghreb occidental*, dir. Patrice Cressier et Mercedes García-Arenal (Madrid: Casa de Velázquez, 1998): 305-334; Patrice Cressier, "Apuntes sobre fortificación islámica en Marruecos," in *Actas I Congreso Internacional Fortificaciones en al-Andalus*: Algeciras, noviembre-diciembre, 1996 (Algeciras: Fundación Municipal de Cultura José Luis Cano, 1998): 129-145.

10. "the authority (of the Almohads) resided in Marrakech, but it was still Spain that provided the impetus for civilisation." Lucien Golvin, *Essai sur l'architecture religieuse musulmane* (Paris: Édition C. Klincksieck, 1979), 244.

11. The man commissioned to build the famous maqṣūra of the Kutubiyya. On his life and other architectural and hydraulic achievements, see: Anonyme, *Al-Ḥulal al-Muwshiya fī Dhikr al-Akhbār al-Murrākushiya,* Suhayl Zakkār and ʿAbdalkādar Zammāma (al-Dār al-Bayḍāʾ: Dār al-Rashād al-Ḥadītha, 1979), 144-145, 155.

12. The architects Aḥmad ibn Bāssū and ʿAlī al-Ghmārī were responsible for the minaret of the Great Mosque of Seville (the Giralda), which was to be completed on 30 *Rabiʿ* II 594 AH/10 March 1198. Ibn Sahib al-Salat. *Al-Mann bi-al-Imāma ʿalā al-Mustaḍʿafīn,* taḥqīq ʿAbdalhādi al-Tāzi (Bayrūth: Dār al-Gharb al-Islāmī, 1985), 376 and 382-394.

13. See the section of the following article that discusses professional organisation and social status within the building trades. Yassir Benhima, "Éléments pour l'étude des métiers du bâtiment et des chantiers de construction au Maroc islamique," in *Le travail au Moyen Âge*, actes du 127e Congrès National des Sociétés Historiques et Scientifiques, sous la direction de Henri Bresc, Nancy, 2002 (Paris: éditions du CTHS, 2007): 7-21.

interest for several decades from other heritage specialists, whose training, professional backgrounds, challenges and objectives are very diverse.[14]

The thematic dossier, which we are coordinating under the expert supervision of the editorial board of the journal *Hespéris-Tamuda*,[15] aims to revitalise a field of study in which certain issues have long been at the forefront, while others have been addressed sporadically or even neglected. The aim is to stimulate renewed reflection and reasoned analysis by moving beyond stereotypical ideas, consensual and biased assumptions, and fragmentary or imperfect approaches. The aim is to offer updated readings, cross-reference studies and enrich existing data with original and critical papers, using a rigorous and specialised methodology, combined with demonstrations integrating all possible contributions – whether from architectural archaeology, textual archaeology or ethnographic research – from a single perspective, that of the primacy of unpublished historiographical data, architectural archaeology and multidisciplinary archaeological research in general.

Today, the publication of new historiographical compilations, long dormant on the shelves of personal or community libraries – those of brotherhoods, among others – collections of case law (*Kutub al-Fatāwā*),[16] constitute a veritable mine of valuable data. The exploitation of this documentation would make it possible to understand aspects that are still little known. With advances in archaeological science, particularly in the fields of architectural archaeology and archaeometry or "digital assistance," sometimes referred to as "digital archaeology" or "BIM" (Building Information Modelling),[17] offers the opportunity to go beyond a simple descriptive approach and paves the way for linear reasoning and in-depth

[14]. Emerging in the 1970s and 1980s, architectural archaeology has established itself as a new way of interpreting ancient buildings, which are viewed as layered documents. Researchers such as Nicolas Reveyron, Jean-François Reynaud and Joëlle Burnouf laid the methodological foundations for this approach, breaking with purely stylistic approaches. The rise of preventive archaeology, particularly in European historic centres, provided fertile ground for this approach. In Italy, the University of Siena launched the journal *Archeologia dell'architettura* in 1996*,* which quickly became a reference work. Spain followed suit in the early 2000s with *Arqueología de la Arquitectura,* an electronic journal open to all periods and typologies. In less than half a century, the discipline has established itself as a crossroads between archaeology, history and architectural heritage.

[15]. We would like to express our sincere gratitude to Professor Khalid Bensrhir, Editor in Chief of *Hespéris-Tamuda*, for his gracious translation of this introductory note into English.

[16]. Several studies have already demonstrated the richness of these various compilations. See, for example, Jean-Pierre Van Staëvel, "Savoir voir et le faire savoir: l'expertise judiciaire en matière de construction, d'après un auteur tunisois du VIIIe/XIVe siècle" ["Knowing how to see and making it known: judicial expertise in construction, according to an 8th/14th-century Tunisian author"], *Annales islamologiques* 35, 2 (2001): 627-662; and Vincent Lagardère, *Histoire et société en Occident musulman au Moyen-Age: analyse du Mi'yar d'al-Wanšarīsī* (Madrid: Casa de Velázquez, 1995).

[17]. One of the pioneers who paved the way for the use of digital technology in archaeology is Antonio Almagro (Real Academia de Bellas Artes de San Fernando, Madrid), a huge part of whose work can be consulted via the following link: https://www.academiacolecciones.com/dibujos/serie-a.php.

analysis. A more comprehensive, detailed and accurate assessment of construction sites could thus prove particularly productive and enlightening, not only in terms of "organised building," but also in terms of its "ingredients," "operational chains," "transmissions" and "practices."[18] Combined with the contributions of written sources, this approach to laboratory archaeology could, especially when we consider the value of "evidence," help us to understand the structure of construction sites, their costs, duration, technologies, tools, as well as the sometimes itinerant lifestyle of some of their actors, generally organised within guilds and rigorously recording their operating methods and know-how: masons, stonecutters, brickmakers, zellige manufacturers, plasterers, cabinetmakers, painters, tilers, carpenters, blacksmiths, etc. In the long term, could we envisage the establishment of "regional corpora" for "the art of building," given that it simultaneously falls within the social, economic and environmental spheres?

This thematic dossier, comprising eleven articles, aims to bring together the many facets of the subject, whether methodological issues and current approaches, questions related to construction materials and techniques, the conditions under which they were commissioned, or the context in which they were developed. Patrice Cressier's contribution opens the dossier with a study of major architectural projects in al-Andalus and the Maghrib al-Aqṣā, founded on a detailed analysis of construction supports – capitals, shafts and bases – accompanied by associated epigraphic documentation. The author highlights the methods used to organise the work, the pace of its execution and the political and ideological dimensions attached to monumental construction. The main interest of this contribution lies in revealing a coherent architectural production process that goes beyond a purely stylistic interpretation. Cressier does not, however, allude to the methodological difficulties, particularly those related to the reuse of materials and the silences in the documentation. The study also opens fruitful avenues for comparison with other traditions of the medieval Islamic world. It thus constitutes a valuable resource for a better understanding of the relationship between architecture, power and society in the Muslim West.

The second contribution, by Pedro Gurriarán Daza, offers an in-depth examination of Cordoban interventions in northern Morocco during the 10th century, in the context of the confrontation with the Fatimid Caliphate. The author focuses in particular on the defensive constructions and fortifications

[18]. See, for example, Catherine Arlaud and Joëlle Burnouf, "L'archéologie du bâti médiéval urbain," *Les nouvelles de l'archéologie* 53-54 (1993): 5-69; Victorine Mataouchek et *al.* "Archéologie du bâti. Une démarche scientifique à part entière en butte à des enjeux antagonistes," *Archéopages* 24 (2009): 66-73; Hélène Dessales, "L'archéologie de la construction: Une nouvelle approche de l'architecture romaine," *Annales. Histoire, Sciences Sociales* 72-1 (2017): 75-94; Christian Sapin, Sébastien Bully and Fabrice Henrion, *L'archéologie du bâti Aujourd'hui et demain. Déconstruire sans détruire,* Proceedings of the ABAD symposium, Auxerre, 10-12 October 2019 (Dijon: Artehis éditions, 2022).

of the strategic ports of Ceuta (Sabta) and Tangier, highlighting the stone-cutting techniques and construction systems used by the Umayyad workshops. A cross-analysis of archaeological remains and textual sources highlights the spread of Cordoban expertise beyond the Iberian Peninsula and emphasises the use of characteristic formal processes, such as horseshoe arches and alternating courses of cut stone, demonstrating a strong continuity with the major official building projects in Cordoba and Madīnat al-Zahrā'. This study illustrates how the Umayyads' construction policies were both a strategic instrument and a symbolic marker of their authority, consolidating control over peripheral territories while strengthening the identity and visibility of the Caliphate in a context of geopolitical rivalry with the Fatimids.

The following analysis, written by Ahmed Saleh Ettahiri, Asmae El Kacimi and Amina Samadi, highlights the partial focus that has long characterised the study of Islamic art in Morocco, which has centered more on the monumental analysis of major imperial cities than on the exploitation of archaeological artefacts. The authors point out that although excavation campaigns were undertaken as early as the protectorate period, their results remained fragmentary and selective, leaving a significant portion of the decorative furnishings untouched. Sculpted plaster, a material that is particularly abundant in medieval architecture and archaeological collections remains relatively understudied, even though its analysis would make it possible to reconstruct lost ornamental programs and refine our knowledge of styles. In light of this observation, researchers are calling for the development of a true "archaeology of decoration," based on a systematic and exhaustive approach, in order to profoundly renew our understanding of Moroccan Islamic art.

In the fourth contribution, Antonio Almagro offers an in-depth analysis of the specific construction techniques used to build vaults in Andalusia and the Maghreb. The author explores, in particular cross-vaults, vaults made of vertical brick layers, flat brick vaults and inclined row vaults that do not require centring. While some of these techniques are characteristic of the Almohad period, others were attested earlier, or even simultaneously, in various regions of the Islamic world. The study highlights the role of cultural, commercial and religious exchanges in the dissemination of these methods, as well as the transfer of people and ideas across Dār al-Islām; some of whose practices were later adopted by the territories of the Christian West. New data and recent discoveries reinforce this analysis and clarify the influence of Eastern techniques on the architecture of the Western Islamic world.

Expanding on this idea, Rafael Azuar's article examines defensive structures and vaulting methods in Sharq al-Andalus. Through his analysis of castles, towers and other buildings, Azuar highlights the cultural and technical transfers from the Islamic world to the Iberian Peninsula, while emphasising the local adaptations of these construction methods. This study convincingly illustrates the role of cultural and technical exchanges in the dissemination of architectural know-how and highlights the complex interactions between Andalusian traditions and Maghrebi practices, as manifested in 12th-century military and religious constructions.

Malakout Kiche is undertaking, as part of an academic study still in its exploratory phase, an investigation into the rarity of marble in Moroccan Islamic architecture, comparing it with practices observed in other regions of the Maghreb and al-Andalus. Drawing on historical sources and examining a corpus of 331 marble pieces, the author uses a statistical approach to examine the provenance of the materials, their reuse, and the social, economic and logistical factors that determined their use. Previous research, notably those of Henri Terrasse, Alfred Bel and Patrice Cressier, is drawn upon to situate the use of marble in its historical and technical context. The study also examines the question of imports versus local exploitation. The study draws attention to a hitherto little-explored aspect of Moroccan Islamic architecture, while remaining cautious about drawing definitive conclusions.

In his article, Hicham Rguig presents the results of a 2022 survey documenting knowledge and expertise in Moroccan woodworking arts, potentially for inclusion in the Intangible Cultural Heritage of Humanity. Faced with the constraints imposed by the Covid-19 pandemic, the study employs a methodological approach combining analysis of historical sources, field observation and interviews with thirty-seven artisans in several imperial cities. It traces the evolution of practices from the 9th century to the present day, exploring sculpture, "*Zwāq*" painting, woodturning, marquetry, and the choice of wood species, such as cedar and thuja. The article highlights the diversity of uses and symbolic significance of wood, while addressing contemporary challenges, ranging from the increasing scarcity of wood species to the transmission of knowledge. It emphasises the need to preserve these craft practices through sustainable management and the direct appropriation of techniques by the artisans themselves. Finally, the study sheds light on the dynamics of the sector's recovery in the post-Covid-19 context, revealing the complexity and variety of traditional practices as well as the challenges involved in their preservation and transmission.

The next two contributions focus on Moroccan vernacular architecture. The first, by Ahmed Oumouss, revisits fortified granaries, *igudar* or *ighrman*, highlighting the art of building and the traditional skills

that enabled the construction of these remarkable and enigmatic structures. The author carefully analyses the choice of materials, construction techniques and the organisation of the buildings, combining ethnographic surveys and comparisons with the fortified dwellings of al-Andalus and the Canary Islands. His study reveals the ingenuity of the craftsmen and the close link between architecture and the social organisation of mountain communities, while highlighting the under-exploration of technical dimensions in the existing literature. The article advocates an integrated approach that reconciles construction expertise and cultural value and proposes a reassessment of *igudar/ighrman* as masterpieces of Moroccan vernacular architecture.

The second contribution is written by Abdessalam Amarir. In line with this same perspective, it is devoted to the study of the skills of the last generation of traditional masons in the region between Jbel Bani and the High Atlas, with an emphasis on interlocking chevron stonework. The author adopts an ethnographic approach combining careful observation of the structures and the collection of oral expressions – vocabulary, stories, proverbs and poems – to convey the technical and cultural richness of these buildings. The study highlights the mastery of construction techniques and the intimate relationship between stone and its socio-cultural context, while emphasising the risk of this knowledge disappearing as buildings are abandoned and modern techniques become more widespread. It emphasises the role of communities in the transmission of practices and proposes a methodology that coherently integrates the material and immaterial dimensions of vernacular stone architecture.

Taoufiq Mohammed Lakbaibi examines the profession of Laqwādsī, or "*shaykh* of drinking water," a key figure in water management in traditional Moroccan cities. The study examines the technical, organisational and institutional dimensions of this practice, while highlighting its heritage and symbolic value. Drawing on historical, legal and linguistic sources as well as contemporary research, Lakbaibi reconstructs the expertise involved in supplying homes, mosques, hammams and fountains. The article brings into sharper focus the decisive role of these skills in the continuity of urban life, the prevention of water risks and the preservation of green spaces. It emphasises the integration of this expertise into the urban fabric and its contribution to collective cultural identity. Finally, the author calls for the recognition and integration of this intangible heritage into policies for the conservation and sustainable development of Morocco's urban heritage.

The dossier is crowned by an article by Mohammed El Baraka, who offers an analysis of building materials in the Western Maghreb through a historical and legal approach, which is very promising, particularly through

the examination of *fatāwā* and *nawāzil* texts. El Baraka studies their nature, origin and techniques of exploitation and assembly, while restoring the social, economic and aesthetic dimensions associated with them. The article highlights the value of legal sources as privileged witnesses to construction practices and the social relations they reveal. Adopting a rigorous and critical methodology based on contextualisation and cross-referencing of sources, the study reveals rare, reliable and relevant historical information. It stresses the complexity of the skills and practices associated with building, as well as the cultural representations inherent in them. Finally, the article proposes an integrative and pluralistic approach that sheds light on the place of building materials within urban and cultural dynamics, thus opening up new perspectives for the study of architectural heritage.

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