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DEPARTAMENTO	Museo de la Alhambra (MA)
CATEGORÍA GENÉRICA	Cerámica. Elementos Arquitectónicos: Revestimientos



# The Alhambra Museum: History, Conservation and Management of its tile and tiling mosaic collections

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**Abstract:** The documentation of the collections is a fundamental step towards the conservation of cultural heritage. It is a complicated process that involves several phases closely related to the different stages of the artefacts in a museum: from their acquisition, registration, inventory, cataloguing, conservation, maintenance and exhibition to their communication. The information presented in this document aims firstly to provide a better understanding of the different phases of the objects in the specific context of the Alhambra Museum, in addition to comply with the communication purpose that is inherent to the knowledge and necessary for the recognition and appreciation of historical objects. The main objective of this research is to analyse the evolution of the Alhambra Museum and its collection, especially focusing on the tile and tiling mosaics that, although they are part of the most emblematic and distinctive typologies of the palatine city, have not had the chance to be available to the scientific-academic community.

**Keywords:** Alhambra Museum, collections, architectural ceramic, tiles, tiling mosaics, conservation-restoration, cultural heritage

## El Museo de la Alhambra: Historia, Conservación y Gestión de su colección de azulejos y alicatados

**Resumen:** La documentación de las colecciones es un paso primordial hacia la conservación del patrimonio cultural. Es una tarea compleja que contempla diversas fases estrechamente relacionadas con las diferentes andaduras de los objetos desde su adquisición, registro, inventario, catalogación, conservación, mantenimiento, difusión y divulgación. La información presentada en este documento pretende proporcionar una mayor comprensión sobre las distintas fases de los objetos en el entorno museístico específico del Museo de la Alhambra, cumpliendo además con el propósito divulgativo inherente al conocimiento y necesario para el reconocimiento y la valoración de los objetos históricos. El objetivo principal de esta investigación es el de analizar el proceso evolutivo del Museo de la Alhambra y de su colección, centrándose especialmente en los objetos de azulejería y alicatado que, si bien forman parte de las tipologías más emblemáticas y reconocibles de la ciudad palatina, aún no han tenido suficiente oportunidad de ponerse a disposición de la comunidad científico-académica.

**Palabras clave:** Museo de la Alhambra, colecciones, cerámica arquitectónica, azulejos, alicatados, conservación-restauración, patrimonio cultural

## O Museu de Alhambra: História, conservação e gestão da sua coleção de azulejos e alicatados

**Resumo:** A documentação de coleções é um passo essencial para a conservação do património cultural. Trata-se de uma tarefa complexa que envolve várias fases estreitamente relacionadas com as diferentes etapas dos objetos, desde a sua aquisição, registo, inventário, catalogação, conservação, manutenção, difusão e divulgação. A informação apresentada neste documento visa, em primeiro lugar, melhorar a compreensão das diferentes fases dos objetos no ambiente museológico específico do Museu de Alhambra, para além de cumprir o propósito de divulgação, inerente ao conhecimento e necessário ao reconhecimento e valorização dos objetos históricos. O principal objetivo desta investigação é analisar o processo evolutivo do Museu de Alhambra e da sua coleção, com especial atenção nos azulejos e alicatados que, embora façam parte das tipologias mais emblemáticas e reconhecíveis da cidade palatina, ainda não tiveram a devida oportunidade de serem disponibilizados à comunidade científico-académica.

**Palavras-chave:** Museu da Alhambra, coleções, cerâmica arquitetónica, azulejos, alicatados, conservação e restauro, património cultural

## Introduction

The documentation of the collections is a fundamental step towards the protection and conservation of cultural heritage. It allows a better understanding, interpretation, and management of collectible objects, envisioning the correct functioning of museums and responding to the academic and research interests currently regulated by heritage protection rules. It is a complicated task that includes several phases closely related to the different stages of the objects, from their acquisition to communication.

The information presented in this document aims to provide a better understanding of the different phases of the objects in the specific context of the Alhambra Museum, also complying with the communication purpose that is essential for the conservation and recognition of the cultural heritage. Therefore, the main objective of this research is to analyse the evolution of the Alhambra Museum and its collection, especially its tile and tiling mosaic pieces, which unfortunately are still unknown to the scientific-academic community.

## General context

There is a large corpus of documents on conservation of architectural heritage: letters, recommendations, and rules that constitute a testimony on the consolidation of the criteria related to its safeguarding. Some events occurred in twentieth century, especially the destruction caused during the Second World War, highlighted the need for an international legal protection system, which has been developed intensively throughout the XX-XXI centuries closely linked to the creation of international organizations such as UNESCO, ICOM, ICOMOS, etc. (Korro, Zornoza-Indart and Valle-Melón 2023: 22).

Spanish national and regional legislation includes the main international postulates also regarding heritage assets in a museum environment. Significant examples can be provided: first, through the definition of these institutions in the Spanish Historical Heritage Law 16/1985, which is transferred almost literally from the ICOM Statutes; and through the Law 8/2007 on Museums and Museum Collections of Andalusia that defines the collections, regulates the document management system of museums and museum collections, and reiterates the previous Law of Museums 2/1984. This previous law highlighted the idea incorporated in 1984 by the International Movement for a New Museology (MINOM-ICOM) that expands the content from collections to the tangible and intangible assets in heritage sites and complexes open to visitors and with economic development (Troitiño Vinuesa 1998: 95-96). It is worth mentioning, in the specific case of the Alhambra and Generalife, its inscription on the World Heritage List by UNESCO this same year (1984), and the declaration of this heritage complex as *Bien de Interés Cultural* through Decree 107/2004.

Inside scientific-academic panorama, the attention on architectural ceramic objects is awakened already from the

early 21st century. In Spain this new perspective is directly related to the development of Archaeology from the second half of the twentieth century that, despite the fact that they are related mostly to order, catalogue, and classification of ceramic objects of daily or common use, they constituted the foundations on which the investigations are based today.

A series of publications arise that contributed to the knowledge of ceramic materials from the first archaeological excavation carried out in Granada which allowed the cataloguing, at first merely documentary, of the different objects found in *Madinat Ilbira* (Gómez-Moreno González 1888: 7-13). For example: the works on the remains found in *Medina Azzahra* and *Alamiriya* in 1923 (Velázquez Bosco 1923: 21-27); the memories of the excavations of Mesas of Villaverde in 1927 (Mergelina 1927: 25-28); the catalogue and inventory "Art in Spain" that refers to the Barcelona International Exhibition in 1929 which exceptionally presented various examples of tiles and tiling mosaics from the Alhambra Muslim period (Gómez-Moreno 1929: 218-219, 224-226); and specially, the complete volume on "Almohad, Nasrid and Mudejar Art" published in 1949 that portrays not only the importance of architecture in these historical periods, but also reflects a detailed study on ceramic coatings, considering also the description of some tile decorative techniques such as painted, *cuerva seca* and *arista* (Torres Balbás 1949: 55, 176-181, 363-368).

The appreciation of ceramic materials contextualized in an architectural environment will be shown several years later by publications such as: "Azulejo Sevillano" (Pleguezuelo Hernández 1989); "Elementos arquitectónicos y decorativos nazaríes en el arte mudéjar aragonés" published in two parts (Cabañero Subiza 2004; Alvaro Zamora 2004); "Cerámica arquitectónica en el mudéjar granadino" (Gómez-Moreno Calera 2005); "La Torre de *Abu-l-Hayyay* o del Peinador en época nazarí: orígenes históricos y estudio arquitectónico" (Gómez-Moreno Calera 2007); "Los alicatados del baño de Comares de la Alhambra" (Díez Jorge 2007); "La cerámica arquitectónica: su conservación y restauración" (Ferrer Morales 2007); "Estudio de la azulejería de las provincias de Ávila, Valladolid, León, Zamora y Salamanca" divided into two volumes (Moratinos García 2016; Moratinos García 2019); "The Alhambra: Transformation and Change through Architectural Ceramics" (Díez Jorge, Barrera Maturana and Jiménez Díaz 2018); and finally, the most complete publication on the Alhambra architectural ceramics "Hecha de barro y vestida de color: Cerámica arquitectónica en la Alhambra", published in two volumes under a multidisciplinary scientific perspective (Díez Jorge 2022).

Likewise, it is regrettable that most publications have not value enough the Muslim architectural ceramics from twelfth to fifteenth centuries, those known after all for the examples located *in situ* and those recovered from archaeological excavations, that have been kept almost totally unknown in the palatine city (Torres Balbás 1939: 409-413). The problem may lie in the monument complexity itself, and maybe in the extraordinary number of stored objects that are still waiting for inventory, cataloguing, and scientific studies.

## The Alhambra Museum and its collection

The idea of forming public museums is a consequence of the “collecting trend” that originates in Ancient Greece and resurfaces in the beginning of the Renaissance. Paul II was responsible for initiating it in Italy, on one hand, building the Venice Palace as a gallery to exhibit his collection (which later allowed the opening of the first public museum - the Capitol Museum), and on the other, expanding the concept to other places (Jokilehto 1986: 34).

Although the origins of the collections generally precede the creation of museums, their evolution is directly related. In Alhambra’s specific case, the preservation of historical objects is also linked to the development and material history of the Nasrid monument, which has been naturally feeding these collections due to the accumulation of objects that existed there or were recovered from interventions and excavations works carried out in the palatine city (Torres Balbás 1944: 236-237).

From the Christian conquest in 1492 until shortly after the Revolution of 1868, the Alhambra and Generalife palatine city has belonged to the Crown. From October 1868 this monumental complex became part of the Spanish State Artistic Heritage, which granted its custody and conservation to the Provincial Commission of Monuments of Granada also declaring it a National Monument in 1870 (de Paula Valladar, de Paula Góngora and Conde de las Infantas 1907).

The Provincial Commission of Monuments of Granada since its first meeting at the end of 1869 pointed out its concern to gather in a single space several archaeological objects, architectural remains and other unique Islamic affiliation pieces, that until then were scattered throughout several chambers of the Nasrid palace (Villafranca Jiménez 1998: 201). In 1873, once all the objects were gathered, Rafael Contreras, president of the commission, was responsible for writing the first catalogue related to the palatine city objects. This document consisted of a list of objects which amounted to 656 pieces grouped into 44 sections that he identified as a “List of ancient objects containing the room destined for them, between the *“Patio de los Leones and the Sala de las dos Hermanas”* (Granada, Archivo de la Alhambra, Leg. 311).

This duly documented collection, already known as *musello* (that literally means small museum), received the name of Alhambra Museum of Antiquities, and marked what would be the spontaneous basis of the actual museum (Bermúdez López 1995: 72-73). Several ceramic objects were part of this initial group, in which a large number of pieces can be highlighted “453 pieces of varnished tiles and clay, Arab ceramics, and fragments of the tiling mosaics of various forms and fabrications made for the Arab monuments of Granada, from the first constructions in the Mohammedan invasion to the restorations of this kind of work made in the last century”; following the description of Rafael Contreras (Granada, Archivo de la Alhambra, Leg. 311 section 43).

In this first stage as Alhambra Museum of Antiquities, the figure of Gómez-Moreno González will be overriding as an active

secretary of the Commission of Monuments of Granada and a great specialist in Islamic art (Villafranca Jiménez 1998: 203). He proposed, in 1885, the Carlos V Palace as the ideal location to house the “Arab-Spanish museum”, and initiated the first remarkable research and restorations, especially focused on tiling mosaics panels, which until then were unrated. In his words: “It is a necessity of our days the creation of an Arab-Spanish national library and museum, where everything related to the time of Arab domination in Spain could be studied and kept, and where reproductions of the buildings of this period of our history, national or from other places, could be gathered. Granada, which contains the most extraordinary of the Arab monuments, famous throughout the world, is the appropriate environment for the creation of an institution like this, and no other place meets the conditions of security, isolation, and proximity to the fortress such as the Carlos V Palace” (Gómez-Moreno González 1885: 42).

On 14 July 1889, a Royal Decree signed by Regent Queen María Cristina was published, assigning the eastern part of the Carlos V Palace to the Fine Arts and Archaeological Museums, and incorporating “the objects that are preserved in the small museum” in it (Revilla Uceda 1995: 24). However, in 1890 Francisco Valladar made public that “the collection of the *Musello* was not numerous enough for this purpose although something has already been advanced in favour of converting the Carlos V Palace into an archaeological museum” (de Paula Valladar 1890: 149). In 1920 the “General Plan of Conclusion of the Carlos V Palace” written by Velázquez Bosco reiterates the proposal of rehabilitating this Palace in order to house the museum, and after a long period full of disagreements, with the arrival of Leopoldo Torres Balbás (1923-1936), the idea finally received its ultimate impulse (Bermúdez López 1995: 78-79).

The first museography task performed by Torres Balbás will be the classification of the collections, especially considering the “reason of their material and their destination” (Torres Balbás 1944: 239). Meanwhile, the House of the Governors of the Alhambra and some adjoining rooms were transformed into an “authentic museum laboratory”, where not only showcases were built to exhibit small objects, but also restorations were carried out (Villafranca Jiménez 1998: 205). These works marked the content of the Alhambra Museum conceptually until today as an Art and Archaeology collection, characterized by unique pieces of great historical and technical value, especially from the Nasrid period (Pérez López, Moreno León and Sánchez Gómez 2022: 346).

As a result of the Spanish Civil War (1936-1939) important changes came to light affecting the management of the Nasrid monument and the Museum that depended on it. For example, Torres Balbás was dismissed, and Prieto-Moreno was hired to substitute him. During the first years Prieto-Moreno would faithfully follow the direction marked by his predecessor, as well as the General Plan drafted by Velázquez Bosco (Villafranca Jiménez 1998: 210).

On 9 March 1940, by the Royal Decree of Ministry of Education, the *Patronato de la Alhambra y Generalife* was created with the purpose of installing a museum in Carlos V Palace (Marinetti Sánchez 1995: 185). The *Patronato* continued studying and

cataloguing its collections since its official constitution on 24 May 1940, and a year later, at its second meeting, the *Patronato* agrees to proceed to “classify, paste and order, as soon as possible, the pots and remains” that founded the Alhambra Museum (Bermúdez López 1995: 82).

A Ministerial Order was approved in August 1942, with the intervention of the *Patronato* and the help of Gómez-Moreno. This document stated the incorporation of the Museum to the Facultative Body of Archivists, Librarians and Archaeologists under the name of Alhambra Archaeological Museum, which implied its inclusion in the Spanish State Collections (Marinetti Sánchez 1995: 185). The General Archaeological Museums Inspection and the Directorate of the Alhambra Archaeological Museum were entrusted to Joaquín María de Navascués and Jesús Bermúdez Pareja respectively, whose tasks include the regrouping, cleaning, classification, study, restoration, and the reconstruction of the museum storages (Pérez López, Moreno León and Sánchez Gómez 2022: 347). These works continued during the next twenty years, additionally allowing the consolidation of a new museum based on the study and research, fully adapting it to the new circumstances, and progressively improving the technical treatment of the collections, warehouses, and restoration workrooms (Villafranca Jiménez 1998: 214-217).

Meanwhile the museum collections were growing, first because the increase in the number of excavations, secondly because of the multiplication of purchased objects, and finally due to the donations received during the twentieth century (Marinetti Sánchez 2017: 288). Such was its growth that everything previously organized began to require attention: there were a large number of accumulated objects, the exhibitions were dispersed in three rooms of the Palace of Charles V and, to get things worse, an earthquake hit Granada on 18 April 1951 causing considerable cracks in many rooms of the museum. These factors prompted a complete overhaul and readaptation of the museum spaces, and led to the organization of conferences, guided tours, and temporary exhibitions. In addition, the museum incorporated: an archive, a specialized library, a photographic laboratory, and a workroom for delicate repairs, something that projected more importance and notoriety to it (Bermúdez López 1995: 86).

Those last circumstances led the National Education Ministry General Directorate to requalify the Alhambra Archaeological Museum as a national museum. Thus, on 13 December 1962, this organism approved the creation of the Spanish-Muslim Art National Museum, whose direction and administration were mainly entrusted to the *Patronato de la Alhambra* (Bermúdez Pareja 1968: 155). Likewise, and under the instructions set by Navascués, the work of registration and classification of the material continued, especially considering a formal, artistic, and chronological criteria. Study and restoration tasks continued as well, and important changes were also introduced in the conservation, storage, and packaging system of the objects (Pérez López, Moreno León and Sánchez Gómez 2022: 349).

In 1967 was proposed the idea of concentrating all the existing museums in Granada (Archaeological, Fine Arts and Spanish-Muslim Art National Museum) in a single museum with different sections. They would be located in the *Huerta de Fuentepaña*, a set of gardens and buildings next to the Generalife (Bermúdez Pareja 1968: 158). Meanwhile, the Royal Decree of 28 February 1984 transferred functions and services from the Central State Administration to the Autonomous Community of Andalusia, where all public museums and the National Museum of Hispano-Muslim Art should be managed. (Bermúdez López 1995: 90-91). Later, the Decree 59/1986 of 19 March approved the Statutes of the *Patronato de la Alhambra y Generalife*, adapting them to the new country administrative structure, and allowing them to request the incorporation of the Spanish-Muslim Art National Museum, now under the name of Alhambra Museum, as an autonomous institution with an independent economic endowment (Ministry of Culture and Patronato de la Alhambra y Generalife 1986: 159-169).

It was in 1994 when the museum was finally renamed to Alhambra Museum, and its direction was assumed by the director of the *Patronato* Mateo Revilla Uceda, who immediately made some outstanding exhibitions (Revilla Uceda 1995: 25-29). In 1995 a permanent exhibition was finally open to the public. It consisted of seven differentiated spaces located in the South part of the ground floor of the Carlos V Palace. Between 1994-1995, the archives, library, warehouses, and offices of the Fine Arts Museum are moved to the “New Museums Building”, currently called *Fuentepaña* Building, unifying all institutions in that location. Among 1999-2001 half part of the Alhambra Museum’s collection was also unified, moving the objects from the east part of its previous headquarters called “Old Museum” to the first floor of the *Fuentepaña* Building, where many objects were collected, organised, and their information could finally be digitalised. (Pérez López, Moreno León and Sánchez Gómez 2022: 349-350). Recently, in August 2023, the second part of the collection that had remained in the “Old Museum” since 2001 has been moved, unifying the museum holdings in the same definitive and suitable location for the first time.

### **The tiles and tiling mosaics in the collection of the Alhambra Museum**

As analysed previously, the Alhambra Museum has been marked as an Archaeological and Art collection, with unique pieces of great historical, artistic, and technical value, that were collected through different methods such as deposits, purchases, donations, and mainly from excavations or conservation works achieved in the palatine city. In this context, at the exhibition rooms there are pieces mainly from the Nasrid period with an extraordinary historical, artistic, aesthetic, and technical value, while in the storerooms, valuable pieces remain for material, technological and chronological research. (Pérez López, Moreno León and Sánchez Gómez 2022: 350).

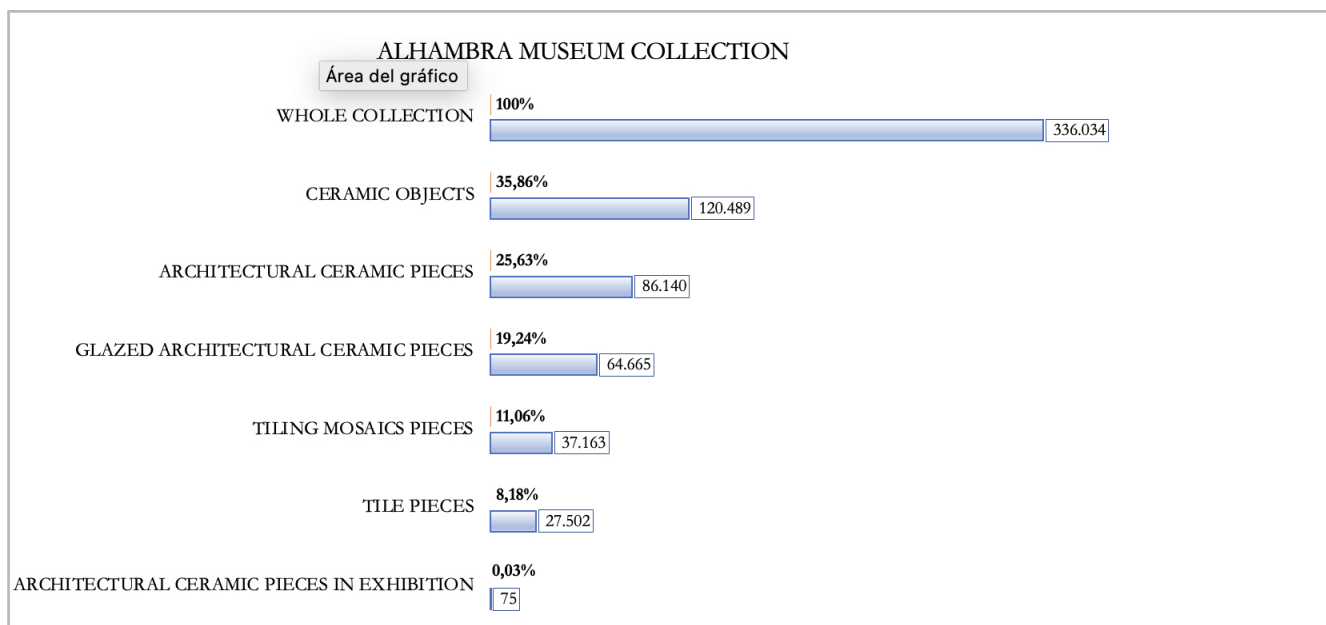
According to the information collected in the Alhambra Museum’s inventory and cataloguing database, as specified in

[Figure 1], nowadays around 336.034 different pieces are kept in the museum's collection, 120.489 of them are ceramic pieces, approximately 86.140 correspond to architectural ceramics objects, 64.665 of these architectural pieces are glazed, 37.163 refer to tiling mosaic pieces, 27.502 are associated with tile pieces, and 75 are distributed in permanent exhibition rooms (DOMUS database on 29-08-2023).

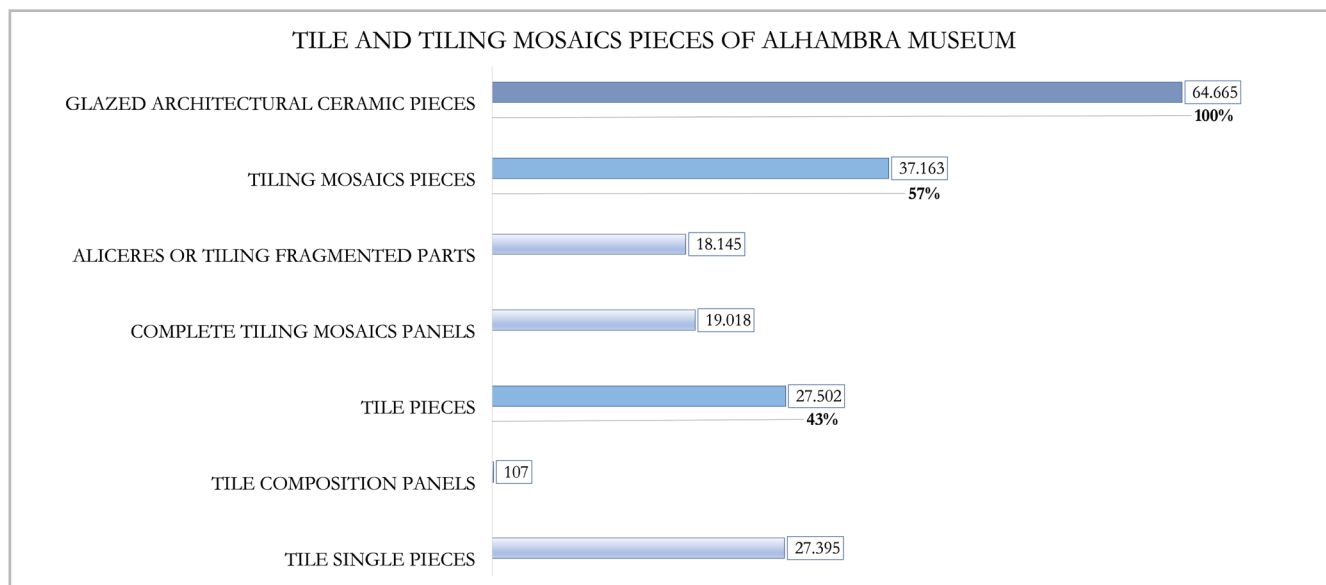
single pieces (called *aliceres*) or fragmented parts of compositional panels joined by mortar and preserved with their original characteristics, and 19.018 are complete tiling compositional panels which were originally preserved or intentionally restored with exhibition purpose; also, the sum of 27.502 tiles, 107 corresponds to tile composition panels, and 27.395 are tile individual pieces (DOMUS database on 29-08-2023).

Furthermore, as shown in [Figure 2], from the content related to the 37.163 pieces of tiling mosaics, 18.145 of them correspond to

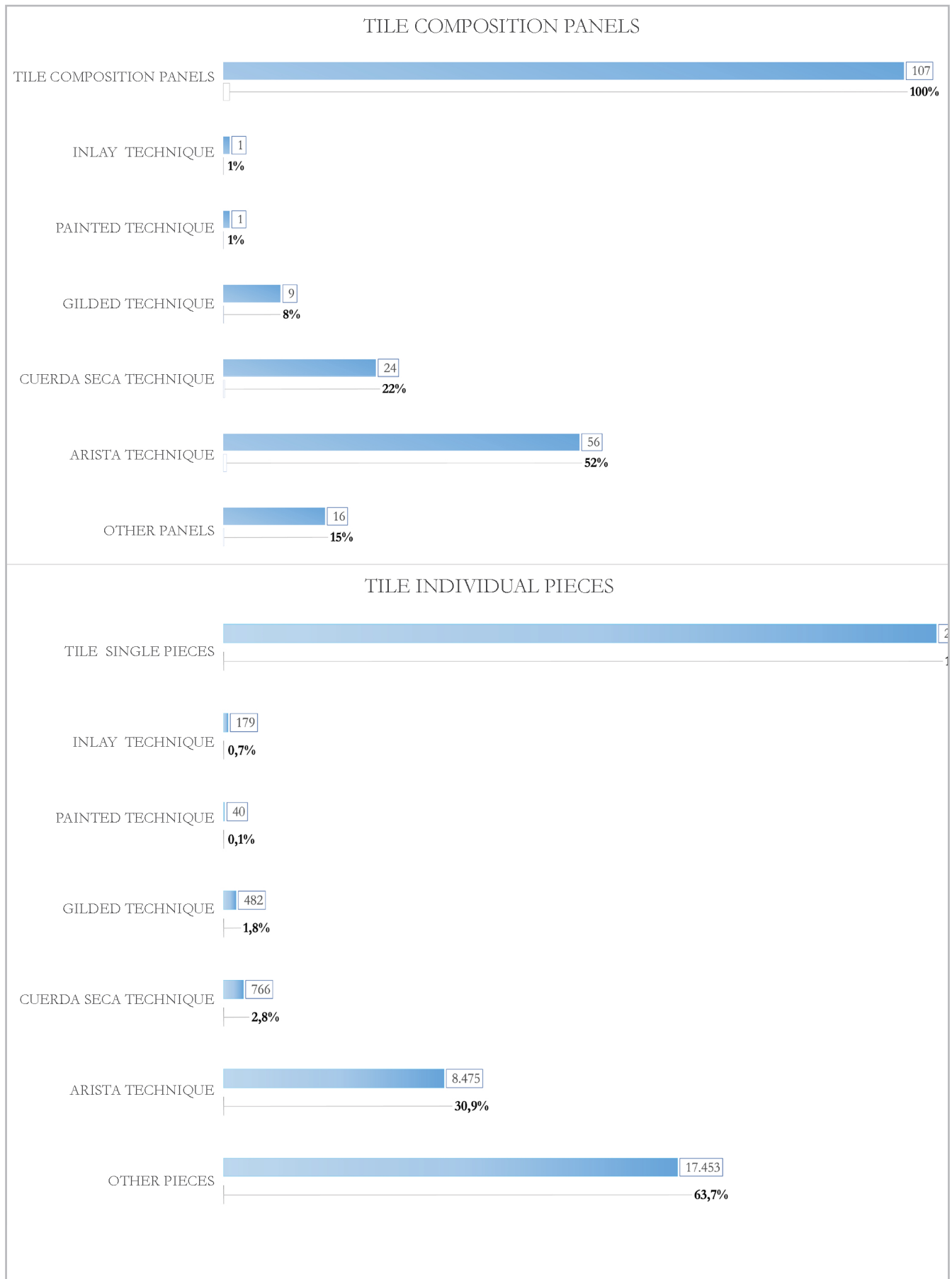
Besides that, as presented in [Figure 3], the tile objects inside Alhambra Museum collection are mainly classified considering



**Figure 1.-** According to DOMUS database until 29 August 2023 there are 336.034 objects stored in Alhambra Museum. 25% of this collection correspond to architectural ceramic pieces, 19% of them are glazed pieces, 11% refer to tiling mosaics pieces, 8% are associated with tile pieces, and just a 0,03% are available in the permanent exhibition.



**Figure 2.-** According to DOMUS database, until 29 August 2023, 57% of the glazed architectural objects correspond to tiling mosaics pieces and 43% correspond to tile pieces. These two typologies are also divided into single pieces and compositional panels groups. The amount of tiling mosaic single pieces (18.145) is similar to the number of tiling mosaic panels (19.018). Meanwhile, there is a remarkable difference between tile single pieces (27.395) and tile composition panels (107). The main reason for the latter lies in the fact that the fabrication of tile panels was not very common.



**Figure 3.-** Tile objects techniques found in Alhambra Museum collection. A great number of the collection corresponds to *arista* and *cuerva seca* tile technique pieces.

their decorative techniques. From the amount of 27.502 decorated pieces associated with the tile category it is possible to identify: 107 compositional panels, of which 1 corresponds to the inlay technique, 1 to the painted technique, 9 to the gilding technique, 24 to the *cuerda seca* technique, and 56 to the *arista* technique; and from the total of 27.395 individual pieces, 179 belong to the inlay classification, 40 to the painted one, 482 to the gilded, 766 to the *cuerda seca*, and 8.475 to the *arista* classification (DOMUS database on 29-08-2023). Due to exceptional circumstances related to standard terminology, the DOMUS database does not allow to specify the number of pieces made using the relief technique. However, based on a manual search of the stored relief pieces, we can estimate at least 250 objects, which amount is included in "Other pieces" section in [Figure 3].

### Catalogue and inventory of the tile and tiling mosaics pieces of the Alhambra Museum

In 1942, the writing instructions for creating a General Inventory of Catalogues and Records showed up, with the ambition of unifying the documentation of the objects preserved in all Spanish State Museums served by the Facultative Body of Archivists, Librarians and Archaeologists. Thus, the works on cataloguing the Alhambra Museum collections began, first in accordance with the instructions set up before by Joaquín María Navascués, but also following this official rule that, at that point, was based on an "Unitary Registration" process. This process consisted of a single registration number that was correlated by a serial numbered entry book and a triple card system called "General Inventory, Systematic Catalogue and Monographic Catalogue". (Pérez López, Moreno León and Sánchez Gómez 2022: 347). This old system, which has been kept for more than 60 years as a standard method, proposed the ordering of the collections according to their nature but also emphasizing the historical, artistic, and archaeological attribute of each object.

In 1993 an organism called *Subdirección General de Museos Estatales* undertook a project of "Documentary Standardization" of Spanish Museums (Carretero Pérez 2005: 20). This project resulted from a diagnostic report on the state of the question in documentation in museums. This report highlighted the disparity of situations, the diversity of work systems and the lack of common criteria, all of which increased the discrepancy of information between museums. In 1996 the Ministry of Culture prepared a new report that included the "elements for a computer application of museography management" in order to define and unify the documentation processes (Secretaría de Estado de Cultura 1998: 9-44). In 2003 this system began to be implemented in all Andalusian State Museums under the name of *Sistema Integrado de Documentación y Gestión Museográfica* or DOMUS (Pérez López, Moreno León and Sánchez Gómez 2022: 352).

DOMUS is an integrated documentation and management system, developed in software version by the Spanish Ministry of Culture, which included all areas of a museum

management, such as economic, administrative, collections, documentary and bibliographical, exhibitions, conservation, etc. It was implemented in Alhambra Museum in 2005 and contributes by facilitating the access to researchers, primarily considering that the collections are distributed in different spaces with not so easy physical access: the permanent exhibition at Carlos V Palace that has about 397 different pieces and the reserved area at *Fuentepeña* building where approximately 336.034 objects are sectorized according to their material supports (Pérez López, Moreno León and Sánchez Gómez 2022: 342).

There are two phases in the registration process: the inventory and the catalogue, their differences lie basically in the specific information presented in each one. This differentiation is specified by the Royal Decree 620 of 10 April 1987 which describes both as a technical-scientific instruments that together represents the complete description of each artefact: "the inventory aims to identify in detail the museum collections, referencing their scientific and artistic significance, and their topographical location; meanwhile, the purpose of the catalogue is to document and study the museum's holdings in relation to their artistic, historical, archaeological, scientific or technical framework. In addition, the catalogue must contain information about the conservation, treatments, biography, bibliography, and other similar aspects relating to each piece" (Real Decreto 620/1987 artículo 12).

The cataloguing and inventorying of architectural ceramic pieces in Alhambra Museum require a much more systematized and hierarchical documentation. This is currently accessible through the DOMUS system since it allows to include a great number of variables and records based on correlative numbers of easy searching (Pérez López, Moreno León and Sánchez Gómez 2022: 353). The documentation is presented in a series of pre-income, income, conservation, graphic documentation, movements, temporary entries, and consulting forms as illustrated in [Figure 4].



**Figure 4.-** Domus system screenshot that shows the different forms related to the cataloguing and inventory of architectural ceramic pieces in Alhambra Museum. © Patronato de la Alhambra y Generalife, Alhambra Museum.

Due to space limitations and to comply correctly with the rules of this publication, the “Documentary Datasheet” is presented in [Figure 5] as an example. This document collects, as a “summary”, the most relevant information for the inventory and cataloguing of the architectural ceramics, such as description, identification, and classification. Some remarkable sections are: the “inventory number” which is the identifying code of each object; the “location” which means its precise situation inside the collection; the “generic classification” which refers to its material classification; the “object” which corresponds to the common name assigned to each piece, considering those

available in “Thesaurus Database Common Names List”; the “technique” which could refer to the manufacturing process or the decoration technique of each object; and finally, the “internet availability” of each object, which one is especially relevant in research cases.

Although, as expressed in [Figure 6], it should be noted that from the total of 86.140 which corresponds to the architectural ceramic pieces stored in Alhambra Museum at this time, approximately 57.000 (66%) are inventoried, about 900 (1%) are also catalogued, and just 57 (0,07%) are available on internet (DOMUS database as of 29-08-2023).

**JUNTA DE ANDALUCÍA**

CONSEJERÍA DE CULTURA  
Patronato de la Alhambra y Generalife

**Museo de la Alhambra**

**INVENTARIO** 091290

**DEPARTAMENTO** Museo de la Alhambra (MA)

**CLAS.GENÉRICA** Cerámica, Elementos Arquitectónicos; Revestimientos

**OBJETO** Panel de alicatado (2)

**UBICACIÓN** Nuevos Museos / Módulo 1 / Planta I / Área II / Estantería M / Cuerpo 2 / Balda 4 / C1325

**MATERIA** Cerámica

**TÉCNICA** Vidriado cerámico  
Alicatado

**DIMENSIONES** Altura = 10,5 cm; Anchura = 9,5 cm; Grosor = 3,7 cm

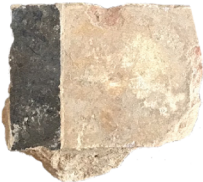
**DESCRIPCIÓN** Fragmento de panel de alicatado de cuadrados encintados procedente de la Alhambra. Es un diseño básico de crecimiento lineal creado con formas poligonales. Está compuesto por un cuadrado vidriado en blanco de 6,3 cm de lado, enmarcado por una cinta en negro de 6,3 cm de largo por 2,3 cm de ancho. En la fractura se documenta el grosor aproximado de las piezas de 2 cm, con laterales biselados al interior y recortes en el reverso. Conserva el mortero de fijación al paramento, de cal con árido de esquistos y arcilla de pequeño tamaño, con nódulos de cal. La tonalidad es blanca-rosacea de textura consistente. Este fragmento formaría parte de un revestimiento paramental basado en una red en la que la composición estaría formada por estas piezas en disposición romboidal.

**CONTEXTO CULTURAL** Nazarí (Periodo islámico español / Edad Medieval)

**DATACIÓN** 1232-1492

**USO/FUNCIÓN** Zócalo

**PROCEDECENCIA** Convento de San Francisco. Huerta, La Alhambra (Granada (m), Vega de Granada (comarca))



**CLAS.RAZONADA** El convento de San Francisco, actual Parador de Granada, está situado en el espacio amurallado de la medina de la Alhambra, ubicado en la parte alta de la colina de la Sabika, en la zona central de la antigua ciudad palatina. Fue convento de San Francisco en el siglo XVI y anteriormente palacio nazarí, llamado también de los Infantes, edificado en el siglo XIII. Se conservan revestimientos idénticos en el yacimiento arqueológico del baño del palacio de los Infantes ubicado en las instalaciones del actual Parador de Granada, dicho baño quedó amortizado a principios del siglo XVI. Este hecho junto con las características de fabricación de las piezas de alicatado y el tipo de mortero se asocia a un contexto nazarí.

**HISTORIA OBJETO** Leyenda en caja: Huerta de San Francisco  
Leyenda en Base de datos: Varios de material de construcción (ladrillo, solería, teja, molduras). Los materiales de la Huerta de S. Francisco están sin lavar. Heterogéneos [CATALOGADA DOMUS 2022 EVA OCTUBRE]

**TIPO COLECCIÓN** Colección Estable

**EXPEDIENTE** <Desconocido>

**FORMA INGRESO** Fondos antiguos

**AUTORIZACIÓN** Sin documentación, Desconocido sin fecha

**FUENTE INGRESO** Desconocida

**FEC.INGRESO** 19/03/2013

**CATALOGACIÓN** MORENO LEÓN, Mª Eva (28/10/2022)  
ARANDA PASTOR, Gaspar (19/03/2013)

**VISIBLE WEB** No

Figure 5.- Documentary Datasheet of a tiling mosaic fragmented panel. © Patronato de la Alhambra y Generalife, Alhambra Museum.

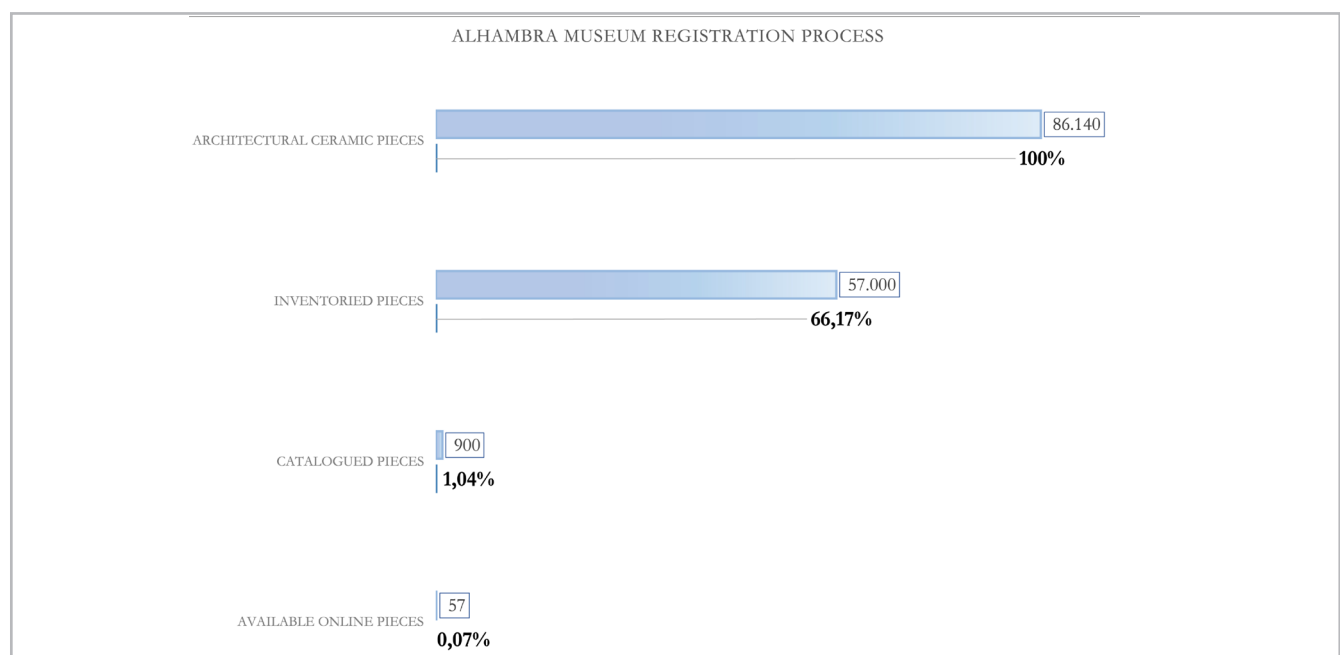


Figure 6.- Alhambra Museum documentation process according to DOMUS database on 29 August 2023.



## Conservation of the tile and tiling mosaics pieces of the Alhambra Museum

Regarding the conservation *stricto sensu* of the tiles and tiling mosaics objects at Alhambra palatine city, some necessary variables must be considered before the application of the different treatments. Firstly, their technical diversity, secondly, their decorative purpose, and finally, their current and future location. The location may refer to those objects available *in situ* valued as architectural objects that maintain their original context, also those objects already detached from their architecture that are stored or will become part of the permanent exhibition of the Alhambra Museum (Martín Peinado 2022: 328).

The aim of the interventions carried out on these pieces is focused on eradicating the harmful agents that affect their conservation, also restoring their physical and aesthetic integrity. The different treatments normally include: a previous consolidation especially in case of a decorative layer detachment; cleaning of the reverse to eliminate the remains of the materials used in the adhesion of the objects in the architectural facing; front cleaning to remove deposits and dirt incrustations adhered to the surface; chromatic reintegration that aims to recover the aesthetic aspect and the whole visual interpretation mostly in the case of the *aliceres*, that form intricate compositions in tiling mosaics panels; volumetric reconstruction in some cases such as tiles executed by the relief technique; and finally, panels assemblage mainly for those which have missing or dislocated pieces (Martín Peinado 2022: 329-334).

All the interventions are gathered in "Conservation Reports", and the information provided is later transferred to the registration, inventory, and catalogue records of each object. These reports usually include a complete study of each object, a first analysis of their technical and material characteristics as well as some details about their state of conservation. Furthermore, these reports also include other files such as "Field Notebooks" that are prepared during the intervention processes, and "Final Reports" that are presented at the end of the intervention (Blanca López and Blanca López 2022: 273). All documentation is stored in "Alhambra Archives" under the responsibility of the *Patronato de la Alhambra*, which administer the information just for internal use.

At last, with regard to the maintenance of the objects in the Alhambra Museum, the criteria adopted are in accordance with the Ministry of Culture's Exhibition and Preventive Conservation Programmes, whose purpose is to establish the optimum conservation parameters based on the nature of the collections, their suitability for the particular characteristics of the museum and the conditions required by the objects (Subdirección General de Museos Estatales 2005: 128-129, 140-147). Most of the ceramic collection is kept in specific storage boxes appropriated to their composition and typology and according to the conditions

of relative humidity, temperature, lighting, manipulation, storage, and exhibition.

## Conclusions

The Alhambra palatine city is a key environment, but also very complicated, for the study and understanding of the Spanish-Muslim architectural ceramic pieces, even more if we considerate it from different perspectives such as those presented in this document.

At a historical level, the origin and the evolution of the Alhambra Museum and its collection are directly related to the development of the monumental complex itself, whose identity has been enriched along with the development of organization, documentation, and research. The incessant growth of the collection still requires a constant adaptation and renewal in management tasks, although now with the objective of promoting investigations and facilitating the access to the collections.

Regarding the field of technical documentation, we can conclude that the documentation of these museum objects is fundamental for the present management and future conservation of the heritage assets. Documentation is a necessary task in all stages related to the objects within these institutions. It also underlines the importance of scientific communication, especially in this case, where the objects have remained mostly unknown inside the Alhambra's spaces. The cataloguing and inventorying of the tile and tiling mosaic pieces in the Alhambra Museum still presents some difficulties, such as their technical complexity, the extraordinary volume of pieces and the standard terminological variations that, in some cases, generate discrepancies in their classification and description.

Finally, concerning the conservation of the tile and tiling mosaics, we can conclude that this is an extremely important task to recognise the historical and cultural value of these objects. Regarding the criteria applied for their conservation, it is worth highlighting the intricate scenario that precedes them: first, the technical diversity of the pieces, second, their ornamental purpose, and finally, their current and future location. The location may refer to those objects available *in situ* valued as architectural objects that maintain their original context, those objects already detached from their architecture that are stored in the reserve areas, and those objects that are or will become part of the permanent exhibition of the Alhambra Museum.

## Note

[1] This research is part of the doctoral dissertation *Estudio histórico y arqueométrico de cerámicas arquitectónicas ornamentales de la Alhambra y Generalife de la etapa nazarí hasta la expulsión de los*

*moriscos (siglos XIII – XVII)*. We are grateful to the Patronato de la Alhambra y Generalife, especially to the Collection Department of the Alhambra Museum, for providing access to the monument and for their countless support. We are grateful for funding from Junta de Andalucía Research Group RNM-179, and from Alhambra's Science Excellence Unity (UCE-PP2018-01).

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