

# *from* **symbol** *to* **edifice**

*Symbolism and atmosphere  
in Andalusí architecture*

**Bendert van Dijk**

Research plan  
November 2023



*Cover: Amadeo  
Preziosi, Suleymaniye  
mosque in Istanbul  
(1852) Watercolour on  
paper, 35 x 53 cm*

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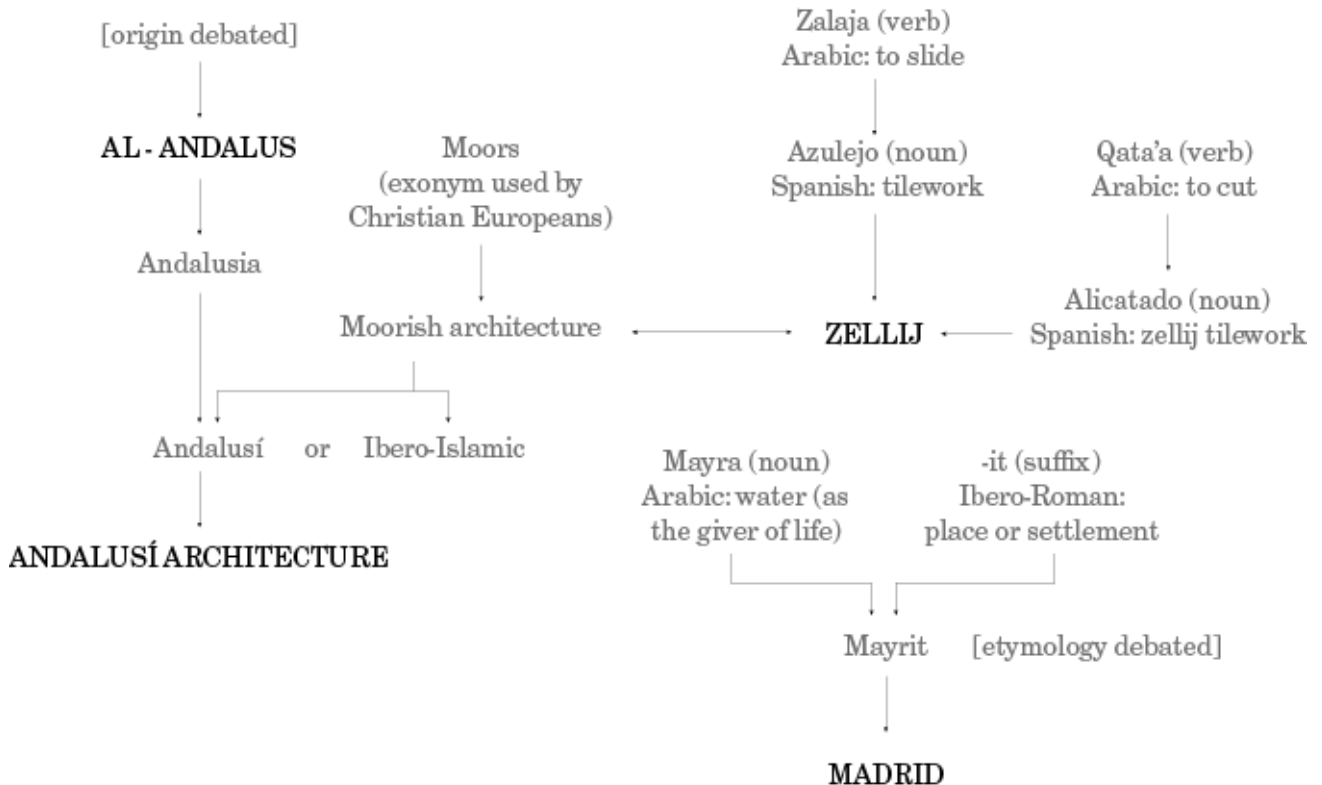
# Keywords

Andalusí architecture, symbolism, atmosphere, Zellij mosaics, abstraction, perception.

# Definitions

Some key terms used in this research have been mapped out in the figure depicted below, with their respective etymologies, connotations and translations, if applicable. Note the alternative terms Andalusí and Ibero-Islamic for Moorish architecture, a term which I will refrain from using in my writings (see 'Biases and ethics.')

*Bottom: terms, definitions and etymologies.*



# Biases and ethics

Studying facets of another culture – be it architecture, visual art or religious practices – will inevitably bring about biases when the scholar is not part of the culture they study. Not being Muslim myself, I am aware of these biases and try my best to mitigate them in my research into Islamic culture, history and architecture. Being wary of contested terminology is one aspect of this effort. For example, I will avoid Eurocentric terms such as Moors or Moorish architecture, being exonyms used by Christian Europeans to describe a multitude of different ethnic and religious Ibero-Islamic groups. Instead, I will try to remain critical of scholars with a non-Islamic background and will continue to do so throughout my research and writing.

It has to be acknowledged though, that an objective view is impossible and certain biases remain unavoidable. Therefore I ask the reader to retain a certain level of criticism towards the writings and findings of this research, like I will remain critical of the books and papers upon which the literature review part of this research will be conducted.

The core topic of this research – studying and ultimately reassimilating the way Andalusí architecture translates symbol into edifice – and whether or not this is desirable or even ethical is an important question to ask, and certainly one I have asked myself. It should be mentioned that appropriating elements of the western Islamic architectural tradition or elements from its culture is not the intention of this research. Even though the architecture of Al-Andalus – as this research will point out – itself builds greatly upon elements taken from **other cultures and ethnical regions**, the goal of this research is to learn lessons from and draw conclusions on the Islamic way of interpreting symbolism as built forms and the use of atmospheres in doing so. By learning from these practices in Islamic architecture I aim to render them tangible to be used in contemporary architecture.

*For example, the tradition of Zellij draws from Syrian and Spanish crafts, while building upon knowledge of tilework from the Roman empire.*

# Introduction

*I have always had a certain fascination for the art and architecture of the Islamic world. During my travels through Anatolia, this fascination expressed itself in many visits to mosques and tapestry shops and booklets full of pen drawings and sketches. The enormous surge of knowledge that emerged from the Islamic civilisations in the middle ages encompasses not only my architectural interests, but also those in mathematics, geometry and the visual arts.*

*The awe-inspiring buildings that came out of the Islamic enlightenment and out of its heritage have impressed me greatly and continue to do so whenever I have the pleasure of setting foot inside these spaces. The question arises: what is it about this architecture that makes it so impressive? How come I perceive these awe-inspiring in the ways I do? It is not only the religious architecture that has such a profound effect on me as a visitor – palaces, gardens and bathhouses possess these same mysterious qualities. Might it be the history that is embedded in these medieval places? Or is there something else that sets the Islamic architecture aside from contemporaries?*

*The answer might lie in the either monumentally large or intimately small spaces and the mastery of scale and proportion that lies therein; it might be found in the intricate decoration that stretches out across floors, walls and facades; it might be the wealth that emanates from the richly ornamented masonry and stucco works or maybe it lies in the knowledge of the fine arts and sciences that is embedded within the architecture.*

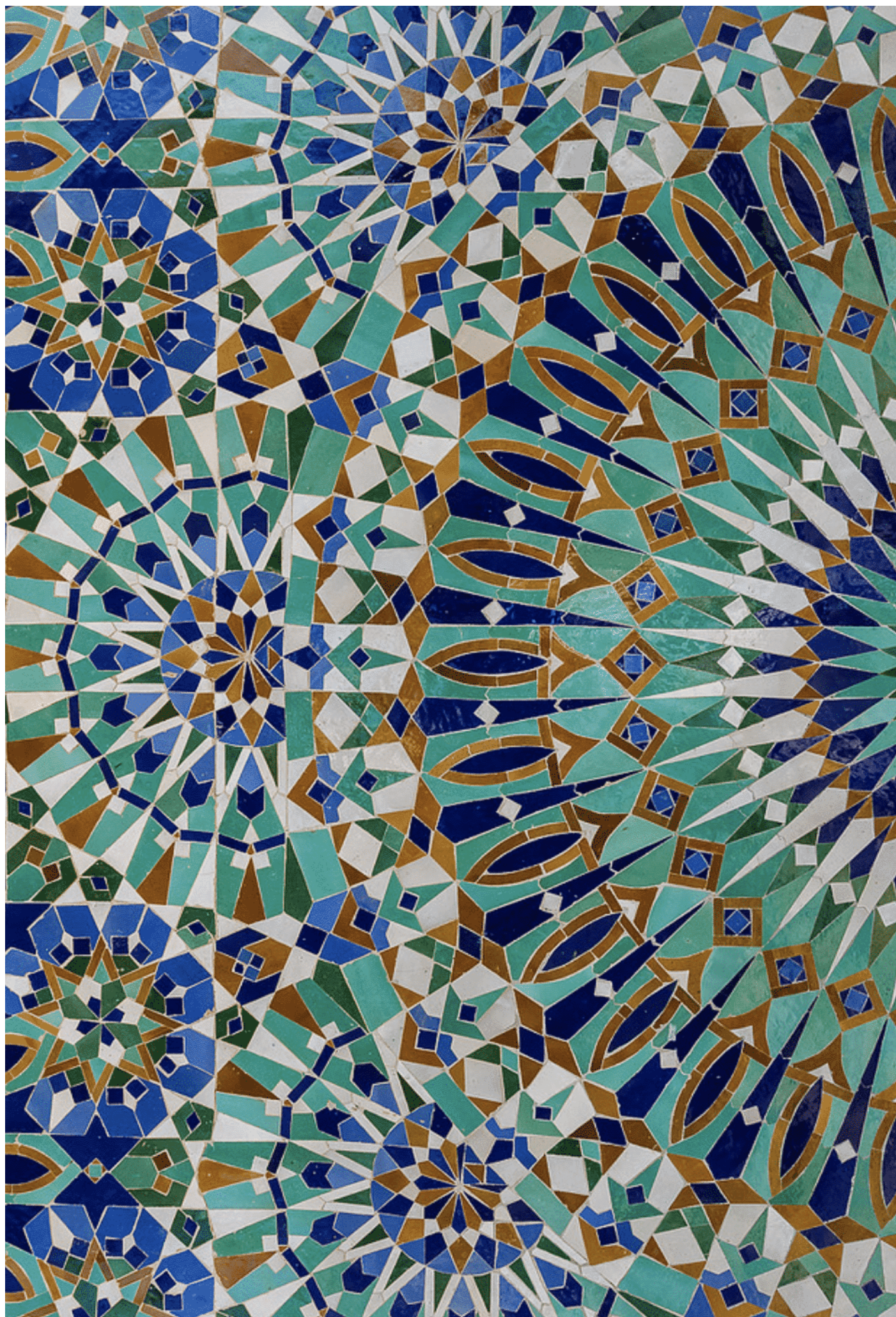
The Iberian Peninsula is infused with history. The westernmost reaches of the Islamic world gave rise to the iconic Andalusi architecture that can be found in the historic Islamic cities of Córdoba, Granada, Jaén, Toledo, Zaragoza and many other cities in present-day Portugal and Spain. As architects, we can learn many things from the region's Islamic past and the mastery of spatiality, materiality and morphology of its architects and craftspeople. However, after the **Reconquista** and the conversion from Islam to Christianity, much of this architectural and indeed cultural heritage has been lost. Especially in the city of Madrid, this heritage is hardly visible anymore in the contemporary urban fabric, despite the city being **the only European capitol** to have been founded under Islamic rule. The awe-inspiring features of the Andalusi architecture seem to have been lost together with the buildings themselves.

For architects to study Islamic arts and architecture makes sense if one considers the essential element of non-figuration in Islam. Architecture is in and of itself a symbol – a means of communication through abstraction. Hence, the parallels become apparent: without the use of figuration, the translation of Islamic symbolism takes place entirely in the realm of abstraction, pattern, form and – as I will argue – atmosphere. This last concept is key in this research, and will be used to make sense of the aforementioned translation of symbolism in Andalusi architecture. The ability of atmosphere to enrich architecture makes it into something that we as architects should strive for

*During the reconquista, Christian rulers conquered Al-Andalus from the Arab kingdoms in the early 8th century.*

*The Medina of Mayrit was originally founded as a fortification city of Toledo.*

*Right: Zellij mosaics, Zia Tile (n.d.) Accessed from ziatile.com on 31-10-2023*



mastering and something worth studying in a culture so fluent in it as that of the Muslim-ruled Iberian peninsula.

The way I intend to approach these conditions is two-fold. Firstly, starting out with my fascination for the Islamic arts, I will approach this research in an inductive, bottom-up way. I have considered the typical typo-morphological elements of Andalusí architecture: the horseshoe arch, the Zellij mosaics, the muqarnas, the riad and the square minarets. From these archetypal Andalusí forms, I have chosen the **Zellij** mosaics as an entry point into the concepts of symbolism, abstraction and atmosphere. This element is not just decorative ornamentation, but symbolises something greater: the artisanship of Muslim craftspeople, the intricacies of Ibero-Islamic art, the spread and cultivation of knowledge in the fields of mathematics and geometry, the distribution of wealth and resources throughout Al-Andalus and the notions of abstraction and non-figuration within Islamic architecture. Furthermore, it is the culmination of some of my own fascinations in mathematics, geometry and architecture. More importantly, however, Zellij tilings are the material edifice into which the symbolism of the Islamic religion and of the many different Muslim cultures condenses, with its different material aspects culminating into some kind of **gesamtkunstwerk** that encompasses materiality, composition, colour, form, proportion, symmetry and spatiality.

*Zellij, (or Zellige)  
pronounced zæ'liʒ.*

*An ideal interplay of  
different art forms.*

Secondly, in addition to the analysis of the Zellij mosaics, I will closely examine the way in which water plays a role in Andalusí architecture. Water is not only a daily necessity, but also plays a major symbolic role in cultures throughout the world, the Ibero-Islamic culture being no exception. For example, water





and the necessary systems of storage and irrigation are essential for the gardens which are of great symbolic importance in the Islamic culture. Moreover, water is central to religious rituals such as baptism and ablution, but also to profane rituals such as bathing and trade. Water also ties into Zellij, through the clay from which the **tesserae** are made, the trade and transfer of the tiles across the Mediterranean Sea and the function of both the Zellij tiles and water in climatizing spaces. With regard to atmosphere, water is quintessential in Islamic architecture: the sound of flowing and trickling streams, its reflection and the symmetries it creates, the calm and cool it can bring to a space and the way the light dances off its surface. I will approach Madrid through the lens of water and the symbolism that accompanies it. I will expand upon the sites in the paragraph “sites and case studies.”

*Tesserae (singular: tessera) are the tiles from which the Zellij mosaic is assembled.*

To summarise, in this research I aim to respond to the apparent loss of Islamic heritage within the city of Madrid on the one hand, as well as try to reassimilate the Andalusí ways of creating **atmosphere**, in light of modern-day notions of symbolism, on the other.

*Atmosphere: the sensory and emotional qualities of a space.*

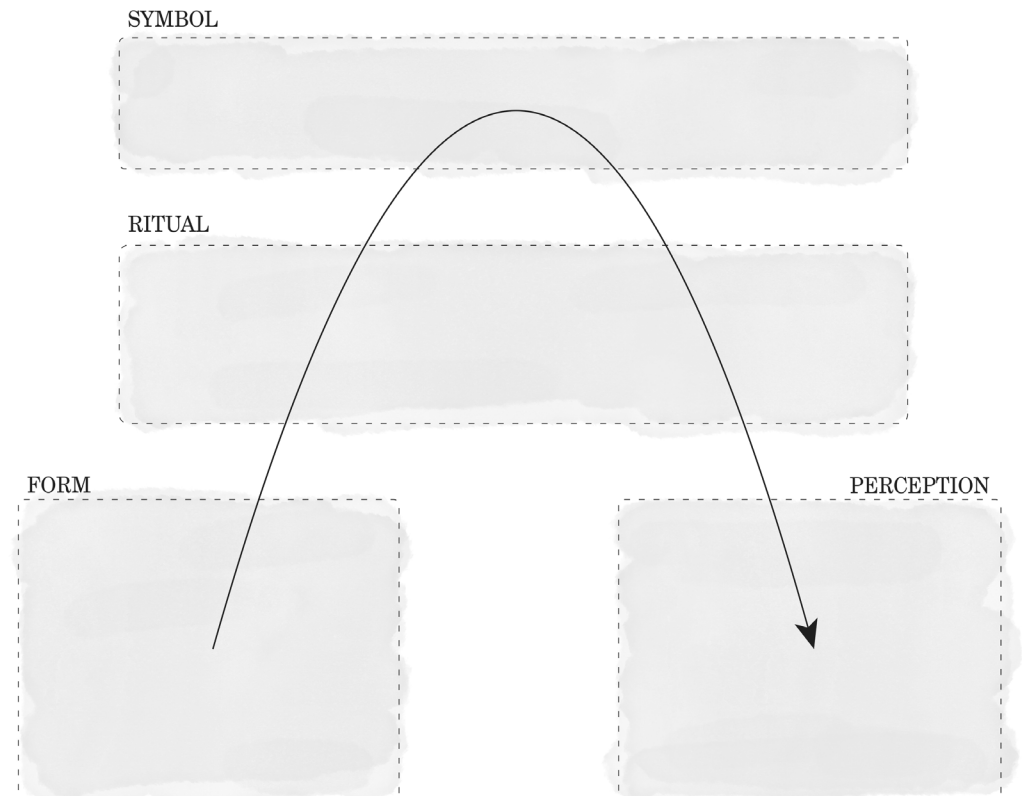
## Conceptual framework and research questions

The research will be structured by categorising references, findings and concepts into four interconnected and interdependent domains: symbol, ritual, form and perception. The domain of symbolism can be regarded as overarching the other three, though the mutual relationships are more complex and reciprocal than is suggested by the simplified diagram on the next page. In this research, I will rely on inductive reasoning to connect these different domains and reveal their commonalities, relations and interdependencies.

Taking Zellij mosaics as an entry point, I will start out at the domain of form and traverse to that of perception. Ultimately, I will be using the symbolic value of water in Islamic architecture as a guide through the domains of ritual and symbol.

*Left: Alcazar fountain Seville, an example of water and Zellij mosaics coming together.  
Wikimedia commons (2014) Accessed on 31-10-2023.*

*Right: conceptual framework. The arrow indicates the path through the domains.*



*To inform in the sense of giving shape to something, to literally form.*

The proposed research aims to shed light on the way symbolism **informs** Andalusí architecture through the creation of atmospheres. Thus, the main questions of this research are as follows:

**How are symbolism and meaning translated into atmospheres in Andalusí architecture?**

**What if the Andalusí translation of symbolism to atmosphere were to be applied to contemporary architecture?**

To answer the main research questions, a number of sub-questions is formulated. These sub-questions are placed within the four domains from the conceptual framework depicted in the diagram shown previously.

**Symbol** Which role does water play in the symbolism of Andalusí architecture?

Which symbolic role does water play in present-day Madrid?

In what ways do concepts of symmetry, hierarchy and unity dictate the typomorphological aspects of Andalusí architecture?

How have notions of symbolism changed or shifted in contemporary society and architecture?

**Ritual** What were and are the rituals connected to water in the historic Arabic centre of Madrid?

How are atmospheres related to ritual in Andalusí architecture?

How does Andalusí architecture facilitate rituals through its form and spatiality?

Who practices the rituals that are associated with water in present-day Madrid?

**Form** How did the knowledge of mathematics and geometry spread throughout the Islamic world and to the Iberian Peninsula? Which innovations paved the way for the Zellij mosaics? Who were the people responsible for the spread of this knowledge?

Where did the art of Zellij originate? When was it introduced to the Iberian peninsula? Upon which traditions and practices does the art build?

Who were the craftspeople that made the Zellij tiles? Who played a role in the making of the mosaics? Where did these people come from?

How do abstraction and non-figuration give shape to Andalusí architecture?

**Form / perception**

How do typo-morphological elements in Andalusí architecture contribute to the creation of atmosphere?

How does symbolism relate to phenomenology within Andalusí architecture?

**Perception**

How do the concepts of symmetry, hierarchy and unity contribute to the phenomenology of Andalusí architecture?

# Theoretical framework

The intended conceptual and theoretical approach have been discussed in the previous two paragraphs of this research plan. To briefly summarise: I aim to uncover the ways in which Andalusí architecture makes use of atmosphere to translate symbolism into edifice. To achieve this – and to ultimately be able to reassimilate this translation to contemporary architecture and its notions of symbolism – I will study both Zellij mosaics and their relation to Andalusí symbolism, as well as the symbolism of water within Andalusí architecture and its typo-morphological artefacts.

Because of the historical nature of the majority of this research, a large number of historical accounts, chronologies and scholarly architectural analyses will be consulted. In addition to this, a number of books, articles and essays on the symbolism, rituals and the pillars of Islam are present in my bibliography. In addition to this, I will rely on publications on the reciprocities of ritual and religion, religion and symbolism, symbolism and form, form and atmosphere and atmosphere and symbolism. My aim is to bridge the gap between these concepts and shed new light on the relations between them by approaching them from a holistic point of view.

Depicted in the diagram on the right is the theoretical framework of this research, with some of the key references depicted as a constellation of relations. Keywords, terms and sources are shown within the context of the domains of symbol, ritual, form and perception, as well as their interdependencies and connections. This diagram serves a dual purpose: it acts as a guide for the research as well as a form of **annotated bibliography**, linking references to their respective relevant domains within my conceptual framework.

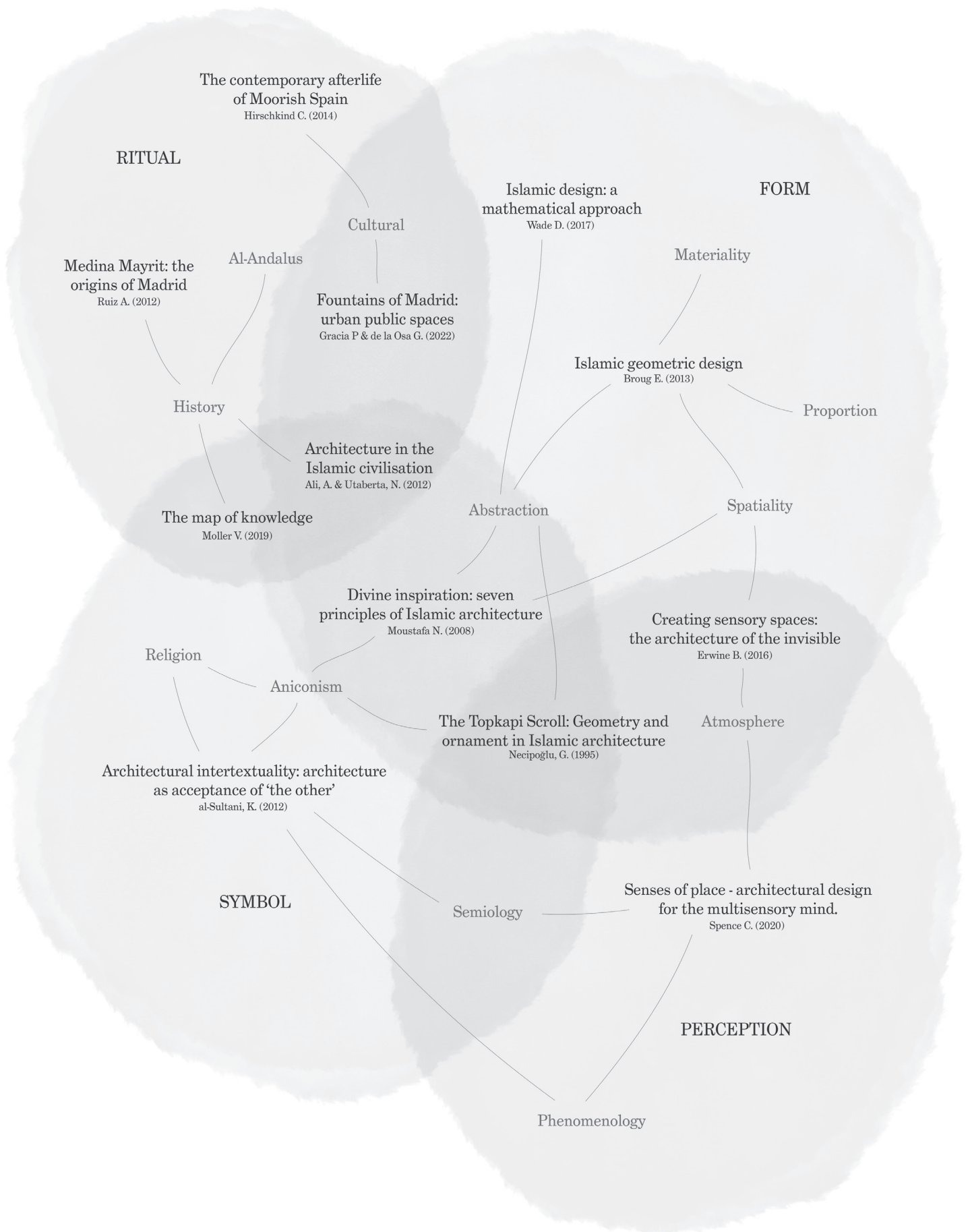
*Right: theoretical framework, as constellation of relations.*

*A comprehensive bibliography is included on the last pages of this document.*

## Methodology and methods

In the diagram on the next pages, the methodology and research tools are depicted. Both the epistemes and a selection of research (sub-)questions are placed within the overlapping domains of symbol, ritual, form and perception. Because of the multi-faceted nature of the research, the methodology is quite expansive. Firstly, historical research plays a large role in establishing an understanding of the topics and concepts that are core to this graduation research. Secondly, during the excursion, case studies will aid me in analysing the vernacular morphological manifestations of Islamic symbolism in the south of Spain. The next paragraph will elaborate on the excursion further. Lastly, speculative research will help me answering my second main research question: “what if the Andalusí translation of symbolism to atmosphere were to be applied to contemporary architecture?”

*Double spread: methodological framework.*



# RESEARCH QUESTIONS & EPISTEMES

Praxeology

FORM

Genealogy

How did the knowledge of mathematics and geometry spread throughout the Islamic world and to the Iberian Peninsula?

Taxonomy

RITUAL

Material culture

How do abstraction and non-figuration give shape to Andalusí architecture?

Geometry

How does Andalusí architecture facilitate rituals through its form and spatiality?

Where did the art of Zellij originate? When was it introduced to the Iberian peninsula?

In what ways do concepts of symmetry, hierarchy and unity dictate the typo-morphological aspects of Andalusí architecture?

Typomorphology

SYMBOL

Semiology

How does symbolism relate to phenomenology within Andalusí architecture?

Phenomenology

PERCEPTION

## METHODS

## TOOLS

Historical research & literature review

Reviewing written work, digital and print. Reviews are essential.

Mapping successors, predecessors & relations

Drawing a timeline of sequential form elements, photoshop.

Cataloguing ornaments & elements

Drawing a matrix, photoshop, literature study.

Historical mapping

Editing geographical maps, analysing trade routes.

Comparative geometrical analysis

Cross-analysing patterns: digital tools.

Plan analysis

Measuring and digitally superimposing geometric shapes on plans, sections, elevations.

Scale and proportion

Taking mobile phone photographs from different eye levels and perspectives.

Caricatures

Pen drawings, selectively exaggerating and disregarding morphological elements.

Studying symbolism

Reviewing written work, digital and print. Reviews are essential.

Soundscapes

Digital audio recording, on my phone.

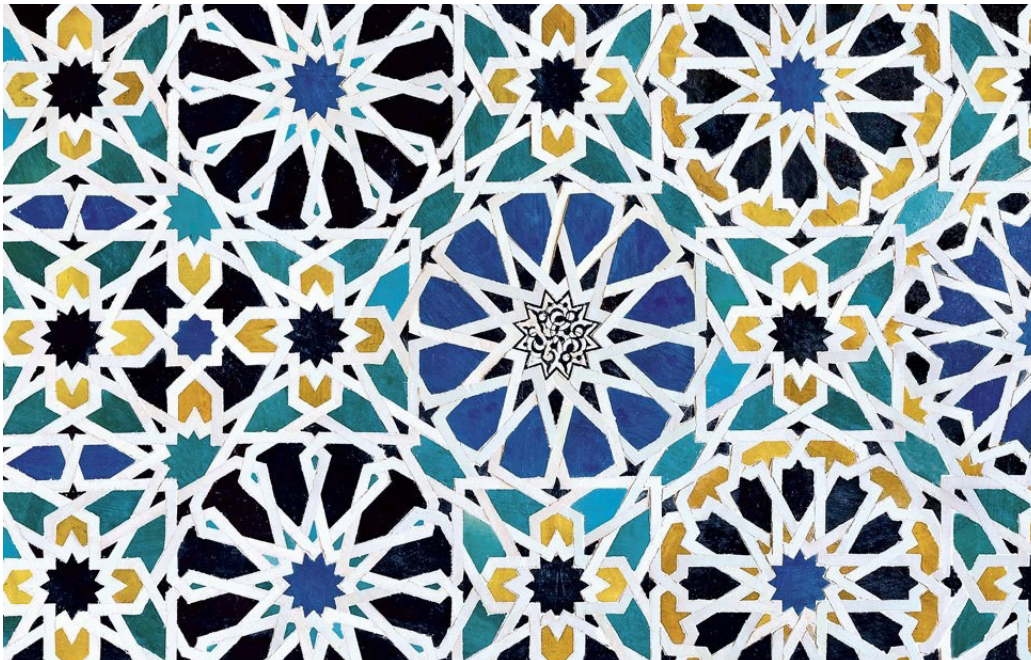
Selective attention

Noting isolated sensory experiences: notebook, pen.

Selective sketching

Quick prioritising pen drawings: notebook, pen.

*Right: Alhambra,  
Patio de los Arrayanes.  
Brittanica (2023)  
Accessed from [https://  
www.britannica.  
com/topic/Alhambra-  
fortress-Granada-Spain](https://www.britannica.com/topic/Alhambra-fortress-Granada-Spain)  
on 03-11-2023.*



*Left: alicatado mosaic  
in the Mexuar.  
Tilework in the  
Alhambra (2018).  
Accessed from [https://  
www.dosde.com/  
discover/en/tilework-  
in-the-alhambra/](https://www.dosde.com/discover/en/tilework-in-the-alhambra/) on  
03-11-2023.*

*Right: Mezquita de  
Córdoba. Laguiago.com  
(n.d.) accessed from  
[https://www.laguiago.  
com/espana/mezquita-  
cordoba-templo-repleto-  
historia-curiosidades/](https://www.laguiago.com/espana/mezquita-cordoba-templo-repleto-historia-curiosidades/)  
on 03-11-2023.*





# Sites and case studies

Shortly after finishing the research plan, I will visit Spain in an eight-day excursion. In addition to visiting Madrid, I will travel to the old Islamic cities of Córdoba and Granada. In preparation for this trip, a number of site conditions is defined to guide the selection of potential project sites. Here, the distinction is made between project site and site of interest.

## Project sites

In my choice of site, I will focus on places of high symbolic value and places where remnants of Spain's Islamic heritage are still present – albeit not necessarily in visible manifestations. In my selective mapping, I have focused on the fountains of Madrid and both their historic infrastructure and their symbolic and ritual dimensions. A special interest will be taken in **Plaza de los Carros**, for both its archaeological and contemporary ritual significance .

In geographic terms, possible project sites might lie along the ancient city wall that confined the fortification of Mayrit, within the city centre streets of which the pattern is inherited from the medieval city structure or other sites that have a distinct cultural-historic significance.

*In 1983, remains of a Qanat (an Islamic waterway, predeceasing the Viajes de Agua) were discovered beneath the square. The square has a fountain as its central feature to this day.*

## Sites of interest

During the excursion to Spain I will not only visit Madrid, but also the medieval cities of Córdoba and Granada. The Mezquita in Córdoba and the fortress of the Alhambra in Granada are feats of architecture that are widely accepted as the epitome of Andalusí architecture. Apart from their breathtaking aesthetics though, these two places have been the subject of countless poems, stories, novels and paintings. This cultural significance ties into my research into Islamic atmospheres and symbolism, for it is precisely their atmospheres that make these spaces have such a profound emotional – and indeed, religious – effect on their visitors.

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*Graphic novel about Zumthor's Therme Vals, on atmosphere and symbolism.*

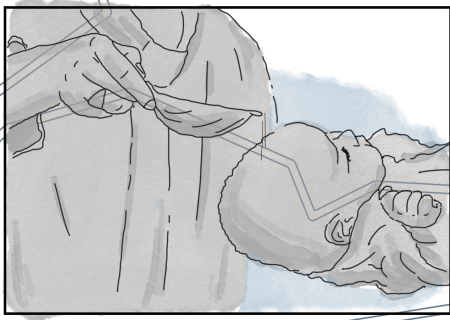
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1. Viaje Abronigal Bajo
2. Viaje Abronigal Alto
3. Viaje Fuente Castellana
4. Viaje Alcubilla
5. Viaje Amaniël

- I. Islamic city wall
- II. First Christian city wall





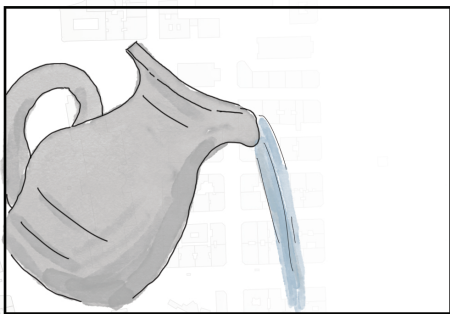
## Baptism

In the now mostly Christian Iberian peninsula, water took on symbolic and ritual form in the rite of baptism.



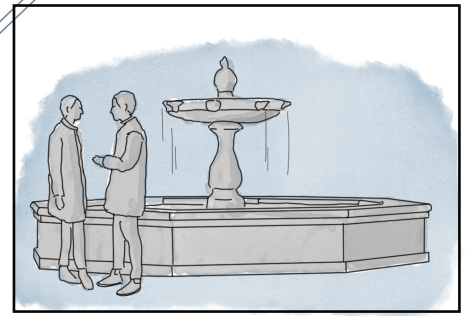
## Ablution

For Andalusí Muslims, water played a major part in the religious ritual of ablution.



## Healing water

In Roman times, wells were constructed to harness the healing powers water was thought to possess.



## Socialising

In modern times, fountains function as a meeting place and as a place to rest, cool down and observe city life.

o Fountains

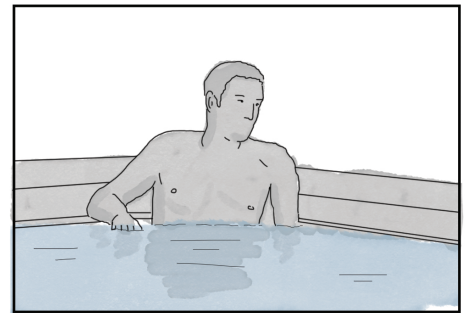
o Viajes de agua

o Arabic gardens

o Arabic irrigation systems

o Roman irrigation systems

o Roman infrastructure



## Bathing

Roman bathhouses were constructed, following example from the bathhouses in Rome, Sicily and Palermo.

← Religious rituals

↑ Time

Profane rituals →

# Mapping sources

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plutum%3F-a0297716608](https://www.thefreelibrary.com/Hippolytus%27+house%3A+a+roman+medical+bath+in+com-<br/>plutum%3F-a0297716608) On 03-11-2023*



