

# THE LAYERS OF CORDOBA: AN ANALYTICAL HISTORICAL STUDY FOR THE EFFECT OF RELIGION CONFLICT ON ARCHITECTURAL AND URBAN FEATURES

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**Abstract.** This paper discusses Cordoba as one of the most iconic cities in human history and particularly in Europe. As part of the Andalusia region in southern Spain, Cordoba was the center of many conflicts that helped in shaping the European architecture and the urban fabric. Under the Umayyad rule, Cordoba was the largest and arguably most beautiful city in the World. However, the passage of time has not been very kind to it. Unfortunately, it has suffered from severely diminished of its historical and strategic value. This paper analysed Cordoba's history through different ages. Then, we focused on the peak of the city when it was under the Islamic rule when it became the center for culture and arts. At the end, we analysed how the city has faced a drastic architectural transformation that was carried out by the Spanish when they took control of the city during the Spanish Reconquista. We found how different cultures and religions throughout history have affected the architectural layers of Cordoba. These layers have exposed either demolish, overlap or dominate of one layer over another layer. Finally, we realized that this conflict created present Cordoba; the strong cultural, economic, touristic center in Southern Spain.

**Keywords:** Cordoba, Al-Andalus, Islamic period, Reconquista period, architectural layers, religions conflict.

## Introduction

With its iconic and splendid monuments such as the Mosque-cathedral and Madinat Al-Zahra, the city of Cordoba was declared as a World Heritage Site by UNESCO in 1984. Under the Umayyad rule, Cordoba was the largest and arguably most beautiful city in the World. Most historical accounts began referring to Cordoba during the Hamilcar Barca-led Carthaginian expansion in Guadalquivir. It was initially known as Kart-Juba, meaning the "City of Juba", the Numidian Commander who died in a nearby battle. Hamilcar Barca would rename it to Kartuba.

Despite the damages and the conflicts which affected the city, it still possesses and proudly displays unique architectural attributes and sites, including a wide-variety of Umayyad-era buildings, gardens and museums suffered from severely diminished of its historical and strategic value (Safi, 2006).

Undeniably, the world has experienced, and is still facing many religious wars up until recently, such as those in Syria, Iraq, Yugoslavia, Cyprus and China. Hence, several

cities are losing their architectural elements and famous features due to these civil wars. Conclusively, studying and analysing the historical layers of cities that had encountered wars and conflicts, such as Cordoba, may give us some indications and a future vision for our recent suffering cities.

## 1. Research design & methodology

Our case study deals with Spain, one of the major areas of conflict and war in the 12th century. During this imperative period of time, Spain's capital was the city of Córdoba. Due to the many conflicts and oppositions, the city today is a very small city. In this study, we examined the deep layers of Córdoba, namely in the two periods when Muslims captured the city from the Byzantine Empire, turning it into one of the greatest and most advanced cities in the world. We revealed the layers of the city during the Reconquista period; a time in which it was retrieved once more by the Spaniards. In this research, we conducted detailed

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study of both periods trying to reach several conclusions, all of which we can still apply on cities of the present era.

## 2. Analysis and results of the historical periods that shaped Cordoba

The glory of Cordoba was in large part due to its strategic location for military purposes. For example, it enabled excellent communications with the South Plateau or the Levant. It was also a reliable source of extra troops whenever it needed. In turn, Cordoba held full control of the mines of Sierra Morena. Cordoba also benefited from the prosperity of the agricultural development in the fertile countryside.

### 2.1. Layer 1: Cordoba before Islam Era

Because of civil wars between Caesar and Pompey, Cordoba started going down as a historical city. After Caesar won the war, Cordoba suffered a big destruction and the population decreased, though it did not lose its previous privileges. After the administrative reforms started by Augustus, Cordoba received the status of Colony, turning into the capital of the newly created Baetica province.

#### 2.1.1. The Roman period

During the first three centuries of the Roman Empire, the city experienced a big push, when it became the capital of the province. There were schools of very high level and some local personalities became Senators at Rome (Gilmour, 1994).

During the rule of Augustus, Cordoba remained the capital of the newly created Baetica (Figure 1). It also dras-

tically increased in population and urban area. Eventually that required the construction of a stone bridge over the river, and gradually added to the city a lot of the architectural style and influences from the Roman Empire, such as a Roman Theater and a monumental complex that was built at the eastern sector of the city at the time of Emperor Julio Claudios (Figure 2). That made the city look exactly like a Roman city (Messina, 2004).

#### 2.1.2. The Christian period

During the rise of Christianity, Cordoba would take a hit as it lost its status as the capital to Hispalis-Seville. The Christian expansion would become a vital part of the history of the region as more people would trickle into hotspots of Christianity and surrounding areas (Manning, 2010).

The decline of Cordoba at this period started with “Diocleciano-Roman Emperor”, the status of Capital of Andalusia, that Cordoba had acquired, was moved to “Hispalis-Seville” along with the Christian movement or expansion (Nash, 2005). During of the 5th century, Cordoba was plundered by vandals. Roman influence would start diminishing. As the Byzantine Empire started to rise, Cordoba occupied an important place in the Provincia Hispaniae between 552 CE and 572 CE (Gerber, 1992).

After the Visigoth conquest of the region, Cordoba would suffer the consequences of continuous wars and power struggles between Leovigildo and his son Hermenegildo, with the latter eventually conquering Cordoba and enforcing his rule over the majority Hispanic-Roman population. The Visigoth people would build the Basilica de San Vicente on top of the remains of a Roman temple



Figure 1. The beginning of Cordoba as a Roman colony and the expansion of it (source: Fernando, 2013)



Figure 2. The Roman Character of Cordoba city (source: Rafael, 2014)



Figure 3. A map of Cordoba in the Post-Roman period (source: Carmen, 2015)

in honour to the Sun. During this time, nobility revolts were frequent and constant, leading to many civil wars that would eventually end with the Muslim invasion. At a much later period during Islamic times, the Aljama Mosque would be built on the same site of the Basilica de San Vicente and the Roman temple (Nash, 2005).

Figure 3 illustrates Cordoba in the Post-Roman period. You can see in the North-West the structure of a big palace that was built in this period. It is a complex which had three major buildings; Palacio de Maximiano Hercúleo, Palacio de Cercadilla and Yacimiento Arqueológico de Cercadilla (Ring, 1995).

## 2.2. Layer 2: Cordoba under Islamic rule

Taking advantage of the constant civil wars in the region, the Moors would invade the city in 711 CE after their victory over the Visigoths. This would turn out to be a welcome development for Cordoba as it flourished under Moors rule, and became one of the most remarkable and advanced cities in the world (Fletcher, 2005). Different Moors rulers would control the city

and would bring important milestones to it. In 716 CE, Emir Al-Horr would declare Cordoba an emirate under the Caliphate in Damascus. Forty years later, in 756 CE, Abd Al-Rahman I would take power and declare Cordoba an independent emirate, but with strong ties to Damascus (Safi, 2006).

The city's character and architecture took a drastic change under Islamic rule. Some changes are particularly notable.

### 2.2.1. The Bridge of Cordoba across the Guadalquivir river

The Bridge of Cordoba was built by the Romans in the early 1st century BC, perhaps replacing an original, wooden bridge. The Via August, the Roman road that connected Rome to Cadiz, used passed through the Bridge. During the early stages of Islamic rule, the Muslim governor Al-Samh ibn Malik al-Khawlani ordered a bridge to be built on the ruins of what was left of the old Roman construction (Figure 4).

After Islamic reconstruction, the Bridge of Cordoba has 16 arcades, one less than the original – at a total length of 247 meters, and width of 9 meters (Safi, 2006).

### 2.2.2. Construction of waterwheels on Guadalquivir

During Islamic rule, the Guadalquivir was wide enough to be used for mills (Figure 5). The mills no longer exist but some of their remains are still visible. One of the main mills, located near the north river bank was called Molino de la Albolafia – its namesake was Abu-Al-Afiya, a Jewish merchant who was tasked to create a more efficient chain pump that would allow for easier transportation of water to Alcazar Palace Gardens by Abd al-Rahman II. Eventually, Isabella, the Catholic Queen, would take the mill down because of its annoying squeaking noise. Today, a reconstruction of the old mill stands in its place. It is also an iconic symbol for Cordoba that has appeared on its seals and emblems since as early as the 13th century (Calvert, 1924).



Figure 4. Photo of The Bridge of Cordoba (source: Carmen, 2015)



Figure 5. Waterwheels on Guadalquivir River (source: Carmen, 2015)

### 2.2.3. Rebuilding the Roman Walls around the city

Originally built by the Romans after their capture of Cordoba, the walls were at some point as long as 2,650 meters, surrounding and fortifying the whole city. The walls consisted of outer and inner walls. The outer wall was made from stone reaching 3 meters high and the inner wall was 1.2 meters high. In between there was a gap of about 6 meters filled with rubble. Along the length of the wall, there a few towers. The southern wall was eventually demolished to allow for further expansion of the city to the south after the city received the *Colonia Patricia* status under Augustus. A small section of the original Roman wall can be seen close to the still-standing Roman temple (Gilmour, 1994).

### 2.2.4. Improvement and renovations to infrastructure, roadways, and aqueducts

As a trademark of their incredible advancement, the Romans, as usual, had created a vast infrastructure of roads, aqueducts, bridges, and urban centers in Cordoba. In addition, they also had grown fields of cereal grains, olives, and grapes. The crops were an important and crucial boon for the economy – they were harvested and then exported to other regions of the Empire. It allowed Spain to be a center of rich natural resources, to the envy of other regions in the Empire (Nash, 2005).

After their conquest, Muslims used their own technological advancements, particularly in agriculture and irrigation, to grow new kinds of crops unknown previously to the region. This important event in the history of the Peninsula became known as the “Green Revolution”.

Combined with the original Roman practices, this allowed Spain to be an iconic center of agriculture. At one point, being compared in its fertility to Syria, in its aromatic and exotic plants to India, and in the richness of its minerals to China – becoming a total package unmatched by other regions. In effect, many of the Muslims, originally from the Levant, introduced a lot of innovations and changes that would shape the landscape of Southern Iberia forever. Including for example, waterwheels, underground water channels, and cisterns – all of which were particularly relevant and widely used in Syria and other eastern countries.

Another effect of such changes and innovations is the sudden increase in efficiency of water use, which would lead to more of it being available for irrigation, overcoming some of the challenges that were faced for Spanish inhabitants before the arrival of the Muslims. Some records indicate that up to 5,000 waterwheels were created after the Muslim arrival in the Guadalquivir (Nash, 2005).

Muslims also introduced their advanced water management techniques, and their own experience in planting and harvesting to increase agricultural output. The morale of people in the region increased dramatically, as they now had available exotic foods that were thought of as luxurious, but suddenly available to the common people. Some

of these culinary changes included citrus, melon, fig, spinach, eggplant, and rice-based foods.

All these factors would combine to be a main source of an expanding population and greater prosperity. This would eventually incentivize a large portion of the population, especially those aspiring to be elite, to adapt Arab-Muslim cultural norms. Eventually, a larger number of common people started following the elites’ cultural and lifestyle preferences. Even leisure activities such as chess and backgammon, once considered exclusive to the elite, would become accessible to all. Naturally, clothing and jewelry would also become desirable to regular people (Safi, 2006).

With a flourishing economy and working class, the city would indulge even further with trade networks. Arts, fashion, and pottery would become entrenched in the local culture. Elites would offer such luxury objects to friends and loyal servants as a sign of gratitude and affection.

Today, tourists get the chance to see what remains of the architectural beauty of the age. Alas, whether Alhambra or other palaces – such structures were lavishly and generously decorated and furnished. Furniture was made primarily of wood, including beds, sofas, and chairs. The ceilings were high and covered with *Azulejos*; interlocking geometric tiles. The elite also loved having colorful and expensive rugs and drapes (Manning, 2010).

Surrounding each palace, both indoors and outdoors, were gardens filled with fountains that generated relaxing water sounds. In addition, flowers and plants would be distributed along the garden in a way that guarantees a beautiful scent was present at all times. The buildings would also be built with open doorways and large windows that allowed an abundance of natural light, and helped the interior blend in seamlessly with the exterior (Manning, 2010).

### 2.2.5. Great Mosque of Cordoba

Long before the Muslim rule, the site of the Great Mosque of Cordoba was originally in fact, a Christian Visigoth church. The church was called the Basilica of Saint Vincent of Lerins. It would continue being so until the beginning of the Muslim rule when it was divided into Muslim and Christian halves. Emir Abd Al-Rahman I purchased the Christian half in 784 and then demolish both halves. He utilized the flourishing architectural revolution of the time to build a brand new structure on its site, to be known as the Great Mosque of Cordoba (Figure 6).

One of the main ways he would be able to generate the funds necessarily to undertake such a project was by initiating a two-tiered tax system. The first and highest tier is the *Zakat*, charged only to Muslims. The second and lowest tier is the *Jizya* – a mandatory tax on Christians and Jews in return for protection and services. Any Christian or Jew who participated personally in providing protection had the *Jizya* waived (Safi, 2006).

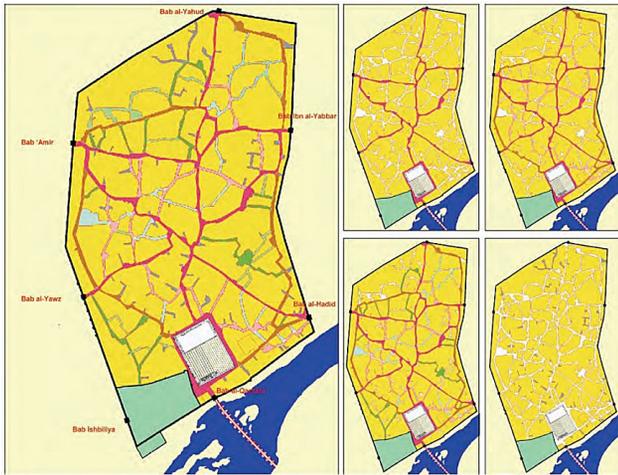


Figure 6. The location of the grand mosque, and its relation with the main streets and gates of Islamic Cordoba (source: Carmen, 2015)



Figure 7. A Bird view photo of the Great Mosque of Cordoba (source: Carmen, 2015)

The secondary source of income was generated from the rich mines of Iberia, from which marble and other rare jewels and material was extracted. Over the following two centuries, Abd Al-Rahman, and the three following successors in the dynasty, would spend a considerable portion of generated revenue and income towards further design, construction, and costly decoration for the Great Mosque of Cordoba. In fact, one of them, Almanzor, would even forever earn being considered one of the most extravagant spenders of the age. One notable architectural faux-pas of the Great Mosque of Cordoba is that the Mihrab, which is the area in which the imam of the mosque leads prayers from, would be facing south. This is quite a big deal because Mecca, where the imam is supposed to pray towards, is actually southeast (Brooke, 1831).

On the other hand, the work that was done on the Great Mosque of Cordoba guaranteed employment for hundreds of people in Cordoba, and even in surrounding regions that were part of the supply chain. It was such a massive and ambitious project that the Emir of Cordoba left his house on the outskirts of the city and moved to be closer to the construction and closely monitor its progress.

Further changes were carried out during the next two centuries. Most of the changes were decorative in nature (Figure 7). However, three changes were particularly unique and notable:

- Adding a new minaret – Abd Al-Rahman II
- Enlarging the building and decorating the Mihrab – Al-Hakam II
- Adding a walkway to connect the mosque to the nearby police as was Islamic tradition and added outer naves and a courtyard to the Great Mosque in 987. This was the last significant non-restoration work that had been done (Bosworth, 2007) – Almanzor.

## 2.2.6. Medinat Al Zahra

Abd Al-Rahman III, nicknamed Al-Nasir, built one of the grandest palaces in the region, Medinat Al-Zahra. It was built for political and ideological reason. Abd Al-Rahman wanted to establish a new symbol of his power to rival what other rulers in the world have. He particularly wanted to outmatch the Fatimids and Abbasid Caliphs in Egypt and Baghdad, respectively. The palace was so large, that it was itself a city within a city as well (Figure 8). While never officially recognized as a capital, it was the capital of Al Andalus for all purposes, including administrative and government matters. The palace was also unique in that it encompassed many functions – it had its own mint, workshop, barracks, and baths. In addition, the palace had its own mosque (Bosworth, 2007).

Following his father's footsteps, Al-Hakam II also carried out some major work on the palace by expanding it. Alas, a few decades after Al-Hakam II's death, a civil war erupted in Cordoba and the palace was sacked and looted. It eventually was severely damaged and destroyed to the point that only about 10% of it is now restored. Close by to the ruins now exists a new museum that is mostly underground, in order not to further damage the ruins (Figure 9). Unfortunately, the expansion of modern housing around the area further threatens the ruins, and some of it has already been overtaken by housing (Nash, 2005).

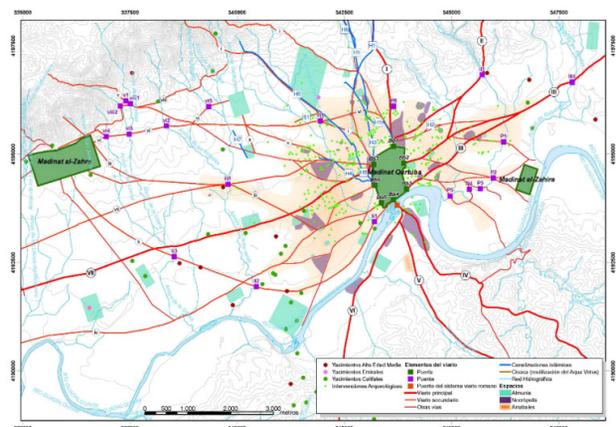


Figure 8. The location of Madinat Al Zahra which was the political capital of the Khilafet (source: Fernando, 2013)



Figure 9. The remains of Medinat Al Zahra at the present time (source: Rafael, 2014)

### 2.2.7. Urban planning features of the city

In 785, the construction of the Mezquita mosque began and later be expanded in 833. Under Abd Al-Rahman II, the city would steadily prosper and develop, becoming the first city to have a central water supply, paved streets and street lighting. In addition, public bath houses, a sign of prosperity of the times, would be readily available in the city.

Cordoba’s peak would be in the 10th century when the ruler Abd Al-Rahman III declared it an independent caliphate, to be known as the Caliphate of Cordoba (Figure 10). The city’s population would prosper and reach one million residents. The culture of Cordoba would bring the establishment of 1,000 mosques and 600 public bath houses, and the palace of Medina Azahara would be built nearby (Bosworth, 2007).

Al-Hakam II allowed for culture, art and science to flourish and enlarged Mezquita. He also built schools and a library with 500,000 volumes. He also made the city a scientific center to the extent that it became a central resource of Islamic Law. On the other hand, his focus on scientific and cultural advancement led to considerable oversights of strategic and political policy, setting a chain of events that would eventually lead to the collapse of the Caliphate (Brooke, 1831). After 1000 CE, the collapse of Cordoba was only a matter of time. In 1009 CE, the Medina Azahara palace was looted and destroyed. Between 1020 CE – 1030 CE, the political structure would suffer critical shortcomings and eventually collapse, including the separation of the Taifa Kingdoms from the Caliphate (Gerber, 1992).

### 2.3. Layer 3: The Reconquista period

During the Reconquista, the Islamic character of the city was stripped (Figure 11). King Ferdinand II of Aragon & Queen Isabella I of Castile began a series of concentrated and planned efforts into disconnecting Andalusians from Arabic-Islamic culture. Cardinal Francisco Jimenez also ordered that all Arabic manuscripts in Granada be burnt. Historians estimate that over 5,000 manuscripts were burned in total (Bosworth, 2007).

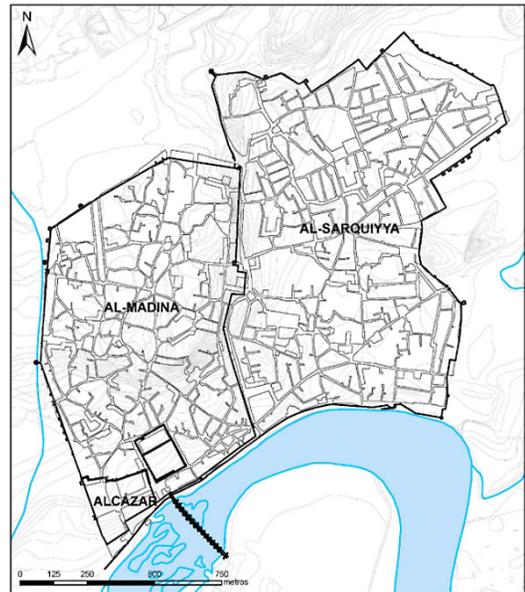


Figure 10. A map that shows the location of Alcazar palace and the new expansion on the east side of the city “Alsarquiyya” during the Islamic period (source: Rafael, 2014)

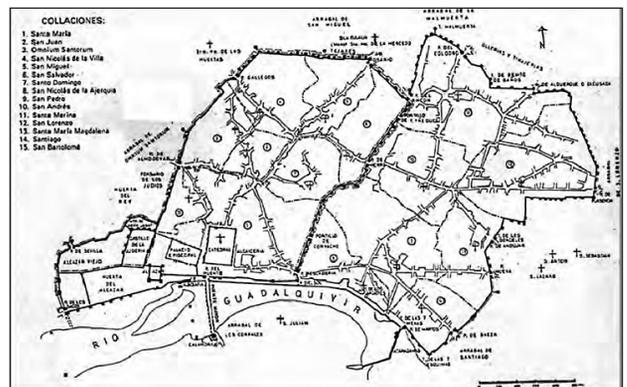


Figure 11. The new urban planning of the city at The Reconquista Period (source: Maria, 2002)

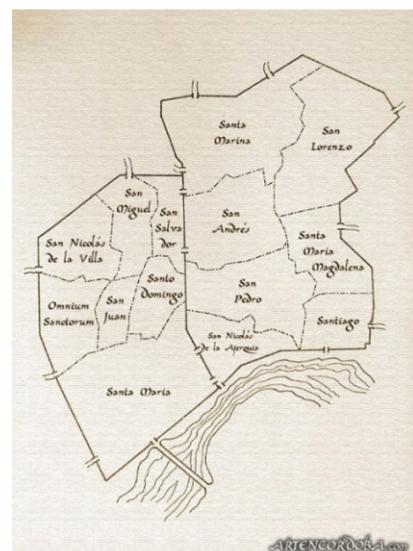


Figure 12. The new zones with new names of the city at the Reconquista Period (source: Maria, 2002)

Before the Reconquista, Andalusia was consisted mainly of a Muslim and Jewish population. However, they were forced to convert to Christianity or risk persecution. Nevertheless, the Spanish still forced a large portion of the remaining Muslim community to leave Spain and Portugal and relocate to North Africa (Ring, 1995).

During this period in time, the architecture of the city would change as it added a dozen of churches and monasteries. The city was administered into 14 different areas, each with its own church building (Figure 12).

In 1486, Christopher Columbus lived in Cordoba and was vying for support and funding from Ferdinand II and Isabella I to go and discover India. Eventually, he would of course discover North America. At the same time, the last remaining Muslims in Andalusia were beaten and expelled. The Grand Mosque of Cordoba converted to a church, thereby signalling the end of the Reconquista (Safi, 2006).

### 3. Analysis and discussion of the noticeable changes of architectural structures in Cordoba

According to the detailed historical study for the three layers of Cordoba over before Islam, Islamic and Reconquista Periods, we notices the following major changes: Conversions, Demolitions and New constructions. As a result of this analytical historical study of Cordoba, we can roughly compare the effect of the religion conflict right after the Reconquista as shown in Figure 13.

#### 3.1. Conversions: The Grand Mosque of Cordoba

At the end of Reconquista, the Great Mosque of Cordoba was converted to a Roman Catholic Church, and a Renaissance Cathedral nave was inserted (Figure 14). After the conversion, Alfonso X oversaw the construction of Villaviciosa Chapel and the Royal Chapel within the mosque. During the following centuries, rulers would continue to add Christian features. The minaret of the mosque was converted into the bell tower of the Cathedral and it was decorated with Santiago de Compostela's cathedral bells. Another change was the addition of a Renaissance-era nave in the middle of the mosque. Other artists and ar-

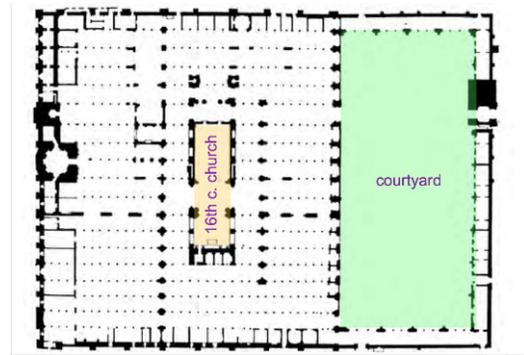


Figure 14. The new church that was built in the Middle of the Great mosque at The Reconquista Period (source: Carmen, 2015)

chitects would keep making changes to the structure until the late 18th century.

#### 3.2. Demolitions: churches over ruins of mosques

After the end of the Reconquista, many mosques were fully demolished and there were 13 churches built in the city over ruins of mosques (Figure 15):

- San Nicolás de la Villa
- San Miguel
- San Juan y Todos los Santos (Iglesia de la Trinidad)
- Santa Marina de Aguas Santas
- San Agustín
- San Andrés
- San Lorenzo
- Church of Santiago
- San Pedro
- Santa María Magdalena
- San Pablo
- Mezquita Cristo de la Luz
- Santa Irena

#### 3.3. New constructions: buildings, districts and cities

There were many new constructions had been built either on new places or on the ruins of the Islamic buildings. Most of them were holding the inspiration of Islamic styles.

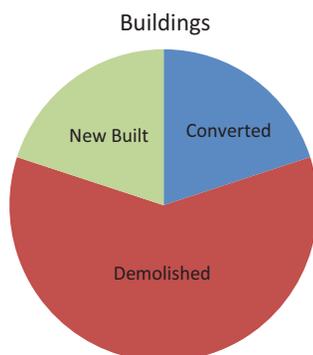


Figure 13. A comparison of the religion conflict after the Reconquista period

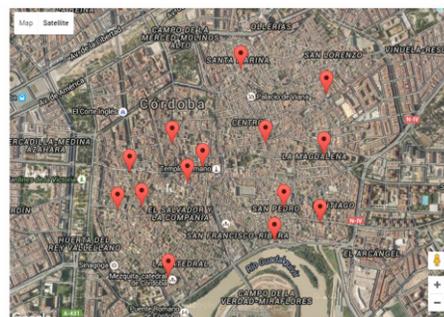


Figure 15. The locations of the churches that were built after demolishing mosques on same lands at The Reconquista Period (source: Rafael, 2014).



Figure 16. A photo of Alcazar palace from the main garden (source: Rafael, 2014)



Figure 17. A photo that shows the artistic work on the walls of The Synagogue (source: Rafael, 2014).

### 3.3.1. Alcazar

Alfonso XI of Castile built Alcazar over Moorish ruins (Figure 16). Noticeably, Alfonso inspired by the Islamic Mudejar style of architecture, which would give Alcazar an Islamic feel (Long & Shleifer, 1993).

### 3.3.2. The Synagogue & the Jewish Quarter:

After the expulsion of Jewish people from the Iberian peninsula, the Synagogue in Córdoba would be used for different functions during different periods of time, including a hospital, a chapel and nursery school (Figure 17) (Gerber, 1992).

## Conclusions

From our analysis for the different layers and changes that had affected Córdoba city, we concluded that religions conflict has been always a very strong factor that affected cities through its architectural elements and its planning through different eras.

Córdoba was a clear example -or could be called a victim- of this conflict. We discovered by studying and

analysing some of the city layers, how it used to be a very normal roman city then it became Byzantine and some major buildings as the Roman amphitheater destroyed. When Muslims came, they captured Córdoba for about 500 years and it became the second populated city in the World and the first advanced in education, arts, music, security and social life. Unfortunately, all that glory was lost due to religion conflict, most Islamic architecture buildings were demolished at the Reconquista period. Córdoba changed her character and personality many times due to this conflict.

This paper was only a beginning and a start for studying many cities around the world that suffered and affected by religion conflicts. Researches should concentrate on how the cities deal with this conflict. Did they disappear? Change? Won a new character? Or maybe have more than one character that interacted with each other to create a new type of cities.

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