Journal of Namibian Studies, 33(2023): 248–276 ISSN: 2197-5523 (online)

The Entrances of the Islamic Civilization and its Impact on the Renaissance of Europe: "Andalusia as a Model"

Dr. Ali Ibraheem Al- Bashayreh[1]

Abstract

This Study aims at throwing light on Islamic Civilization in the country of Andalusia as one of the crossing roads of Islamic Civilization to Europe at the end of Middle Ages through which Europe took their sciences, knowledge and ingredients of their renaissance.

Andalusia played an important role because of its location on the broods between the Islamic state and Europe and the wails who encouraged science and consider the scientists rights for about eight centuries in transmitting Islamic Civilization to the west. It carried the flashlight of thoughts and knowledge to eliminate the aback wardens in the west before the renaissance in Europe.

Keywords: Islamic Civilization, Andalusia, Islamic Expansions, Middle Ages, Europe Civilization.

Introduction

The Islamic civilization in Andalusia came as a reward of the Muslims' long jihad, and evidence of the vitality of Muslims, their dauntlessness, and their faith in their religion and themselves. The first block of this civilization was founded by the Muslim conqueror, Tariq bin Ziyad and not to mention the Sari Prince of the Levant under the cover of darkness, Abd al-Rahman ibn Muawiyah ibn Hisham ibn Abd al-Malik and concluded by the princes of Granada from Banu al-Ahmar, constituted an important factor in the European Renaissance at the end of ages. Central, and a major crossing point for the Islamic civilization, through which it derived its sciences, knowledge and the ingredients for its renaissance.

This research will shed light on the country of Andalusia, which, during the reign of its rulers, who encouraged science and respected the rights of scholars, played an important role in the transfer of Islamic civilization from east to west, and carried over eight centuries the torches of thought and knowledge and enlighten around it the darkness and backwardness of the west, before it begins what is

[1] Al-Balqa Applied University - Al Huson University College – Jordan, al_bashayreh@bau.edu.jo

known as the European Renaissance. Because of the importance of Andalusia as one of the crossing points of the emerging Islamic civilization due to its location on the borders between the House of Islam and Europe, the topic of this research will focus on the importance of Andalusia and its location, and its Islamic conquest, in addition to the manifestations of Islamic tolerance and its reflection on Andalusian society, and the civilizational activity in Andalusia and ways of its transmission to Europe.

Andalusia: location and importance

Andalusia is a name given to the Iberian Peninsula, which located to the far southwest of the continent of Europe and bordered to the east by the Mediterranean Sea, and to the west by the Atlantic Ocean, and separated from France in the north by the mountains of Pyrenees, and from Africa and Arabian Maghreb, separated from the south by the Strait of Gibraltar ,which is less than 13-14 km long (1).

Today, the island includes Spain and Portugal, and It is a large territory with an area of about 600,000 square kilometers which characterized by its middle location between North Africa and Western Europe, and where it constituted a crossing between them throughout history for armies, civilizations and trade. Moreover, the island location between the two great seas, the Mediterranean and the Atlantic Ocean, had provided the location with a unique advantage by supervising the main sea transportation routes between East and West (2).

The Islamic conquest of Andalusia

Andalusia was subject to the rule of the Roman state for a long period of time, then fell to the Germanic tribes in the year 476 AD (3), but soon the Visigoths were able to control Andalusia in the year 479 AD, and they were able to extend their influence on the Iberian Peninsula, and Gaul - France now (4), and thus became independent Visigoths in Spain, and taken from Toledo Andalusia, the capital and center of their rule (5) .They were tyrannical in ruling the country and dealt with people in a severe and cruel manner, so the country's inhabitants - who were formed from the remnants of the Romans and Vandals - suffered from turmoil and chaos, and the conditions of many people worsened. Their living conditions narrowed, and class and division prevailed among them, which negatively affected Spain, especially in the last period of the Gothic rule, as it became politically and socially weak, making it easy prey for any conqueror from the north or the south (6).

Prior to the Islamic conquest, a struggle of power occurred between the Goths, which ended with the senior Goths and their notables in Toledo uniting their efforts against Achilles Ibn Ghaysha, who took power after the death of his father when they isolated and entrusted his throne to one of them, called Ludhik, who ruled with violence and oppression. This prompted the sons of his tyranny, the most important of whom were Achilles and Opas, to contact Muslims through a delegation headed by Musa bin Nasir to meet Tariq bin Ziyad, the governor of Tangier where they called him to conquer Andalusia and help them restore their lost kingdom. It was not from Tariq Bin Ziyad but to inform Musa bin Nasir of that offer, and Musa welcomed it , as he was greedy for more conquest and jihad.

In the meantime, Julian, the governor of the city of Cebta, joined the group of Arab instigators of the conquest of Andalusia (7) , and revealed to him the weakness of the Spanish resistance, in revenge for himself from the king of Spain, who assaulted the honor of his daughter, who sent her to the royal court of Toledo to learn and educate her with the girls of the king(8) . Musa bin Naseer welcomed what Julian offered him to conquer Andalusia, and after he trusted and secured his side, and ensured that what Julian had said about the weakness of the Spanish resistance was true, his determination was increased. Therefore, he ordered to prepare a large army of about seven thousand fighters to conquer Andalusia, led by Tariq bin Ziyad, Wali of Tangier(9) , who rushed to implement his campaign that sailed from the port of Tangier on Rajab 5, 92 AH / April 711 AD, across the Strait of Jebel Tarek. And upon the arrival of Tariq bin Ziyad to Mount Calpe, he found in front of him a "paved land and inhabitants" waiting for salvation and help at his hands, so he fortified his position and then began his long journey fighting many decisive battles with the Goths, the most famous of which was the Battle of Guadalete near Shaduna or the Battle of Shreesh as some call it (10), which lasted for 8 days from Sunday 28 Ramadan to Sunday 5 Shawwal in the year 92 AH / July 19-26 in the year 711 AD (11). That battle was described as the cruelest, and the victory was to the Muslims. Ludhariq, the ruler of the Goths, was killed in this battle, and his army was disseminated, which had the effect of increasing the enthusiasm and support of people of the country, who helped Muslim army and cooperated with them(12). Without doubt, the great victory that Tariq bin Ziyad achieved in the Battle of Shaduna opened the gates of Andalusia to Muslims, as the armies rushed to pursue the remnants of the Goths, seize the cities and open the strongholds, until they reached Toledo, the capital, and entered it in the year 93 AH without any resistance.

In the month of Ramadan 93 AH / June 712 AD, Musa bin Nasir crossed the Strait of Jebel Tarek to Andalusia with a large army consisting of eighteen thousand fighters to meet Tariq and his army. The two

leaders advanced and followed their path until they reached the Albert Mountains which overlooking the Gaul country (France) (13). However, Caliph Al-Walid Ibn Abd al-Malik had ordered them to return to Damascus. So, they returned after he appointed his son Abd al-Aziz Bin Musa as successor over Andalusia at the end of the year 95 AH / 714 AD, and chose Seville as the capital, which remained so for about three years until it moved to Cordoba in the decree of Ayoub bin Habib Al-Lakhmi Rajab 97 / Dhu Al-Hijjah 97 AH.

With the departure of Musa and Tariq from Andalusia, the two leaders ended their conquests, and then began the era of governors in the mandate of Abdul Aziz bin Musa bin Nusair(14) . The activity of Muslims in Andalusia did not stop after the return of Musa and Tariq, as a group of soldiers remained there, who continued to complete what they had begun until Abd al-Rahman al-Ghafiqi took over the responsibility for ruling there in the year 112 AH / 730 AD and invaded the Franks and defeated them in several locations(15). Abd al-Rahman al-Ghafiqi reached near Paris, where he was stopped by the Crusader alliance that took place between the Duke of Aquitaine and Charmartel in the battle that took place between the city of Toro and the city of Poitiers in Ramadan 114 AH / October 732 AD which lasted for seven days and ended with the defeat of the Muslims and the martyrdom of many of them among which was Abd al-Rahman al-Ghafi, the commander of the army. This battle was known as the Battle of the Martyrs' Court, after which the Arab and Islamic conquests in Andalusia stopped, and the battlefield became a dividing border between the Arab Islamic state and France (16). Thus, the armies of the Islamic conquest in Andalusia were able to complete military operations within a few years, and during this period they were able to include the Iberian Island to their rule, and they did not leave a disobedient country or an invincible fortress without raising the banner of Islam on it.

Manifestations of Islamic tolerance and its reflection on Andalusian society

The Islamic rule gradually settled in Andalusia, and the Muslims continued there for eight centuries until the fall of the Kingdom of Granada in the year 897 AH / 1492 AD. The methods of governance there during this period varied and took many forms, and the first of them after the conquest was the period of rulers, which lasted from (92 AH - 138 AH / 711-756 AD). This period was characterized by instability (17) and the preoccupation of the rulers among themselves with disputes, which paved the conditions for the entry of Abd al-Rahman al-Dakhil (Saqr of Quraish) to Andalusia, who fled from the face of the Abbasids after the fall of the Umayyad states in 132 AH /

750 AD, where he established the Umayyad state in its modernity (Emirate and the Caliphate) Which is the most prosperous and longest of all ages, it lasted from 138 AH - 422 AH / 1031 AD, then the sect states were established, then the Almoravids ruled, then the Almohads, then the Kingdom of Granada, the last stronghold of Islam there (18) .

Despite the temporal and spatial intervals separating these countries and eras, they were all linked to one civilization with immortal values, namely, the Islamic civilization, which was mixed after the Islamic conquest in Spain with an earlier civilization such as the Roman and Gothic to form from this mixture and fusion a prosperous Andalusian civilization that was truly a global human civilization based on oneness in belief, and integrity in morals. Andalusian history has proven that it achieved equality and religious tolerance among the elements of Andalusian society, a civilization that influenced European life and left profound traces whose manifestations are still clearly visible to this day.

The humane behavior of Muslims had a great impact on the harmony of society's hearts in that Iberian people soon became familiar with the Muslims(19), and intermarriage took place between the two societies, and large numbers of them entered Islam(20), and the Islamic policy of tolerance was displayed by good treatment and increased contacts and mixing with Spaniards. The spirit of family affection and love spread, and a new social class arose in Andalusian society, the Mestizo class, which is a mixture of the blood of the indigenous people and the blood of Muslims as a result of their intermarriage with Spanish girls. A new class also emerged, namely the Arabists, the Spaniards Christians who preferred to keep their Christianity and their old principles, and lived under the guardianship and protection of Muslims and they were Arabized (23) after studying the Arabic language and its culture(21), and they were the main key of communication between Muslim Spain and Christian Spain, who mainly contributed to the transfer of Arab-Islamic civilization to Europe(22). The Muslims had done good to the inhabitants of Spain as they left them their money, churches, laws, and imposed on them only a small annual tribute amounting to a dinar (15 francs) for each honorable person, and half a dinar for every owned property, and the inhabitants of Spain accepted that wholeheartedly (23).

Jews and Christians became equal with Muslims in assuming high positions in the Islamic state (24). and many of them took command of the armies as the Jewish doctor Hasdai bin Shabrout was a "special" doctor for the Caliph Al-Nasir (25).

The atmosphere of Islamic tolerance that prevailed in the country during the period of Islamic rule was reflected in the political, social

and economic stability, so Andalusia became the largest political force in the region, and the good treatment that we saw was nothing but a wonderful microcosm of what Islam brought to Spain of ideals and civilization, part of which later leaked to Spain Europe .

Civilizational activity in Andalusia during the era of the Islamic Arab state

After the Islamic conquest of Spain ceased and its liberation was completed, Muslims began to settle and turn around to implement their human message into civilization. They were able in less than a century to revive the dead land and rebuild the ruins of cities, and build the most luxurious buildings, and consolidate trade relations between other nations, then they began to study science, literature, and translation Greek and Latin books, and establish universities which remained for a long time the center of culture and knowledge in Europe (26).

The civilization of Islam in Andalusia began to rise with Abd al-Rahman al-Dakhil since he assumed the responsibility of ruling in Andalusia, that is, since its separation from the Abbasid Caliphate of the East(27), and by declaring the Emirate of Cordoba in the year 138 AH / 756 AD, Andalusia became during his reign the most prestigious country in the world (28).

The Islamic civilization in Andalusia included many fields that left its mark on life and the neighborhoods around it. This civilization was characterized by the abundance of scientific production, so culture flourished and the scope of education expanded. They established schools and universities, and education included both males and female. One of the main effects of this civilization was that Cordoba really turned into a capital of civilization, not only in Spain but in Morocco as a whole, after it received the attention of Abd al-Rahman al-Dakhil, who organized it in a manner consistent with the greatness of the state. He defined its meanings, built its buildings and fortified it with walls, established the Emirate Palace, the Great Mosque, and expanded its courtyard until it became one of the greatest Islamic architectural monuments in Andalusia, and created a safe house in which coins were minted (29).

Cordoba remained the focus of attention and care for scholars and Caliphs in Andalusia over time and eras until Cordoba became credited with advancing science, arts and literature. Cordoba included many palaces, mosques, and baths, in addition to schools of medicine, engineering, science, and the arts. Most of its streets were paved and lit at a time when Europe did not know paved streets at that time, but its streets were filled with dirt and mud (30).

Hospitals, chemistry laboratories and astronomy observatories were established there, and the University of Cordoba was a lighthouse of thought and culture and the greatest university in Europe in the Middle Ages (31), bearing the banner of comprehensive Islamic civilization and by virtue of its position as the capital of the caliphate, the capital of the state and the seat of the caliph, Cordoba was the focus of attracting all qualified clients, scholars and lovers of science, as scholars from the East and the West came to it, and they received the care and attention of its rulers (32). As for the civilizational activity of Muslims in Andalusia, it was represented in:

1- The scientific movement

the scientific movement in Andalusia was based on Islamic foundations and an experimental or applied approach in science. Andalusia witnessed a comprehensive renaissance in theoretical and practical sciences at a time when Europe was struggling in the darkness of ignorance and backwardness until the transition of Islamic civilization from Andalusia to Europe started little by little through several methods, we will mention them later.

Muslims were interested in establishing literate schools in Andalusia to teach boys the Arabic language , its literature and the principles of the Islamic religion, similar to the schools' system in the Islamic East (33). The curriculum was based on the foundations that Ibn Khaldun talked about in his introduction: "As for the people of Andalusia, their doctrine is to teach the Qur'an and writing and make it a principle in education. reaching the youth, and he tightened some things in Arabic and poetry and saw them..."(34). Therefore, Andalusia lived in the eras of Muslim rule without knowing illiteracy. The literate schools were considered basic schools in our contemporary time. They were so numerous that they accommodated all the educated .As for higher education, its center was the mosques that graduated great scholars, jurists and writers(35).

The interest of the Umayyad caliphs in studying and teaching was accompanied by their interest in establishing libraries in which the book's resources varied, so they brought in many books of the Islamic East. Here is al-Hakam Ibn al-Nasir the Umayyad al-Mustansir Billah (350-366 AH/961-976), who was a lover of knowledge and was fond of acquiring books, making generous efforts to buy and collect books from different countries and the Andalusian traveler, scholars and students, took an active part in transmitting new books in the Islamic world to Andalusia. Al-Hakam also assigned Muslim travelers and students to search for manuscripts in the shops of Alexandria, Damascus and Baghdad, and to buy and copy them, and in this way, he was able to collect four hundred thousand volumes in various sciences and arts (36).

As for the authorship movement in Andalusia, Andalusians wrote in various sciences, and their scientific production was distinguished by richness, originality and diversity. So, they wrote in the sciences of the Qur'an, hadith, jurisprudence, its origins and branches, jurisprudence, language and its sciences, dictionaries, indexing, history, translations and geography. They also composed in the sciences of medicine, arithmetic, engineering, astronomy, chemistry, logic, agriculture, bees, philosophy and music; and they did not leave any field of science and knowledge without researching it .Among the scholars who can be described as encyclopedists, who are more prolific in authorship, varied and original, is Baqi Ibn Makhlid Abu Abd al-Rahman (201-276 AH / 816-889 AD) "of the modern memorizers, imams of religion and righteous ascetics. He wrote good books." Among of which is "The Interpretation of the Qur'an," "Ibn Hazm said that no one can write an interpretation book like it in Islam ever". And in the hadith his great compilation, which he arranged by the names of prophet Mohmmad's companions, may Allah bless them all, in which a thousand and three hundred and more companions had been mentioned (37).

A number of scholars emerged in this era also who gained the attention of the Umayyad caliphs, especially the Caliph Al-Hakam who lived among and encouraged them. Among these scholars was the linguist "Aba Ali Al-Qali" who came from Iraq to Andalusia in the days of Abd al-Rahman al-Nasir in the year 330 AH / 940 AD. Among his most important works is the Book of Al-Amali, which is lectures dictated to his Andalusian students in the Cordoba Mosque, and it includes separate chapters on the Arabs, their language, poetry, and their sayings, and historical news that talks about the qualities of some of their poets. Moreover, among his most important works is a book on grammar known as the Book of Acts, and a book on the history of Andalusia entitled "The History of the Conquest of Andalusia." This book was published by a Spanish orientalist named Gayangos (38).

What encouraged writing and helped the spread of books and the flourishing of scientific life is the world's original desire to publish knowledge and the Andalusian government's stances, which represented an element of encouragement and care for authors, in addition to that, Andalusia became famous for its paper factories and industry, and some cities were characterized by this production such as Granada, Valencia, Toledo and Shativa where the Shativa factory has gained a wide reputation in the manufacture of good paper (39) . Al-Waraqun copied what appeared from new books with several copies according to the people's demand for them.

2- Literary movement

After the Muslims settled in Andalusia, the people of Andalusia, without coercion, converted to Islam and learned Arabic , the language

of the conquerors, and even preferred it over Latin, in addition to learning Islamic sciences(40). Over time, the number of entrants to Islam increased and knowledge seekers began to migrate to the country of Andalusia to join in particular the Islamic universities there and to mix with the country's population in general, and this helped the spread of the Arabic language and the emergence of a colloquial Arabic language mixed with some Spanish words.

The spread of the Arabic language among Andalusians resulted in the invention of a new Andalusian folk art, the art of "Muwashahat" which was invented by Muqaddam bin Maafi al-Qubri Aldarir one of the poets of Abdullah bin Muhammad al-Marwani, who lived between the year 225 AH / 840 AD - the year 299 AH 912 AD, and unfortunately, we have nothing left of his Muwashahat (41). Several poets followed Muqaddam Bin Maafi's steps and they were influenced by his new genre of structure due to his method until several people tempted it. Among these poets were Ahmed bin Abd Rabbo, the author of the book "Al-Aqd Al-Farid" and AlAmah Al-Toledi, Yahya bin Baqi and other poets (42).

The Muwashshah consists of about six verses, each of which includes three stylized rhymes, and they are called Asmat or Aqfal, and the rhymes of each verse that contradicts the rhymes of the other verses are called the branches, Thus, it does not have a single weight to adhere to, but it is correct to be composed within limits(43),. In addition to the Muwashshah, the common people created another type pf arts namely Zajal and they composed from it by their language without parsing This Zajal method was the art of the common people in Andalusia, and they organize it in the other fifteen seas in the colloquial language(44).

The Arab folk song "Al-Muwashahat or Al-Azgal" influenced European poetry in the name of Provencal poetry through the "Troubadours" which is a loanword taken from the word "tarab" or "tarab" and they are the poets (the groups of travelling singers) who sing their songs on musical instruments, and roam around the private houses where they first appeared in the south of France and other European countries(45). Moreover, Andalusia included a group of famous poets, such as Ibn Abd Rabbo, Ibn Hazm, Ibn Zaydun, and Ibn Khafajah and ss a result of the flourishing of literary life, the Arabic language and Islamic customs and traditions spread in Europe where Arabic words were mixed in Spanish, Konya and French (46).

And if we move from the influence of poetry to the influence of stories, we find that Arab stories have a clear influence on the perception and even the emergence of fictional literature in Europe. So they translated these stories into their own languages, and in the eighteenth century alone, more than thirty editions appeared, as these

stories had an effective effect in creating the spirit of adventure among Europeans, and they clearly influenced some major literary works such as “The Ten Day Stories” by the Italian writer Boccaccio (47).

3- Applied sciences

includes mathematical sciences, engineering, astronomy, chemistry, medicine, plants and animals etc.

A- Mathematics

It is the science of numerology and it has two sides, the first is theoretical (the properties of numbers), and the second is practical (knowledge of what is required of the four mathematical actions: addition, subtraction, multiplication and division), and the first arithmetic is counting. Arabs took the numbering system from Indians during the beginning of Abbasid era and simplified it and formed two chains of them. Al-Khwarizmi mentions two types of the form of the Indian numbers that were written by the Arabs. One of them remained known as the Indian numbers to this day, and this type prevailed in the Islamic East, while the other form known as the dusty numbers disappeared. Indians used to take fine dust and spread it on a board of wood, and draw on it the numbers they needed in their arithmetic and commercial transactions. This type prevailed in Morocco and Andalusia, and from these places, moved to Europe and they are the origin of European numbers now(48)., and these numbers were known to them as Arabic numbers The name Sifr is still known in Europe as Zero and Arabs used the zero (49) in punctuation, as they used it in empty houses of numbers, and they put the signs of the decimal fraction, and they used the decimal system (that is, the positive value of numbers, one’s tens and hundreds. One of the most prominent Andalusian scholars in arithmetic is Abu al-Qasim Maslama bin Ahmed al-Majrati (d. 398 AH / 1007 AD), the imam of mathematicians in Andalusia at his time. He has several books in this field, the most famous of which is the book “In Perfect Number” which is what we now know the transactions (50).

B- The science of engineering

Engineering was one of the most prominent presences of global civilization, since man started building houses and preparing the land for agriculture, he needed engineering. As for the Muslims, engineering was advanced for them, and they used it in various scientific fields, such as surveying, building water mills, and decorative purposes(51). Muslims' interest in engineering was more in practice than in theory, and the beautiful palaces and great buildings that they created in the Islamic world testifies their engineering crafts Moreover(52). Muslims applied engineering knowledge and theories to the art of building and constructed buildings that were distinguished

by luxury and durability and that combined harmony and proportion, such as palaces and ancient mosques in the Arab countries, and Andalusian palaces such as the Al Hamra palaces and its gardens, the Great Palace and Al Zahraa, and the water fountains that irrigated these lush gardens. In addition to the art of decoration and engraving that used to beautify the buildings of Andalusia.

Furthermore, Muslims were also interested in irrigation engineering, and it is known that the regulation of irrigation requires accurate knowledge of the level of the land and its slope, and the quantity, speed and paths of water and building materials to choose the most appropriate ones, and knowledge of construction methods that secure the dams to reserve the strong excess water flow and control its distribution(53). Muslims were also interested in geometric decorations, inscriptions and decorations, which originally depended on geometric rules in drawing posters, arranging lines, leaves and fruits of plants, in a consistent geometric arrangement (54).

C- Astronomy and geography

The interest of Muslims in Andalusia was limited to observing some planets and their movement and their relationship to solar and lunar eclipses, as well as their movement in war and peace and natural phenomena. However, the association of some provisions of the Islamic religion with astronomical phenomena prompted Arab Muslims to pay great attention to astronomy matters. These matters necessitated knowing the geographical locations of the countries, the movement of the sun in the zodiac, and the basic conditions of twilight, due to the difference in prayer times from country to country and from day to day and knowing the direction of Muslims towards the Kaaba (the Qibla) in their prayers after they dispersed in the open cities . The same applies to the sighting of the crescent moon of Ramadan due to the different sightings of the crescent throughout the Islamic world, and knowledge of solar and lunar eclipse phenomena and provisions of prayer related to them (55).

In Andalusia, several astronomers emerged, such as: Maslamah al-Majriti (d. 398 AH / 1007 AD), who wrote many works in astronomy, including the Epistle to the Astrolabe and the abbreviation of the modification of planets. Al-Majriti had created many students, some of whom established schools in Cordoba, such as Abu Al-Samh, Ibn Al-Saffar, and Al-Zahrawi. Among his most famous students was the author of the Introduction, Abd al-Rahman Ibn Khaldun(56).

Other astronomers also emerged in Andalusia such as Abu al-Qasim Abbas Ibn Firnas (d. 260 AH / 873 AD), who grew up in Cordoba and studied there, and excelled since his youth in philosophy, chemistry, nature, and astronomy Abu al-Qasim had practiced these sciences

theoretically, experimentally and practically, and the core of his scientific experiments was the invention of a number of precise astronomical instruments such as the ring machine which is a machine consisting of several overlapping rings in the middle of which is a hanging ball representing the movement of the planets. Moreover, he invented a time-measuring machine called the Miqat (57) . Thus, the Muslim scholars in Andalusia, along with those who preceded them from the Islamic world, contributed to the advancement of astronomy and made it a mathematical science based on meteorological work on arithmetic and engineering principles to explain the movements of the planets and orbs and the interpretation of astronomical and cosmic phenomena.

Andalusian geographers and travelers also had a prominent impact on human civilization, the most famous of whom was the traveler Sharif al-Idrisi (d. 560 AH / 1164 AD), who made a circular map of the world, and put the shape of the world in the form of a silver ball on which he painted the regions of the world including the big oceans and important cities, and Muhammad Abd al-Rahim al-Mazni (d. 6 AH). / 12 AD) who was born in Granada and authored “A masterpiece of minds in the wonders of countries (58).”.

D- Medical sciences

Islam is the first to call for the development of health care methods, and for medicine and treatment and they were the first to develop modern medicine based on experience and expertise (59). So, they established several hospitals and divided them into two parts, one for men and another for women. And they also established isolation rooms to isolate patients with infectious diseases.

Muslims are also credited with establishing mobile hospitals (60) that are usually equipped with medicines and medical tools, food, drink, clothes, doctors, and pharmacists and which are usually transferred from one place to another and from one country to another, where there are no fixed hospitals or where infectious epidemics, or diseases appear (61).

Physicians were of various classes, including surgeons, phlebotomists, ophthalmologists, dentists, gynecologists, and psychologists as the same norms and names of specialist doctors today (62). And Muslim doctors were the first to discover the means of anesthesia and they use it in medicine and surgeries. Prince Muhammad bin Yusuf bin Ismail established the first hospital in Andalusia in the city of Granada (63).

Moreover, Muslims were the first to practice surgery in the world and enrich this science with several books and publications (64). For instance, Abu al-Qasim Khalaf bin Abbas al-Zahrawi (d. 427 AH - 1035

AD), who is considered one of the most famous doctors of Andalusia at that time and considered the ideal of surgery for Muslims during the Middle Ages. He was a physician, an expert in single and compound medicines, and he had several publications on medicine, the best of which was his great book known as Al-Zahraween (65) and among his other books is “Kitab al-Tasrif” and it is considered one of his largest and most famous books. This book is a large medical encyclopedia in which he emphasized that there is no separation between medicine and surgery (66), because a good surgeon must be familiar with the two sciences. He also emphasized the need to confirm the diagnosis before any surgical intervention. Furthermore, this book (Al-Tasrif) is distinguished by the abundance of illustrations of the surgical instruments used by Al-Zahrawi. It was translated several times into Hebrew, Latin, and English, and another in Arabic was printed in Lucknow (India) in 1908 (67).

The great naturalist Haller said in Gustave Le Bon’s novel: The books of Abu al-Qasim were the reference for all surgeons after the fourteenth century AD, and the University of Medicine in Europe remained dependent on his books for a long time, and his books with Ibn Sina’s books were the basis for teaching at the University of Louvain in the seventeenth century AD (68).

Furthermore, Al-Zahrawi was the first to use arterial ligation to stop bleeding, and he was the first to introduce silk into such surgeries (69). Moreover, he was the first to extract bladder stones of women through the vagina, succeeded in incision of the trachea and researched in arthritis . And he also developed and discovered some surgical instruments, such as a special mirror to inspect female’s vagina and a machine to expand the cervix uteri for operations(70).

Among the famous doctors of Andalusia was Ibn Zahr al-Ashbili, who lived in the twelfth century AD. Ibn Zahr was from one of the most prominent Andalusian families that were known of their knowledge in medicine. He studied surgery, medicine, and pharmacology, and authored several books such as “Economy” and the book “Al-Tayseer” which had a great impact on European medicine(71),. His publications on medicine include an explanation of the correct fracture and dislocation, and he was the greatest physician of his time in Islam in Spain (72).

E- Botany

Muslims took great care of plants and trees and took great care of them, and the names of these plants took a large part of their language as they wrote down its meaning and memorized it in their books. This interest goes back to the second half of the Abbasid era.

Muslims have based their study of botany on careful observation, inspection and continuous follow-up. Through the experimental method, Arab Muslim scientists were able to study many natural plants that no one had previously studied and they included it in medicinal drugs, and they were able to breed some plants that were not known, such as black roses. Moreover, they give some plants the properties of drugs in their medicinal effect (73).

Among the most famous Arab and Muslim botanists in Andalusia was Abu Jaafar Muhammad ibn Ahmad al-Ghafiqi (d. 561 AH / 1165 AD) who was a knowledgeable scholar of his time with single medicines and its benefits, properties, and knowing their names. He has a book on single medicines, which is not comparable to any other book in quality and meaning. It is a comprehensive book of what the botanists said and a constitution to refer to when needed. Al-Ghafiqi's description of the plant was very accurate, in addition to his mentioning its names in Arabic, Latin and Berber languages. He was considered one of the greatest authentic pharmacists and the most knowledgeable botanists in his time in the Middle Ages .

Others emerged in the country of Andalusia such as Ibn Al-Bitar, Abu Muhammad Abdullah bin Ahmed Al-Malqi (d. 646 AH / 1248 AD) as the greatest pharmacist and botanist in the Middle Ages. He traveled to Morocco, North Africa, Egypt and Asia. During these trips, he met a group of people who share him the same same interest and art and took knowledge from them. Among the scientists whom he met was Ibn Abi Asba'iya (d. 668 AH / 1269 AD) (74) in Damascus in the year (633 AH / 1235 AD) he worked with him in collecting and studying plants that grow in the Levant. Among his books is (Al-Mughni fi Al-Dawaa al-Mufradah), and he researched in medical materials, "The Whole of Medicines al-Mufradah" and he also researched in animals, plants and mineral materials with medicinal properties.

4- Economic life

The economic life in the country of Andalusia was characterized by prosperity and progress, and this included various economic sectors that received much attention and care there, as many books of Muslim travelers and geographers pointed out the factors of the prosperity of these sectors, and their writings excelled in describing what characterized the land of Andalusia of fertile, tender, good climate and abundance of water. Despite that, the country has gone through periods of economic stagnation, due to conflicts and revolutions that were taking place in the country from time to time. However, these conditions did not stand in the way of the of progress and development in Andalusia because of the positive factors and materials available for this development in Andalusia (75). The most important features of a flourishing economic life:

A- Agriculture

Most of the Muslim botanists and agricultural scientists have excelled in Andalusia, where they put great research in this field (76), especially since agriculture in Andalusia was experiencing a state of prosperity, making it superior to the rest of the Islamic world, due to the nature of the Spanish Peninsula, the abundance of its rivers and valleys and the fertility of its lands and the diversity of its territories and soil. In addition to the genius of its people in the arts of agriculture, and their exemplary ingenuity in cultivating the land, planting it and extracting its fruits as they were the first to organize its practice with laws .The people of Andalusia set a wonderful example of agricultural skill, and they were among the Peoples excelled in navigating the land, raising livestock, planting gardens, organizing irrigation and drainage methods, knowing weather conditions, and everything related to the arts of agriculture and the properties of plants. Their farms and gardens were proverbial in terms of quality and growth, and Muslims from the East and North Africa transferred to Spain a lot of crops and trees (77), such as cotton, rice, sugar cane, berries, bananas (78) and palm trees that Abd al-Rahman Aldakhil brought to the country of Andalusia and planted them in the garden of his palace and those became the mother for all the palm trees in Spain and Europe (79), and the olives, which later became one of the greatest crops in Spain. The plains of the Spanish peninsula in their days were fresh gardens where wheat fields, olive forests, orange gardens, pomegranates and vineyards, were among the most creative things that the eye sees in the valleys of Andalusia (80).

Muslims of Andalusia were also famous in organizing the means of irrigation, drainage, water extraction and its distribution by technical methods and we can touch their remaining traces up to these days in the valleys of Andalusia, from the canals and streams in many areas, especially in the Valencian and Mreisa marshes which are still being cultivated based on the old Andalusian irrigation projects.

The people of Andalusia have a special reputation for planting and organizing gardens (81). The Andalusians used many well-known tools in agriculture and cultivating the land, such as the primitive plow, the sickle that is used in harvesting, the rail used in the plow, the fork, the pestle, the shovel and other tools (82). Therefore, the Andalusian botanists and agricultural scientists were the greatest in this field in the Islamic world, and we have from these pioneers a number of Andalusian scholars whose works in this field have come to us, among them we mention for example Ibn al-Awwam, who is the son of Zakariya Yahya bin Muhammad bin Ahmed bin al-Awwam al-Ashbili, who lived in Seville at the end of the twelfth century AD. He is the author of his book (The Book of Agriculture) in which he presents an

extensive review of agricultural arts, which is a summary of all that was written before him on agriculture (83).

B- Industry

The abundance of manpower and raw materials needed for industry was of great importance in the rise of industry in Andalusia, where Islamic industry reached the height of its greatness and progress during the Islamic rule. Muslims introduced a lot of oriental industries to Andalusia, such as the manufacture of textiles, glass, pottery and swords, the manufacture of carpets, sugar, paper and leather tanning (84). And they were famous also by their fabric production in that some types of fabrics were known by their Arabic names, such as the Tabby in relation to the "Atabi" neighborhood in Baghdad, and "Muslin" and Mohair (85).

Andalusia was the closest to Europe, therefore; Europeans came to it from everywhere in order to obtain what the Arab and Islamic hand produced, and some European workers also came to learn at the hands of skilled Muslim craftsmen all the colors of Islamic industry. Thus, Arab Islamic industries moved through Andalusia to all parts of Europe (86).

Trade

The political and social stability, economic well-being, scientific progress and urbanization in the country of Andalusia had a great impact in revitalizing trade and its prosperity, in addition to many positive factors that played an important role and contributed to the revitalization of the commercial movement there, including the interest of the Umayyad rulers in trade and adopting some economical procedures such as exempting merchants from taxes to gain their support In addition to their interest in controlling security along the trade routes and cities by the security men in charge of security inside and outside the cities, in order to maintain market security and to pursue thieves and bandits(87).

As for foreign trade, it had received attention and care of the Islamic state in Andalusia, where the land and sea routes with neighboring countries and kingdoms were fully controlled in that they established caravanserais along the land roads, which made it easier for the trade convoys to avoid many difficulties and obstacles on the road (88) Including the land route that crosses the Pyrenees Mountains which represents the main route for trade convoys heading to the ports of southern Franc that is famous with Provence and Sabania neighborhoods(89).

The Muslims were also interested in maritime trade, as the Islamic navy in Andalusia was very strong and their prayers were performed

in all the ports of Europe, Africa and Asia. So, they were for a long, masters of the Mediterranean (90). They established a huge fleet consisting of two hundred boats to confront the power of the Byzantine fleet to ensure the security of the Islamic coasts from their attacks and they took some islands close to the Islamic coasts as naval centers for the Islamic fleet, including Crete, Sicily, Malta, the Elia islands, the islands of Cyprus and Sardinia, in which the Islamic beaches became in the late ninth century AD and for the first time since 645 AD safe from any Byzantine invasion (91). For this reason, Muslims start exporting to all the European and African ports surrounding them their industrial and agricultural products such as cotton, saffron, paper, Granada silk, Cordovan leather and Toledo blades through Spanish ports of Cadiz, Malaga, Carthage and other large centers of trade (92).

What contributed to the development of trade was also the policy followed by the Umayyad rulers with the Islamic East, which is the open-door policy, which contributed to the revitalization and development of trade between the two parties, which greatly increased the quantities of oriental goods received by Andalusians, especially during the time of Caliph Abd al-Rahman al-Nasir (300-350 AH). / 912-961 AD). Moreover, the good neighborly relations between the Muslims on the one hand and the Franks on the other hand had a great impact in pushing forward the trade movement between them, that if we exclude the periods of tension, turmoil and wars that were breaking out between them from time to time and at specific times (93). These combined positive factors had the greatest impact in revitalizing trade and its prosperity in Andalusia, which led to the prosperity of economic and social life and this is what enabled Muslims there to communicate with the outside world, especially Europe, and this is what contributed to the transfer of the Arab Islamic heritage in the Middle Ages to Europe.

5- Artistic movement

A person does not resort to the arts unless he is satisfied, his mind and thought have developed, and his well-being has increased, in that arts are the true mirror of social and economic life. Ruskin, the well-known British writer and art critic (1819-1900), said that the book of arts is the most trustworthy and the most honest expression because it is an actual work and not words and that architecture is the most prominent feature of the arts. Muslims had left an amazing architecture and art of decoration that was mainly motivated by Islamic style in the countries that they conquered (94). For instance, In Andalusia, Muslims left much glories from the era of their rule and their buildings were printed with a special character which is the character of oriental arts in their remaining mosques in all the cities of Andalusia, in

Cordoba, Granada, Toledo and others . For example, the Mosque of Cordoba, which was built in the eighth century AD is considered one of the greatest and oldest architectural structures in the country of Andalusia, in addition to some buildings in Toledo.

As for the traces of the middle role of Islamic architecture, it was well witnessed by the lighthouse of La Giralda (the air game) of Seville, which was established in the sixth century AH / twelfth AD, and the Seville Palace. As for the Granatian Alhamra Palace, which was built on the eighth of AH / 14 AD, is considered a title for what the art of Islamic architecture ended, and despite the different styles of these buildings, which were established in Spain in different roles, they indicate their Islamic originality (95).

Among the famous Islamic buildings in Andalusia is Madinat al-Zahra, which was founded by Abd al-Rahman al-Nasir, near Cordoba and which was decorated with gold, alabaster, crystal, ebony and rare jewels. The city buildings were the most luxurious of what was known at that era, including the Alhambra Palace, in which the art of the greatness of engineering among Muslims and the art of decoration and sculpture was evident and this city and its buildings remained the largest after Al-Nasir left it, telling the story of his glories and the greatness of his country (96).

Among the other arts that Muslim artist excelled in is the art of decoration and mosaic, which is considered one of the oldest arts in the light of Islamic architectural style. Mosaic decorations were used in the palaces of some cities of Andalusia and North Africa during the era of the kings of the sects (97). The ceramics industry and its decoration also appeared in the country of Andalusia in particular, these wonderful innovative pieces that no one else has preceded them. The Muslim industry of enamel-coated ceramics in Andalusia goes back to the tenth century AD, and European museums include many ceramic vessels that were made to imitate the pots of the Muslims of Andalusia.

As for music, the Muslims created melodies, invented tarab instruments, and perfected its manufacture. Music was a big thing for them Several musicians appeared among Muslims, so they invented many instruments, and it is said that Al-Farabi is the one who developed the musical instrument “Alkanoon” (98).

Transmission ways of civilization from Andalusia to Europe

The Arab-Islamic civilization in Andalusia had a great impact on Europe, and the effects of this civilization reached it from several ways,

the most prominent of which was Andalusia (99). The Muslims settled there for about eight centuries, during which the Arab-Islamic civilization reached its peak, as they had a wonderful impact in the sciences and arts, including medicine, pharmacology and plants, and an infinite number of scientists, doctors, vegetarians, philosophers and writers (100). They also had the greatest merit in the transfer of their sciences and the sciences of those who preceded them from doctors, scientists and philosophers to Europe and the whole world (101).

Since Europe was at the forefront of nations that benefited from that civilization and made it the basis of its renaissance, let us take a look at this influence, which began in the eighth century AH, and this influence took many forms and images as we can distinguish three ways through which the Arab-Islamic civilization crossed from Andalusia to Europe from its beginning until the renaissance time and they are (102):

• European scientific missions to Arabia in Andalusia (the era of indirect influence)

Muslims settled in Andalusia for nearly eight centuries, during which Islamic civilization reached its peak, and this civilization originated from multiple centers of civilization such as Cordoba, Granada, Seville, Sir Qusta, and Toledo. The naysayers, with their own personal efforts, would come to the centers of Islamic civilization in Andalusia, where they would reside for many years to study (103) and review the Muslim heritage there. The French monk Gerbert d' Aurillac was at the forefront of the European scientists who came to Andalusia, where he resided there for three years from 967 to 970 AD. This was in the era of the rule of Al-Mustansir, who was interested in science and scientists, and Gerbert had studied in the institutes of Barcelona and Cordoba (104), and was particularly interested in studying natural and mathematical sciences. The most important thing he learned was the Arabic numerals and numerals system and he wrote a book explaining how to use Arabic numerals, but Europe did not pay attention to this new system. Rather, Gerbert was treated with suspicion because he was taught by Muslims in Andalusia and they considered him as a magician or as a strange artist, and rumors were woven around him (105). Later, Gerbert rose to the papacy to become Sylvester II (999 - 1003 AD), and he had a role in spreading Islamic sciences in Christian Europe.

After a long period of time, Europe adopted the Arabic numerals as a result of the work of Nardo Fiibonacci, who studied mathematics at the hands of a Muslim teacher in North Africa and published a book explaining the Arabic numeral system in 1202 AD. This was the beginning of Europe's adoption of Arabic numerals and the beginning of mathematics in Europe (106).

An example of this kind of individual effort is the work of Hermann, the crippled man who, despite his disability, was a mass of constant ambition and hyperactivity until he became famous. He resided in the Reichenau monastery, where he wrote many books on mathematics and astrology and the impact of Islamic civilization, and although he did not visit Andalusia due to his health condition, he collected his knowledge from what he learned from European students on their way back to their countries, after they had finished their studies in Islamic universities, and who were passing through the Reichenau monastery in which Hermann resides, where they found a shelter for them to spend many days before going to their families. They carried with them many astronomical instruments, foremost of which was the astrolabe, in addition to the ornate Arabic expressions, which Harman employed in his writings, and which remained clearly evident in his frequently used educational books (107).

In addition to individual efforts, there were scientific missions of an official nature sent to Andalusia by some European governments. After the peoples of Western Europe ended with the elements of power in this civilization that established one of the largest kingdoms in history, their kings came to ask for knowledge, to find out about this civilizational renaissance, and the first Europeans to that was Philip of Bavarian, who ask the Umayyad Caliph Hisham I (172-180 AH). /788-796AD) to allow him to send a mission to Cordoba to see the conditions of Andalusia, study its systems and culture, and see the activities there, so that they can learn what benefits their country. "Wilmen Al-Amin" as the name denotes “honesty” for his honesty in transmitting what he narrated to the king about the country of Andalusia .Wilmen mission consisted of 251 male and female students, who were distributed to all the educational institutes of Andalusia (108). And the King of England, George II, followed Philip’s way. Then other delegations from France, Italy and the Low Countries followed as well. They filled the institutes of Granada and Seville, and borrowed from Andalusian Islamic civilization a lot of science, literature and the arts.

Europe was not satisfied with sending these scientific missions, rather, some of the kings of Europe in the middle of the ninth century AD and the following centuries bring Arab professors, experts and scholars from Andalusia to establish schools and laboratories, revive numerous industries, and spread the science of construction and organization in their countries (109). The indirect influence process lasted for about three centuries, and it contributed to laying the first step on the path to changing the European mentality.

• Translation movement from Arabic into Latin

The translation movement began in the middle of the fifth century AH until the end of the ninth century AH where translators were first interested in the Arabic sciences that are transmitted from the Greek sciences, then the translation of the Arabic and Islamic sciences. Europe was almost abandoned from the Greek science; its knowledge was limited to a few texts. The study in Europe remained insignificant and confined to a small group of monks. Therefore, the need for a new fertile source was a must, and this source was the Arabic sciences, especially what included the origins of the Greek sciences which were translated by the Arabs in the era of the prosperity of their civilization (110).

After it was recaptured by the Spaniards in 478 AH/1085 AD, and by virtue of its location on the border between the Islamic state in Andalusia and the Christian state in Spain and Europe, Toledo became the center of the spread of Arabic to the rest of Spain and Europe (111) and because this city was characterized by the abundance of libraries, especially since thousands of volumes were transferred to it from the East, and the Arab culture remained in it even after its retrieval by the Spaniards (112). The credit for that goes to Raimundo, Bishop of Toledo and chief advisor to the Kings of Castile, who worked to introduce Arabic texts into Western study circles, and his action had the most impact on the fate of Europe, as Renan says (113).

The city of Toledo witnessed a large translation movement carried out by a free group of translators and writers in which they transferred Arabic books into Latin, but this group soon joined in the middle of the twelfth century under the auspices of Bishop Raimundo after he established what is known as the “School of Toledo Translators” to translate Islamic works into Latin (114). They translated the most famous books of Arabic literature in mathematics, astronomy, medicine, chemistry, nature, life, metaphysics, psychology, logic and politics, including explanations and summaries of Muslim philosophers as well as the writings of the Greeks. When these translations of Arabic books became popular, many thirsty people rushed to the fountains of Greek and Islamic sciences, heading to the Toledo School, where one of the Arabists translated for them what was mentioned in the Arabic books into colloquial Spanish or broken Latin among of which the most famous Arabists who worked in the school of Toledo was the Arabist Jew Abraham Ezra (115).

As for the translators, they were headed by Deacon Domingo Gonsalvo, who became prominent in the period between 1130 and 1170 AD, and is considered one of the most famous translators in the Middle Ages from Arabic into Latin via General Spanish (116). The method of translation was for an Arabist Jew to orally translate the

Arabic text into the general Spanish language, then Ghansalifa would undertake the translation into Latin. Among what Ghansalfa translated in this way were some of the books of Al-Farabi, Ibn Sina, and Al-Ghazali (117).

This translation did not stop at the works of Muslim scholars such as al-Razi, Ibn Sina, Ibn al-Haytham, and Ibn Rushd. Rather, it went beyond to the works of Greece whose books had been transferred to Arabic, and its Greek origins were lost, such as the books of Galen, Plato, Aristotle and Euclid. Western historians of modern sciences have proven that without the Arabs, most of the ancient sciences would have been lost, and the renaissance of modern Europe would have been delayed for years to the extent of which only God knows (118). Hence, it becomes clear to us the extent of the translation movement from Arabic into Latin and Spanish, and what had a great impact on the revival of science and literature in Europe.

• Arabization, "the summit of Arab influence"

The process of Arabization constitutes one of the most important ways through which the Arab-Islamic civilization crossed from Andalusia to Europe, which began remarkably from the middle of the thirteenth century until the middle of the fifteenth century AD, i.e., with the beginnings of the Renaissance in Europe. This stage was characterized by the blind acceptance of all scholars of this stage and everything that is Islamic, and looking at it as the final argument (119).

The majority of the inhabitants of Andalusia were Christians, and they were saturated with Islamic civilization, as they abandoned their language to speak Arabic, and were known as Arabs in the Middle Ages, and they are still known by it until today. Latin was the language in which they spoke and exchanged it among themselves and performed their rituals with it. As for the Muslims and those who followed them, their language was Arabic, and things remained on this approach, Arabic for the Muslims and Latin for the Latins, until the reign of Prince Hisham I, who took a positive step towards unifying the language and what he did was that he issued an official publication necessitating the necessity of learning the Arabic language to be the official language because it is the language of the dominant Al-Fatihah nation (120).

These positive steps have yielded the desired results in a short time, so people regardless their differences, had accepted the Arabic language, and the Latins excelled in it as they excelled in composing the Arabic poem over the sons of al-Daad themselves, and they became fond of the Arab heritage of poetry and prose, and they forgot their Latin language or almost did. This made some metropolitans emboldened to complain about the spread of Arab culture among

Christian youth, who became interested only in Arabic poetry, and only tasted Arabic poems and stories, and only read Muslim books.

The specialists of these Arabists played an important role in intellectual and cultural life due to their knowledge of the Arabic and Latin languages, and they were a tool of communication between Muslim Spain and Christian Spain, and they were the first nucleus that was hidden in later eras such as the era of Alfonso X, who deserved the title of the best in the world according to all historians when the scientific movement flourished unparalleled, the translation movement between languages was commendable, and Muslim, Christian and Jewish scholars began translating the religious, literary, historical, scientific and philosophical books honestly and faithfully (121).

In order to clarify the impact of the various Islamic sciences during the process of Arabization and its importance, as one of the ways of transmission of civilization through Andalusia in the formation of European thought in various fields, some examples must be given:

In the field of scientific thinking, the influence of Muslims was very great. In the Middle Ages, Europe adopted the Islamic medical system, because it was superior to European medicine, which at that time consisted of witchcraft, charlatans and incantations. Islamic medicine moved to Europe early, so medical schools were established in Montpellier, Bardot, Oxford and Cambridge and all of them were using Arabic books translated into Latin as a basis for teaching medicine. These schools remained dependent on Al-Razi books for a long time and other books such as Ibn Sina's law on medicine which was the subject of Western interest and study from the thirteenth century to the sixteenth century (122).

As for the field of literature, we find that at the end of the eleventh century a new type of romantic poetry appeared in the province (Provence) and the similarity between this poetry and the Arabic poetry in Andalusia indicates the extent of the influence of Arab poets in Spain on the poets of Provence, and this poetry moved to Provence through the Arabists Christians who speak Arabic and the Andalusian dialect that later became Spanish (123). Moreover, Andalusian literature, especially poetry, had a great impact on the emergence of modern European poetry in Spain and southern France (124).

These are examples of the stage of Arabization that continued until the middle of the fifteenth century AD until Europe began begin the era of intellectual independence in the late fifteenth and early sixteenth centuries.

From the foregoing, we see that the entry of Andalusia into the Islamic world made it a sophisticated civilized center. Through it, during the

Islamic era and after it, the traces of Islamic civilization moved to Europe.

Conclusion

This study concluded with a statement of the importance of the Arab-Islamic civilization in Andalusia and the extent of the moral influence of Muslims on Europe through Andalusia as one of the crossing points of the Arab-Islamic civilization. Le Bon pointed out in his book, The Civilization of the Arabs, as he says, “The experiences of the Arabs and their traditions resulted in the refinement of the nature of our thick horns in the Middle Ages. alone, and the many peoples who have embraced their religion do not share it.”

The study also concluded that Muslims, through Andalusia, were able to open to Europe what it was hidden from the world of scientific, literary and philosophical knowledge with their cultural influence, so Europe was indebted to them for eight centuries. The study also showed that the Islamic heritage in the scientific, political, social, economic and spiritual aspects has spread politically, civilized and militarily in southern and western Europe, and Muslims established a center for their civilization in which eight centuries remained lamps shining light on Europe, which was succumbing under the weight of ignorance and darkness.

Bibliography

(1) For more details, see Yaqout al-Hamawi: Mujam al-Buldan, vol.1, House of Revival of Heritage, Beirut 1980. pp. 62-64; Muhammad Abdu Hatamleh: Iberia before the advent of the Arabs and Muslims, Ministry of Culture, 1996 Amman Jordan, p. 24; Hussein Mu'nis: Encyclopedia of the History of Andalusia (History, Thought, Civilization and Heritage), 1st Edition, Religious Culture Library, p.11

(2) Muhammad Abdu Hatamleh: Op.Cit, pp. 18-19.

(3) Edward Baruy: A General History of Civilizations, 3rd edition, 3rd part, Arabization of Asaad Dagher, Oweidat Publications, Beirut, 1994, p18.

(4) Hussain Mu'nis: Fajr Al-Andalus, 2nd Edition, Saudi House for Publishing and Distribution, Jeddah, 1985, pp. 3-4, and he will be referred to later on Mu`nis: Fajr Al-Andalus.

(5) The city of Toledo is considered one of the largest cities in Andalusia, and one of its most beautiful and good cities. Later on, he will be referred to as Al-Bakri: The Geography of Andalusia and Europe from almasalik and almamalik book.Beirut,1968 ,p.87.

(6) Ahmed Mukhtar Al-Abadi: On the History of Morocco and Andalusia, University Culture Foundation, Alexandria, p. 51,53 and will be referred to hereafter Al-Abadi: On the History of Morocco and Andalusia.

(7) Munis: Encyclopedia of the History of Andalusia, p. 51,53.

(8) Al-Maqri: Shihab al-Din Ahmad ibn al-Talmisani (d. 1041 AH) "Nafh al-Tayyib from the fragrant branch of al-Andalus", part 1, edited by Ihsan Abbas, Dar Sader, Beirut, 1988, pp.251-253.

(9) Ibid, p. 215-216

(10) Al-Muqri: Nafh Al-Tayyib, part 1, pp. 217-218

(11) Al-Maqri: Ibid, part 1, pp. 232, 243.

(12) Ibn Al-Qoutiah: Abu Bakr Muhammad bin Omar bin Abdul-Aziz (d. 367 AH); the date of the opening of Andalusia, 1st edition, edited by Abdullah Anis Al-Tabbaa, Al-Maaref Foundation, Beirut, 1994, p.76; Khalil Ibrahim Al-Samarrai and others, History of the Arabs and their Civilization in Andalusia, Dar Al-Kutub Directorate for Printing and Publishing, University of Mosul, 1968, pp.14-16

(13) Al-Maqri: Nafh al-Tayyib, part 1, 176-177; Jassim bin Hamed Al-Qasimi: History of the Arab-Islamic Civilization in Andalusia, University Youth Foundation, Alexandria, 1999, p. 14 and will be referred to hereafter Al-Qasimi: The History of the Arab-Islamic Civilization in Andalusia.

(14) Abd al-Rahman Ali al-Hajji: Andalusian History "From the Islamic Conquest until the Fall of Granada," Dar al-Qalam, Beirut, 1976, p. 136, and it will be referred to later on al-Hajji: Andalusian History.

(15) Mu'nis: : Fajr Al-Andalus, p. 261

(16) For more information about the Battle of the Land of the Martyrs, see Mu'nis: Fajr Al-Andalus,pp.265-275; Khalil al-Samarrai: History of the Arabs and their Civilization in Andalusia, pp. 52-56.

(17) Al Qasimi: Op.Cit p, 15.

(18) Abd al-Rahman Ali al-Hajji: Andalusia, Group Two, Edition 1, Dar al-Irshad, Beirut 1969, p. 21, hereinafter referred to as al-Hajji: Andalusia

(19) Munis: : Fajr Al-Andalus,Op.Cit p. 420

(20) ibid., p. 423; Al-Hajji: Andalusia, Vol. 2, pp. 23-24

(21) Al-Abadi in the History of Morocco and Andalusia, p. 170; Abdel Moneim Majid: History of Islamic Civilization in the Middle Ages, 4th Edition, Anglo-Egyptian Library, Cairo 1978, p. 279, and he will be referred to later by Abdel Moneim Majid: History of Islamic Civilization.

(22) Zakaria Hashem Zakaria: The Excellence of Islamic and Arab Civilization on the World, Nahda House for Printing and Publishing, Faggala, Cairo 1970, pp. 298-299

(23) Gustin Le Bon: The Civilization of the Arabs, translated by Adel Zuaiter, Al-Bab Al-Halabi, 1969, pp. 266-267 and will be referred to hereafter Le Bon: The Civilization of the Arabs.

(24) Al-Hajji Andalusian History, p. 158, Le Bon: The Civilization of the Arabs, p. 276-277

(25) Al-Hajji: Andalusia, Volume 2, pp. 32-33; Zakaria Hashem Zakaria: Op.Cit, p. 219

(26) Shehada Al-Natour: An Introduction to the History of the Arab-Islamic Civilization, 2nd Edition, Dar Al-Amal, Irbid, Jordan 1989, p. 298,

(27) Al-Maqri: Nafh al-Tayyib, Part 4, p. 59; Al-Abadi: Studies in the History of Morocco and Andalusia, p. 56

(28) Le Bon: The Civilization of the Arabs, p. 273; Montgomery Watt: The Impact of Arab-Islamic Civilization on Europe, translated by Jaber Abi Jaber, Publications of the Ministry of Culture and National Guidance, Damascus, 1980, p. 36 and will be referred to hereafter Watt: The Impact of Arab-Islamic Civilization on Europe.

(29) Al-Maqri: Op.Cit, vol. 2, p. 25; Munis: Encyclopedia of the History of Andalusia: p. 339.

(30) Sigrid Hunke: The Sun of Arabs Shines on the West "The Impact of Arab Civilization in Europe", 7th Edition, Dar Al Afaq Al Jadeeda, Beirut 1982, p. 499.; Ahmed Ali Al-Mulla: The Impact of Muslim Scholars on European Civilization, 2nd Edition, Dar Al-Fikr, Damascus 1981, p. 128.

(31) Al Qasimi: Op.Cit, pp. 100-101.

(32) Al-Maqri: Nafh al-Tayyib, vol.1, p. 298; Zakaria Hashem: Op.Cit, p. 361

(33) Ibn Adhari, Al-Bayan Al-moghareb, Volume 2, published by Colan and Levy Provencal, Leiden, 1948, p. 245.

(34) Ibn Khaldun, Abd al-Rahman ibn Muhammad: Introduction, investigation by Ali Abd al-Wahed, Cairo 1962, p. 240

(35) Zakaria Hashem: Op.Cit, p. 313.

(36) Ibn Khaldun: The Book of Lessons and the Diwan of the Beginner and the News in the Days of the Arabs, the Persians, the Berbers and those of their Contemporaries with the Greatest Sultan, vol. 4, 1971, p. 146

(37) Karim Ajil Hassan: Scientific Life in the City of Valencia (92-494 AH / 611-1102 AD), 1st Edition, Al-Resala Foundation, Beirut, 1976, p. 263-264

(38) Al-Abadi: Op.Cit, p. 246

(39) Ajil: Op.Cit, pp. 267-268, 271.

(40) Zakaria Hashem:Op.Cit, p. 313

(41) Abd al-Rahman Badawi: The Role of the Arabs in the Formation of European Thought, 3rd Edition, Dar al-Qalam, Beirut 1979, p. 11.

(42) Zakaria Hashem: previous reference, 571

(43) Abdel Moneim Majid: Op.Cit, p. 198

(44) Zakaria Hashem: Op.Cit, p. 571-572

(45) Abdel Moneim Majed: Op.Cit, p. 198 – 200

(46) Al-Abadi: Op.Cit, p. 277

(47) Mustafa Al-Shakaa: Milestones of Islamic Civilization, House of Science for Millions, Beirut, 1975, p. 317; Badawi: Op.Cit, p. 16.

(48) Al-Mulla: Op.Cit, p. 152; Sigrid: Op.Cit, p. 84.

(49) Al-Akkad, Op.Cit. 23

(50) Hikmat Najib Abdul Rahman: Studies in the History of Science among the Arabs, Founder of the Books House for Printing and Publishing, Mosul University, 1977, p. 94,

(51) Louis Young: Arabs and Europe, 1st Edition, translated by Michel Azraq, review by Muhammad Qajah, Dar al-Tali'a for Printing and Publishing, Beirut 1979, p. 99.

(52) Khalil Ibrahim Al-Samarrai: Studies in the History of Arab Thought, Directorate of Dar Al-Kutub for Printing and Publishing, Mosul University, DT, p. 353.

(53) Saleh Ahmed Al-Ali, “The Study of Mathematical Sciences and Its Place in Islamic Civilization”, Al-Mawred Journal, Vol. 3, p. 4, Baghdad 1974, p. 45

(54) Khalil al-Samarrai: Op.Cit, p. 354; Hikmat Najib: Op.Cit, p. 152.

(55) Hikmat NajibOp.Cit, p. 185-186; Khalil al-Samarrai: Op.Cit p. 366.

(56) Hikmat NajibOp.Cit, p. 87; Shehadeh Al-Natour: Op.Cit. pp. 330-331

(57) Muhammad Abdullah Anan: Oriental and Andalusian Islamic Translations, Al-Khanji Library, Cairo 1975, p. 266,276

(58) Abbas Mahmoud Al-Akkad: The Impact of the Arabs on European Civilization, 5th Edition, Dar Al-Maaref in Egypt, d. T, pp. 58-59.

(59) Izz al-Din Farraj: The Excellence of Muslim Scholars over European Civilization, Dar al-Fikr al-Arabi, Cairo, D.T., pp. 205-206.

(60) Youssef Mahmoud: Scientific Achievements in Islamic Civilization, 3rd Edition, Wael Publishing House, Amman, Jordan, 2004, p. 154, 156, 157

(61) Omar Farroukh: History of Science among the Arabs, Dar Al-Ilm for Millions, Beirut, 1970, p. 293.

(62) Shehadeh Al-Natour: Op.Cit, p. 324

(63) Farroukh: Op.Cit, p. 74

(64) Farraj: The Excellence of Muslim Scholars over European Civilization, p. 243

(65) Ibn Abi Asbaiah, Muwaffaq al-Din Abu al-Abbas Ahmad ibn al-Qasim (600-668 A.H.) “Uyoun al-Abna’ fi Tabaqat al-Alatiba” (The Eyes of the Sons in Tabaqat al-atiba), investigated by Nizar Rida, Al-Hayat Press and Library, Beirut 1965, pp. 1-5.

(66) Jean Charles: History of Medicine, translated by Ibrahim Al-Bajlani, Ahe Knowledge World Series, No. 251, Kuwait, May 2002, p. 93.

(67) Hikmat Najib, Op.Cit, pp. 56-57; Al-AkkadOp.Cit, p. 40.

(68) Le Bon: Op.Cit, p. 489.

(69) Farraj: Op.Cit, p. 248.

(70)) Hikmat Najib: O.pCit, pp. 57-58

(71): Sigrid Hunke: Op.Cit., p. 346

(72) Le Bon: The Civilization of the Arabs, pg. 492; Farraj: previous reference p

(73) Hikmat Najib: Op.Cit, pp. 330-331

(74) Louis Young: Op.Cit, p. 106

(75) Abdul Muttalib Mustafa Rajab Mazhar: Dhimmis in Andalusia during the Umayyad Rule " Modern Emirate and Caliphate: (138 AH-421 AH / 756-1030 AD) Master's Thesis in Islamic History, Department of History, Yarmouk University, 2000, p. 87.

(76) Badawi: Op.Cit, p. 39

(77) Farraj: Op.Cit, p. 65.

(78) Le Bon: Op.Cit, p. 274.

(79) Sigrid Hounk: Op.Cit, p. 457.

(80) Farraj: Op.Cit, p. 66.

(81) Ibid, p. 66

(82) Abdul Muttalib Mazhar: Op.cit, p. 89; Young: The Arabs and Europe, p. 64.

(83) Farraj: the previous reference, pp. 66-67 Louis Young;: Op.Cit, p. 65.
(84) Le Bon: Op.Cit, p. 374; Farraj: Op.Cit, p. 101.
(85) Hashem Zakaria: Op.Cit, p. 514.
(86) Farraj: previous reference, p. 101.
(87) Abdul Muttalib Mazhar: Op.Cit, p. 92.
(88) - Imamuddin, S.M.: Apolitical HistoryOf Muslim Spain DacooaNajmah Son,1991,P75.
(89) Shehada Al-Natour: Op.Cit ,p.302.
(90) Le Bon:Op.Cit, p. 276.
(91) Hashem Zakaria: Op.Cit, pp. 253, 266
(92) Al-Kharbutli: The Arabs and Europe, The Egyptian House of Composition and Translation, 1965, p. 94.
(93) Jackson: The Making Of Modievel Spain Colifornia. 1970, p14.
(94) Farraj: Op.Cit, p. 270,272,290
(95) Le Bon: Op.Cit, pp. 282-283
(96) Sigrid Hounk: previous reference, pg. 498
(97) Farraj: Ibid., pp. 278, 280
(98) Ibid, p. 218
(99) Zakaria Hashem: Op.Cit, p. 491.
(100) Young: Op.Cit. p. 118 -119.
(101) Zakaria Hashem: Op.Cit, p. 310
(102) Khalil al-Samarrai: Op.Cit, pp. 384-385
(103) Abdel Moneim Majed: Op.Cit, pp. 278-279
(104) Khalil al-Samarrai: Op.Cit, p. 385
(105) Sigrid HounkOp.Cit, p. 81
(106) Louis Young: Ibid., p. 125; Badawi: Op.Cit, p. 6
(107) Sigrid Hounk: Ibid., p. 139-140
(108) Le Bon: Op.Cit, pp. 117-118; Khalil al-Samarrai: O.pCit, pp. 386-387
(109) Khalil al-Samarrai: Op.Cit ,p. 387
(110) Badawi: Op.Cit, p. 7
(111) Al-Kharbutli:Op.Cit, pp. 121-122
(112) Khalil al-Samarrai: Op.Cit, p. 388-389
(113) Al-Kharbutli: Op.Cit, p. 122
(1114) Juan Vernet: The Excellence of Andalusia over the Culture of the West, quoted from the Spanish by Nihad Rida, 1st Edition, Seville House for Studies, Publishing and Distribution, Damascus, 1980. p. 179.
(115) Al-Kharbutli: Op.Cit, p. 122.
(116) Badawi: Op.Cit, p. 7.
(117) Ibid., p. 8; Khalil al-Samarrai: Op.Cit, p. 389.
(118) Zakaria Hashem: Op.Cit, p. 400.
(119) Abdel Moneim Majed: Op.Cit, pp. 278-279.
(120) Zakaria Hashem: Op.Cit, pp. 397-398.
(121) Ibid, pp. 298-299.
(122) Young: Op.Cit, p. 128. ; Al-Kharbutli: Op.Cit, p. 124.
(123) Louis Young: Ibid., pp. 135-136.

(124) Khalil al-Samarrai: Op.Cit, p. 404-405.