

The historic quarter of Córdoba and the landscape mosaic of the Guadalquivir valley between Córdoba and Almodóvar del Río

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Introduction

The aim of this session is to observe the current landscape configuration and the evolution of the historic urban area of the city of Córdoba, the recent expansion of its outskirts, as well as natural, economic and urban variables that affect the geography of the Guadalquivir Valley, located in the natural region of the Depression of the same name, and in contact with the foothills of the Sierra Morena mountain massif.

The natural conditions of the city's urban position, together with human exploitation, as well as its evolution over the centuries, have configured a river corridor, flanked by Sierra Morena, to the north, and the waving shapes of the Córdoba countryside, to the south, with a long history of anthropic-natural relations. Understanding the landscape as the result of continuously changing evolutionary dialectics, under the dynamics of symbiotic and predatory relations, our trip around the urban area of Córdoba and the west of the municipality, will allow us to contemplate the current outcome of an extraordinarily complex landscape, subject to many stresses and which juxtaposes a wide variety of uses and exploitations competing for the land and other resources. This translates into a true mosaic comprised of multiple tesserae, where the past and the present meet.

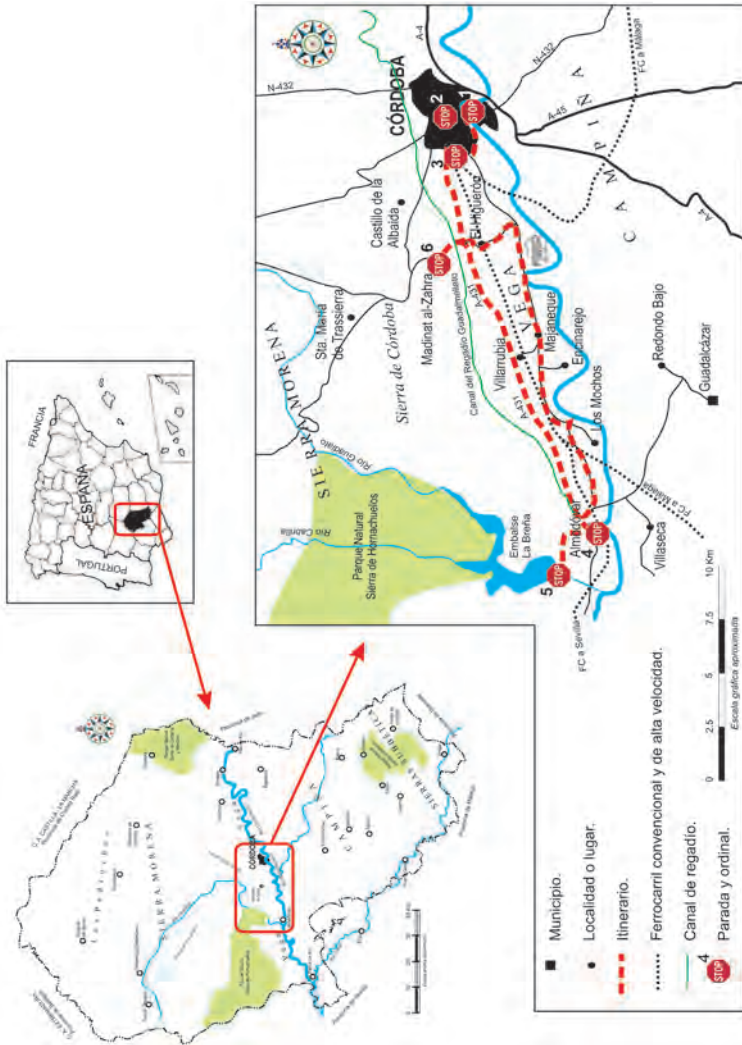


Figure 1: General outline

Roman Bridge. Córdoba and its relationship with the Guadalquivir

Thousands of years before Claudius Marcellus initiated the official Roman foundation of the city, Paleolithic, Neolithic, Chalcolithic, Eneolithic and Pre-Roman communities, as a result of practical experience and observation of the landscape as a source of resources, discovered the natural and strategic values of the Guadalquivir river banks. It was these first settlers, much before the arrival of Roman legions, who, intuitively, imagined the city that stands today, as so many others around the world, by the waters of the great river in the Spanish south, which has served as inspiration for poets and has truly shaped the landscape with its lowlands and terraces, the backbone of historic and modern Andalusia, and even an essential element to understand the traditions and the spirit of inland Andalusia. In short, Córdoba, the Córdoba of the past and the Córdoba of today, owes its origin to the presence of the Guadalquivir river. The first stable settlement, thousands of years before our Era, was located in what is now known as the Colina de los Quemados [Hill of the Burnt], upon a mound next to the river, close enough to make use of its benefits, and at a prudent enough distance and height to be protected from its sharp rises.

The Roman civilisation, experts in practical observation and masters of land use, imagined a large city supported by the thousand-year-old existence of the settlement on the Colina de los Quemados. They laid out a broad open area at some distance from the Pre-Roman hamlet, upon a river terrace which, although near the course, was also protected from floods by its height. This led to the official foundation of the *urbs quadrata* of Corduba, a place of “civilisation” that was fated to be a city-bridge, city-fortress, city-port and political-economic hub of the south of the old Hispania (García Verdugo, F. R; Martín López, C, 1995, 420). The Guadalquivir is therefore the birthplace that justifies the remote location of the city, reinforcing this relationship throughout the Middle Ages and the Modern Age thanks to the preindustrial development of its riverbanks and bed, favoured with a significant water level and the driving force of its movement.

Historic World Heritage City

The formerly walled enclosure of the “villa” of “high city” of Córdoba, whose perimeter, following the destruction of the first foundation and Republican city in the 1st Century BC, was already defined by the orderly

city planning of the Roman Empire. The passing of the centuries shall lead us to the complex and organic Spanish-Muslim city of the High Middle Ages, and the low-medieval and modern changes of Christian origin that still exist today, bearing witness to the sum of all the various visions of urban life.

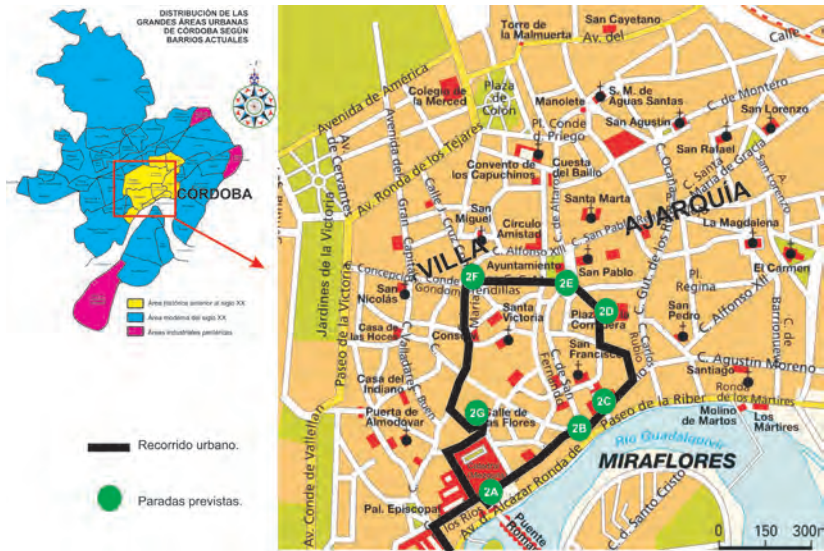


Figure 2: Details of Córdoba's current historic quarter

Plaza del Triunfo or Puerta del Puente: Expression of the physical relationship comprising the natural substratum of the city location and its development with relation to the course of the Guadalquivir and its bridge, as well as a definition of the urban ennobling due to the high-medieval placement of the political, religious and economic hub around a complex comprised of the Andalusi palace, the old mosque and the adjoining market area. An urban nucleus of power that shifted the centrality of the former *urbs quadrata* of the Roman city.

Crus del Rastro: the commercial and demographic expansion of the Islamic city in the 10th Century, was translated in urban terms into the development of an extension in the outskirts towards the west of the old classic city, forming the expansion known as *Ajarquía*, separated from the high city by a wall, structured around the old farm houses and with three communication axes.

Plaza del Potro: going into the old *Ajarquía*, through calle Lucano, we shall find open public squares in the urban weave of the old Islamic city following the reconquest of the city. A good example of these squares, a cultural and literary hallmark of the city of Córdoba, is known as the Plaza del Potro, *ex novo* open space in the 16th Century. The purpose of opening the historic compact urban design of high-medieval tradition was due to the need to provide a wide space for one of the main accesses to the city from the old Madrid road.

Plaza de la Corredera: also in the 16th Century, although its execution was notably prolonged in time, began the opening of what was to become the great public square of the city of Córdoba. The Plaza de la Corredera is one of the most emblematic places in the city of Córdoba, with the singularity of being the only rectangular main square in Andalusia, remarkably similar in structure to the well-known main squares of Madrid and Salamanca. It comprises a model of public space inspired by urban ones of the Renaissance and Humanist tradition, conceiving the new public space as the new economic and political centre, specially designed to house political or festive public events.

Intersection of Claudio Marcelo-Capitulares streets: back to the urban junction of Villa and Ajarquía, going up to the main terrace of the Guadalquivir through the Claudio Marcelo street, where we shall see the nobility of the remains of the former Roman Temple, placed on the old Roman wall and which, aside from religious purposes, was a spectacular monument which, together with the nearby circus of the former *Corduba Patrician Colony*, welcomed those who arrived along the *Vía Augusta*. This is, therefore, a clear example of landscape invention with monumental and propaganda aims.

Plaza de las Tendillas: going up the above Claudio Marcelo street, better known as Calle Nueva or New Street, as it is an intervention on the old quarter carried out during the first third of the 20th Century, we reach the Plaza de las Tendillas. In the current square, around the 14th Century, were the houses of the Order of Calatrava as well as various shops or establishments, a fact which rapidly derived in the toponym *Tendillas de Calatrava*. It was during the 17th and 18th Centuries when this type of establishments flourished. However, over the centuries and with their commercial growth, the reduced open space of this square proved to be insufficient, and in the 19th Century various reform projects were undertaken seeking to align the sides of the

square. The intention was to create a new city centre, recovering the authority centrality of the former Roman *urbs quadrata*. Financial difficulties delayed the project until the early 20th Century, leading to the disappearance of the old Swiss hotel, and the configuration of a bourgeois urban medium, where regionalist architecture prevailed, to be practically completed in 1930.

Calle de las Flores: returning towards the course of the Guadalquivir and in the Cathedral complex, we shall access the arboreous streets of the medieval city, which is perfectly seen in the unique and well-known Calle de las Flores. This is an example of traditional *asucaques* or *cul-de-sacs* of high-medieval tradition: closed streets that comprise a landscape of closed perspectives, whitewashed façades close together, and a winding layout, a consequence of an urban development model defined by the non-existence of urban planning. The current look of the street is the result of historicist and heritage reforms carried out in certain places of the historic quarter in the mid-20th Century.

The landscape transformation of Ronda de Poniente

An inner alternative road in the city of Córdoba, called Ronda de Poniente and Ronda Oeste de Córdoba. Along its layout, of special relevance due to its scenic magnificence in the western periphery of the city, are infrastructures such as the Andalusia Bridge, over the Guadalquivir, the Tunnel of Los Omeyas and the Tunnel of the Almunia. This road connects the A-4 (Madrid-Córdoba-Cádiz), at Arroyo de la Miel, to the Glorieta de la Arrusafilla.

Guadalquivir Valley

Key elements of the territory covered:

Physical elements

The whole unit has a low altitude (between 170 and 100 m approximately) is flat and slightly sloping towards the course of the Guadalquivir. In summary, it is made up of three essential topographic areas: the foothills of Sierra Morena, that acts as a morphological link between the river terraces and Sierra Morena itself; the river terraces, which are the main element shaping the relief of the west of Córdoba; and finally, the strict alluvial plain or current course of the Guadalquivir.

The climate variables present, in general terms, adequate conditions for Mediterranean-type agriculture, although rainfall is markedly irregular.

Average annual temperature is 17.4 ° C, and average rainfall is about 631 mm, concentrated primarily in the winter months, while the summer months are very hot, which results in a potential evapotranspiration of 927.8 mm/year, emphasising the arid character of the nature unit.

The geomorphological characteristics allow a diversity of hydrogeological situations thanks to the presence of alluvial detritic that extends along the course of the Guadalquivir. In addition to these groundwaters are the surface waters of the Guadalquivir itself, and its mountain tributaries.

It has fertile soil, suitable for agriculture, both due to its mineral content and, especially, its topography which facilitates farming, handling of irrigation water or mechanisation, to which must be added a reasonable defence against erosion thanks to the scarcity of slopes. In general, these soils are not highly evolved on modern sediments, luvisols and fluvisols, where waterlogging is not infrequent due to a lack of natural drainage.

The natural vegetation, as the fauna, today practically gone or highly transformed by man and the rotovating of the area, is limited to the presence of river bank wood along the Guadalquivir, and, of course, the immediate mountain area, where there is a predominance of Mediterranean scrubland and holm oak meadows.

Human elements

Given the advantages and favourable condition of the physical variables, especially flexible to shaping by human actions, the Vega and Terraces of the Guadalquivir have been intensely transformed by man. Initially, it stands out for being the provincial geographic unit with the highest degree of anthropisation and the most complex juxtaposition of uses and exploitation, ranging from agriculture to the intensive and recent process of rural-urban development. This intense human presence is directly related to the peri-urban character of the area with relation to the city of Córdoba and other nearby villages such as Almodóvar del Río, which, since olden times, has sparked an economic, agricultural, mining and infrastructure interest in the favourable lands of the Vega and Terraces of the Guadalquivir.

Infrastructure and agricultural uses prior to the 20th Century: cereal and livestock ways and farms: The natural corridor provided by the Vega of Córdoba, given its topographic and morphological conditions, and historically

strengthened by its proximity to the demographic concentration of the city of Córdoba, resulted in it playing a significant role, since olden times, in the development of land communications between the inside of the Guadalquivir Depression and its Atlantic arch, thereby becoming a natural and human medium suitable for tracing major roads and paths which, naturally, included the Guadalquivir itself.

Together with these communications, the Vega and Terraces of the Guadalquivir witnessed, practically since Roman times, intensive ploughing of the land. This led to an early loss of the ecological values associated to the presence of the Mediterranean or river bank woods which were replaced, at least in the early decades of the 20th Century, by an extensive agricultural system, specialised in exploiting large cereal estates or developing a holm oak meadow landscape for stockbreeding purposes. In a way, a rural medium was developed based on the agricultural exploitation of the land, consolidating a diverse habitat of agricultural, stockbreeding and farms, similar to what existed in the country beyond the Guadalquivir, but with a notable presence of holm oak meadow exploitations half way between the Sierra and its foothills, or on the very banks of the Guadalquivir.

Exploitation of the subsoil: groundwater and rock mining: While the land resource of the Vega, either to support communication pathways or for agriculture, experienced an early alteration of its original landscape, the subsoil resources were also of interest and exploited. The presence of groundwater at a depth not too difficult to access favoured, among the traditional drylands, the flourishing since olden times of certain irrigated farms, nearly always small in size and with a meagre use of water. For this, wells with waterwheels were used, as well as the springs that emerged naturally in contact with the terraces of the Guadalquivir or its banks.

The other relevant hypogeal exploitation was the obtaining of mining resources, primarily calcarenites, sands and gravel. Obtaining calcarenite is the oldest mining practice recorded in the western area of Córdoba. Since Roman times, there is archaeological and landscape evidence of open-pit quarries of this raw material which, as well as used to build the walls and buildings of Córdoba, left a permanent mark on the foothills of Sierra Morena, natural and artificial caves which, at times, made up an interesting troglodytic habitat in places such as Cuevas de Artasa.

The mineral exploitation of sands and gravels was activated in the 19th century and remains operative to this date. Its origin in the area is associated to the execution, in the second half of the century, of the layout for the Madrid-Córdoba-Sevilla railway, and it has continued in time until the present, generating open extractions on the terraces or the course itself of the Guadalquivir, which have altered the relief, led to the presence of artificial ponds, impoverished the soil and diminished the agricultural productivity of the Vega. As well as, obviously, having an impact on nature and the visual pollution of the landscape of the Córdoba Vega.

Planned irrigation in the mid-20th century: irrigation of the Guadalmellato, rise in population, development of stabled livestock and agroindustrialisation: there is no doubt that agricultural development of the Vega and its use to support communication equipment, was already well established in the first third of the 20th century. Although in the field of extensive and dryland production, the west of Córdoba already presented in the early 20th century a markedly humanised land and landscape organisation and nature variables with a definite scenic regression.

Nonetheless, this process of humanisation was accelerated in the first half of the 20th century due to the implementation of the large irrigation zone of the Guadalmellato (Torres Márques; 2000 and 2009). The direct and indirect consequences of the transformation into irrigation were, in summary:

- in the agricultural setting, there was a transformation of the old cereal and stockbreeding drylands, intensification of soil production –maintaining the formula of indirect exploitation of the existing estates–, development of agriculture with no intermission, introduction of new irrigation crops – beetroot, corn, green vegetables, etc.– and a regression of meadow stockbreeding, which became stabled stockbreeding and specialising in dairy production;
- the introduction of new crops and, in particular, industrial crops, fostered the rise of agroindustrial sites, specialising above all in obtaining sugar from beets, dairy production or fruit and vegetable canning. Worth noting is the significance of the industrial complex of the former sugar refinery San Rafael de Villarrubia, created in 1932, or the also extinct dairy cooperative COLECOR, founded in 1945;

- the socioeconomic interest sparked by the appearance of the large irrigation zone of the Guadalquivir and the incipient agroindustrial sector of the Córdoba Vega, generated a considerable immigration process that affected the whole of the west of Córdoba, leading to a dramatic population rise in the 40s. As a result of this process, which began before the first PGOU [General Plan of Urban Development] of Córdoba (1958) and which was prolonged in time even beyond it, the outlying, clustered and road villages El Higuero, Cañada Real Soriana, Villarrubia, La Golondrina, Majaneque, Veredón de los Frailes and Veredón de los Mochos were born, which, over time, have consolidated their survival as demographic areas of certain importance in the municipal outskirts of Córdoba and Almodóvar del Río.

Conurbation and rural-urban development in the last third of the 20th Century: parcelling and new communications and transport infrastructures: with the above precedents, the traditional settlement of farmhouses on the Vega gradually lost its financial and demographic functionality in favour of the new villages abovementioned, surviving in the best cases as testimonial ruins of the rural past of the west of Córdoba, while it reinvented its landscape and moved towards a process of urban and rural-urban conurbation closely linked to the socioeconomic functions of the nearby city of Córdoba. These land dynamics and their effect on the landscape, while the irrigated surface area was being cut back and an industrial offshoring was taking place, meant a demographic and urban increase in the stable towns mentioned which, since the 70s and 80s, turned into the territory support of a rapid and illegal process of agricultural land parcelling belonging to the Irrigation Community of the Guadalquivir.

Nowadays, following a process of parcelling of more than thirty years, as a result of the permissiveness of the competent authorities or the tacit and express recognition of regularised initiatives, based on an irregular situation, the rural-urban development of plots is a notable fact which, among other social, economic and ecological consequences, is mortgaging the future of land and landscape planning in this area. Practically all of the Vega on the west of Córdoba is divided into several pockets of rural-urban plots ranging between 3,000 and 1,500 m² in surface area; with mixed uses, including urban as well as rural and recreational; and where a large bedroom sector of the diffuse city of the Córdoba outskirts has been set up. A diffuse city that has, therefore,

blurry boundaries: there is no black or white, but rather a varied range of gray. Likewise, its features and limits are no longer easily recognisable, since it has opened its doors to the creation of new landscapes managed outside the urban planning and where uses, land, divisions, part-time vegetable gardens, swimming pools and architecture combine with the interests of a complex society as far as its land and landscape requirements.

New land uses: solar farms: More recently, in the first decade of the 20th century, as so many other places in the south of the peninsula, major areas of electrical power production have been introduced in the Vega through the installation of what have been termed solar farms or solar fields. These are sites or spaces where small photovoltaic facilities with various owners share infrastructures and services. The difference between a solar park and solar farm is its size and its industrial or agricultural nature. A solar park is a solar centre, usually a large facility, more industrial and comprised of several solar plants which require a centralised control room and high voltage transformers. Solar farms refer to individual facilities of small producers aimed at producing energy at a small scale in order to sell it to the electrical grid. These solar farms originated in the agricultural feature of the farmland used for energy exploitation, since these are installed on rural and agricultural lands, such as old vegetable farms, pastures or vineyards; and because metaphorically they cultivate sun to produce energy, as if it were just another earth crop.

Landscape interpretation of the area from the castle hill of Almodóvar del Río

The monumental and scenic hill of the Castle of Almodóvar, rising up to 252 m above sea level, provides a clear and extensive view of the complex landscape of the Guadalquivir valley, that extends between Sierra Morena and the cereal fields of Córdoba and which currently appears before observers as a complex and humanised medium, with multiple land uses.

The new hydraulic infrastructure: visit to the reservoir of La Breña (Guadiato river, Almodóvar del Río)

The Breña reservoir is located in the municipality of Almodóvar del Río, in the final stretch of the Guadiato, very near the confluence with the Guadalquivir River. The reservoir, with a current capacity of 823 Hm³ following the construction of the dam Breña II, is one of the largest ones in Andalusia. It has

two distinct arms, on the river Guadiato itself, approximately 20 kilometres and another one on the La Cabrilla stream, tributary of the Guadiato, 5 kilometres long. These arms represent what is commonly known as the “tails” of the reservoir, which, in this case, extend towards the mountain and into the natural park Sierras de Hornachuelos, a protected area in the Andalusian network and declared Special Protection Zone for Birds (SEPA), Place of Community Interest (L.I.C.) and Natura 2000, of special ecological value due to the survival of a significant community of Iberian lynx (*Lynx pardinus*).

The archaeological site of Madinat al-Sahra

Research carried out in recent decades, associated to the prospecting and excavation of new adjoining or distant areas of the old palace of Madinat al-Sahra, have confirmed a longstanding conviction that could not be proven until recently. Today, nobody questions the value of the old city and its palace as artistic and historic assets: but also, thanks to recent archaeological discoveries, very few dare deny the territorial significance and geographical dimension of the complex. Although for decades there have been clues, thanks to several publications, that the actual dimension of the caliphal city of al-Sahra greatly exceeded the palace complex partially unearthed, few imagined the size of the old urban caliphal foundation, while only a handful of specialists embarked on unravelling the geographical and territorial dimension of its urban development, outskirts, crop fields, farms, communication networks, etc.

By virtue of these principles, the palace and adjoining city of Madinat al-Sahra, provide an overall picture that more than exceeds the BIC/2003 perimeter or even the area defined by the PEPMA (Special Protection Plan). In fact, the territory associated to the old caliphal foundation affects practically all of the western Vega of the Guadalquivir through Córdoba, as well as the natural slope and southern side of the Córdoba Sierra Morena.