

# Wake up, Cartuja!

Rehabilitation of the former Expo site in Seville, employing a new concept

*"...eine Seite eines Buches habe ich nicht gelesen, und auf dieser Seite stand, daß keine Flieger mehr gebraucht werden. Und so bin ich ein Flieger ohne Flugzeug geworden, ein Postflieger ohne Post. Aber was das bedeutet, das kannst du nicht verstehen".*

*"Der Gute Mensch von Sezuan", Bertold Brecht*

*"My proposal? Make Cartuja Island a no-go area and watch from the Giralda the decay of what in 1992 proclaimed itself as the future. Think of the overwhelming beauty of ruins and airplane graveyards..."*

*H. Kollhoff, in Quaderns d'Arquitectura i Urbanisme  
"Talleres/Workshops. After Expo", 1993*

*"EXPO es un motivo para ver y ser visto".*

*Prof. Berjumea Pino, Seminario sobre  
"Grandes eventos y construcción de la Ciudad: la experiencia española"*



*A Maria e Tano*

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# I. foreword

Last year I was taking part in a lecture of city development, from the Institute of Urbanism. The class was about city expansion resulting from world exhibitions or events. Some of the examples given by the professor were the cities of Seville (1992), Lisbon (Expo 1998) and Hanover (Expo 2000). Seville seemed to be the most problematic case, since the Expo did not improve the economy of the region, as it was supposed to, but left a big debt, that still has to be covered.

Usually, cities hosting World Exhibitions change for a period of time, but the problems start just afterwards, in relation to how to use and re-convert the area. The case of Seville interested me for its character of southern city, as a victim of a failed attempt to improve the economic situation of the region of Andalusia. As often happens, just a few people profited from the situation and the population did not benefit from an improved infrastructure system.

As I also come from a southern region (Sicily), I felt the theme very near to my life experience. At the same time, as an Italian, I was interested in investigating what happened then, to be able to understand what could happen in Milan, after 2015 Expo.

The direction in which the project developed also reflects my personal interest in public architecture and the power of community.

There are a few examples of how cities have survived crisis of all kinds, using the strength of community work and operating on the structure of their societies: the first example is Cuba and the process which started in La Havana following the Oil Peak Crisis in the 90s; another is the case of the "Catadores" of Sao Paulo, Brazil, where the last and poorest level of society took over all the work of collecting waste in the city, starting for the first time to differentiate it.

I believe that architecture and city planning are strongly connected with our societies and they influence one another in different ways. The human is the key to understand society and architecture is first of all a human activity. The work to make our societies welcoming to the ones who will come after us is huge and long. Architects will have to be part of this work, with their knowledge of population growth. Population growth processes and corresponding concepts like density, working possibilities, infrastructure system and so on, are the strongest reasons why I started this project and why I worked in the direction that it took. The most important tools for saving our cities are community work and the power to concentrate developments towards a compact society.

## II. acknowledgment

I would like to thank all the people who made this work possible and helped me directly or indirectly, practically or theoretically, academically or personally, to come to the end of these studies. Thanks to Professor Wolfgang Dokonal for supporting the project since the beginning, with all the difficulties which occurred during the process. He taught me to go on and focus on the aim, not letting it collapse under millions of preoccupations. Thanks to Professor Grigor Doytchinov, who inspired me, with his lecture about city expansion, resulting from international events and exhibitions.

I would like to thank my family in Sicily, which gave me the determination that guided me during these years and especially the last months, supporting me and my research, knowing I was looking for something more, which I am probably still looking for. I owe them the motivation to leave home, my Sicily and then Italy. They never doubted my determination and always supported my choices, even when it meant seeing me twice a year. My brother Giuseppe maybe does not know how important for me was our connection, over time and distance. He and his successes have been for me the motivation for giving my best, in any situation. My parents Agata and Totò have always reminded me my roots, always watching over me even from "down there" and stimulating me to go on with my plans, because "we are Sicilians, we do not give up".

Thanks to Fran, who represents my firm point of reference, for his determination and patience, for sharing with me his thoughts and doubts, for always believing in me and never giving up on me. I would like to thank also his family in Zagreb, which made me feel, in a lot of occasions, less far from home.

My friends in Sicily were really important to get to this point. A sincere thank to my friends, Giulia, Sofia, Erica, Anna, Marta, Giorgia, who know me since 20 years and have experienced a lot with me, being next to me even from far away and sharing their opinion also when not in accordance with my plans. They followed my experiences, in positive as in negative moments, with the love,

comprehension and patience of a real family. In the same way, I would like to thank my friends in Venice, Ciccio, Davide, Elisa, Gabriel, Giulio, "le tre Giulie", Marco, Cristina e Lorenzo, which moved with me the first steps in the architecture world and have been the basis of my first experience of a life on my own. Venice itself will always be a second home for me, being the place where I learned the most about myself and what I would like to become.

I must mention here Professor Francesco Dal Co and Professor Stefano Munarin, who instilled into me the interest for those themes which should be very actual today, in any field of our education and especially for an architect and for a city planner.

Special thanks to Barcelona, where part of me will always live, to Ricardo Flores and Eva Prats, who welcomed me in their Studio (Flores & Prats Arquitectos), giving me the possibility of making my first work experience and taught me that architecture can be a lot of things. You just need to find your way.

A special thank goes to Graz and his people. They represented a turnover in my life, which I was not expecting and influenced me not only academically, in my view of the architectural experience and work, but also personally, deep in my being. I would like to thank the friends I met here, a lot of whom are from other lands themselves and have been the very first people I could trust in the new city, Stefanja, Stefan, Maria, Niki, Alica, Mady, Silvia, Mima, Alfredo, Marta, Veza, Razan. Some of them have really motivated me and have been an example and a reference during those years. Thanks to my friends of kleinraum, Konsti, Benji, Lung, Asima, Stefan, Marco, Michi, David, Nico, Habib, Lilli, David, Philipp, Leon, Christoph, Edwin, for helping me through this experience, inspiring my thoughts and actions and accepting my chaotic way of being. They have been very important in the last years for my personal, academical and intellectual growth. In the same way, I am really thankful to the people I met in AZ3, who since the beginning inspired and determined a lot of the work I have done, making me feel at home and reserving me all their patience.

Thanks for the support and help to Architect Daniel Podmirseg, one of the first persons I met in TU Graz, who has awoken in me the interest in other aspects of the architectural world, teaching me how we could contribute, as architects, in making human life better. He gave me the determination and suggestions I needed to go on with my first idea, make it stronger (or "more radical") and not miss the point.

Architect Sara Gonzales Novi has been a master for me, more than just a friend, following the process of the project till the end and not giving up on me, when I was evidently lost in something else.

My research in Seville was supported by Professor Thilo Gumbsch and Professor Maria Teresa Perez Cano, who shared with me her direct experience in working with the Expo Society. Thanks for the help to Jaime Sierra, secretary of the association Legado Expo, who shared his knowledge and opinion about the theme.

For the love they always reserved me, as part of their family, I would like to thank my New Zealand "host family", which has always been an important part of my life, since I met them in 2007. Thanks to Bob and Fran for the corrections of the English text.

Thanks to the city of Seville is due. It welcomed me and shared with me its history and patrimony for free and made me discover the beauty of this region and the extroverted spirit of its inhabitants. For those reasons Seville deserved my attention and my concern. The southern character of a place conquered my thoughts once again.



# III. preface

*The area looks today like a ghost of what it was, or what it was supposed to be.*

The site of 1992 Expo in Seville looks today like a huge abandoned area, a ghost of what it was, or what it was supposed to be. Walking down its empty avenues, on the yellow sand, through the dry gardens, I saw a problematic space, but still full of potential. The first thoughts were questioning. Why would you actually try to change something, which had a value in the past, but it was destroyed and changed and then abandoned? The area was formerly agricultural land, which was expropriated in order to make it available for urban purposes. Although those fields had a specific use, they have been rezoned as abandoned areas to urbanize, becoming a so called "metropolitan area".

From the end of the 19th century, the area along the river started to be seen also as a space for free time, for example to go walking on a Sunday. After the first analysis, I realized even the river was something special. With its sedimentary character it has changed its flow at many points by itself. In most cases, the natural process was made quicker by people and the different cultivations they started along the river. The first important changes happened in the 20th century, when the works on the river flow and on the river bank started in order to protect the city from floods. From that moment, the relation between the city and the river changed. Seville could appear to be just another city on a river, while it is not. It is a city which developed next to a river, more precisely with its back to the river. Seville does not look at the river, it does not live off the river, it is not a "river city". If you think of Vienna, Paris, Bilbao and Prague the difference will be obvious.

*Seville is not a "river city".*

Richard Pie pointed on the different character of the city:

"Seville is not a river city in the sense of the vast majority of Central European cities, in which the river is an articulatory axis serving as the frontier between two parts joined and separated by a series of bridges, but rather an asymmetrical city situated on one side, in front of the river and the great flood plain that stretches before her".<sup>1</sup>

The *Guadalquivir* River only became part of the discussion about Seville, in the second half of the 20th century, as a danger for the city, but people were already using the water and the good soil around it for cultivation for decades. This change in the relation between humans and the river attracted my interest. The works on the river and on the river bank; the proposal for Seville to be an Expo site; the choice of *La Cartuja* Island; the transformation of rural fields in order to satisfy a temporary interest; and the intention of creating a metropolitan area for the future of the city resulted in the creation of a "ghost quarter". What remains is a memory of the past and the evidence of the later compromises, necessarily accepted by the city; an area where companies reign and act beyond the Urban Plan. Seville is for sure a "bridge city", thinking of the importance of the Bridge of *Triana*, the first bridge built on the *Guadalquivir* River, and a "port city", since Roman time and Golden Age, when it became the main commercial port for the goods of the New World. The Expo '92 surely helped the economic situation of Seville.

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<sup>1</sup> Pie 1993, 98-103.

The forty-years Spanish dictatorship (1939-1975) had left its traces on Seville - the city had no infrastructures; it was totally split from the surroundings, with no easy possibilities of reaching other parts of Spain, nor what became the Expo site west of the artificial canal. But it is still not clear if the people would have preferred to keep the area of La Cartuja as it was, even if not so usable by the city, instead of engaging in the complex mechanism of the Expo, with all advantages and also all consequences.

From all those thoughts came my concern about this city and its future. The months I spent there made me feel part of a community and the people welcomed me in a very simple and spontaneous way. A lot of people helped me, providing me with an explanation of their experiences, sometimes professional, sometimes private.

This project aims to create a space for the city of Seville which can be used and enjoyed by its inhabitants and which responds to their need of spending time in the open air. The area should give back to the city the 'green' that it is missing and the public space which disappeared, providing new purposes, new facilities and employment possibilities for inhabitants, while preserving the documentary value of the place. The area and its new face will also provide a new use for those Expo Pavilions which were abandoned in order to make it possible to visit the structures, hosting today different purposes.

The interventions require the participation of the City Council and of the citizens. It will be a progressive process, responding to the needs of the city and of the people. This project would return to the area its value and give to local people as well as tourists the possibility of enjoying something which for long time looked like the ruin of a dream, the ghost of a possible success and the memory of a short prosperity.

*This project aims to create a space for the city of Seville, which can be used and enjoyed by its inhabitants and responds to their need of spending time in the open air.*

# IV. definitions

## **Universal Exhibition:**

An Exposition with a strong architectural value, which differs from an International Exhibition because each nation has to plan and build its own pavilion by itself.

## **Corta:**

A hydraulic work, to rectify the course of a river, in order to attenuate the risk of flood.

## **Expropriation:**

The act of taking a privately owned property by a government to be used for the benefit of the public.<sup>1</sup>

## ***Tier Paysage:***

Concept created by the French landscape architect Gilles Clément, to refer to those spaces, neglected, unused or abandoned by the man, but naturally rich in terms of biodiversity.<sup>3</sup>

## **“River City”:**

A city, which develops its life along a riverbank and uses the river also as resource. As Richard Pie explains, most Central European river cities interact with the river, which is an axis, a frontier between two parts, usually joined by bridges<sup>2</sup>. Following his definition, we cannot define Seville as a river city.

## **Private space:**

Space defined by a precise ownership, usually determined by the presence of a private building.

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<sup>1</sup> Cf. <<http://www.investopedia.com/terms/e/expropriation.asp>>.

<sup>2</sup> Cf. Pie 1993, 98-103.

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<sup>3</sup> Cf. Clément 2004.

**Public space:**

Spaces available for public use and accessible to anyone, without physical restrictions or opening hours. Roads, parks, public squares and beaches are usually considered public space.

**Linear Park:**

Park characterized by its linear shape, developing along its length, instead of by virtue of its area. Linear parks are usually green connections in big cities (High Line, New York), long bike/pedestrian lanes (Tagus Linear Park, Póvoa de Santa Iria, Portugal) or waterfront areas (Hornsbjergs Strandpark, Stockholm).

**Free space:**

Space where a pedestrian can walk 24 hours a day without restrictions such as limitations of usage to business hours. A river can also represent free space, when it is navigable.

**Micro:**

From the Greek "*μικροσ*", very small. Here refers to a small part or aspect of the project, which will be investigated and described more in detail.

**Green space:**

Free space, with non-paved ground, for example parks and green public areas in the city, where cars are not allowed to drive and pedestrians can circulate without restrictions.

**Macro:**

From the Greek "*μακροσ*", long, vast. Here refers to the main aspects and interventions of the project, in its big scale.

**Rehabilitation:**

Giving new purpose and use to an abandoned or unused area, in order to make it more attractive to people and visitors.

**Community work:**

Work of a group of people, usually volunteers, for a common aim.

**Vegetable Tourism:**

Gastro-tourism, motivated by an interest in agriculture and new ways of producing more healthy food. A few associations organize tours and lectures for people interested in learning more about how to make their own gardens. (One of them is the Incredible Edible of Todmorden in England).<sup>1</sup>

**Bio-intensive Agriculture:**

Agricultural method that aims to produce the maximum yields on the minimum area of land, in a sustainable way. In order to achieve this, the crops are planted really near to each other, on a deeper ground (60 cm)<sup>2</sup>.

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<sup>1</sup> Cf. Incredible Edible Todmorden Community, <<http://www.incredible-edible-todmorden.co.uk/home>>.

<sup>2</sup> Cf. Jeavons/Cox 1999, 9-10.

# 1. analysis

## Numbers

Spain land area: 505,990 square Km.

Agricultural area: 269,420 square Km.

Forest area: 183,500 square Km.

Inhabitants: 47,000,000.

Density: 92 Inhab./Km<sup>2</sup>

Agricultural area available per person: 5,700 square meters.

Arable land and land under permanent crops: 0.36 ha/person<sup>1</sup>

Area of Andalusia: 3,996,217 ha (39,962 square km).

Inhabitants: 8,402,305.

Density: 96 Inhab./Km<sup>2</sup>

Agricultural area available per person: 4,800 square meters.

Seville city area: 14,000 Ha.

Island of La Cartuja: 215 Ha (1.53% of Seville area).

Parking area on Cartuja Island: 42 Ha (19.53 % of the Island).

Investment of the Public Company Expo '92 (organization and realization): 122,265 Mi PTS (734.8 Mi Euro).<sup>2</sup>

Import of edibles (2011):

Wheat: 4,355,655 ton

Maize: 4,824,485 ton

Soybeans: 3,176,843 ton

Potatoes: 662,454 ton

Export of edibles (2011):

Wheat: 567,885 ton

Oranges: 1,526,624 ton

Tomatoes: 964,054 ton

Lettuce: 672,004 ton<sup>3</sup>

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<sup>1</sup> Cf. FAOSTAT Spain Country Profile <[http://faostat.fao.org/CountryProfiles/Country\\_Profile/Direct.aspx?lang=en&area=203](http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=203)>, in <<http://www.fao.org/home/en/>>.

<sup>2</sup> Cf. Sociedad Estatal de Gestion de Activos, S.A. (antes Expo'92) & Ministerio de la Presidencia eds 1993, qtd. Petrovic 2009, 142.

<sup>3</sup> Cf. note 1.

## City of Seville

The expansion of the city of Seville has been influenced by two factors: the topography and the danger of floods. Only a small city could grow in such a place, at the bottom of the Aljarafe Plain, where most of the surface is flood prone.

The flood danger is due to many factors: the position of the city; the concentration of surrounding canals and underground water which interferes with the river drain; the orientation of the valley towards the east, open to ocean influences; the climate, with its torrential precipitation and the south-west wind (sea wind), which also obstructs drainage.

*In recent years, the population has decreased and the city is in danger of losing the benefit of being the great capital of Andalusia.*

The city occupies 140 km<sup>2</sup> and its population is 696,676 (INE 2014), with a density of 5001.21 inhab/km<sup>2</sup>. In recent years, the population has decreased and the city is in danger of losing the benefit of being the great capital of Andalusia. By the beginning of 2014, the population had fallen to 700,169,000 inhabitants. According to the Spanish law, the city needs to keep 700,000 people if it wants to preserve its role. On the other hand, the province of Seville grew to 1,941,355 inhabitants (2014).

The metropolitan area counts 46 municipalities and 1,533,230 inhabitants. Some of the municipalities of Seville are commuter towns. The development of those areas started between the 70s and 80s, but the big urban development happened in the 90s and has continued to this day. The metropolitan area of Seville grows more every day, in population and extent.

The *Poligono Sur* quarter was the first to begin in the 70s as a housing initiative to find homes for people after the 1961 flood and the earthquake of 1969, when a lot of people had to move out from the historical centre and the city had to find them a new location. The works took place between 1964 and 1980.

***Andalusia has an economic system based mainly on agriculture.***

Andalusia has an economic system based mainly on agriculture. This is due to the failure of the Industrial Revolution in the 21st century. The GNP per capita of Andalusia is 18.507, 00 Euros, really similar to that of Umbria, an Italian region.

***The Exposición Iberoamericana 1929 and Expo 1992 brought to the city of Seville green areas, open spaces and infrastructures it did not have before***

The *Exposición Iberoamericana* 1929 and Expo 1992 brought to the city of Seville green areas, open spaces and infrastructures it did not have before, such as *Parque Maria Luisa*, *Plaza de España*, as well as a new public transportation network - the fast railway (AVE), the station of *Santa Justa* and a lot of new bridges connecting the two riverbanks.

The University of Seville was founded in 1505 and has 65.000 students.

***Cartuja '93 gave long term occupation to 14,500 people***

After Expo '92, the Plan for the future development of the Island *Cartuja '93* gave long term occupation to 14,500 people and brought 1825 million euros in 2012. The site hosted 345 companies (74% aeronautic industry of Andalusia; Auto components; Heineken (Cruzcampo); Siderurgía Sevillana.



*The morphology of the city is characterized by the implantation of the Islamic-medieval city.*

## Weather

Seville is located not many miles inland from the Andalusia coast, so it has a more continental climate, then other nearby cities, though it cannot be considered as a proper continental area, because of the too mild winter. It has a subtropical Mediterranean climate, with a dry summer and wet winter.

The annual average temperature is 25°C during the day and 13°C at night. Seville has the hottest summer in continental Europe, after Cordoba. The average daily temperature in July is 36°C and the average minimum temperature is 20.3°C. During the day, the temperature in summer reaches very easily up to 40-43 °C. January is the coolest month, with average maximum temperatures of 16.0°C and minimum of 5.7°C.

The precipitation varies from 400 to 800 mm per year, mostly from October to April. December is the wettest month, with an average rainfall of 99 millimetres. On average there are 66 days of rain.

## The historical Seville

The morphology of the city is characterized by the implantation of the Islamic-medieval city. The city is structured by a main nucleus, around an urban road. This main road is organized through doors and borders. At the borders of the town is the market place. Through those elements, appear *fondouks* and *caravanserais*<sup>1</sup>, more complex buildings, hotels for travellers, closed roads surrounded by living quarters and the religious buildings. The complicated network of walkways is still visible today, together with the traces of the Occidental Baroque tradition: an open network of squares and "hall-ways", supporting the residential structure.<sup>2</sup>

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<sup>1</sup> Fondouks were commercial properties, situated in the Suq (market), next to the walls of the Medina City (Islamic city). Used as hostels for travellers and merchants coming from across North Africa to trade, their huge structures used to host animals downstairs and merchants in the upper floors. Caravanserais were used for the same purpose. A lot were found along the Persian Empires' Royal Road.

<sup>2</sup> Cf. Nuevo Plan General de Ordenación Urbánica. Septiembre 2002, XIX 14, in: <[http://www.sevilla.org/plandesevilla/avance/doc/o\\_avance\\_19\\_2\\_tablada.pdf](http://www.sevilla.org/plandesevilla/avance/doc/o_avance_19_2_tablada.pdf)>, in <<http://www.sevilla.org/>>.

### La Cartuja Island: history of the Expo '92 site

During the Roman invasion at the end of the 1st century BC, Seville was included in the route of the *Via de la Plata*, created with military intent, which started from *Emerita Augusta* (actual Merida) and proceeded to *Asturica Augusta* (actual Astorga), passing through Zamora. During the imperial centuries, the *Via de La Plata* gained commercial relevance. [Img.8]

The second half of the nineteenth century brought the modernisation and mechanisation of agriculture. Before the Expo, the Island was mostly occupied by the orange and olive gardens of the *Cortijo del Alamillo*. It was agricultural land, not greatly exploited from the family which owned it. Another agricultural property was the *Cortijo de Gambogaz*. But historically the agricultural area of Seville was the west land of *El Aljarafe*.

When the *Corta de Cartuja* was completed, the Island was suddenly isolated and separated from the near area of Santiponce. Due to the new Expo infrastructures, the ground was not suitable for agricultural purposes anymore. Those were the perfect prerequisites for a new urban area or as it was called later, "metropolitan park".

*In 1400, the Carthusian Monastery of Santa Maria de las Cuevas was founded on flood-prone ground.*

In 1400, the Carthusian Monastery of *Santa Maria de las Cuevas* [Img.9-10] was founded on flood-prone ground. In its library, Columbus conducted research for his trip to "India" and his remains were kept here between 1509 and 1536. The so-called *Desamortización de Mendizabal* changed the history of the Monastery. Juan de Dios Álvarez Mendizábal, exponent of the Army of Fernando VII, who participated in regaining Spanish colonies in America, was a conspirator, who obliged the King in 1812 to sign the Constitution and re-establish Absolutism. His 1836 *Desamortización* was something similar to the French Revolution, which consisted in the expropriation of goods, mostly owned by the Church or religious orders, in order to reduce the public debt and improve the economy of the region. This meant also the expulsion of the Carthusian Order from the Monastery of Cartuja. In 1841, it was converted into a ceramic factory (Pickman), as part of the Industrialization process. [Img. 9-10]

*The orange garden of the Monastery had a very strong landscape value, which has been lost, with the expropriation of the land, in preparation for Expo '92.*

The orange garden of the Monastery had a very strong landscape value, which has been lost, with the expropriation of the land, in preparation for Expo '92. Today the Monastery hosts the Institute of the Historical Patrimony of Andalusia, the International University and the *Andalusian Contemporary Art Centre* (CAAC).

*When the Corta de Cartuja was completed, the Island was suddenly isolated and separated from the near area of Santiponce.*

*From the middle of 19th century, many interventions were planned in order to improve the navigation in the Guadalquivir, to protect against floods and to facilitate the railway.*

### Seville and the river

In the Roman city, the wall excluded the river entirely. The only connection was the port, which was important for the benefit of navigation. [Img.11]

In the 12th century, the Muslim expansion of Seville included a buffer zone between the wall and the meandering riverbed, to respond to possible growth. The city drainage passed through the gates of *Arenal, Triana, Real, San Juan* and *Vib-Arragel*. [Img.12]

During the Christianization period (until the end of the 18th century), suburbs and public buildings started growing outside the walls, in order to control this sedimentary area. The port was extended from *Torre del Oro* to the boat bridge. The quarter of Triana presented a very urban façade towards the most erosive riverbank. Seville expanded on the opposite side of the river. In the 19th century, the commercial interests of the oligarchy overtook the rights of the citizens, who were using this land for recreation purposes. *Barqueta Bridge* to *Torre de Oro* became a garden-riverbank. In the 20th century, the defence and flood-control walls which separated the river from Seville were built. Development post-1945 aimed to prevent the city being so strongly influenced by the forces of nature. The *Chapina Blockage* represented a problem for Seville.<sup>1</sup>[Img.13]

From the middle of 19th century, many interventions were planned in order to improve the navigation in the Guadalquivir, to protect against floods and to facilitate the railway. Those interventions on the agricultural meadow changed the direction of parts of the river. Between 1901 and 1903, the Defense Plan for Seville was promulgated.<sup>2</sup> In 1929, the *Exposición Iberoamericana* postponed the defence project, due to works of urban expansion. At the same time, the defence plan in Triana was cancelled.

<sup>1</sup> Cf. E.T.S. de Arquitectura 1986, 19-24.

<sup>2</sup> Cf. Img 15, p. 47.

*One of the new things it brought to the city was the railway between San Bernardo and the Port.*

In 1911, the rearrangement of the Gardens of *San Telmo* into the actual Park of Maria Luisa (Forestier) started and a competition for the rest of the Expo site was announced. In 1914, the first prize for the *Exposición* site was given to Anibal Gonzalez Alvarez Ossorio. [Img.20] The *Exposicion Iberoamericana* was the solution to existing urban and communal services problems but also to political, economic and social problems. One of the new things it brought to the city was the railway between *San Bernardo* and the Port.

*Between 1940 and 1949, the Defence Project started*

In 1925, the flood barrier at Chapina was built, together with the canal of Alfonso XIII in the Guadalquivir. In 1927, the Plan Brackenbury was finalised. [Img.21] In 1930 the Bridge of *San Juan* was built. [Img.21] Between 1940 and 1949, the Defence Project started. Seville had a few weaknesses, such as the lack of flood defences in the neighbourhood of Triana, the unplanned expansion of the city towards the east and the inefficiency of the flood barriers. The Project aimed to solve those problems. Prior to the Project, the areas of Camas and Santiponce, beyond the Canal of Cartuja, were not accessible.[Img.21]

In 1943, the *Hydrographic Confederation of Guadalquivir* initiated the *Graciani* Project: a mixed system of earth and walls protection.

In keeping with the new *Plan General de la Ordenación Urbana* (PGOU) of 1946, a dock was built, in order to change the river flow in Triana (1949). The Quarter was then included in the defence belt.

Between 1949 and 1991, *Puente del Patrocinio* I and II were built on the Canal of Chapina. The third *Puente del Patrocinio* on the Canal of Cartuja, together with the Camas Bridge, dates from 1982. [Img.21]

In 1952, the new Defence Plan of Seville included: the canal of Punta Verde; the consolidation of the defence walls; the canal of Cartuja; and the dam of *Esclusa*. The plan had to be stopped, because of the *Canal Sevilla-Bonanza* project. The flood of 1961 was unavoidable.[*Img.21*]

*The 1962 Defence Plan decreed the reinforcement of the walls and the construction of Corta de Cartuja*

The 1962 Defence Plan decreed the reinforcement of the walls and the construction of *Corta de Cartuja*, the straight artificial canal connecting two parts of the river, in the place where it meanders. The canal was designed after the Grenoble Institute identified the weakness of the defence wall from *San Jeronimo* to *Plaza de Armas* and its likely collapse (1970). The canal and its defence wall solved the problem and created *La Cartuja Island*. [*Img.15-21-22*]

Between 1968 and 1991, the Bridges of *Huelva* and *Los Remedios* were built. Before the Expo '92 more bridges appeared, between *La Cartuja Island* and Seville, as well as on the Canal of Cartuja: *Seville-Huelva Bridge*, *Cartuja Canal Bridge*, *Alamillo*, *Barqueta*, *Pasarela de Cartuja*, *Las Delicias* and the *Centenario Bridge*, on the *Tablada Canal*. The *Pasarela San Jeronimo* dates from 2011. In 1972, the Commercial Plan of Seville was written and in 1975 the *Land Act* (annex to PGOU of 1963) was edited. Here Triana was mentioned for the first time as part of the city. The last big flood which transformed the meadow into a riverbed happened in 1973.[*Img.21*]

*The 6 Km Canal of Cartuja was built between 1975 and 1982 and the area between the old and new riverbed got the name of Isla de Cartuja.*

The 6 Km Canal of Cartuja was built between 1975 and 1982 and the area between the old and new riverbed got the name of *Isla de Cartuja*. In fact, the island was created in 1980 when the bend of *San Jeronimo* was closed and the river got its historical riverbed back.[*Img.21-22*]

The so-called *Poligono Cartuja* is part of the natural and rural surroundings of Seville. Following the Expo '92, city residents began to accept the Island as part of their lives.[*Img.4*]

Unfortunately, after the six months of Expo, the land on the west side of the river no longer had either rural or urban character any more.

In the *ACTUR* (urgent urban actions) of 1971, Spain extended its Special Plans to Seville. The document which decreed the expropriation of the area of Cartuja was established. A few local areas protested against this decision. The Administration did not give plausible explanations: according to it, the Canal was going to benefit the community. In order to regain the land for the city, some intervention was needed, as well as land sales. The actual aim was to convert land on the island from rural, flood-prone land to an urban area. [Img. 24] After the start of the works, the Architects Union of Seville (*Colegio de Arquitectos*) announced a competition for ideas about *La Cartuja Island* (*Concurso de ideas para la Corta de la Cartuja*). The City Council had an interest in administering this land, because of the future Expo '92.<sup>1</sup>.

The neutral orthogonal net would allow for a number of development possibilities and create situations between rural and urban. The structure was organized by blocks measuring 120x400 meters.

*After the start of the works, the Architects Union of Seville (Colegio de Arquitectos) announced a competition for ideas about La Cartuja Island (Concurso de ideas para la Corta de la Cartuja)*

*The first prize was awarded to Monserrat Diaz Recasens, Gonzalo Diaz Recasens and Antonio J. Martin Molina.*

The first prize was awarded to Monserrat Diaz Recasens, Gonzalo Diaz Recasens and Antonio J. Martin Molina. They considered Seville to be a suburban reality and analysed the expansion of the historical city. The still existing Roman and Hispanic-Muslim structure could be used as a base. The winners' proposal was a first intervention to give an ambiguous character to the site, neither fully rural nor fully urban. The area would have high level infrastructure and at the same time be marked by an intensive agricultural system. A network of paths and canals would represent the future way of building in the city.

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<sup>1</sup> Cf. Marin de Teràn 1981, 45-47.

*The reason for the expropriation of this land in 1987 was the flood danger. The City Council named the area "Metropolitan Park" in 1986.*

The bridges were planned on a pilotis structure. A sport centre was planned on Chapina Island and the connection between Cartuja and Triana. <sup>1</sup> [Img. 25]

The reason for the expropriation of this land in 1987 was the flood danger. The City Council named the area "Metropolitan Park" in 1986, in order to improve harmony with the river and create a river-city. After the edition of the ACTUR, the Architects protested, because Seville had other land available for residential areas and it was not necessary to expropriate agricultural land. The inhabitants also protested, seeing this plan as an excuse to transform rural properties into construction areas.

The City Council nominated a group for the Thematic Park project: Josefina Cruz, Curro Ferraro, directed by Manuel Castells and Peter Hall.

The 1992 EXPO and the new defence system eliminated the function of the Chapina barrier. The pavilions could have been built as permanent structures, with the condition that each country identified a future use and a change of purpose. This was a plan for the re-use of the area after 1992 (Cartuja '93). It included the regain of the old Calle Torneo, the street along the east river bank.

It was not possible to reinforce the defence walls of San Jerònimo because the houses and the railway were close to the river. The project to fill the bend of San Jerònimo has not been realized.

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<sup>1</sup> Cf. Diaz Recasens, M./ Diaz Recasens, G./ Martin Molina 1981, 60-63.

## Expo 1992

*The cultural reason chosen in 1976 from the Spanish Government to hold the Expo '92 in Seville was the celebration of the 5th century since the discovery of the Americas.*

*The first important historical episode to remember, in order to tell the history which this Expo was going to address is the foundation of the Monastery of Santa Maria de Las Cuevas*

*The Colegio de Arquitectos of Seville criticized the construction of the fast railway in the area, because it eliminated the possibility of using the other arm of the river.*

*In 1982 Seville officially put itself forward to host the 1992 Expo.*

The cultural reason chosen in 1976 from the Spanish Government to hold the Expo '92 in Seville was the celebration of the 5th century since the discovery of the Americas. It was the occasion to underline the cultural, scientific, technical and economic aspects which influenced world development and progress, thanks to that discovery. It was meant to show what thoughts, culture and science were like in Europe at the time of Columbus, and to highlight the indigenous cultures of the new continent. It had to show, through objects and images, the meeting of two different cultural areas (the European one in 1942 and the pre-Columbian one) and how these created the people and cultures of today.<sup>1</sup>

The first important historical episode to remember, in order to tell the history which this Expo was going to address is the foundation of the Monastery of *Santa Maria de Las Cuevas* and its later conversion into the Pickman S.A. Ceramic factory. The Monastery was the first step in colonizing a river bank on rural land, with agricultural use.

The *Colegio de Arquitectos* of Seville criticized the construction of the fast railway in the area, because it eliminated the possibility of using the other arm of the river, and it closed the view and the access to the other river bank. The later interventions in the river flow, in order to improve flood defences, was considered a bad vision of the future development of the city. The hydraulic works gave this image of a new area, ready to host new urban structures. This was the moment when *La Cartuja* was elected to be the area of the Universal Exposition 1992.<sup>2</sup>

In 1982 Seville officially put itself forward to host the 1992 Expo, together with the city of Chicago, which registered in 1987. A concrete proposal to use the area of *La Cartuja* was presented through the ACTUR Plan, approved in 1986 (*Structuring Plan for Cartuja*). [Img.28] The Government of Andalusia (Junta de Andalusia) formalized the Special Plan for the Sector S-1 Cartuja, through the EPSA (*Empresa Publica del Suelo de Andalusia*) in 1987. In 1990, the guidelines for the coordination of the metropolitan area of Seville were published but in 1991 a modification was made: the area got the size of 40 Ha besides the Monastery. In 1992 the final modifications were included in the Special Plan for the Island. It included: the Theme Park of the Future (Techno-cultural complex), an Administrative and Tertiary zone, and an Area with advanced and technology processes, a polytechnic Campus and a Metropolitan Park. The area counted 350,000 trees, of 1000 different species; 650,000 square meters of floor area; 70 km of highways; 7 bridges; 471 km of high speed train lines and a new railway station; an extension of the airport.<sup>3</sup>

The theme of the *Discovery Era* was related to the analysis of three historical periods: the 15th century world before the Discovery (Old and New World); the five centuries of World Community development after the Discovery (1492-1992); and the future, with its impulse for cultural exchange.

1 Cf. *Documento oficial Buero Internacional*. In: Vela 1986, 273-304.

2 Cf. *Nuevo Plan General de Ordenación Urbana* 2002, XIX 14.

3 Cf. Pérez Arnal/Gelpi 1993, 53.



Expo '92 was going to be a balance of humanity, of its progress and perspectives. It aimed to show a new image of Spain to the world, as a main character, as a bridge through cultures. At the same time, each country had the possibility of fulfilling its own purpose in its pavilion. The event received 14.3 million dollars of financing from the state, the self-sufficient community of Andalusia and the City Council.<sup>1</sup>

A few changes were made to the transportation system. The urban area needed to be surrounded by two circulation routes, the *Madrid-Cadiz Highway* was realized, and a lot of parking lots were built next to the Expo area. New national roads were built between Seville and other important cities of Andalusia, such as Huelva, Gijón, Cordoba, Malaga and Cádiz, and the south-west external ring road was built. The bus and taxi/car renting network was strengthened and it was possible to reach Seville by navigating the river.

New infrastructures were built, such as new bridges on the river, connecting Cartuja with Seville and the eight minor bridges inside the Expo area. Site development included two fire-stations, two electrical stations, a lake, a canal, a port, a fast railway (AVE), a gondola, an elevated monorail train, a heliport, roads, pedestrian areas, parks and gardens, new forestation (25,000 trees and 300,000 bushes), 50,000 square metre of shade and water vaporization.

The area of the Expo included 20 Hectares for the countries' pavilions, 12 for thematic pavilions, the main building and the Spanish participation, 8 for restaurants, concessionaires, boats and store spaces.

The structures had to be adaptable to other possible future uses, as

well as the street furniture, and respecting the use assigned to the area in the General Urban Plan. The pavilions could have cultural, educational, recreational purposes, if the architectonic quality was sound. The 215 hectare Expo site, on *La Cartuja* Island, was designed for flexibility of use. In 1985, the General Expo Commissioner was named and the State Society Expo '92 was founded (Expo '92 S.A.). In 1987, the Direction Plan for Expo'92 was accepted and the first official participant, the Dominican Republic, registered.

In 1984-85, ETSA (the Technical University of Architecture of Seville) included Expo '92 as a subject for the students' design exercises.<sup>2</sup> It centred the work on the urban organization of the land of Cartuja. The Plan General de La Ordenación Urbana (PGOU) was still in discussion. The work of the design studios was supported by an analysis on the history of the area and the discussion around the Expo Project. The analysis emphasized very important arguments and indicated pros and cons of using the Island of La Cartuja as a site for the Expo. At that time, Spain was a developing country and Andalusia was one of the regions with the worst economic history. It was the time of contradiction between strong rural poverty and the decadent noble *Signoria*. Seville had a lot of problems: the population decrease; the service sector focus of certain parts of the city; the physical incapacity to host all the necessary activities in such a narrow setting; insufficient infrastructure; the deterioration of urban and metropolitan elements; the degradation of most of architectural heritage; uncontrolled transformation of traditional city typologies; sometimes destruction of urban morphology.

*Expo '92 was going to be a balance of humanity, of its progress and perspectives.*

*A few changes were made to the transportation system.*

*The structures had to be adaptable to other possible future uses, as well as the street furniture, and respecting the use assigned to the area in the General Urban Plan.*

*The 215 hectare Expo site, on La Cartuja Island, was designed for flexibility of use.*

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<sup>1</sup> Cf. *Plan de contenidos Exposición Universal Sevilla '92* 1989, 12-13.

<sup>2</sup> Cf. Departamento de Urbanismo, E.T.S. de Arquitectura curso 84/85, 1986

*The conclusion of the analysis was that the Expo might exacerbate already existing problems. But at the same time, it was a historical opportunity to find solutions and a coherent future program.*

*A lot of land parcels were abandoned or ruined.*

*The circulation network was not well organized and there was a big traffic congestion problem.*

*In May 1991, one year before the Expo opening, the built area was already double the anticipated size.*

The conclusion of the analysis was that the Expo might exacerbate already existing problems. But at the same time, it was a historical opportunity to find solutions and a coherent future program. The urban instrument of interconnection was the river. The fact was that the city of Seville grew by turning its back to the river. This reconsideration of this axis would change the aspect of the city and of Expo: it was not going to be limited to the Exhibition area. The ETSA investigated the city on different levels: a territorial level (relation city-river); city level (genesis of the area in the context of the city); sectoral level (processes of conformation); and singular aspects (problematic spaces in the area).

An important part of the analysis conducted by ETSA was the one regarding the use of land. The commercial and tertiary sector had conquered the historical city centre: from *Plaza de Armas* to *Campana*, including the two streets of *Amar de Dios* and *Trajano*, which give access to *Alameda de Hercules*. A lot of land parcels were abandoned or ruined. The neighbourhood of *San Vicente* was a residential area. In the Plan of uses for the Expo, big parcels dedicated to religious use appeared, such as monasteries and churches. In a lot of sectors, residential use was lost.

Regaining this residential use was considered really important in the ETSA's analysis.

Another important issue was the communication system. It included a radial arterial network, with its centre in the historical centre. The circulation network was not well organized and there was a big traffic congestion problem. According to Luis Recuenco, Professor of Urbanism in the ETSA University, with the occupation of the land on *La Cartuja* Island for the Expo Project, the railway lines on *Calle Torneo* along the river to San Jerónimo were going to be reduced. The north sector was going to regain a relation with the river. The north suburbs could use this new relation and the possibilities coming from the expropriated land in order to solve their actual problems.

In May 1991, one year before the Expo opening, the built area was already double the anticipated size. Expo '92 was the first Universal Exposition, having a strong architectural value. It was different from an International Exhibition because each nation had to plan and build its own pavilion by itself.<sup>1</sup>

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<sup>1</sup> Cf. Torres Martínez 2004, 5-14.

### The competition, the final result, and *Cartuja '93*

For the Project of EXPO '92, a competition was announced. It had two winners: J.A. Fernández Ordóñez, together with J. Junquera and E. Pérez-Pita, and Emilio Ambasz. The first project was centred on the elements of shadow, due to the typical hot weather, and water, as a navigation source. The second one had a sphere as a symbol, which must be no more than 92 meters high (the height of *Giralda*) and the main point was the long term use.

*Main points of the two winner projects: treatment of the river bank, relation of the city with the river and shape of the land occupation.*

The two winner projects have been compared with the proposal of the *Plan General* 1985. They have a lot in common: the treatment of the river bank, the relation of the city with the river and the shape of the land occupation, are the main points.

The first winning project divided the area into two parts, through the *Camino del Alamillo*. An edification area was planned on the east part, following the shape of the old agricultural fields. The waterfront on the city side included an avenue and gardens. On the west, a network of ways would follow the axes of the Monastery and the Bridge of *Chapina*. The project included the two bridges of Chapina and *Alamillo* and two pedestrian bridges. [Img.31]

The second proposal for *La Cartuja '92* highlighted the importance of water. It put an emphasis on the old city walls and created two green walls along both river banks. It planned a controlled flood on the east part of the island, which would have created real dams in the monastery area. This idea was based on a hope that the water would return to its bed, after the six months of the Exhibition. [Img.32]

*In 1987, the First Synthesis of the two projects was edited by the Cano Lasso studio.*

In 1987, the First Synthesis of the two projects was edited by the Cano Lasso studio. It planned two new Bridges (board walks) on Guadalquivir, *Barqueta* and *Alfonso XIII*, an access from *Puerta de Triana* and a West Access through the fast railway (AVE) Terminal. The area had an orthogonal structure, perpendicular to the main avenue. A lake and two locks were planned, one next to *Pasarela de Cartuja* and one next to *Barqueta Bridge*: a canal flowing from the Monastery to the Park of *Alamillo*.<sup>1</sup>

The main points of interest of the site were the Future Pavilion and the Discoveries Pavilion, connected by the *Camino de los Descubrimientos*, along which the Planetary, the Omnimax and the Monastery were located. Another important element was the Spanish Pavilion, built on an artificial lake and surrounded by the Pavilions of Autonomous Communities.

The Module was the element used to define the architectural space. It was a small and structural standard element, to which the nation or entity had to adapt size and situation.

The 1987 *Plan Especial del Sector S-1 del Area de Articulaciòn Urbànistica de La Cartuja* referred to the 427 Hectares between the meander of San Jeronimo and the new "*Corta*". The Plan aimed to create the big green space of the metropolitan area of Seville. This purpose was then entirely absorbed by the Park of *Alamillo*.

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<sup>1</sup> Cf. Nuevo Plan General de Ordenaciòn Urbànistica 2002, XIX 8.

*A modification of the Plan followed, including the new use of the Island as a Metropolitan Park.*

*The Plan Cartuja '93 defined two big areas for the Island: The Theme Park (east), a permanent miniature of the Expo, and the Technology Park (west)*

In 1990, the Directions for the Urban Coordination of the metropolitan area of Seville were promulgated. A modification of the Plan followed, including the new use of the Island as a Metropolitan Park. In 1992, the City Council started to consider the future of the complex. The Island was divided into three big areas: the Thematic Park of the Future (Techno-cultural complex); the Administration and Tertiary Area (commercial and services area); and the Zone of advanced Technology Processes, Technical University Campus, Metropolitan Park (*Espacio Metropolitano para la Ciencia y la Cultura*).

The Plan *Cartuja '93* defined two big areas for the Island: The Theme Park (east), a permanent miniature of the Expo, and the Technology Park (west). No production or residential activities were planned for the area.<sup>1</sup>[img. 41-42] At the same time, the site was divided into six areas, according to the themes:

1. *Exposition*: Discoveries Pavilion, Future Pavilion and mono-graphic Pavilions.
2. *Spain*: Royal Pavilion in the Monastery, Government Pavilion, Spanish Pavilion, Pavilions of Autonomous Communities of Spain.
3. *National Pavilions*.
4. *Shows*: which also included events outside of the Expo site.
5. *Attractions*: Isla Mágica, Attraction Park.
6. *Administration and facilities*.

The metropolitan park actually resulted in being an attraction park limited to the area around the lake.<sup>2</sup>

At the time of *Cartuja '93*, a few decisions and interventions were made, that have influenced any future incorporation of the complex in the city:

1. The treatment of the riverside (with the exception of *Jardines del Guadalquivir*);
2. The bridges, which made no effort to cross the river. They reach irrelevant areas and give no value to the island. In the special publication of *Quaderns d'Arquitectura i Urbanisme*, dedicated to the "After-Expo", the Spanish architect and urban planner Joan Busquets expresses his opinion about the need for a better connection between the river banks and the bridges for this purpose. Now they look like points of exit from the old Seville to the new one, while they should have a purpose of connection with the city, such as residences, commercial structures and services.<sup>3</sup>
3. The Monastery complex is an obstacle to the north-south connection. After 1992, there was no possibility of longitudinal connections. Pedestrians have a hard time on the *Camino de los Descubrimientos*, towards the Park of Alamillo;
4. The public avenue and service avenue do not represent good transversal connections; Transversal avenues are not connections, but equipped open spaces, between the two main avenues.

The proposal of intervention in the New Urban Plan of Seville (2002-04) was a proposal of re-shaping. The main aim was the integration into the urban structure. The first step was the analysis of the urban history of Seville. The instruments used according to the new proposal would have been in harmony with the existing elements.<sup>4</sup>

<sup>1</sup> Cf. Nuevo Plan General de Ordenación Urbana 2002, XIX 12.

<sup>2</sup> Cf. *Plan de contenidos* 1989, 19-25.

<sup>3</sup> Cf. Busquets 1993, 96-97.

<sup>4</sup> Cf. Torres Martínez 2004, 13-14.

*This Islamic-medieval structure, mixed with the open network of squares of the Baroque tradition, creates a walkways network, where the importance of each road depends upon the relation with the market and the monuments.*

*The proposal aims to integrate the island in the urban structure of Seville, as part of the town.*

*The need for the revitalization and re-shaping of the area is due to the incapacity of the buildings and infrastructures to host future uses and urban functions which could develop in such a city.*

*Currently, the island is perceived from the city like a far element.*

The proposal started from the importance of the road and its borders. The market-road is symbol of the community and of the urban element. This Islamic-medieval structure, mixed with the open network of squares of the Baroque tradition, creates a walkways network, where the importance of each road depends upon the relation with the market and the monuments. Using the example of this existing structure, the proposal works on a network of avenues, aiming to connect the island to the city. Those main avenues will support the different activities of the city: market, facilities and living. The proposal aims to integrate the island in the urban structure of Seville, as part of the town. This means planning a new system of relations between public and private spaces and between the island and the rest of the city. The new plan starts from the old road network and public spaces of the Expo site. The intervention should be in harmony with the existent elements and work on those ones, which need to be changed, in order to let the island be part of the city. This should happen, without losing the main values of the actual space, such as its economic, administrative and ludic character.<sup>1</sup> [Img. 37]

The need for the revitalization and re-shaping of the area is due to the incapacity of the buildings and infrastructures to host future uses and urban functions which could develop in such a city. The territorial strategy tries to enter into this new part of the city, opening new bridges and new ways, giving those new shapes and structures.

The new elements will not interfere with the actual occupation process of the area, the Technological Park. This would become stronger, thanks to the new plan. It would make it possible to introduce new uses, like academic, commercial and residential activities.

All those new uses would make the surroundings live and attractive and the technological park stronger. The island of *La Cartuja* would then become a proper quarter of the city of Seville, characterized by the presence of technological and administrative uses.<sup>2</sup>

Currently, the island is perceived from the city like a far element, with its bridges like territorial, and not urban elements. From the city is visible a wild vegetation, fragmented and not easily reachable. The proposal envisages a system of squares open to the river, and the new avenue, along the *Torneo* waterfront. From here, new walkways would connect the island with the city centre. The squares are planned in three points of the river bank and would contribute to a new urban system of the waterfront. *Avenida Marie Curie* will remain the main avenue, becoming a free open space, where the street furniture will be reordered. The lateral ways (*Albert Einstein*, *Isaac Newton* and *Tomas Alba Edison*) will host new buildings for the new uses of the area. The resulting pedestrian ways create a system of transversal avenues, able to host new commercial installations, offices and residential complexes. The main metropolitan bridges will be *Chapina* and *Alamillo*, defining the access from South and North. The *Barqueta Bridge* will be the central access. The *Pasarela de Cartuja* will be kept, as access to the Monastery, through the *Porta del Rio*.

<sup>1</sup> Cf. Torres Martínez 2004, 14-15.

<sup>2</sup> Ibid., 15-16.



The general accessibility will be regulated through a ring-road, running between *Alamillo*, *Avenida Carlos III*, way to Huelva, *Puente del Patrocinio* and *Torneo*. The internal urban connections between Cartuja and historical city will be *Barqueta* and the *Pasarela de Cartuja*, which would be open to the traffic. The two internal north-south ways will be *Camino de los Descubrimientos* and *Calle Amerigo Vespuccio*. The open squares on the river will be main points. From here covered walkways, hosting new commercial and ludic uses, will connect to the city centre. Those walkways will host activities such as bars, cafes, shops and terraces, offering a new view of the river: *Pasarela* and *Plaza de la Puerta de Triana*, *Pasarela del Auditorio* and *Plaza del Rio*, *Pasarela* and *Plaza de la Universidad*.<sup>1</sup> [Img.38]

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<sup>1</sup> Cf. Torres Martínez 2004, 16-19.



*In the Magazine Quaderns n. 198 "Talleres AfterExpo", architects and urban planners collected reflections, and proposals for the future of the Island.*

*The contributors to the Workshops (Talleres) saw it necessary to define urban purposes, in order to bring residences, commerce, services and other missing elements.*

*Residential and productive activities, regeneration of the physical values of the environment and increasing mobility.*

### After the Expo: "Talleres Expo '92"

In the Magazine *Quaderns* n. 198 "Talleres AfterExpo", architects and urban planners collected reflections, and proposals for the future of the Island. They criticized the actual situation of the site, and the plan for *Cartuja '93*. The purposes of that plan were too special and mono-graphic ('technology park', 'administration', 'university', etc.). Those uses left big areas of the island unused for a lot of hours every day. The imposed structure was going to condition the subsequent use and limit the absorption in that part of the city and a future urban development. The contributors to the Workshops (*Talleres*) saw it necessary to define urban purposes, in order to bring residences, commerce, services and other missing elements.

The aims of the consultation of "Talleres" were: preservation, reconversion and some specific new facility proposals. The current urban structure could not satisfy the evolution of metropolitan economic activities.

Big shortcomings and problems were identified in the south sector, *Puerta de Triana*, and the east part, assigned to thematic and cultural purposes. A few pavilions were damaged, like the *Pabellon de los Descubrimientos*; some were closed, such as the pavilions of *Navegación*, *Naturaleza*, 15th century. [Img.39-40]

The proposal of *Cartuja '93* was an equipped park with recreational/cultural activities and installations. This was reduced to an attraction park, in an enclosed area, surrounding an artificial lake.[Img.41-42]

The architects and urban designers of the *Quaderns'* team proposed an area for administrative/office, commercial and cultural use. The analysis considered the Islamic-medieval origin of Seville, as some of its elements show: the doors; the market, around the border of the town; the access doors to *fonduks and caravanserais*<sup>1</sup>, typical structures of the Muslim cities, where voyagers could stop and rest; places to pray; the open network of streets, paths and squares, typical of occidental baroque tradition.

The new approach to the problem should include residential and productive activities, regenerate the physical values of the environment and increase mobility.

Those architects proposed a network of basic avenues, equipped walkways - a pattern which guides through the island, with its market, services and residences. The aim was a final urban configuration of the island as part of Seville, using the street network and public spaces configuration of Expo '92. The idea was to make new spaces, compatible with old ones, in order not to interfere with the actual uses of the site.

The team also found out a few connection problems: the bridges on the Guadalquivir were dominated by motor traffic; the urban itinerary was not continuous but made of fragments, requiring a big road to cross the river; the perception of the island from the city was of isolated elements, with no good access to the infrastructure.

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<sup>1</sup> Cf. note 1, p. 38.

The answer to those problems was the proposal for a different urbanisation of the riverbank, with the creation of a group of squares, open to the river, connected to the city through paths. The main connection squares would be three, with a strong urban character, connected to main urban paths.

During the Expo time, the Island was delimited by the Monastery at the south and the University and Alamillo areas at north. The avenues defined the parcels where the pavilions were built as free equipped spaces. The new proposal was to keep the area of the central avenue, *Marie Curie*, which represented an east-west continuity, to convert it into a free local space. At the same time, a system of transversal avenues would generate, with pathways, urban itineraries, and a big concentration of activities in the central part of the island. New buildings will be realized on the parking lots planned for the Expo, separated from traffic, services, offices and residences.

The proposal to make an open park out of the lake area responds to the critics against the attraction park, which altered the vocation of the area. New residential structures were supposed to increase density and tourism on the site. New uses like residences, commercials and hotels supported the original pavilions and other Expo buildings and infrastructure: *Auditorium, Pabellon del Futuro, Guadalquivir Gardens, Teatro Central*, hotels, universities, etc.

The different teams, working at "Tallers", elaborated 7 new proposals for the site, described in their articles in the magazine:

*The different teams, working at "Tallers", elaborated 7 new proposals for the site.*

- "Growth to the west", by Susan Nigra Snyder and Alex Wall. Being aware that Andalusia was a very desirable location for firms involved in information processing, they proposed a new system of infrastructures and a future development of Seville on its west side. The old Seville was a heterogeneous mix of business, services, culture, and so on; the peripheries developed as non-urban environments and car-dependent; Cartuja '93 represented a challenge to develop a new urban model, with the support of new transportation system, linked to the region by the Santa Justa Station and communication infrastructures. The growth to the West included: a Research Park, with three Campuses; a leisure zone, with the technical university and a conference/hotel centre of public recreation and culture; and a zone for regional activities.<sup>1</sup>

- "Technopolis", by NOUSA Studio.<sup>2</sup> [Img.43]

- "A nomadic project", by Iñaki Ábalos and Juan Herreros

- "Interactions", by Yago Conde and Bea Goller: Reinforcement of the river bank, in order to be used for mass events; interaction between the city and its old quarters, housing, offices and services; reinforcement of the link with Triana; Interventions on the infrastructure in order to facilitate a possible expansion on the other side of the Corta; abandoning the idea of pavilions.<sup>3</sup>[Img.44]

- "A nomadic project", by Iñaki Ábalos and Juan Herreros

- "Friction and Deformation", by Foreign Office Architects. The architects focused on attractors, describing the main ones on the north, south and west sides of the area. On the north, the public area would flow in between and link the lake area with the west side of the island. Large autonomous structures were the attractions on the south.

1 Cf. Nigra Snyder/Wall 1993, 56-61.

2 Cf. NOUSA Studio 1993, 62-65.

3 Cf. Conde/Goller 1993, 66-69.

On the east side, tall, thin structures, relating closer to the environment of the East.<sup>1</sup> [Img.45] -"Wrapped Organs", by Max Bosshard and Christoph Luchsinger. The empty areas get the form of strips. The open spaces in between become municipal gardens or hard squares. The proposal focused on temporary or permanent needs, which had no room in the city. The Cartuja would be a communication centre in the functional complex of the city.<sup>2</sup> [Img.46] -"Substructure", by Pau Hof Studio. The proposal respected the basic Expo structure, considering the mutual needs of the users of the area. They suggested new housing and offices complexes around the avenues, semiprivate, landscaped patios. Most of the pavilions would disappear and some of them would host new technological purposes. The Avenida del Guadalquivir would get a new residential facade.<sup>3</sup> [Img.47]

J.A. Fernández Ordoñez, one of the two winners of the Expo competition, expressed, as many others have done, his opinion of what to do with the Island, after the Expo. In his article in "Tallers after Expo 92", he proposes the transformation of the island into a new large urban Park with metropolitan facilities and an easy access from Torneo. Given the size of the site, it would be capable of hosting varied activities.<sup>4</sup>

According to Albert Serratosa, the privileged position of the Corta is the envy of any metropolitan agglomeration. The dimension of the site should be harnessed to complement the magic aura of the old town.<sup>5</sup>

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1 Cf. Foreign Office Architects 1993, 74-79.

2 Cf. Bosshard/Luchsinger 1993, 80-83.

3 Cf. Pau Hof Studio 1993, 84-85.

4 Cf. Fernández Ordoñez 1993, 90-91.

5 Cf. Serratosa 1993, 93.

The opinion of Hans Kollhoff may be the most interesting one. He describes the island after the Expo with an image: "the collapse of an old lady, who suddenly fell onto the pavement, apparently dead, while the music from the loudspeakers carried on spreading excitement".<sup>1</sup> According to him, in the future there won't be any need for World Exhibitions, since big cities development works in the same way. He sees a contrast between the beauty of the old Seville and the meaningless "toy-town" on Cartuja. His proposal for the future of the island is to make a no-go area, and "watch from the *Giralda* the decay of what in 1992 proclaimed itself as the future".<sup>2</sup>

J. Busquets articulates his opinion on the after-use of the Expo site in some points:

- It may have been better to emphasize the banks more than the bridges.
- A "technopole" or administrative university function leaves large parts of the city unused over many hours.
- More common uses should be included.
- The architectures of Expo are difficult to reuse.
- The answer for the future should be a combination of uses in the mid-term, and not a segmentation, as happened in Montreal and Vancouver.
- There should be more attention to urban quality, on the example of *Exposicion Ibero-Americana* of 1929, where there was more emphasis on the public space quality.<sup>3</sup>

In his article on the Journal "Geometria"<sup>4</sup>, E. Leira, author of an alternative Expo proposal centred on the river, in a series of precincts linked by the water (rejected), criticized the lack of specific content of the Expo. He described it as a pure demonstration of the ability of Spain to organize a large scale event. The Expo in Seville was totally different from previous ones (Osaka, Montreal, Brussels): the surrounding quarters were two hours away and the size disproportionate.

Dani Freixas compares the Expo site to a tray of sweets, after a party. Can it be used again? For what other meals or other purposes?<sup>5</sup>

Considering all these proposals, the focus remains on some problems: the reinvention of Cartuja means transforming a temporary facility into a permanent one; *Cartuja '93* must be an extension project; it cannot be a recycling operation, but a global reflection to solve problems.

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1 Kollhoff 1993, 94.

2 Ibid.

3 Cf. Busquets 1993, 96-97.

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4 Cf. Leira 1987.

5 Cf. Pie 1993, 101.

## Why Seville? Pros and cons

There are a few reasons why the choice of Seville and Cartuja for the Expo site was and was not appropriate. The site was a good choice from some point of views and a bad one from some others.

The area of the monastery has lost part of its rural patrimony. The orange garden is not what it originally was. On the other hand, the Monastery has been restored and got new purposes, such as the *Centro Andaluz de Arte Contemporaneo* (CAAC), the *Universidad Internacional de Andalusia*, the *Instituto de Patrimonio Historico de Andalusia*.

The fact of using an area of Seville which, after the realisation of the Cartuja Canal, was separated from Santiponce made it necessary to improve it with an infrastructure network, which made it hard to use for agricultural purposes.

Even today, the public transportation is not good enough to make this area self-sufficient. [Img.48] The bus network is poor, there is just one circular line bus. The bike lane, even serving very well the area, has deteriorated. There are a lot of bike-sharing (*SEVIC*) stations on the site, but not enough bike parking lots. For the same reason, the area would need much more services, bars, restaurants, kiosks. Right now there is no possibility of recreational choices for students and workers on the Island. It is not a problem of space or structures, considering the amount of empty space and abandoned buildings today. This is a big problem, because a lot of people work and study on the Island today.

The office buildings are out of scale, compared to the buildings in the old centre, on the other side of the river. There are huge free areas, open space, where you cannot feel comfortable. The feeling is like walking in a desert, with a lot of empty space, no facilities, etc. The problem are not the companies themselves, but the inability to invest and hence make something useful and nice also for other people, who are not working. We easily think of the Barbican District of London, [Img.51] a business area, where the attractive design of the buildings and the art centre attract tourists every day.

Looking at the Island and at the city of Seville today, the infrastructure developed really well, due to *Expo '92*. The biggest problem remains the lack of good maintenance. The good point in using the Island of *La Cartuja* is that it is away from the traffic of the town centre, but still very near to it. The central quarters nearby, such as *Alameda de Hercules*, *Triana* and others, were revitalized thanks to the event of the Expo.

The main problem of the site is the huge space. A lot of the so-called "public space" has no actual purpose nor use. There are a lot of green areas, but they are mostly just green, without a defined function. [I.] Trees coming out of concrete, appear more as a decoration than as a shelter element. In the original Expo Project, a lot of fountains were planned, in order to make it easier to stand the heat of the city. But was Seville capable of maintaining all this, with the same water amount? Of course not.

*The area of the monastery has lost part of its rural patrimony.*

*Even today, the public transportation is not good enough to make this area self-sufficient.*

*The feeling is like walking in a desert, with a lot of empty space*

*The biggest problem remains the lack of good maintenance.*

*The waterfront gardens are mostly abandoned and people have no reason for visiting them.*

The waterfront gardens are mostly abandoned and people have no reason for visiting them, simply because there are no activities to attract them. The plants in the Gardens of Guadalquivir are well kept, since the Association of *Legado Expo '92* re-opened this space to the public.<sup>1</sup> The Association, founded in 2010, aims to make the Island of Cartuja attractive to the citizens of Seville. It organizes guided tours of the old Expo site and facilitated other activities to make this area more alive. In 2010, with the old administration, more money was given to the maintenance of the garden and its special species. The situation has changed a lot since then and there are less resources for maintenance of those areas.

*Even the Alamillo Park is an artificial situation, an absurd attempt at a non-urban situation in an urban context.*

Even the *Alamillo* Park is an artificial situation, an absurd attempt at a non-urban situation in an urban context. The use of materials like asphalt and concrete is not usually a good one for a city with the weather which Seville experiences.

*With the PGOU 2006, the area has been declared not suitable for residential use.*

But, on the other hand, the Island of *La Cartuja* was included in the city with the elimination of the old railway which had annexed it from Seville. This gave the possibility of the site becoming *Patrimonio urbanístico contemporáneo*.

With the *PGOU 2006* (General Plan for Urban Zoning), the area has been declared not suitable for residential use. This represented a limit. The lack of living structures does not permit to the area to become dense. The psychological separation between the Island and the city centre remained and increased. The Association *Legado Expo '92*, suggests the possibility of giving the Island a more important cultural function in the city, bringing it to a regional and national level. The Association published a dossier for the political parties before the last elections (2015), with some suggestions about potential interventions to restore the island and give it back to the city.<sup>2</sup>

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<sup>1</sup> Cf. <<http://www.legadoexposevilla.org/>>.

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<sup>2</sup> Cf. Dossier Cartuja 2015-2019, in: <[https://drive.google.com/file/d/0BwtnWPOGER\\_VWkflazNzMEISV0k/view](https://drive.google.com/file/d/0BwtnWPOGER_VWkflazNzMEISV0k/view)>.

### Example of other Expo Projects

Talking about Expo, it is important to mention a few other projects, sometimes more and sometimes less successful than Expo '92, in order to see what mistakes have been repeated and what aims have been reached. The first is the virtuous example of *Expo 1998*, in Lisbon, dedicated to the Oceans and commemorating Vasco da Gama's expedition to India. This project, which included the renewal of the *Parco das Nações*, was meant to create a new residential area, an important financial centre and a tourism site. It renovated an highly polluted area, which had become a "garbage land-fill site"<sup>1</sup> next to a very polluted river. The water was a fundamental element of the design and the dock was the only wide open space, occupied by the main pavilions. Another virtue of this Expo was the concern for energy consumption in building the pavilions. [Img.53-54]<sup>2</sup>

Hanover 2000, like Seville, presented many disappointments. Visitor numbers were not as many as were expected and the pavilions were abandoned after the Exhibition, due to the restrictions of the land-use-plan which prohibited the development of individual retail stores or apartments.[Img.55]

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1 Toussaint 1996, 59-70.

2 Cf. Trigueiros 1997, 39-70.

## 2. potentials

Even though today the island appears abandoned and does not give the image of the splendour it was supposed to be, there are still some elements which represent potential for the future of the area. The city of Seville has gained a very efficient infrastructure system, which is still conserved today. The bike lanes cover the whole area of the city and present some regular use deterioration. The bus lines work efficiently, but they do not connect the island to the city very well. The underground and tram networks are still in a planning process. The structures of the old cable car built for the Expo are still on site, but not used anymore. Those observations represent suggestions of how the infrastructure system of Seville could increase its services. The site conserves today most of the pavilions built for the Expo '92. Most of them have been rent, sold or given to societies for their activities, but some of them are used for cultural activities. The Navigation Pavilion became museum of navigation, the Moroccan one hosts the Foundation Tres Culturas (dedicated to the three cultures of the Mediterranean Sea - Catholic, Islamic and Jewish - which all meet in Seville), the Central Theatre kept its purpose and the 15th Century Pavilion has been used by the cultural association Carpa<sup>1</sup>, which organizes events and activities in it. The Monastery of Cartuja is today the site of the Institute of the Historical Andalusia Heritage and hosts the contemporary art museum (Centro Andaluz de Arte Contemporaneo, CAAC) and the International University of Andalusia.

More of the potential of the site can also be detected in the open, abandoned and green areas of the Expo site. Some of those are still very well kept (Guadalquivir Garden and Jardin Americano), but do not represent enough attraction for people, so they look abandoned; others have been left as they were and quickly deteriorated, like the area of Avenida Marie Curie. Those areas can be restored and reconverted, in order to find their new purposes, according to the needs of the new users and like Tier Paisage<sup>1</sup> they represent a potential. Few of the old pavilions were abandoned and did not find new purposes. They also represent a potential, because they could be converted in something that Seville does not have yet.

*The city of Seville has gained a very efficient infrastructure system, which is still conserved today.*

*More of the potential of the site can also be detected in the open, abandoned and green areas of the Expo site.*

*The abandoned pavilions and open spaces represent a potential.*

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<sup>1</sup> La Carpa is a group of visual artists, professionals of theatre, architects and experts of cultural heritage, <https://lacarpasevilla.wordpress.com/>.

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<sup>2</sup> Cf. Definitions, p. 19 *Tier Paisage*.



# 3. project

## What is the project about?

This project is about the rehabilitation of a part of the city of Seville and its connection with the old town centre. It consists of a linear park on the forgotten waterfront of the city and a new gardening and living concept, which combines urban bio-intensive gardening with co-working structures and gardening school.

## Project ambition

*"Wake up Cartuja!"* aims to achieve a rehabilitation of the *Isla de Cartuja* and re-establish its connection with the town centre. Further it wishes to provide a new system of life and work, which includes urban gardening and gardening school. The system provides new co-working and co-living structures, which should attract people to the area and give them the possibility to stay and participate in the workshops and visit the city. This will also increase the need of new facilities to respond to the higher density and means new possibilities for the future.

This new character of the Island and the re-purposed residential area will let the citizens re-discover the river through this new part of their town. The island, which was until now forgotten and unused will be awoken with more green and pedestrian areas, bike lanes, easier connections and in general with a new concept of life and work.

*This project is about the rehabilitation of a part of the city of Seville and its connection with the old town centre.*

*The new character of the Island and the re-purposed residential area will let the citizens re-discover the river through this new part of their town.*

# 3.1. concept

The Island of *La Cartuja* still represents a big potential for the city of Seville. After the Expo '92, the area has been left behind and somewhat forgotten. The 215 Ha Island is today a huge office district between the two arms of the *Guadalquivir* River, the old one and the artificial one - *Canal de Cartuja*. The Expo pavilions have been gradually given to companies for office use. This kept the area alive, but still not densely populated, because of the lack of residential structures. Also some faculties of the University of Seville and the Engineering Technical University moved to the Island.

Still the lack of facilities, residential structures and social life make the area not densely populated and its streets look empty for most of the day, when all the workers and students are inside of the offices and universities.

The project aims to propose a solution to the density problem of this area, serving it with a new network of public space, which welcomes people to move across the Island and experience it.

The city of Seville has a long and very warm summer, which its inhabitants enjoy walking outside and spending time in parks and gardens. Unfortunately the city does not provide enough open green areas. From those needs comes the idea of the project, which will include the participation of the City Council and of the citizens.

The city will gain an area with various possibilities of development and use. With the time it will be clear which methods work better than others. The new public areas will work together with the old ones in the town centre, in order to connect this two parts of the city and the two arms of the river.

The city will rediscover the Guadalquivir River by being able of enjoying it and its riverbanks, together with the Canal of Cartuja bank.

The connection of the two parts of Seville will need a reinforcement of the transportation system, starting from the public bus network and the bike lane. The intent is to reduce the private transportation, increasing the use of the public one.

The project wishes to keep the memory of the past purpose as exhibition/recreation area and remember the changes that have happened during the years, such as the creation of the Technology Park and the late creation of the office district.

The Historical Patrimony of Andalusia has to be preserved, especially the 6 Pavilions and the Guadalquivir Gardens, which have been included in the General Catalogue and are today either partially accessible or not accessible at all. The Island looks quite abandoned today, but this is also what the circumstances made out of it. This has to be respected. This is a *Tier Paysage*.<sup>1</sup> It means that part of its potential lays in its abandoned character of today.

The project aims to return its cultural, artistic and public value to the area and give the local people, as well as tourists the possibility of enjoying a part of the city, which for a long time looked like the ruin of a dream, the ghost of a possible success, the memory of a short prosperity.

*The lack of facilities, residential structures and social life make the area not densely populated and its streets look empty for most of the day.*

*The new public areas will work together with the old ones in the town centre, in order to connect this two parts of the city and the two arms of the river.*

*The project aims to return its cultural, artistic and public value to the area.*

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<sup>1</sup> Cf. Clément, 2004.

## 3.2. Agro-co-working: case studies

The concept of the so called *Agro-co-working* has not been applied yet, in the same way it is developed in this project.

Although, all over the world there are examples of community work or co-working which base their activity on agriculture and healthy living.

They usually combine the work on fields or greenhouses, with cultural and social activities, such as workshops, lectures and conferences.

Some of them start as urban gardening projects or bio-farms, to become later bigger communities.

Not many of them offer to the members the possibility to stay and live in their structures, but some of the co-working associations provide spaces for co-living.

This allows to create a stronger sense of community, working and living together.

The aim of the Agro-co-working is combining the strenght of the different case studies, taking the best from each one and experimenting with creating a new concept.

## Victory Gardens; San Francisco (USA)

During the World War I and II in order to deal with the problem of food supply, the Victory Gardens started to grow. Also called war gardens or food gardens for defence, they gave the possibility to everyone who worked there to feel the contributions of their labour and rewards of a final product. The gardens produced 41% of all the vegetables consumed in America. When America entered war, in 1941, people started to use any piece of land to grow their own vegetables. Also public land was provided. Victory Gardens 2007 is a concept developed from the City of San Francisco's Department for the Environment. The program supports the transition of urban areas and unused land and yards into production areas. They distribute starter kits for home gardeners, give lessons, organize exhibitions and keep a website.

**Where:** America, different places

**Cultivations:** vegetables

**Living:** no

**Other activities:** no

**Potentials:** use of unused urban areas, courses<sup>1</sup>

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<sup>1</sup> Cf. Victory Gardens 2007+, <<http://www.futurefarmers.com/victorygardens/history.html>, <http://www.futurefarmers.com/victorygardens/what.html>>, in: <<http://www.futurefarmers.com/victorygardens/index.html>>.

### Growing Power; Milwaukee (USA)

*Growing Power* is a non-profit organization in Milwaukee, which supports people from different backgrounds, providing them healthy, safe, high-quality and affordable food, since 1993. Through Community Food Systems, they teach people how to grow, process, market and distribute food in a sustainable way.

**Where:** Milwaukee

**Cultivations:** micro-greens, lettuce, carrots, chard, kale, eggplant, cabbage, broccoli, cauliflower, tomatoes, corn, green beans

**Living:** no

**Other activities:** fish production (Tilapia and perch), through aquaponics system, growth of soil through vermicomposting, bees farming and chicken livestock

**Potentials:** community food system <sup>1</sup>

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<sup>1</sup> Cf. Growing Power, in: <<http://www.growingpower.org/education/what-we-grow/>>, in: <<http://www.growingpower.org/>>.

## Huerto del Rey Moro; Seville (Spain)

In 2004 a group of neighbours occupied the ground of the old garden of Rey Moro. The gardens were owned by the Moorish king, as well as by the owner of the property next to it. The city administration allowed them to do it and they asked to substitute the wall surrounding the ground with a fence in order to make the garden visible from the street. Water and electricity were provided for free from the city council. Almost every month all the neighbours sit together in an assembly (about 100 people). The safety of the garden is guaranteed by the fence. It was necessary at the time to bring more earth to the ground to make it possible to grow plants in it, but it was not expansive, as it costs about 70 euros per track. There is a lot of people in Seville interested in urban gardening. The other big ground which has been used for the same purpose is the Park of Alamillo, but since it is an open park, it represents a risk: people are not satisfied with the cultivation, because the crops get stolen. Security is important.

**Where:** Seville, Spain

**Cultivations:** nasturtium, fennel, absinth, knob

**Living:** no

**Other activities:** gardening classes, bread workshop, space for events

**Potentials:** independent association of citizens with the support of the City council, social character of the place <sup>1</sup>

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<sup>1</sup> Cf. Huerto del Rey Moro, in: <<http://www.huertodelreymoro.org/historia-del-huerto-del-rey-moro/>>.

### Incredible Edible; Todmorden (England)

*Incredible Edible* is a small community of volunteers, which grow fruit, herbs and vegetables around Todmorden that are for everyone to share. Since 2007, they run events that help strengthen the local community. They organize tours for anyone interested in learning how to grow food and conferences about food and growing.

**Where:** Todmorden, England

**Cultivations:** vegetables and herbs (borage, californian poppy, caraway, chamomile, chervil, coltsfoot, comfrey, coriander, andelion, echinacea, elder, fennel, garlic, heather, hops, lavender, lemon balm, lemon bergamot, lemon verbena, marigold, arjoram, mint, myrtle, nasturtium, nettle, orgenao, parsley, rhubarb, rosemary, st john'w wort, sage, salad burnet, southernwood, sunflowersm tarragon, thyme, welsh, onion, winter savoury, witch hazel, woad, woodruff)

**Living:** no

**Other activities:** courses, cookery demonstrations, children parties, conferences, harvest festivals, markets, etc

**Potentials:** organization of tours and conferences, power of community <sup>1</sup>

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<sup>1</sup> Cf. Incredible Edible Todmorden Community, in: <<http://www.incredible-edible-todmorden.co.uk/home>>.

### Barbekun Community Garden; Jakarta (Indonesia)

*Jakarta Barbekun* is an urban farming community started in 2010 to plant crops on non-productive land in urban areas. Thanks to the work of volunteers, "derelict land is transformed over time into productive gardens".<sup>1</sup> The 750-square metre garden is located in an 11-hectare residential development. Previously, "it was a space to dispose debris, chunks of stone buildings, garbage."<sup>2</sup> The owner is also the developer of the residential project, who loaned the area out to the group for a period of time, until the beginning of reconstruction of the residential property. The plan to keep a place for the community garden remains even then. The space is not just used as a garden, but is also a space where the community gets together. A picnic and a playground area have been incorporated to the plot. Most of the materials have been provided locally: soil, rock, bamboo. Inorganic materials were used just for the raised bed, where water resistant materials were needed. Groups of people come to learn about agriculture and urban gardening and the owner also hired professional gardeners, in order to keep the place well, as the volunteers could not be there every day.

**Where:** Jakarta

**Cultivations:** garden lettuce, papaya, spinach, collards, corn, peppers, beans, cucumbers, carrots, tomatoes

**Living:** Casa Goya Residence

**Other activities:** leisure area, picnic zone, playground

**Potentials:** co-operation of private and public, social character of the place<sup>3</sup>

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1 Ho Pei Ying: "Jakarta Barbekun Community Garden at Casa Goya Residence", in *Futurarc* September-October 2014, Volume 38, p. 37.

2 Ibid.

3 Cf. Barbekun Community Garden, <<http://www.cityfarmer.info/2012/03/13/indonesia-berkebun-inspired-urban-farming/>>, in: <<http://indonesiaberkebun.org/>>.



### Urban agricultural revolution; Zurich (Switzerland)

"Andreas Graber and Roman Gaus of *UrbanFarmers*, started their urban agriculture revolution in July of 2011. The corporate outlaw and a technology maverick are members of the co-working space *Impact Hub Zurich*. They teamed up on a clean tech mission to develop their urban rooftop farm innovation. It has been awarded several prizes, and will feed far more people with far less environmental impact."<sup>1</sup>

The association of Urban Farmers developed lately an application, to look for usable spaces, to convert into rooftops gardens or urban gardens.<sup>2</sup>

**Where:** Zurich, Basel, Berlin, The Hague

**Cultivations:** peppers, herbs, salads, micro-greens, several special varieties of tomatoes, chillies and salad

**Living:** no

**Other activities:** aquaponics<sup>3</sup>

**Potentials:** uses the rooftops of buildings without interfering with the city structure

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1 *Coworking space dialogues: Urban Agricultural Revolution*, in: <<http://nyc.impacthub.net/2014/05/09/coworking-space-agricultural-revolution/>>.

2 Cf. *An urban farming app that checks for usable space*, <[https://urbanfarmers.com/wp-content/uploads/2015/08/20150811\\_MM\\_Farm\\_Scout\\_EN-3.pdf](https://urbanfarmers.com/wp-content/uploads/2015/08/20150811_MM_Farm_Scout_EN-3.pdf)>, in: <<https://urbanfarmers.com/intro/>>.

3 System which combines aquaculture (fish raising) and hydroponics (soil-less gardening), growing fish and plants together. In: <<http://theaquaponicsource.com/what-is-aquaponics/>>.

### Grow Dat Youth Farm; New Orleans (USA)

The *Grow Dat Youth Farm* project brings people from different backgrounds and disciplines together, in order to research and practice, to help public health, local economy and sustainable agriculture in South Louisiana. Since 2011, youth and adults work here together for a common aim. The Grow Dat Youth Farm's products are sold to the farm stands and farmers' markets (70%) and distributed through the "Shared Harvest" program. They use chemical-free farming methods for a sustainable agricultural system. Their Leadership Programs are attended by many youths, who learn about sustainable agriculture and food system. For a lot of youths, this is an opportunity to learn something new and have more working possibilities, after school.

**Where:** New Orleans

**Cultivations:** iron/clay peas and sunn hemp, lettuces, collard greens, arugula, broccoli, carrots, okra, beets, sweet potatoes, peanuts, tomatoes, potatoes, radishes, melons, Asian greens such as tat soi and mizuna, native satsuma, orange, lemon, grapefruit, fig and several varieties of banana (including Cavendish and Mysore)

**Living:** no

**Other activities:** no information

**Potentials:** opportunity for young people<sup>1</sup>

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<sup>1</sup> Cf. Grow Dat your Farm, in: <<http://growdatyouthfarm.org/what-we-do/our-farm/>>, in: <<http://growdatyouthfarm.org/>>.

### Solawi; Bonn (Germany)

*Solawi* is a Community Supported Agriculture network, which tries to help regional agriculture to provide high-quality food next to the city, to be independent from importation and market, since 2011.

**Where:** Bonn, Germany

**Cultivations:** vegetables, salad, potatoes, cereals

**Living:** no

**Other activities:** films, workshops, distribution of products

**Potentials:** grow high-quality food, independent from the market <sup>1</sup>

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<sup>1</sup> Cf. Solawi, in: <<http://www.solawi-bonn.de/>>.

### "AgriNetural"; Matera (Italy)

*Agri-netural* is a group of people from different backgrounds (architecture, landscape, gardening, agriculture), who want to transform the abandoned green areas in the periphery around the city of Matera, Italy, into urban gardens. Since 2013, the aim is to restore and re-qualify those spaces in order to become an instrument for the society to develop the community and create an alternative economy. They work together and have the possibility of sharing also the living spaces in their structures, creating a concept of co-working and living.

**Where:** Matera, Italy

**Cultivations:** vegetables, fruit, medical herbs, spices and ornamental plants.

**Living:** co-living in the Casa Netural

**Other activities:** workshops, courses of gardening and garden design, physical disciplines, which promote a healthy living and environment friendly, collaboration with the IAC (integrate Arts Centre), language courses, tourism activities, activities for families and children, art competitions

**Potentials:** use of abandoned green area in peripheries, co-living<sup>1</sup>

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<sup>1</sup> Cf. AgriNetural, in: <<http://www.benetural.com/agrinetural/>>, in: <<http://www.benetural.com/>>.

## 3.3. Linear park: case studies

### High Line Park; New York (USA)

The High Line Park was built between 2006 and 2014, on the old freight railroad, west of Manhattan. It is 2,33 Kilometres long. Who walks in the park, is floating about 25 feet above the ground. The High Line was designed by the landscape architect James Corner of Field Operations and the architecture firm of Diller Scofidio + Renfro. Wooden benches are used in the park and some parts of the original train tracks were kept. The architects recommended the plants to grow.<sup>1</sup>

**Where:** New York

**Typology:** linear Park

**Potentials:** rehabilitation of an old area of the town, by giving it a new purpose, keeping the memory of what it was

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<sup>1</sup> Cf. <<http://ngm.nationalgeographic.com/2011/04/ny-high-line/goldberger-text>>.

### 11th Street Bridge Park; Washington DC (USA)

The bridge park was built on the Anacostia Crossing, connecting two separate sides of the Anacostia River, with a program of outdoor spaces and activities. The park works as an intersection, as new neighbourhood public space, after-hour destination for the workers, a leisure area for residents and an attraction for tourists. The architecture studio OMA designed the central Open Plaza as central meeting point, with markets and spaces for festivals and theatre performances held throughout the year.<sup>1</sup>

**Where:** Washington DC

**Typology:** Bridge Park

**Potentials:** re-discover the nature of the river and enjoy its presence, creating a new public space for the city, connection between areas of the city

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<sup>1</sup> Cf. <<http://oma.eu/projects/11th-street-bridge-park>>, in: <http://oma.eu/>.

## 3.4. Community structures: case studies

### Sesc Pompeia; Sao Paulo (Brazil)

The *Pompeia Leisure Centre* was built on an old factory building, offered as site for demolition from the *Servicio Social do Comercio (SESC)*, a Brazilian non-profit organization promoting culture and health for workers. The architect Lina Bo Bardi kept the structure of the building, subverting its purposes. The leisure space includes: art and craft workshops, a theatre, a bar/restaurant, a library, an exhibition space and multi-functional spaces. A new vertical structure was built next to the old one, to host sport activities (swimming pool, gym, rooms for dancing and wrestling and sport courts). Inspired by the Greek *Agorà*, the architect created a space where sport, art, politics and social activities form part of one life. Also called "*Citadels of freedom*", the space, with its multiple program, is a protected area, a political and cultural reality, which reflects the identity of the city of Sao Paulo.<sup>1</sup>

**Where:** Sao Paulo

**Typology:** Leisure and community centre

**Potentials:** rehabilitation of an old industrial area, coexistence of different kind of activities, community work, space sharing, art and culture promotion, co-working

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<sup>1</sup> Cf. Bo Bardi Institute 2013, 56.

*The urban area of Seville is surrounded by agricultural fields. Inside the urban area, a few urban gardens have grown in the last years: the population feels the need of those green spaces to grow vegetables, enjoy their free time or let the kids play. But those gardens are not enough, nor equally distributed on the urban area. The green spaces in seville are not a lot, the main parks are Maria Luisa, the Gardens of the Alcazar, the Los Principes Park and Alamillo, created in 1993, after the expo, in order to increase the amount of green in town. But this strategy did not actually provide the citizens what they really needed: public space in town, to reach on foot and with a few different services. There is a disbalance between the rural surroundings and the public green space in town. The inhabitants are missing a green space inside the urban area, where they can spend time, as they love, even though the hot climate of the city. With the time, they started to occupy areas in town and planting there. The administration gave them the possibility of staying and the urban gardens kept developing in nice spaces, which the neighbours take care of. They are today closed gardens, where vegetables grow, the children can play in the open air and adults can take part to workshops, learn how to take care of a garden or just spend their free time.*



# 3.5. strategy

The size of the area and the complexity of the project suggests a macro-micro approach.

The macro strategy can be explained through three main concepts: The main axes, the green areas and the urban gardens. Starting from those three concepts, the project develops an area of amusement, work and education, connecting the city with the new river bank, in order to respond to the isolation that the area of *La Cartuja* suffers.

1. The two main axis of the project will be the new Linear Park, running along the river bank of the Cartuja Canal, and the new *Marie Curie Avenue*, a long green lung stretching from the Canal to the city centre and connecting with important spots of public life in Seville. The axis will create a connection with the city, running parallel or perpendicular to the river. The west-east connection is supported on the south from a new pedestrian bridge connecting the Museum of Navigation with the area of *Plaza de Armas*.

2. The green includes a few different sorts of public spaces: the two main axes represent how this green can be developed. Other sorts of green spaces are: the waterfront gardens, the urban gardens and the rural space around it, the urban park of *Alamillo* and of course the parks in town. Those will be, when possible, connected with the project area, thanks to the new axes and infrastructures. The waterfront will be reopened, the *Jardines del Guadalquivir* and the *Jardin Americano* will be restored and expanded, in order to create a long green waterfront, opposite to the new linear park. The project aims to create a balance: every act responds to a parallel or opposite one. The Canal waterfront linear park balances the waterfront gardens on the east river arm. At the same time the gardens, which will get till the actual *Isla Magica* attraction park, balance the urban gardens which will be organized along the linear park. Marie Curie Avenue works as a bridge, connecting the two waterfronts and their functions with the public functions of the city centre.

3. The Urban gardens represent an answer to the lack of space for agriculture. According to the numbers, the agricultural land available per person in Andalusia should be 4800 square meters. The average of available agricultural land of the world is about 2300 square meters per person per year and the actual consumption 3084 square meters per person per year. Although the availability of land per person, Spain food imports represent a high percentage of the GDP.<sup>1</sup>

In order to support the local economy and to have access to better food, different gardening initiatives have been founded by inhabitants who occupy an abandoned courtyard or an unused urban area and make gardens out of them. [Img. 93] An example in Seville is the *Huerto del Rey Moro*.<sup>2</sup> The city of Seville also has a very good climate for gardening. It has temperate winters and hot summers. This makes harvesting of some crops possible during most of the year. The new urban gardens on the Island of Cartuja will first develop right next to the new linear park, on the Expo parking areas, which will no longer be necessary. They will then extend on the other side of *Avenida Carlos III*, [o.] starting with greenhouses and a gardening school (the gardening school in the *Park Maria Luisa* has been closed last year) and will develop in the next years a *Agro-co-working* system, including living possibilities and all kind of facilities needed for its users. The system of agro-co-working will also use some of the abandoned pavilions on the Island, for the gardening workshops or for exhibition and living purposes.

*The main axes, the green areas and the urban gardens form part of the macro strategy.*

*In order to support the local economy and to have access to better food, different gardening initiatives have been founded by inhabitants who occupy an abandoned courtyard or an unused urban area and make gardens out of them.*

*The system of agro-co-working will use some of the abandoned pavilions on the island, for the gardening workshops or for exhibition and living purposes.*

<sup>1</sup> Cf. FAOSTAT Food Balance Sheets : < <http://faostat3.fao.org/download/FB/FBS/E>>, in:< <http://faostat3.fao.org/home/E>>; Noleppa/Witzke 2012, 6.

<sup>2</sup> Cf. *Huerto del Rey Moro*, in: <<http://www.huertodelreymoro.org/historia-del-huerto-del-rey-moro/>>.

# 3.6. masterplan

## Project steps

1. Creation of the Waterfront Linear Park, east riverbank of the Cartuja Canal
2. The Green Axe, Marie Curie Avenue, bridge between the linear park and the city centre
3. The urban gardens, start in the area along the future Linear Park with possible related activities, such as gardening schools, conference halls, a grocery market and co-working and living structures.
4. Restoration of the waterfront gardens - west river bank of the Guadalquivir old bed, including the area of the actual *Isla Magica* attraction park
5. Rehabilitation of the east waterfront of the river, *Calle Torneo*, to invite the inhabitants to cross the river.[s.]

## Scenarios

The end result of the project could lead to a few scenarios of development for the city and its inhabitants:

### 1. AVENUES as connections and open space

*The Avenues, created for the Expo, will work as green connections between the two parts of the river.*

The Avenues, created for the Expo, will work as green connections between the two parts of the river, the historical river, which is not fluent and the *Corta* (the arm of the river, which runs north-south, created in order to solve the problems of flood) and as open spaces for events or activities related to the project.

The intervention will start from the main avenue, *Marie Curie*, which connects directly to the Bridge of *Barqueta*. The pedestrian and bike lane on the bridge will be restored and made wider.

*Lots of trees will be planted on those areas, in order to substitute the Pergolas of the time of Expo.*

The other Expo avenues get a different interpretation and a new purpose: some of them become open space for events and some are turned into cultivation area for the gardening school.

Lots of trees will be planted on those areas, in order to substitute the Pergolas of the time of Expo. Those structures, with the help of the plants growing on them were supposed to make shadow for these wide avenues. They had a mechanism to refresh the air through water vaporization. Lots of water was needed, for the plants to grow and make shadow and energy for the vaporization. Nowadays, the water supply needed for the plants is not enough and the Pergolas look just like metal structures in a desert surroundings. The plants didn't grow and these structures do not fulfil their purpose. Substituting them with fruit trees could be a possibility. Interventions like this have been experienced by some communities, like the English "Incredible Edible", in Todmorden.<sup>1</sup>

*The Gardens of Guadalquivir and the American Garden need restoration.*

*The parking lots built for the Expo will be used for urban gardening and for the new agro-co-working structures.*

### 2. WATERFRONT restoration

The Gardens of Guadalquivir and the American Garden need restoration. The park of reproduction of monuments "*Andalusia de los niños*" should be restored this year and reopened. On the artificial arm of the river, the flowing one, a new waterfront will be created. The Old *Canal de Los Descubrimientos* will be used as cultivation area for the urban gardens.

### 3. OPEN SPACE as gardening area

The huge area of parking lots along the river was built in order to serve the Expo site. Today it is not used, since there is enough parking space along the streets around the working places. Those areas will be used for urban gardening and for the new *agro-co-working* structures.

The city counts a couple of urban co-operative gardens, like the *Huerto del Rey Moro*<sup>2</sup>, where people grow plants and vegetables and organize activities for adults and children. If the city provided the space, the people would feel welcome to start growing in those areas and the agro-co-working community will take care of them. This would start with small basins of earth, which could later be enlarged and turned to real gardens.

<sup>1</sup> Cf. note 1 p. 128.

<sup>2</sup> Cf. note 1 p.126.

#### 4. INFRASTRUCTURES to win separation

*Bridges should invite people to the area.*

Bridges should invite people to the area. After the restoration of *Barqueta*, a new pedestrian bridge will be built to connect the area of *Plaza de Armas* with the old Navigation Pavilion (today a museum).

*The public transportation will improve in order to invite people to use it more than private one.*

The main traffic would move north-south, keeping *Avenida Carlos III* (which will be reduced and interrupted by some pedestrian zones) and *Calle Torneo* as main roads. This will keep the traffic outside the pedestrian area, making pedestrians feel safer and reducing the pollution of the air in order to protect the crops. The public transportation will improve in order to invite people to use it more than private one. A new circular bus line may be introduced and the bike lanes will be restored.

With the time and the expansion of the tram and metro system, this area could also be included in those networks. This way the island will also be connected directly with the city centre.

*Some of the abandoned pavilions will be reopened and could be used as structures in co-operation with the urban gardens, such as the gardening school.*

*The blocks used by the companies will keep their purpose.*

*Facilities for workers and students will also be provided.*

#### 5. BUILDINGS to reuse, restore and re-think

The Pavilion of *Naturaleza*, as well as the Spanish and Hungarian ones would be reopened and could be used as structures in co-operation with the urban gardens, such as the gardening school. This would bring people to the area and at the same time give real work possibilities to the young people of Seville. Also, the gardening school will give back a possibility to people who want to learn a new activity, something which was recently taken away from them.

The leisure structure *Palenque* would be rebuilt and used with the original purpose, to host concerts, performances, exhibitions and similar. The *Pabellon del Futuro* would work with the gardening school and the *agro-co-working*, as well as exhibition space for particular plants or for hosting gardening conferences.

The blocks used by the companies will keep their purpose. We assume that with the development of the project the public space will grow and limit the possibility of expansion of the companies.

Facilities for the workers and the students will also be provided from the *agro-co-working* system, such as a kindergarten, bars, student canteen and so on. Other facilities will surely start appearing in the area, as soon as the density increases.

## 3.7. linear park

The Linear Park along the *Canal de Cartuja* will be part of a long bike/pedestrian connection (160 km) between the village of *Alcalà del Río* (north) and the point of convergence between the *Guadalquivir* and the *Guadaira* rivers (south). The linear park is a section of this natural waterfront park and it extends for about 3.5 kilometres. It includes a part from the pedestrian/bike lane, playgrounds, chilling and fitness areas, as well as small viewpoint terraces on the river and new cultures of fruit trees, in addition to the existent Sophora and Hack-berry ones. Those will be cultivated from the community of the agro-co-working in order to be enjoyed from everyone.

*The linear park is a section of the natural waterfront park and it extends for about 3.5 kilometres.*

*The Linear Park along the Canal de Cartuja will be part of a long bike/pedestrian connection (160 km) between the village of Alcalà del Río (north) and the point of convergence between the Guadalquivir and the Guadaira rivers (south).*

## 3.8. agro-co-working

The agro-co-working system develops along the linear park on non-used areas or parking lots, which were created for the occasion of the Universal Exposition and are not needed anymore. The first area along the park (west of Carlos III Avenue) will be used for the community urban gardens. The next area (east of Carlos III Avenue) will host all the structures and buildings needed for the concept to work: housing, gardening school, greenhouses, conference halls, grocery market, kindergartens, playgrounds and swimming pool.

*The agro-co-working system develops along the linear park on non-used areas or parking lots.*

The concept is supported by different structures and areas along the island. A gardening school will be set in the Spanish Pavilion, and will have its hosting structures, such as storage or exhibition area in the United Nations Pavilion. Another supporting structure will be provided in the abandoned building on the other side of *Calle Leonardo da Vinci*.

The *Pabellon del Futuro* will be set as exhibition space for the agro-co-working system. It will be available for special plants exhibitions, workshops, art performances or events of any kind. The old *Canal de los Descubrimientos*, which dried out, will be used as a garden for the species to be shown in the exhibition area.

### Bio-intensive garden

In a bio-intensive garden the ground must be very deep (60 cm) in order to be able of planting the crops very near to each other. The dimensions of a regular bio-intensive garden should be 1.20-1.50 of width and 7-8 meters of length. The gardens planned in the project have the dimension of the module used in the whole agro-co-working concept: 7x2x3 meters, with an area of 21 square meters each. There should be room left between the gardens in order to build paths for the workers (cca. 30 cm in width).

Crops: Tomatoes, Carrots, Lettuce, Potatoes, Onion. Sweet potato can be used as composting crop. [Img. 102]

The profit of a bio intensive garden (beginner/medium/advanced):

Tomato: 45/88/190 Kg/m<sup>2</sup>

Carrots: 45/68/182 Kg/m<sup>2</sup>

Lettuce: 61/92/245 Kg/m<sup>2</sup>

Potatoes: 45/91/354 Kg/m<sup>2</sup>

Onion: 45/91/245 Kg/m<sup>2</sup>

Cultivation period/harvest period:

Tomatoes: March-May/ May-October

Carrots: February-September/ January-December

Lettuce: March-November/ January-December

Potatoes: February-April/ August-October

Onion: August-October/January-February; May/July; December.<sup>1</sup>

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<sup>1</sup> Cf. Jeavons/Cox 1999, 9-10

## 3.9. Micro strategy

The micro strategy proposes a new design for different elements of the project, working on a smaller scale.

Those elements can be repeated on the project site and in the city centre at the same time. They will work as small signs on a pathway, which will bring people to useful or interesting places: bus stops, mini museums on the Island, bike parking lots, pergolas as shadow elements and benches.

*Some elements of the project will be redesigned and repeated on the project site and in the city centre.*

The elements of the agro-co-working system developed as prototypes in the project are: the living and working structures, the gardening school, the conference hall, the kindergarten, the playgrounds and the greenhouses. Those elements develop on the same module, which comes from the proportions of a container, often used as reference for small living spaces. The same proportions will also be used for the gardens. Small gardens and terraces can be designed by their own occupiers, on the rooftops of those structures.

The proportions used in the project are similar to the ones of a small container (7mx3m area, 3m height). For a living unit the module is repeated two or four times, to have an area of 42 square meters for a single or double flat and 84 square meters for a group of three to five people. The available area at the beginning could provide a total of 9,408 square meters, suitable for 448 people. In the next years the living and working structures could also develop in the height, as a lego construction, offering possibility to host more people. [z.]



# 4. potential future development

The construction of a metro network in Seville started in 1974 and stopped in 1983. The Seville Metro Corporation edited a new project for the underground network in 1999. The project, started in 2009, planned four lines, covering all metropolitan area of Seville (1,500,000 inhabitants). Till now, just the line 1 (18 Km) has been working, carrying 14 million passengers in 2012. The plan is to open the lines 2,3 and 4 till 2017, with a total length of 42,6 km. The line 4 would include also the area of the Island of *La Cartuja*. A tram line also exists since 2007, covering now just 2,7 Km. Further work on other lines have began in 2005. The underground and tram lines could represent a possibility for the future of the Expo site to get a better connection to the city of Seville.

*The underground and tram lines could represent a possibility for the future of the Expo site to get a better connection to the city of Seville.*

# 5. conclusions

This project is a proposal. It tries to utilize phenomena which already exist in a small scale in the city of Seville. The aim is to use the strength that the city already has and make it more convenient for its development.

Seville has been through a great time during the six months of the Expo '92, and then through a really hard one, just after that. It is still trying to resolve that deficit which the Expo left, economically and psychologically. The Expo brought modernization and development to the city, a new infrastructure system and a few new facilities and attractions. On the other hand, the workplaces provided to the inhabitants were temporary; after the Expo they were unemployed again and the city was left with a big financial debt. The inhabitants of Seville are aware of the difficulties their city is facing and are already giving their best to make the city grow and to preserve the young people.

This project has been inspired by activities of the citizens. Since they did not have access to green areas to grow plants and seeing the urgency of converting the traditional agriculture in something which could last in our world, they started occupying courtyards and urban areas, which did not have a purpose anymore or were abandoned. They decided they were going to be the places for their interventions. With the time, the city administration let the citizens develop those projects, providing them with what they were missing (such as electricity and water canalization). From those small interventions in the city, a real movement of citizens was developing. They have been working hard in the last 10 years to share their knowledge and attract the concern of other people and even more gardens are growing today.

On the analysed examples of community work, I developed the idea of urban gardens on a big scale on the Island of La Cartuja, where a lot of space has been left without purpose after the Expo '92. There are huge parking areas, essential for the organization of an international event, but not necessary anymore. The waterfront has been cut out of this area by the railway. And the entire island gives its back to the *Canal de Cartuja*, exactly like Seville gives its back to the old arm of the Guadalquivir River.

The idea of opening the waterfront aims to give the island a quality it lost. The natural value of the orange gardens, which have been replaced with the Expo structures, will live again in the natural character of the linear park along the Canal. This works as an attraction for the citizens and for tourists. The urban gardens reflect the reality of life and work just next to the park. This project is developed from the combining activities of the park with the ones of the *agro-co-working*. Free time and entertainment activities develop next to work structures and facilities and they do not compromise each other. They are both chances for the city to grow nicer and welcoming.

The creation of an area with new purposes, new facilities and work possibilities for the inhabitants is the challenge of this project. In order to be successful, it will need the determination of the inhabitants and the collaboration of the city.

In order to increase the attraction of the park and the gardens, the area needs a better communication system, which articulates around the new green avenues. Those green lungs, paths through the island which move towards the city, will bring people from the town centre to the new site.

The project will need further research and experiments, in order to develop during the years and increase its quality. The city could work to provide the site with better public transportation. In the next years, the subway and tram networks could include the Island. The park will develop naturally with the territory and the waterfront, providing the city with the green open spaces which are missing today. The agro-co-working system will grow, according to the possibilities of the town and the interest of the citizens. From small cooperation between the citizens it could reach a bigger scale and expand to the regional and national contest. The gardens will specify their activity and the structures will grow in the height, using the space they have and specifying their program according to the needs of the community. *"Wake up, Cartuja"* will be the impulse that the city needs to look further to the future. It will make the citizens discover their origins and their history, in order to preserve them and move on.

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