

La ballena blanca. Arquitectura *offshore* en el campo almeriense

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ABSTRACT

The concept offshore has two meanings; the first means literally in the sea far away from or at a distance from the coast; and the second refers to what is made, situated, or registered abroad; especially in order to obtain benefits of lower taxes and costs, or from a less strict regulation. It is hard to notice “offshore” architectures, either because they remain conveniently hidden or because their existence has been assimilated too naturally. El Ejido in Almería, Spain, is a place blessed with 3000 hours of sunshine a year. This was the motivation for both, agriculture and tourism to be installed here. El Campo Dalías, one of the world's most important intensive agriculture sites, shines like a vast sea of plastic. Tourism and delocalized food production coexist without any contact with this former agricultural colony. The sunshine hours, the immigrant workers and the logistics infrastructure have turned Almería into a participant of the global network. These enclaves are areas that anticipate a new form of transnational network of displaced urban spaces.

RESUMEN

La palabra *offshore* tiene dos acepciones. La primera significa literalmente en el mar, lejos de la costa, y la segunda hace alusión a lo hecho, situado o registrado en el extranjero, especialmente para obtener beneficios de menores costes o impuestos, o de una regulación menos estricta. Resulta difícil reparar en estas arquitecturas, ya sea porque permanecen convenientemente ocultas como porque se haya asimilado su existencia con demasiada naturalidad. El Ejido en Almería, España, es un lugar bendecido con 3.000 horas de sol al año. Esto motiva que tanto la agricultura como el turismo se instalen en él. El campo Dalías, lugar de una de las agriculturas intensivas más importantes del mundo, brilla como un vasto mar de plástico. El turismo y la producción deslocalizada de alimentos conviven sin contacto en esta antigua colonia agrícola. Las horas de sol, los trabajadores inmigrantes y la infraestructura logística han convertido a Almería en un actor global. Estos enclaves son áreas que anticipan una nueva forma de red transnacional de espacios urbanos desplazados.

The White Whale. Offshore Architecture in the Almerian Camp*

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INTRODUCTION

March 28, 2012, a sperm whale of 4,500 kilos and about 10 meters long was found dead on a beach in Castell de Ferro, Granada (FIGURE 1).

This seems to be a minor news amid all the alarming and catastrophic events that fill newspapers every day. The press reported it for a couple of days, and after that it disappeared. Nonetheless, such news are normally early indicators of more far-reaching events.

Scientists found a real plastic dump inside one of the whale's stomach. They counted 59 pieces with a total weight of approximately 18 kilos (26 pieces of 8 kilos and 30 square meters of transparent plastic used in greenhouses, four scraps of black bags for crops, nine meters of rope used to secure greenhouses, and two ropes measuring 4,5 meters). How did all that plastic end up in the stomach of this animal? Where did it come from?

The answer lies in El Ejido, about 60 kilometres east of the referred beach, where 45.000 tons of plastic for greenhouses are produced annually¹.

When asked what it is that motivates such intense activity, concentrated in such a small area, the answer cannot be found on one single factor. It relates to the local conditions, such as the number of hours of sunshine per year, the availability of auxiliary supplies, cheap labour and marketing that favour thousands of people to move to the place in search of work. Thus, several multinational companies in the area market their genetically modified seeds, enabling local produced tomatoes to be consumed in the first world.

The paradigm shift posed by “mobilities”² (Sheller & Urry, 2006, p. 210) in the case of architecture can be interpreted in the *offshore architecture*. It is hard to notice these architectures, either because they remain conveniently hidden or because their existence has been assimilated too naturally.

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¹ In Almería there are almost 40,000 hectares covered by greenhouse plastic.

² The term *mobility* addresses, in the case of sociology, the implications of the large-scale movements of people, objects, capital and information around the world. It explores how movement of people, goods, information and signs influences the human understanding of oneself, of others and of the built environment; constellations and changing configurations formed by mobile and stable elements in modern sociomaterial contexts (Sheller & Urry, 2006).

1. Plastic waste found in a sperm whale stomach.
Diario El País (2013).



Sociologist John Urry notes in his book that offshoring affects countries economies, not only because of the loss of taxes, but also because of other processes that are offshored, such as the manufacturing industry, leisure industry, energy, waste and security (Urry, 2014, p. 3), especially in the developing world and the seventy or so tax havens. All of these processes are kept hidden and in secret locations. Offshore is how power rules the world today.

Examples like El Ejido are hybrid spaces in exceptional situations that confront the unitary discourse of the globalized world. They operate responding to the immediacy of the market demand mobilizing people, capital, raw materials and manufactured products, creating landscapes with generic appearance but with a very particular idiosyncrasy.

The study of the offshore architecture of El Ejido has demanded a particular methodology.

As a contemporary case study, there is no comprehensive research published in architectural literature or specialized architectural journals, with the exception of Keller Easterling's work about El Ejido, in her book *Enduring Innocence*. Hence, some approaches to the offshoring term in economy, geography and sociology disciplines have been used. In addition, newspapers have been an important source, in order to unveil hidden realities. Furthermore, field trips to the Strait of Gibraltar and El Ejido have also been of great relevance, thus enabling to complement the study with photographic material, videos and interviews to inhabitants and workers of this place.

THE PLACE

El Ejido, in Almería, with its 27 kilometres of beaches, is a place blessed by countless hours of sunshine, allowing agriculture and tourism to coexist closely.

But in this realm agriculture prevails. In fact, Campo de Dalías in Almería has developed as the world's most important intensive agriculture under plastic, being one of the few human constructions visible from space. This material with its high albedo, i.e. high reflectivity, makes certainly Campo de Dalías shine like a vast sea of plastic.

In the 1970's greenhouse technology spread beyond the farming of flowers. Almería, with 3000 hours of sunshine a year, an average temperature of 20 degrees centigrade, and a major underground aquifer, became a living laboratory for the so-called "Almería miracle" (Easterling, 2005, p. 40).

COLONY

A colony is the architectural materialization of a political decision. The choice of El Ejido as a place for intensive agricultural production happened eighty years ago. Campo de Dalías, as this region is known, was a very poor semi-

desert area, a stage for former Western films until a large underground aquifer was found.

As a result, Campo de Dalías area was declared a National Interest issue in June 24th, 1941 (Rivera, 2000) by the National Institute of Colonization. The National Institute of Colonization (INC) was created on October 18th, 1939 as an instrument of the former Franco agricultural policy under the Ministry of Agriculture. The political strategy of the New State replaced the redistribution of land (an objective of the Second Republic) for a political settlement based on the transformation of rural areas (introduction of irrigation and increased productivity) that would settle a self-sufficient peasantry in towns of colonization.

Settlement policy, developed during Franco's regime, had its lights and shadows, but it's social, economic, agricultural and landscape impact is undeniable. The architectural work of that settlement policy was very important, expressed primarily through the construction of new towns of colonization (over 300 in Spain). In the case of El Ejido, the town of Las Norias was commissioned to the architect Manuel Jiménez Varea and consisted of 101 houses (FIGURE 2).

The Government gave each settler a house and a 2 Ha. plot, to be payed with no interest in 30 and 40 years respectively. They also provided fertilizers, seeds, water, tools and some cattle as well as sand to cover the ground for it not to lose water. In return, the settlers had to handover 60% of the crop to the Government.

EVOLUTION OF TECHNOLOGY

In 1956 the sanding technique began to be applied in Almería. The almost barren land of El Ejido was covered with beach sand. Three great advantages are thus achieved: the evaporation of water after irrigation is avoided, the earth is desalinated and the sun's rays heat it more quickly, favouring the early ripening of the vegetables.

2. Settlers housing in Las Norias. Photo by the author, 2015.



3. Seed advertisement in El Ejido. Photo by the author, 2015.



In 1960 the first tests of padding with transparent film began in a pilot ground designated as plot number 24 of Campo de Dalías. It saved water and increased the precocity of crops. The sanding was deeply ingrained, having the additional advantage of desalinating the terrain. After trying to wrap unsuccessfully the plants up, they decided to built a lightweight structure covered by polyethylene film, such as the ones used in growing table grapes to protect the crops.

Soon after, in 1963, a trellis structure based on eucalyptus logs with a surface of 500 m² was installed on plot number 24. The repetition of the same standardized structure and the impact on productivity caused a demographic explosion, increasing the population from 10,000 in 1960, to 80,000 in a few years, increasing farmers' profits enormously. Banks, luxury stores, concessionaires and brothels were opened, while single-family buildings were built everywhere.

Currently in the county of El Ejido the production of tomatoes, squash, beans, peppers, etc. is the engine of economic growth. Success thereafter, comes from an exhaustive control of the entire

process at all levels: creation of seeds and standard consumption patterns, control growth and specialization of the production to meet the demands of different markets, and the creation of a network of international marketing to ensure the placement of production.

SEED

The production process begins even before planting the vegetables in the seed production companies. Small laboratories are located between greenhouses (FIGURE 3), avoiding thus legal controls. They belong to agricultural companies like Monsanto (Maté, 2015) or Bayer (Diario Expansión, 2015), both of them with offices in El Ejido, promoting genetically modified seeds as standardized products.

Under current European legislation the sale of native and traditional seeds is prohibited. They should be registered; that is, it is illegal for anyone to grow, reproduce or sell any vegetable seed or tree that has not been tested and approved by the new Community Plant Variety Office, which has developed a list of

approved plants. The seed becomes therefore, a prefabricated, precious, unique and impossible to replicate product. So the same companies that create the supposedly pest-resistant seeds remove the diversity that prevents a single plague to be devastating for the entire harvest. In return, the same companies offer pesticides that allow these fragile and simplified subspecies to remain productive.

The urbanization of nature is a "process through all forms of nature are socially mobilized, economically incorporated and physically metabolized/transformed in order to support the urbanization process" (Swyngedouw & Kaika, 2014, p. 459).

GREENHOUSE

As previously seen, the combination of sanding and greenhouse implementation results in the maximization of production, and therefore, an optimization of time and soil. Timing is essential, because the advantage of El Ejido is to harvest vegetables before anyone else, and transport them to every corner around the world.

4. Greenhouse technology. Photo by the author, 2015.



The construction of the greenhouse is extremely effective (FIGURE 4). Lighting and ventilation conditions are taken care of to the millimetre; sea breeze ensures the renewal of air in the greenhouses. The atmosphere where tomatoes are grown is permanently monitored. They make the most of the use of the land. Tomatoes are now hydroponics, i.e. they grow on an inert substrate and they are fed with a nutrient solution supplied to each plant through drippers at regulated time intervals.

CONTAINER

The next step in the supply chain of tomatoes production corresponds to transport, which seeks to ensure the fluidity of the process through standardization. Increasingly, urbanization is organized through flows, and logistics could be used as a conceptual tool to identify new protocols for spatial organization that addresses fluidity (Lyster, 2016, p.5).

Long distance distribution of products starts with packaging into containers, so as to reduce the cost and duration of transport (FIGURE 5). Twenty-eight tons of packaged and prepared

for consumption tomatoes are introduced into the container. This is done with a pre-equipped controlled atmosphere so that the tomato arrives, ten days later; in the same condition it was shipped. Shipments to the United States and Canada are made this way.

The use of containers makes it unnecessary to download products to be transferred; this implies huge savings in time and money. In the mid-50s transport entrepreneur Malcolm McLean invented the fundamental element of this multimodal system that works by land, sea and air transport: boxes of 10 meters in length, stacked on top of each other, thanks to a reinforced frame, and fitted together with corner pieces that allow handling and stowage in the steel deck of an old oil tanker. Today, the containers are governed by ISO standards (Martin, 2014) that establish the TEU (Twenty-Foot Equivalent Unit) as the capacity of a standard container.

INHABITANTS

The whole system relies on cheap and mostly illegal work (Lawrence, 2011). Immigrants, originating mainly from Eastern Europe and

North Africa, pay gangs to enter Europe undocumented.

Similar to the chain production introduced by Ford Company, the agricultural industry acquires strict control over the rhythm of production in the assembly line; nonetheless, in the case of collectors, the cost reduction is not reflected in salary increase. Unlike Henry Ford's belief in a satisfied and unconflicted staff, which became potential consumers of their products, in El Ejido, the potential buyers are at a great distance, and workers are not part of the consumption cycle.

Due to the high rents in town, shanties for the gatherers are constructed with the remaining polyethylene from the greenhouses; but they lack any consideration on ventilation, as it is the case of the structures destined to the growth of tomatoes (FIGURE 6). In fact, these precarious conditions also force people to sleep in shifts in a so called warm bed system.

Regarding non-residential architectural programmes, migrant workers go to the city centre only to Halal butcher shops, mosques and call shops. The cult and the connection with their other daily life, which happens simultaneously in

5. Containers in the port of Algeciras. Photo by the author, 2015.



a different latitude, are the activities tolerated by the system.

Common public spaces do not host migrants in El Ejido; hence they tend to use privately owned public spaces, such as call shops, where customers calling their relatives serve as attractors to other potential users. Upon entering these shops, all kind of services are offered, such as computer repair, legal advisory, Internet courses and even typical food from their countries. This infrastructure is based on bottom-up schemes, produced by countless actors (Varnelys, 2011).

At the same time, due to the countless hours of sun in Almería, other users appear benefitting from it. They are related to leisure and retirement, looking for the benign climate and more affordable medical services. Canine hairdressers, charity shops and real estate agents are some examples of emerging activities that are considered as part of a service tourism industry (FIGURE 7) which, like agriculture, expresses the advantages of seasonality.

Migration is an essentially spatial phenomenon involving geographic distance, border crossing, movement and residence in different places. What seems like a simple concept –people moving from one place to another and remaining in the later long enough to be considered immigrants–, implies a huge variety of phenomena and a wide range of complexity; whether in spatial patterns, in patterns of evolution over time, and type of movement forms, implying multiple causes and consequences.

Therefore, migration to Almería is not identical for retired British tourists and seasonal workers. Zygmunt Bauman makes a comparison between the tourist and the vagabond. Both move; tourists travel because they want to, the vagabonds because they have no choice (Bauman, 1996, p.14); both are always in search of new territories. The state promotes the vagabond not be moved and favours the displacement of tourists. In El Ejido, British retirees and African workers live nearby but without contact between golf complexes and shanties. Architectural design

seeks to avoid eye contact through camouflage of the greenhouses.

TO PROGRAMME

El Ejido has an architectural programmatic combination that would be unthinkable in any other city (FIGURE 8). Both, workers and tourists use spaces in a way that is not what planning usually foresees.

Although officially not considered as such, El Ejido field is a kind of Special Economic Zone. This means that it is a geographically defined area where certain economic activities are specifically authorized, and where free trade policies and other various preferential privileges are granted by the host country (Meng, 2003)³. Even if the characterization may sound out-dated, it belongs to what Edward Soja calls postmodern geography, the capacity to combine creatively what in the past was considered to be antithetical/uncombinable; the rejection of total logics that blinker our ways of seeing; the search for new ways to interpret the empirical world and tear away its layers of ideological mystification (Soja, 2011, p. 73).

Tourism and delocalized food production, two offshoring phenomena, compose the contemporary restructuring of the capitalist spatiality in Spain.

The sunshine, the logistical infrastructure, immigrant workers and legal loopholes transform Almería into a participant of the global network. Mobile and seasonal, this highly technological agriculture is in an extremely complex and sensitive balance to fluctuations in the world order. Tomatoes produced here are exported to countries where local companies cannot compete with the imported product and break delegating the production of a daily food

³ For a short history of the “Zone” concept read: Luzarraga, A. (2007).

- 6. Housing next to greenhouses. Photo by the author, 2015.
- 7. Non-residential tourist programmes. Photo by the author, 2015.



product to a distant country. It is also what begins to happen between Almería and Morocco. In the Strait of Gibraltar, the two worlds face each other, as waiting to look forward to move

production from Almería to even cheaper land and labour in Morocco. Sites are as mobile as products, and are exploited until a more competitive offer appears.

8. Two contrasting landscapes in El Ejido: tourism and agriculture. Photo by the author, 2015.



9. A plastic landscape. Photo by the author, 2015.



CONCLUSION

Exception. El Ejido, from the Latin *exitus*, i.e. exit, means a communal land of a town bordering with it, which is not harvested, and where cattle usually graze or threshing floors are settled. They were lands with a common use but without private property; an exception to the rule.

Network. El Ejido, a place without a city scale, represents the contemporary architectural condition much better: these enclaves, or as the architect Keller Easterling prefers to call them “zones” (2012), are areas of global growth that form a transnational network of displaced spaces, premonitory of a new way of design and construction attitude (FIGURE 9).

Standardization. Standardization is the tool that is used so that the flow of the whole process is constant and is never interrupted, such as the seeds, the solution that feeds the plants, the hours of light and ventilation, the time of harvest, the size of the boxes and containers, the prices of the international markets, the quality controls etc. All elements that are strictly controlled so that no failure of any of the multiple agents involved will ruin the business.

Programmes. Call shops, Halal butchers, mosques, canine hairdressers, charity shops, international press delegations... All these architectural programmes seem more typical of a global metropolis than of a medium-sized town in southern Spain, like El Ejido. But when the traditional centre-periphery model is abandoned, every place becomes a centre in itself. Some authors have analysed the role of the global city that concentrate both, the leading sectors of global capital and a growing share of disadvantaged populations (immigrants, disadvantaged women, people of color, and, in the case of megacities in developing countries, masses of shanty dwellers). So we can see that cities have become a strategic territory for a whole series of conflicts and contradictions (Sassen, 2005, p. 39).

But the loss of political, economic and social specificity of the city makes questionable the leading role that has been given to the global

city. Consequently, the following question arises: Is not the architecture of the Almerian camp more complex and challenging than the one from the financial centres or ghettos of the big cities?

Archetype. In 1995, Dutch architect Rem Koolhaas introduced in his book “S, M, L, XL” a small research he carried out about Singapore. Fifteen years later he published again this essay separately, adding a significant prologue. He concluded that in the nineties Singapore seemed to be a model for the development of China; nonetheless time went by, and his approach became a preliminary plan of our environment (Koolhaas, 2010). Eventually, something similar will materialize with those realities happening offshore today; they will become precedents of what will happen to our architecture in the near future. Always ahead, Rem Koolhaas and AMO are preparing an exhibition whose preliminary name is “Countryside: Future of the World”⁴.

⁴ “More than any city, the vast nonurban territories of the countryside have become the frontier of transformation. The exhibition will explore artificial intelligence and automation, the effects of genetic experimentation, political radicalization, mass and micro migration, large-scale territorial management, human-animal ecosystems, subsidies and tax incentives, the impact of the digital on the physical world, and other developments that are altering landscapes across the globe”. The exhibition will be installed in spiral rotunda of the Guggenheim Museum in New York in fall 2019. Guggenheim Foundation (2018).

10. Used greenhouse plastics. Photo by the author, 2015.

They are exploring radical changes in these ignored vast nonurban territories, and trying to unveil the future of architecture and urbanism through them.

Out of sight, far away from the coast. As in the case of the white whale, what is kept offshore comes back to the shore (FIGURE 10). Although there is an intention to keep offshore architecture invisible, the material effort required to keep our shopping cart full is difficult to hide. The contemporary Chinese artist Ai Weiwei also used plastic on two occasions to denounce the situation of the refugees upon their arrival in Europe. First, he covered the twelve sculptures that make up his work *Zodiac Heads* with golden thermal blankets. These plastic blankets are the first resource that Non-Governmental Organizations use to assist refugees they save from the sea, thus preventing them from dying from hypothermia. Ai Weiwei covered the sculptures when they were located in Prague to protest the attitude of the European Union, and in particular of the Czech government, regarding the arrival of the refugees. In his second work of denouncing and questioning the current regulatory policies of the European Union, the Chinese artist went further and covered the columns of the Berlin Konzerthaus with hundreds of life vests worn by refugees to reach the European coasts. The orange plastic remains bring to the heart of Europe the matter that is accumulated in Greek and Italian coasts; an accumulation that grows day by day and that, like the white whale, shows the urgency of addressing these problems.

Architects should therefore be alert about the emergence of any apparently unimportant news such as a stranded sperm whale or the reopening of the Bering Strait to commercial shipping thanks to the Arctic melting (Moore, 2018); it will probably unveil tangible manifestations of contemporary spatial flows, and the corresponding architecture that thereafter will emerged.



REFERENCES

- Bauman, Z. (1996). *Tourist and vagabonds: heroes and victims of postmodernity*. Wien: Institut für Höhere Studien.
- Easterling, K. (2005). *Enduring innocence: Global architecture and its political masquerades*. Cambridge, Massachusetts: MIT Press.
- Easterling, K. (2012). Zone: The spatial softwares of extrastatecraft. *Places Journal*, issue 2012. <https://doi.org/10.22269/120610>
- Expansión (2015). Bayer planta en El Ejido la central de su división de semillas hortícolas. *Diario Expansión*. Retrieved from <http://www.expansion.com/2015/03/04/andalucia/1425496384.html>
- Guggenheim Foundation (2018). *Countryside: Future of the world*. Retrieved from <https://www.guggenheim.org/exhibition/countryside-future-of-the-world>
- Koolhaas, R. (2010). *Sendas oníricas de Singapur retrato de una metrópolis potemkin- o treinta años de tabla rasa*. Barcelona: Gustavo Gili.
- Lawrence, F. (2011). Spain's salad growers are modern-day slaves, say charities. *The Guardian*. Retrieved from <https://www.theguardian.com/business/2011/feb/07/spain-salad-growers-slaves-charities>
- Luzarraga, A. (2017). Zona/Zone. *Arquine*, 80, 115-116.
- Lyster, C. (2016). *Logistical hijack, Volume #47 The system*. Amsterdam: Archis.
- Martin, C. (2014). The packaging of efficiency in the development of the intermodal shipping container. *Mobilities*, 9(3), 432-451. <https://doi.org/10.1080/17450101.2014.946771>

- Maté, V. (2015). Monsanto se vuelve hortelano. *Diario El País*. Retrieved from http://economia.elpais.com/economia/2015/01/30/actualidad/1422636772_704644.html
- Meng, G. (2003). *The theory and practice of free economic zones: A case study of Tianjin, People's Republic of China* (Doctoral dissertation). Heidelberg: Ruprecht-Karls University of Heidelberg. Retrieved from <http://archiv.ub.uni-heidelberg.de/volltextserver/3244/>
- Méndez, R. (2013). Un cachalote ahogado en plástico. *Diario El País*. Retrieved from http://sociedad.elpais.com/sociedad/2013/03/06/actualidad/1362603322_404086.html
- Moore, K. (2018). US-Russia propose new Bering Sea routes. *Workboat*. Retrieved from <https://www.workboat.com/news/government/u-s-russia-propose-new-bering-sea-routes/>
- NASA (2008). Almería, España [fotografía]. Recuperado de <https://asterweb.jpl.nasa.gov/gallery-detail.asp?name=almeira>
- Rivera, M. J. (2000). *La política de colonización agraria en el Campo de Dalías: 1940-1990*. Almería: Instituto de Estudios Almerienses.
- Sassen, S. (2005). The global city: Introducing a concept. *Brown Journal of World Affairs*, 11(2), 27-44. <https://doi.org/10.1515/9781400847488>
- Sheller, M. & Urry, J. (2006). The new mobilities paradigm. *Environment and Planning A*, 38(2), 207-226. <https://doi.org/10.1068/a37268>
- Soja, E. W. (2011). *Postmodern geographies: The reassertion of space in critical social theory*. London: Verso. (Obra original publicada en 1989).
- Swyngedouw, E. & Kaika, M. (2014). Urban political ecology. Great Promises, Deadlock... and New Beginnings? *Documents d'Anèlisi Geogràfica*, 60(3), 459-481. <https://doi.org/10.5565/rev/dag.155>
- Urry, J. (2014). *Offshoring*. Cambridge, UK: Polity Press.
- Varnelys, K. (2011). Infrastructural Fields, *Quaderns d'arquitectura i urbanisme*, 261. Retrieved from <http://quaderns.coac.net/es/2011/06/convidat-varnelis/>