CATRAL, FROM THE TRADITIONAL \textit{HUERTA} TO THE URBANISED \textit{HUERTA}. THE TRANSFORMATION OF THE BAJO SEGURA AGRICULTURAL LANDSCAPE: FROM \textit{ANIMUS REGANDI} TO \textit{ANIMUS AEDIFICANDI}

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The Bajo Segura county extents the meridional area of Alicante province in Spain. Its name is related to the Segura River, the main water course that flows crossing this territory and enabled the development of an intensive irrigated agriculture: the \textit{Huerta} of Orihuela. This area was a very fruitful agriculture-based economy until the middle of the 20\textsuperscript{th} century, after which it was transformed, following a shift in the economic model that encouraged the development of sun-and-beach tourism on traditional agricultural land. This is particularly the case of Catral, where the chronic lack of water added to the decline of agriculture both of which left this municipality in deep recession. In contrast, new opportunities appeared in the industrial and commercial services sectors, favoured by transport and communications networks. As a result, a drastic change in land use took place, namely from agricultural to property development, thereby exploiting increasing demand. The proximity to the Mediterranean shore, situated some 15 km, transformed this town into an attractive location in the nearby of the Natural Park of “El Hondo”, well connected to A7 and AP7 highways, the airport of Alicante-Elche and to the high speed railway network.

Consequently, situated within the traditional \textit{Huerta}, Catral represents a paradigmatic example of the evolution of this area, from the acknowledged agricultural exploitation to increasingly artificialized land due to the real estate boom. There are three fundamental stages over time that explain the transformations beginning with the marshy land removal by the introduction of short-cycle crops that achieved up to four harvests per year depending on the type of plant. This first stage has been the landscape identity of the Segura valley for centuries, conditioned by long periods of low-level flows of the Segura River with restrictions on water supplies during the summer season, and followed by annual river flooding. As a means to resolve water problems, a mechanism for redistributing water flows was developed, which we consider marks the second stage. Six regulating reservoirs
were built between 1916 and 1960 at the head of the Segura River, making it possible to transform the crops into orchards, where citrus trees -mainly lemon trees- spread across all valley. This was a gradual change in the landscape, where there was a combination of arable crops (whole grains, vegetables, root vegetables and industrial crops) with groves, generating a new mixed productive patchwork.

The third stage, the “urbanised Huerta”, began at the end of the 20th century and lasted until the first decade of the 21st century. During this period, the historical balance between urban settlements and irrigated plots was lost. Historically, what determined the exact placement and development for each village was a combination of respect for agriculture as the backbone of the economy as well as selecting a strategic location that reduced the risk of flooding. However, with the onset of the smallholder farming crisis together with the reduction and deterioration of water supplies, the speculative housing market found a new window of opportunity. Different land occupation patterns have characterised this trend, which may be classified into the six models below, comprising two groups: the first one (a-c) is based on pre-existing typologies reflecting the family needs of the local-population; and the second one (d-f), describes the new options offered to the foreign population:

a) **Planned urban expansion**: It is the standard way for growth and development of traditional settlements; despite, the rhythm and the extension having been disproportional in regard to actual demand. In these new extensions, the main land use is residential, linked with commercial or industrial activities which complete the detailed urban management plan. The commercial activities are normally situated in the urban street façade generating a strip of services. This practice is extended along the Huerta main pathways, provoking conurbations between close villages along the dense mesh of Huerta’s network, as is already the case in the road between the cities of Almoradi and Dolores.

b) **Densification of the linear hamlet**: Following the pre-existent pattern of linear hamlets, occupying one side of the path between the road stretch and the water canal line, there is a process of densification, increasing the number of floors and extending dwellings over the scarce vacant ground beside the path. Furthermore, the opposite side of the path is gradually taken up by new buildings, changing the historical urban form. This process creates new visual barriers hiding the view of the Huerta landscape from the road, and often the back façades are the main view from other paths, generating low a quality visual experience and degrading the panorama. Evidence of these changes is observable at the Buena Vida Sidewalk in Orihuela. This linear neighbourhood has suffered a loss of visual permeability which previously ranged from 50% to 100% in some stretches of the path, to an almost visual closing in the last thirty years.

c) **Change of typologies in traditional dispersed rural habitat**: From the loss of the hegemony of agriculture and after an intense rural exodus during the second half of the 20th century, changes in typologies became a generalised process. The modest farmhouse concept, isolated and organised for agricultural proposes, configured a well-organised system, both in enclosed and unenclosed typologies. Unfortunately,
these constructions do not provide comfort and habitability in line with current standards and, therefore, motivated the abandonment of these dwellings. However, the apparent loss of validity of these typologies contrasts with the exceptional location within Huerta’s territory, and therefore, new architectures replaced them with an impersonal and anodyne design which introduces new functions and facilities to the traditional ones. These buildings are spread out over Segura River’s alluvial plain, showing an eclectic catalogue of solutions and building materials, unconnected with local culture, as can be observed in the Senda Molina or in the Vereda del Reino, among other examples.

d) Residential development linked to golf courses: These new plans are an imported-concept of recreational facility within a residential area. The programme is based on sport as a vehicle for land transformation and it provides an attractive option for foreign buyers. These new landscapes that recreate wetter climates for great-extension golf course design are supported by property investments. They are developed with homogeneous and repetitive patterns of dwellings whose typologies are the same as the tourist coastline houses. This is another way of artificially creating a green environment entailing the loss of Huerta’s identity elements. Generally, these new developments, labelled “flagship projects”, are situated far from the main villages and have a territorial scale that widely exceeds many existing towns. This is a kind of “predator” urbanism without consideration of local population needs but the onset of the financial and property Spanish crisis has now paralysed many of these business initiatives (e.g. Dolores or Benijófar).

e) Residential management plans in isolated areas: Changes made in the Valencian Community’s urbanistic law drove the increase in residential urban planing developments, located in isolated areas often within agricultural plots, using the traditional path network for accessibility, which is not designed to provide access to the more densely populated residential developments being planned. These projects are marketed with an idyllic image of a healthy country-life and are promoted as agro tourism, a contradictory message because the actual development does not consider or respect the rural environment and the so called urban facilities that are provided are in fact very poor or non-existent. Nevertheless, these residential developments provide an attractive choice for a segment of tourists interested in nature and the environment, as well as, the enjoyment of ecological, cultural or scenic areas, i.e. Huerta plain. Furthermore, the beach and sun touristic offer is still available due to the proximity to the Mediterranean shore. Some initiatives of this type are found in La Campaneta New Neighbourhood (Orihuela), La Monsina (Callosa de Segura) or La Vega Urbanization (Formentera del Segura).

f) Residential development in agricultural plots: In contrast with the previous model, this new type of land occupancy is not the result of an elaborated plan complying with the legal standards set for public green areas, land transfer for public facilities or urbanization conditions. The organization and residential plot distribution is conditioned by the traditional path network, appropriating its originally designed public function to one that provides private access to new dwellings, without public sidewalks or streetlights. This practice generates pockets of transformed land,
with an arbitrary geometry of plots subdivision (e.g. size, perimeter, placement or number of new houses) that only respects the boundaries of the original property. The municipality of Catral has a large number of these examples, which give us a paradigmatic model as a basis for thinking about transformation processes at Huerta of the Segura River habitat.

The fragility of Huerta’s system has been favoured by changes in productive model and cropping abandonment. The dismantlement of Huerta’s basic functional networks, together with the introduction of physical and visual obstacles, breaks and distorts landscape perception. The implementation of new socio-economical patterns, unrelated to local and historical dynamics, turned Catral into a representative model of the impact produced by scenic disturbances on landscape identity. The fragile productive balance that needed so much community effort to deploy irrigated and fruitful vegetation in a marshland and hostile environment has given way to abandoned plots. This lost ground is being gradually reconquered by the force of nature. The Huerta landscape is vanishing for the local population and, in particular, the younger generations have lost the emotional bond to this agricultural habitat. An example of this trend is evident in the municipality of Catral, where of its total 1924 ha, 300 ha of Huerta —15.5% of the territory— have been transformed into different land uses. New residential buildings cover 88% of the transformed agricultural plots (261.7 ha), commercial and industrial activities represent 12% (34.5 ha), some of which are randomly mixed with some kind of housing solution.

This fragmented and unplanned territorial configuration generates a break with the Huerta’s traditional landscape across the final stretch of the Segura River. This new reality has a highly negative environmental impact. It results in a completely contradictory development of the land which disregards the existing knowledge of traditional practices that respected the nature and particular features of the Huerta landscape. During the historical processes which founded the Huerta, all stakeholders and social agents had a specific role in order to transform the marshy land into a productive cropland, thus giving true shape to the Huerta as it was originally intended. Presently, stakeholders -public administration, entrepreneurs, owners and local population in general- have operated in a fragmented and uncoordinated way, without exercising civic and social responsibility. Striking a balance between economy, society and environment is a priority for the future development engine that provides the best option to preserve the singularities and functional values of this territory.