Spanish Mediterranean Huertas: theory and reality in the planning and management of peri-urban agriculture and cultural landscapes

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Abstract

Huertas are distinctive peri-urban agricultural landscapes. Only a few of these spaces remain in Europe. This paper focuses on two of them: the Spanish Mediterranean Huertas of Valencia and Murcia. Despite their cultural, historical and natural value, Huertas face an uncertain future. They are threatened by several confluent processes: a decrease of cultivated land, pollution, infrastructure plans, urban sprawl, profitability loss, low guarantee of generational renewal and abandonment of material heritage. These changes can be explained, as we argue, by analyzing the failure of political planning and management at the metropolitan level. We claim that the conservation of Huertas demands territorial planning at the appropriate scale and a new culture of water, territory and landscape. For traditional Huertas to be kept alive and have a multifunctional character, farmers should be the stewards of such privileged areas. But, in some cases, they will be expected to perform a social role different from the traditional food production activities. A cultural shift is required to conceive the territory not only as a resource and physical support of human activities, but also as an identity frame of reference, collective heritage, culture, history and legacy.

Keywords: Mediterranean Huertas, peri-urban agriculture, cultural landscapes, irrigation systems, Valencia, Murcia.
1 Introduction

Traditional peri-urban Huertas are irrigated agricultural landscapes located around the city borders. Their particular cultural character, their contribution to historical identity, their ancient yet complex irrigation systems, and the environmental and food production functions they perform make them extremely valuable [1–3]. They are a symbol of quality of life and sustainability [4, 5]. Huertas are among the most important agricultural systems in Europe. According to the 1995 Dobris Assessment [6], a study on the state of the environment in Europe commissioned by the European Environment Agency, only six Mediterranean Huerta landscapes remain, specifically in Italy, Greece and Spain. Yet the report highlights that this farmland patrimony is being jeopardized by urbanization and social transformations.

Two of these historical agricultural areas are to be found in Spain: the Huertas of Valencia and Murcia. The Huerta of Valencia is the agricultural land around the city of Valencia irrigated by the Turia River. It originated in the 8th century, when the Muslim peoples built eight irrigation channels along the river [7]. It can be described as “a historical structure consisting of a dense network of water channels, a system of rural roads, and traditional buildings like the alquerias or barracas. It is also the agricultural activity for the production of traditional crops…[and] the land irrigated by the Tribunal de las Aguas, the oldest active jury in Europe and the responsible of sorting out any dispute among the farmers concerning the distribution of water” [8].

The Huerta of Murcia is located in the Segura River alluvial plain. Several historical, territorial and natural elements define this peculiar agricultural area: the proximity to the city of Murcia, a complex water-use infrastructure, atomized and multi-shape land units and a dense network of pathways. Like the Huerta of Valencia, this historical landscape has been a space for both production and residence; a space in which each structure and form of organization was conceived as part of a horticultural production process based on the use of water and land [9].

In this paper, we focus on the peri-urban Huertas of Valencia and Murcia as the perfect scenario to analyze a common trend among Spanish large metropolitan areas: the massive expansion of residential urban development, the disorganized location of industrial activities and services, land speculation and environmental degradation. These patterns are the visible consequence of the lack of planning at the metropolitan scale, the negligence of regional public administrations and the greed of local councils involved. Unlike other European countries, which have adopted good practices of planning for metropolitan areas, Spain has not undergone promising changes in the management and environmental protection of cultural landscapes. Although several plans and studies have been promoted by different government institutions, there are not effective regulation and management instruments at the metropolitan level. The (dis)protection of the Spanish large peri-urban Mediterranean Huertas of Valencia and Murcia and the absence of coordination policies at the metropolitan
scale highlight the lack of coherent and effective planning and management mechanisms in the second decade of the twenty-first century [5, 10].

2 The Huertas of Valencia and Murcia: recent transformations

Mediterranean Huertas have been facing dramatic transformations since the twentieth century [11–13]. There has been a drastic reduction of their cultivated surface due to land speculation, housing developments and other urban uses. In 1960 the traditional Huerta of Valencia comprised 20,000 hectares. The 2011 Territorial Strategy of the Autonomous Region of Valencia (Estratègia Territorial de la Comunitat Valenciana) acknowledges the loss of 1500 hectares of Huerta over the last twenty years, although studies made by civil society organizations, like the citizen movement Per l’Horta, indicate greater numbers [14]. Research assessing spatial changes in the Huerta of Valencia between 2008 and 2013 identifies a decrease of 6.5% in the cultivated area, mainly caused by land abandonment [15]. The case of Murcia is no different. The conversion of farming land into urban land is the most significant change affecting its Huerta. Within the next thirty years the city of Murcia is estimated to lose 10% of its population while towns of the Huerta will continue to increase theirs, to the extent that both the city and the Huerta will almost have the same amount of residents [9, 12].

Land fragmentation and landscape changes have been produced as a result of the construction of new infrastructures such as roads, rail tracks, high-voltage lines and industrial equipment. Despite the reduction of infrastructure development since the burst of the economic crisis, future urban growth predictions for both metropolitan areas of Valencia and Murcia, and the disorganized placement of industrial activities, will definitely have negative effects on the historical Huertas.

Traditional Mediterranean Huertas are experiencing a decline of production activities combined with a crisis of small-scale farming. The increase of abandoned land and new land uses, including leisure, gardening and self-production, are replacing what once was cultivated land. Farming activities have to compete with urbanization so their future is very uncertain.

The degree of environmental degradation is considerable and the types of contamination are countless. Uncontrolled urban and industrial waste dumping sites abound both in the Huertas of Valencia and Murcia. The salinization of farmland, the decrease of water quality and the pollution of underground waters have been recurrent for several decades. Modernization policies based on destructive technical interventions on existing infrastructure and seeking to increase efficiency of irrigation processes have had huge impacts on the landscape and worsened environmental problems, without bringing about significant overall water savings [9].

There is a generalized lack of interest in the revalorization of the Huerta landscapes. Changes in land use and structure of settlements have triggered the lack of protection of agriculture and water heritage. Examples of this state of
deterioration include the built cultural and ecological patrimony, especially the historical irrigation networks, which constitute the very defining character of Huertas, and other elements of these traditional landscapes, such as mills. This state of deterioration represents a loss of the signs of identity of Huertas.

3 Institutional framework: the failure of political planning and management at the metropolitan scale

For a number of years there has been a proliferation of academic conferences, “sustainable” or “green” Plans and Municipal Protection Plans intended to defend traditional Huertas. Several initiatives have been adopted at the international and national levels to incorporate a new territorial culture that renders possible alternative ways to protect and manage vulnerable spaces like Huertas. In this sense, it is worth mentioning the Opinion of the European Economic and Social Committee on ‘Agriculture in peri-urban areas’ [16], the Charter on Periurban Agriculture [17] and Spanish legislation on sustainable rural development (especially the Law 45/2007 for Rural Sustainable Development). However, the guidelines and recommendations included in these documents have not been properly developed into regulations [14]. No single democratic government has adopted effective and global measures at the metropolitan scale to prevent the progressive disappearance of Huertas [10].

Urban planning has long permitted the urbanization of the Huerta of Murcia. Both the 1977 and 2001 Murcia General Land-Use Plans (Planes Generales de Ordenación Urbana) promote land development and transformation rather than conservation of the existing city and its Huerta [12]. A comprehensive Development Plan for the Huerta of Murcia, long advocated by experts [18], has not been encouraged by the regional government and therefore remains at the level of diagnostic.

The value of the Huerta of Valencia and the need to prevent further damage informed the 2000 Opinion of the Valencia Council of Culture (Consell Valencià de Cultura) and the 2001 popular legislative initiative, rejected by the regional parliament despite having achieved twice as much the number of signatures required. Probably as a result of citizens’ mobilization, the regional government legally stipulated that a Protection Plan for the Huerta of Valencia should be designed [14]. The Territorial Action Plan for the Protection of the Huerta of Valencia, announced in 2008 [8, 19, 20], would have been a significant step forward. However, the Plan was discarded in 2010 and has never evolved into binding regulations. The Plan could have succeeded if it had been further developed by a law approved by the regional parliament to adopt supra-municipal protection instruments and effective coordination mechanisms between different departments. Furthermore, it should have had a flexible metropolitan focus and the agreement of all local governments involved. But none of this happened.

Even more, while the Plan was being drafted other regional and national entities with decision-making competences on the Huerta adopted different types of policies and authorized the construction of infrastructure not coherent with the
Plan’s guidelines. Several local administrations approved new planning regulations outside the direction that the future plan was likely to follow to anticipate future urban growth restrictions imposed by the Plan. This is the case of the Integrated Action Plan (Plan de Actuación Integrada, PAI) approved by the local government of Catarroja, a small town in the Southern part of the Huerta of Valencia, which allows the construction of 13,446 new houses.

The cases of Murcia and Valencia suggest that the main problem faced by Huertas is the absence of political will. Regional governments were not committed enough so as to sponsor metropolitan territorial or sectoral plans and imagine new management tools, good governance mechanisms and different territorial and landscape functions for the Huertas and their farmers. For over a decade, legal provisions conceived to protect water landscapes like Huertas coexisted with adverse cultural contexts, an expansive economic phase and soft conditions to obtain funding at low interest rates. Legislation was unclear and non-binding, there was no political will to implement it and favored disproportionate urbanization without any restrictions [21]. These constructivist aspirations of municipal governments persist [22]. Local politicians seem to assume too easily that the current recession is a temporary one and already foresee further urban developments for the next economic cycle. Regional governments should elaborate supra-local compelling guidelines and implement effective coordination and cooperation mechanisms to avoid urbanistic excesses by local governments while respecting the principle of municipal autonomy.

4 Future strategies

The future of historical Mediterranean Huertas is compromised by the decrease of the traditional arable surface, pollution, infrastructure planning, the unregulated expansion of urban space, the profitability loss of farming activities and the degradation of cultural and historical heritage. As we have argued, some of these problems could have been mitigated with appropriate planning and management. The survival of Huertas requires a combination of political will and public awareness. In this section, we advance some recommendations that could be adopted for the protection of Huertas.

4.1 Design of territorial plans at the metropolitan scale

Research done on Spanish Mediterranean Huertas is conclusive in assessing that municipal planning is not enough and that the territorial scale is required [4, 8, 9, 21]. The loss of Huerta heritage will be irreversible unless territorial plans are adopted at the metropolitan level to establish especial protection regulations. This especial regime is justified by the condition Huertas have as water landscapes with natural value, historical spaces embodying traditional cultures and peri-urban agricultural sites. The supra-municipal, territorial requirement is necessary to stop urbanization processes and place restrictions on municipal planning. This perspective does not undermine municipal autonomy and is consistent with Spanish national legislation.
A new legal framework is required to promote territorial metropolitan plans, design municipal planning along regional criteria and secure the integration of urban infrastructure into the existing landscape to avoid fragmentation of Huertas. The protection of historical Mediterranean Huertas also depends on the coordination of policies at the metropolitan level to address issues such as water sanitation, waste management, modernization of traditional irrigation systems, organization of industrial parks, promotion of sustainable agriculture and restoration of rural heritage, among others.

4.2 Acknowledgement of agriculture and farmers

Rafael Mata argues that “agriculture and farmers in many urban metropolitan environments are fundamental elements of the past and present landscape functionality and, very often, of landscape identity” [4]. Following this view, we believe that farmers should be the stewards of Huertas. To this end, it seems necessary that public administrations promote, in addition to territorial supra-municipal protection plans, initiatives to boost agriculture and make it a real option for established as well as new farmers. As several studies suggest, urban planning and projects seeking the conservation of peri-urban landscapes will not succeed unless agriculture and farmers are included [8, 9, 23]. On the one hand, it is our contention that any public policy affecting Huertas needs to be agreed by farmers. On the other hand, governments should sponsor initiatives to secure the stability and competitiveness of farmland, compensatory mechanisms and incentives to help maintain ownership by giving economic gains to farmers in return for the public goods they provide, and favor complementary activities and services in these rural spaces.

There are countless possibilities to give a new impulse to the agricultural sector in peri-urban areas along these lines: incentives to organic farming, nitrogenous fertilizers reduction plans, development of certificates of origin and labels for given products, promotion of rural tourism, strategies for the rehabilitation of cultural heritage, network of access roads and irrigation systems, and effective measures to tackle insecurity and theft of crops. Yet beyond conventional farming activities, farmers will be required to perform other social functions related to the preservation of spaces that are valuable for the citizenry, not only in terms of resources and physical support of economic and agricultural activities, but also as a constitutive element of social identity, collective heritage, culture and history. In this sense, a new social contract with farmers in these particular areas could be defined. Furthermore, a different approach to peri-urban spaces based on a “new water culture” may be adopted to recognize the importance of water for agriculture while promoting its wise use, as manifested in the aforementioned Opinion of the European Economic and Social Committee on ‘Agriculture in peri-urban areas’ [14].

4.3 Promotion of territorial governance

Debates about territorial models are now taking place in the Spanish public sphere. Some regional governments have promoted discussions on territorial
models and encouraged guidelines and strategies worth considering. Besides, there is a growing public awareness of the need to build a wide consensus on the territorial model at the regional scale and implement instruments for the good government of the territory at the supra-local level, paying particular attention to coastal areas, urban and metropolitan spaces and rural zones, and moving towards a new culture of good territorial government in line with the European Territorial Strategy. The territorial model is, in our view, the best unifying method at the regional scale and an adequate instrument for inter-regional cooperation. Its main strength is its consensus-based production, discussion and adoption process of desirable scenarios in the medium-term, including all social actors present in the territory as well as representatives of local and regional governments.

In addition to the territorial approach, we want to emphasize a further requirement: political will to promote participatory processes. Research shows that increased public participation contributes to resistance of cultural landscapes [24, 27]. Peri-urban irrigated landscapes like Huertas are characterized by a combination of farming functions and new usages. Some of the traditional uses of irrigation systems, namely food production, population settlements and rural development, are still in place. Yet they coexist with new demands (industrial, touristic, modernization and environmental preservation to name but a few) that generate legitimation questions in decision-making processes and different levels of social concern. These circumstances suggest that social participation should be a central aspect of management of cultural and water landscapes.

These arguments connect with debates on the multifunctionality of agriculture and systems of irrigation [25, 26]. Peri-urban landscapes like Mediterranean Huertas have functions beyond the traditional production of vegetable raw materials and food. They are also related to the provision of public goods and services that are being increasingly demanded by society. A recent study on the Huerta of Valencia [27] has documented economic, social and environmental functions, including leisure activities, energy production, healthy and safe food production, preservation of natural and cultural heritage and environmental protection. The findings suggest that the preferences of different groups for the variety of functions, goods and services that Huertas may provide must be assessed and taken into account in political decisions. This will certainly be a matter of disagreement, hence the importance of territorial governance processes.

4.4 Revaluation of historical, cultural, architectural and natural heritage

Historical Huertas are to be protected due to their heritage and value, so they require political action beyond that which is required for irrigation systems. Water cultural landscapes have value because they are identity symbols and encapsulate a long history of nature transformation through water. Each Huerta landscape is “a piece of cultural heritage” [9] which comprises interesting elements: rural fabric (plots, roads, patches of crops, dispersed traditional houses), hydraulic systems (irrigation dams, waterwheels, canals) and industrial archeological heritage such as mills. But besides material patrimony, Huertas embody knowledge, techniques and an institutional regime including
organizational aspects, norms and sanctions to guarantee the compliance of norms, developed by irrigation communities over time and passed onto next generations. In the Huerta of Valencia, the historical and symbolic value of the Water Court (Tribunal de les Aigües) is remarkable [28]. This constitutes inestimable immaterial heritage.

Huertas also have natural and landscape value due to the environmental functions they perform. This relates to the wise use of resources and the development of productive and sustainable irrigation networks most of which have endured. Yet Huerta landscapes suffer serious contamination problems, therefore action is needed to achieve the environmental restoration of degraded habitats, including river banks, and the rehabilitation of historical buildings and elements of irrigation mechanisms. The protection of significant landscape elements should be incorporated into territorial and urban development plans and economic incentives could be granted to encourage their rehabilitation and maintenance. The revaluation of the Huerta landscapes is important to increase territorial culture and citizens’ appreciation of the spaces they live in.

5 Concluding remarks

The Huerta of Murcia has almost disappeared and the Huerta of Valencia is fainting. The fate of Spanish historical Mediterranean Huertas can be explained by several reasons, some of which have been discussed in this contribution. Among them, it is illustrative to recall the carelessness of the public administrations involved, the absence of territorial planning and management at the regional and local scale, the neglect of coordination mechanisms at the metropolitan level, the scarce profitability of agricultural activities and the inexistence of a territorial culture.

Huertas are being thematized by erudite urban sectors as part of a protectionist discourse of scarce feasibility [29]. These historical landscapes are the result of a way of life that no longer exists: that of a human group of farmers, bearers of local knowledge that rendered possible for many centuries a particular form of territorial organization, land use and habitat that cannot persist in today’s world. Attempts to defend the importance of Huertas only as cultural landscapes are partial and doomed to failure. As long as Huertas are conceived as spaces for urban middle classes, thematized, romanticized and idealized by those who have no physical or legal relationship with the territory, with disregard for the conditions for agricultural production, their survival is not guaranteed. These extraordinary peri-urban spaces should be protected because of their historical, cultural and environmental value, and for being strategic spaces for food production, among many other social functions they are likely to perform.

The deterioration of Huertas is a collective failure of societies and their rulers, who wasted within a short period of time an ancient legacy of resources, knowledge and civilization [30]. This essay has suggested some recommendations to reverse the process of decadence. On the one hand, the urgency of public sector involvement has been stressed. Effective, coherent and sustainable public policies, as well as planning at the metropolitan scale, are
needed. In the case of Valencia, we believe that the Territorial Action Plan for the Protection of the Huerta should be brought back to the political arena and promoted at the regional scale, with the support of the affected municipalities. Initiatives like this could be further strengthened with international protection mechanisms, above all, the inclusion of Huertas in the UNESCO World Heritage list, an acknowledgment already granted to other cultural landscapes. But these types of measures cannot be imposed; instead, they have to be agreed. Changes in the political culture are needed to move towards consensus-based procedures and governance models.

On the other hand, the protection of peri-urban agricultural landscapes like Huertas requires public information, new conceptions of the territory, water and landscape, and greater citizen awareness. In this context, the idea of multifunctional agriculture becomes relevant. The future of Huertas depends to a large extent on a strong civil society that sees these genuine spaces as part of the collective history and is able to look into the past and towards the future with respect and sensibility, being aware that landscape and territory do not have masters and that humans are not the centre of nature. Huertas had other dwellers before, who were able to preserve them. Present generations have to assume their responsibility and be able to pass the heritage of Huertas onto future generations in years to come.

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References


