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## **Urban Agricultural Heritage of Lisbon: From the Past to the Future?**

Mariana Sanchez Salvador

Cities face pressing challenges regarding food security and sustainable development, aggravated by fast urbanization and globalized, industrial food systems. Urban agriculture has been pointed to as an innovative approach to overcome the current urban-rural divide (FAO 2019) and achieve urban sustainability. Yet agriculture has always been part of cities, and its heritage stretches far beyond land use. Its recognition and promotion could mitigate those challenges, but also revive sites, socioeconomic functions, and cultural connections, turning urban agricultural heritage into a valuable tool for sustainable urban planning.

### **Lisbon's Agricultural Past**

Lisbon, Portugal's capital city, has a long tradition of urban agriculture, due to its natural topography and orography. Located by the Tagus River, on the Atlantic shore, the region possesses basaltic soils suited to grain cultivation, while the Miocene soils were suited to vineyards, olive groves, pastures, and vegetable gardens (Gaspar 1994, 83). Thus, since prehistoric times, and then with the Romans and Moors, the valleys and slopes have long been cultivated.

The medieval land uses showcased an organization similar to von Thünen's model: a ring of fruit and vegetable production was located around the city center (on average 1.8 kilometers from it), followed by a ring of vineyards with olive trees (on average 5 kilometers) and a third for grain cultivation and livestock (Trindade e Gaspar 1973, 5–7).

Historically, the fertile outskirts stretched for 30 kilometers around the city. The Saloia Region spreads to the north and west, while the Outra Banda is located across the river (fig. 1). Despite subregional differences, both have supplied abundant vegetables, fruits, grain, dairy cattle, and sheep (fig. 2). The Mediterranean trilogy—bread, wine, and olive oil—held a particular economic role (Brito 1976, 168). Although the Saloia Region yielded an impressive 360,000 reis per hectare in 1887, even higher yields were attained within the city, reaching 500,000 reis (Pereira 1971, 181).

For centuries, numerous *hortas* (vegetable gardens) intertwined with Lisbon’s built fabric (figs. 3 and 4), especially in the extremely fertile valleys of Valverde and Arroios (towards the city center), of Alcântara in the west (fig. 5), and of Chelas in the east. Also, until the mid-twentieth century, the northern highlands of Campo Grande (figs. 6 and 7) displayed an especially high concentration of *hortas* in the city, as well as Campo Pequeno and Campolide (*campo* meaning “field”). Traditionally, *hortas* were small (less than one hectare) and highly productive, with up to five or six crops a year (180). In the early twentieth century, at least 40 percent of the municipal territory was still cultivated (Marat-Mendes, Bento d’Almeida and Mourão 2015, 280), with *hortas*, vineyards, and olive groves predominating in the east, and ploughed lands for grain and potatoes in the west (Niza et al. 2014, 8).

This productive character is further attested by the cartographic survey of 1904–1911 (fig. 8), where 529 *quintas* (farms) and 52 *casais* (smaller agricultural properties) were found. Also, although no legend is known for this cartography, one was proposed by Marat-Mendes, Bento d’Almeida and Mourão (2015) which enabled the mapping of cultivated areas. The identification of *hortas* was clear (fig. 9), amounting to 751 hectares (8.56 percent of the municipal area)—enough to feed a tenth of its population—as well as of vineyards, occupying 606 hectares (6.91 percent). The built area remained at 530 hectares (fig. 9). Less conclusively, according to the provided legend, olive groves could reach 22.7 percent of the municipal area, and ploughed lands up to 28.5 percent, summing up a considerable cultivated area. Lisbon and its region were one of the greatest productive areas in the country.

Urban agriculture was thus an important activity, as an extensive land use with constant presence over time, providing livelihoods, income (high yields and exports), and intensive labor, particularly required by *hortas* and vineyards, and one reason why they were located close to the houses. Food production is embedded in the city’s memory, evident in many place names—streets, alleys, and entire neighborhoods, such as *Laranjeiras* (orange trees) or *Olivais* (olive groves) (fig. 10)—and even Lisboners’ nickname: *alfacinhas* (little lettuces). Until the early twentieth century, “going to the *hortas*” for a picnic was a popular Sunday activity in Lisbon, especially for the lower classes, a practice known across Portugal and that became part of the city’s identity. Plus, the *hortas*’ beauty and fertility had been praised by writers and travelers for centuries. Lisbon’s urban agricultural heritage thus consists of a material dimension related to land

use, and an immaterial one, connected to daily labor, weekly leisure, everyday comings and goings, literature, and long history, becoming part of its cultural character.

However, despite its exceptional productivity, the capital, which hosts the country's largest population, has never been self-sufficient. Each year, it produced 172,735 kilograms of potatoes, which represented merely 0.95 percent of its consumption; 228,570 kilograms of fruits (1.59 percent of consumption); and 1,033,565 kilograms of wine (2.20 percent of consumption), among others (Marat-Mendes et al. 2014, 8). Thus, Lisbon has always imported food from the rest of Portugal and even overseas using both land routes and the river.

As demographic and economic transitions occurred, the perception of urban agriculture declined. Across the city, many agricultural sites were progressively lost to systematic urbanization and to an ideal of modernity, where urban hygienist conceptions prevailed. Agriculture was generally seen as a backward, rustic, and dirty activity by early twentieth-century society, and “modernizing” the city became a priority for the City Council (Barata 2010; Henriques da Silva 1994). The cultivated areas of quintas (hortas, orchards, fields) were built over, while buildings and ornamental gardens were kept (Ribeiro 1992). From the mid-twentieth century on, and particularly since the 1970s, hortas were found mainly among illegal housing neighborhoods (CML 2015, 45).

### **Lisbon's Agricultural Present**

Recently, urban agriculture has (re)gained a positive connotation within urban planning. The Municipal Master Plan, Lisbon's main planning instrument (CML 2012), sets the goal for a “multifunctional green infrastructure,” where integrating urban agriculture is taken as a possible strategy, among others. For this purpose, the Plan thus classifies areas of “green and productive spaces” (94–95).

In an interview, Rita Folgosa (2020), coordinator of the municipal Working Group for the Development and Promotion of Urban Agriculture in Lisbon, stated that urban agriculture is integrated into green spaces for environmental and aesthetic purposes to attract people and increase biodiversity, besides all the recognized benefits of urban agriculture, such as social cohesion, migrant integration, and food resources for families and individuals in need.

Therefore, a number of municipal horticultural parks were created, where farmers pay

low rents for plots equipped with paths, fences, sheds, composters, and water supply. The City Council commits to the structures' maintenance, monitoring, and farmers' training, while farmers must cultivate the soil, practice organic agriculture, keep hygienic standards, ensure that plots look aesthetically pleasant, and restrain from building constructions unrelated to agriculture (CML 2018). Plus, the parks carry economic benefits, since the City gets rents and saves in maintenance. There are now 20 parks, from 430 to 32,600 square meters (fig. 11), with 771 plots cultivated by 732 individuals and 19 institutions (Folgosa 2020).

Since the horticultural parks are placed on municipal property and already defined as "green and productive spaces" (CML 2012, 94–95), they face minimum pressure by urbanization. The main challenges relate to management, resistance by farmers to adopt new practices, cultural challenges with communities, or negotiations with other institutions regarding the type of green space to be implemented.

Although some are located near previously farmed areas, the parks do not adapt to old structures or work with heritage values. In fact, despite the rich agricultural history, Folgosa (2020) admits that creating new parks is a decision mainly connected to land availability and perceived demand in a neighborhood. The six members of the Working Group for the Development and Promotion of Urban Agriculture believe the Municipality probably possesses sufficient information regarding previous quintas and farmed areas, so if that route were chosen, a lack of information would likely not be an obstacle. However, Folgosa states that using it to plan the new parks is not a priority at the moment due to lack of resources and people to organize and analyze it.

Besides municipal top-down strategies, private hortas subsist within the built-up fabric, in an informal (at times illegal) way. Their numbers and areas are, however, difficult to assess due to insufficient data. There are also educational hortas at universities and schools; but no organized bottom-up agricultural projects are known at the moment. Thus, although urban agriculture is recognized as an economic activity, a tool for greening the city, and for its social role, its heritage value remains unstated, as it has not yet been addressed by Lisbon's urban policy.

One dimension of urban agricultural heritage that has been recognized, however, is agricultural biodiversity (Folgosa 2020). In fact, an impressive variety of vegetables, fruits, and pulses was identified during a survey in seven parks: some native, some—for

residents who were not born in Lisbon or who are second-generation—from the farmers' homelands. A book on this seed survey was published to raise awareness, and it is a key feature in a current Lisbon European Green Capital 2020 exhibition. Further, Lisbon's seed heritage is actively preserved by cooperatives and by the farmers themselves.

### **Lisbon's Agricultural Future: Steps toward Recognition and Promotion of Its Heritage**

Lisbon is a city proud of its material and immaterial heritage—monuments, food (Mediterranean diet), even *fado* (traditional songs classified by UNESCO). However, despite its important role in the city's history, urban agriculture is not acknowledged as heritage, neither by its citizens nor its politicians, at least not yet; hortas' sites and land uses are not preserved, and farming practices, knowledge, and traditions are not recognized or promoted as heritage, nor as assets for the city. There are also no current educational or awareness-raising actions in progress to address them as such.

Possibly, this might be due to ignorance about the potential of urban agricultural heritage on the urban environmental, social, and economic balance, and even tourism. In this sense, contact with cities where this recognition is in progress could be key in revealing this potential to stakeholders and politicians, providing a framework and reference models, and clarifying the specificities of Lisbon's case.

Comprehensive organized data and overall education on the subject are lacking, both in academia and society, to inform actions and policies. Much in the same way that active steps are taken for the recognition of seed heritage, the same should be done for urban agricultural heritage as a whole: surveying, compilation, disclosure (publications, documentaries, exhibitions, etc.), promotion (activities, workshops), and eventually policies regarding its different dimensions. Possibly existing conflicts, priorities, and challenges should be assessed through interviews with stakeholders. A comprehensive survey on informal urban agriculture—including location, area, crops cultivated, practices, farmers' profiles, etc.—could also be a valuable contribution for an in-depth overview on the city's current agricultural situation, and possibly uncover surviving elements of its past.

Gathering all this information may hold tremendous potential for Lisbon, both culturally and environmentally. Reactivating hortas may promote circular metabolism and the local

economy, but also bring a sense of historical identity to newer neighborhoods (some built over previous hortas themselves) and strengthen social interactions among neighbors. Bottom-up projects could be initialized to create additional spaces for cultivation (the City recognizes that long waiting lists exist for all horticultural parks), and to educate residents on the benefits, history, and potential of urban agricultural heritage.

However, unveiling Lisbon's urban agricultural heritage is not a matter of recreating former models. Most sites farmed a century ago have disappeared; the farmer's profile has changed; and contexts and values have been transformed. It needs to be reframed to accommodate updated knowledge, new farming techniques, and acknowledge its wider role on urban sustainability and social cohesion. Some historical systems and values—proximity to food sources, food security, circular flows, sense of community, a better built-to-green space balance—can, however, be revived. Finally, this awareness could ripple on more active and protective policies, shifting from tourism and foreign investment toward urban agriculture, not only as a land use to be integrated in its green infrastructure, but as an urban agricultural heritage to be valued in the city's dynamics, life, and overall landscape.

To sum up, awareness, education, data, and reference models are required to emphasize urban agricultural heritage's true potential and its specific relevance in the case of Lisbon, which may bring historical solutions to life and inform actions for a sustainable city, so that urban agriculture can not only be part of Lisbon's past, but also be part of its future.

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