A mania das laranjeiras e a sua disseminação da Península Ibérica para a Europa e o Novo Mundo

Em castelhano

The Orange Folly and its dissemination from the Iberian Peninsula to the Old and New Worlds

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Resumo

No Renascimento, na Europa vivia-se um tempo de citros-mania, onde o cultivo e a classificação de citrinos resultava em verdadeiras coleções. Enquanto a academia se concentrou sobretudo na herança italiana, eu argumento que se deve mudar a perspetiva e dirigir o enfoque para o legado da Península Ibérica. A particularidade dos laranjais na Península Ibérica deriva precisamente da sua presença predominante na paisagem, como uma árvore autóctone e não uma exótica. Como resultado desta investigação, argumento que os laranjais foram uma característica chave dos jardins e das paisagens da Península Ibérica, onde eram de tal maneira comuns que os elevaram a uma das mais desejadas árvores ornamentais da Europa, levada para o Novo Mundo onde encontrou o seu novo habitat.

Palavras-chave

Laranja; Tratados de citrinos; Jardins; Paisagem; Península Ibérica; Novo Mundo

Resumo - castelhano

Palavras-chave - castelhano

Abstract

The Early Modern period in Europe was a time of citrus fruit mania, when actual collections resulted from the cultivation and the classification of citrus fruits all over

Europe. While scholarship has been mainly concentrated on the Italian legacy, I argue for a change in perspective that will concentrate on the Iberian (IP) legacy. The unique features of orange groves in the IP derive precisely from their prominent presence in the landscape as an autochthonous tree rather than as an exotic one. As a result of these findings, I will argue that orange tree groves stand amidst one of the most common fruit trees of the IP as well as a key-feature of its gardens and landscapes – to such an extent that the circulation of related knowledge and practices elucidate their status as one of the most desired ornamental trees in Europe, trees that were later on taken to the New World where they have found their current major habitat.

Key-words

Orange; Treatises on Citrus Culture; Gardens; Landscapes; Iberian Peninsula; New World

Introduction

The main premise underlying this paper is that the Iberian Peninsula had a prominent role in the Early Modern citrus-mania, a time when the study of the cultivation and classification of citrus fruits were compiled in different collections throughout Europe, mainly because citrus fruit trees were a common feature in Iberian gardens and landscapes, rather than because of their exotic character. While scholarship has mainly concentrated on the Italian legacy, I argue for a change in perspective focused on the Iberian legacy - one that studies its circulation in other countries, both inside and outside Europe.

The singularity of the orange groves in the Iberian Peninsula[1] derives precisely from their presence as an autochthonous species rather than as a rare one. They have covered and perfumed cities like Seville, Córdoba and Granada and enhanced the landscape in the southern Iberian Peninsula in such a way that orange landscapes have come to define many regions of southern Portugal and Spain during the Early Modern period.

I enhance the value of orange trees in the gardens of the Iberian Peninsula especially through the lenses of Portuguese gardens and landscape's study, which are to be included in the Spanish context, particularly in the period between 1580 and 1640 – during the dynasty of the Philips, when both countries were under the same rule. The analysis also

[1] Although most of the examples stressed in this paper are from Portugal, they represent a similar reality to the one experienced in the whole Iberian Peninsula.

compares the value of orange trees in central and northern European countries in comparison with the Iberian Peninsula in what concerns the collections of citrus, greenhouses especially built for orange trees, the tree's display in *parterres* or their depiction as an ornamental and exotic tree. Parallel to the change in historiographical perspective from the Italian legacy to the Iberian one, I argue that a new standpoint is also necessary when examining the role Portugal played in the circulation of orange trees around the world, by focusing on the dissemination of orange groves into different countries of the Old World and likewise to the New World. This is a new historiographical approach when compared to the one used so far – concentrated on the role the Portuguese played in the introduction of citrus varieties in Europe at the time of the Maritime Expansion. From which no definite conclusions have been drawn. [2]

This paper includes: a thorough research of orange trees in Portuguese gardens and landscapes covering their presence in the Iberian Peninsula since the Romans; the aesthetical effect of orange groves in the Iberian Peninsula due to the Islamic legacy; the theoretical treatises written in the Iberian Peninsula during the sixteenth-century; the display of orange trees in Royal as well as in vernacular gardens; how the orange-trees were placed in the soil and the irrigation systems used for their growth; how they were cultivated, grafted and pruned; and, finally, how foreigners pointed out the use of orange trees as the most remarkable feature of Portuguese gardens. Furthermore, it enhances how foreigners praised the orange landscapes that covered the territory, also for the way in which they added economic value to their aesthetical qualities, since it also became an important product for exports.

As a result of these findings, I will argue that orange groves stand as one of the most common fruit trees of the Iberian Peninsula, as well as a key-feature of its gardens and landscapes – to such an extent that the circulation of knowledge and practices concerning them account for their status as one of the most desired ornamental trees in Europe. They were then taken to the New World, where they found a major habitat, namely in Brazil, the USA - California and Florida – and Mexico. Keeping this information in mind, I will

[2] The origins of sweet orange trees can be found in both the tropical regions and the sub-tropical regions of Asia. As far as other species of the same *genus* are concerned — such as lemon tree, Melissa and… bitter orange —the role of the Persians, the Muslims, the Crusaders and the Portuguese and Spanish sailors is already well documented. Nevertheless, this route is not that clear when it comes to sweet oranges, probably because its sweetness is also a subjective aspect of taste, as Aurora Carapinha recalls (Carapinha 1995: 232-250).

demonstrate that the value of orange trees explored in the New World is the same as the one embodied for centuries in the Iberian Peninsula.

I. Collecting and depicting the citrus fruit-mania

Sandro Botticelli's *Spring* (1482) offers an idyllic vision of Venus surrounded by Cupid, the Three Graces, Flora, Zephyr, Iris and Mercury, in a paradisiacal garden: an orange grove. More than two centuries later, the Grand Duke Cosimo Medici (1642-1725) commissioned Bartolomeo Bimbi (1648-1729) to paint 116 varieties of citrus growing in the Medici gardens, including numbered labels for each one, in the fashion of a botanical garden. *Melangoli, limoni e limette* (1715), held at the Museo della Natura Morta, in Poggio a Caiano, became the most famous painting on citrus fruit, evoking both the idea of an orange craze, as well as the one of horticulture. Such paintings showcase the framework of the northern European assimilation of the citrus fruits as exotic and desired elements amidst the botanical family. Originally depicted with the intention of exhibiting a collection of exotics, these commissioned paintings actually enhanced the real value of citrus fruits for their patrons, turning citrus into precious objects of collection, difficult to acquire and maintain, and therefore worth exhibiting. The Medici family had been collecting citrus trees in giant pots located in their gardens since the fifteenth century. At the Villa de Castello, near Florence, the Grand Duke of Tuscany, Francesco I de Medici (1541-1587), had a renowned collection of citrus trees, which especially produced lemons, limes and citrons, and had built a greenhouse called *limonaia* during the Renaissance. Throughout all of Europe especially designed *parterres* and greenhouses were built for orange trees, so as to protect them during the winter. In view of this, the terraces and greenhouses, specifically constructed for orange trees, were labelled as *orangery* in English and *orangerie* in French (such as the orangery in the gardens of Versailles, the orangery of the Kensington Gardens, the orangery of Hampton Court facing the Privy Garden or the orangery of Herrenhausen Garten in Hannover).

A significant amount of treatises, books and manuals, such as Giovanni Battista Ferrari's *Hesperides* (1646), were published between the sixteenth and eighteenth centuries, in order to suppress the lack of knowledge on this exotic family of plants. However, most of these books cover the growth of orange trees in greenhouses and their role in the overall design of the garden, showing they stem from the need for information on how to grow

these trees in cold climate countries or how to use them as ornamental plants for gardens — rather than on large plantation scale.

Therefore, most of the treatises specifically focusing on citrus were published in France, Germany, the Netherlands and England. Some were translations or adaptations of Ferrari's *Hesperides* to northern climates, such as the treatises by Johannes Commelin and Franciscus Sterbeeck.

France headed the publications on citrus fruits, due to the importance gardens had in that country during the seventeenth and eighteenth centuries. Even before the seminal treatise on the French garden designed by Le Nôtre - Dézallier d'Argenville's *La théorie et la pratique du jardinage* (1709) — many books had already been published in France, such as Pierre Morin's *Instruction facile pour connoître toute sorte d'Orangers, Citroniers* (1674); Charles de Sercy's *Nouveau Traité des Orangers* (1692); and the *Traité de la Culture des Orangers* by Quintinie, as part of the Royal gardener's *Instruction pour les jardins fruitiers et potagers* (1690). These books show evidence a real orange craze throughout Europe. The goal of these books was to instruct gardeners on how to cultivate this exotic tree, originally from warm climates as an ornament in cold regions. These texts are totally different from those on citrus fruit production intended for profit[3] or on the orange tree as an endemic species.

II. Portugal as a rotary platform for orange circulation

Although the Spanish and the Portuguese had a fundamental role in the circulation of orange trees and seeds between the Old and the New World, but in this paper I focused on the misunderstandings concerning the role the Portuguese played on the dissemination of the sweet orange.

Orange trees endured a worldwide journey since its original provenance, probably from the warm Southern slopes of the Himalayas, in northeastern India. The etymology of the word evokes this journey: From the Sanskrit name for the orange, *nagarunga*, it evolved into *naranj* in Persian, *aurantium* in Latin, *naranja* in Spanish, *laranja* in Portuguese, and *orange* in English and French. If etymology is an evidence of the existence of oranges, in other languages etymology is an evidence of the role played by the Portuguese as

[3] For example, oranges were already described as a product for trade in an Italian book for merchants written by the Francesco Balducci-Pergolotti in the mid-thirteenth-century. Dugo, G. and Giacomo, A. (eds.) (2003) *Citrus. The Genus Citrus*. London and New York: Taylor & Francis. P. 8.

disseminators, since words stand as an evidence that in these countries oranges arrived from Portugal. For example, the Greek word for orange is "portokali", in Turkish "portokal", in Romanian "portocala" and even in some Italian dialects "portogallo".

There is the thesis that the Portuguese brought sweet orange from China into Europe during the Portuguese maritime expansion. However, in our opinion there are a lot of misconceptions in this argument. There is always one main methodological problem regarding this question, which derives from the fact that ancient documents use vulgar names for botanic species. Hence, only the names in Latin could allow us to know exactly which was the botanic species being mentioned. Besides that, sweet oranges are already described in fourteenth-century sources in other parts of Europe.[4]

During the return of the Portuguese navigator Vasco da Gama's from India (1498), his men reported that the sweet oranges they found in India were superior to those they had at home. To sustain this argument, there are some written sources of Portuguese travelers, such as Garcia de Orta[5] and others,[6] who had been to Asia and stated that the oranges tasted there as much sweeter when compared with the ones they knew in Portugal. This proves that orange trees were already very familiar and well-known, thus allowing European and Asian specimens to be compared.

Nevertheless, the explanation found by other authors,[7] based on biological and ecological logics, stresses that sweet orange would have followed the same routes as other citrus fruits, and given the geographic area where they were cultivated the level of sugar would

[4]

[5] Orta says about Ceilan Island: "(…) há muitas frutas nella das desta terra e laranjeiras, e tudo isto he montesinho; e as laranjas he a milhor fruta que há no mundo em sabor e doçura; damse nella todas as frutas nossas, como uvas e figuos. Certo que das laranjas só se podia fazer muito boa pratica; porque he a milhor fruta que há no mundo. Tem linho e ferro; e entre os negros qua dizem os Indios ser o paraizo terreal (…)", in Garcia da Orta. Colóquios dos Simples e Drogas da Índia, fac-símile, Imprensa Nacional-Casa da Moeda: 217.

[6] N.a., "O Roteiro da Viagem de Vasco da Gama", *Arquivo Português Oriental*, vol. I, tomo I, 1st Part: 30, mentioned by Aurora Carapinha 1995:.

[7] This different theory was ellaborated by Gallesio in 1811 and by Tolkowsky in 1938. Portuguese experts such as Macedo (1854: 5), Vasconcelos (1934: 16), Cunha Coutinho (1940: 274-275) and Mendes Ferrão (1986: 1133) share the same rational presented by Gallesio and Tolkowsky, for whom the sweet orange must have followed the same routes as the other citrus species. Ferrão adds an ecologic and biological argument to this thesis when he claims that the same fruit, cultivated in very hot regions or in the Mediterranean region, would have different levels of sugar, and thus the same species, when brought from a sub-tropical region to Portugal, would be less sweet. The author also argues that the sweetness depends on the biophysical conditions of the territory and there is no apparent reason for the Muslims to share their knowledge about the other citrus and exclude the one that became the most desired (Ferrão 1986: 1130).

be different. It would then be normal that travelers during the maritime expansion would have found Asian oranges, known as *aurantium sinensis*,[8] to be sweeter.

The thesis is only based in very fragmentary information, usually gathered in a later period. There are some documents of the seventeenth-century that stress sweet orange was brought by D. Francisco de Mascarenhas, "capitão-terra" (governor) of Macau, in 1635 (Macedo 1675: 118-119)[9] and in the eighteenth-century, James Murphy mentions D. João de Castro as the one who had brought orange trees into Portugal in the sixteenth-century (Murphy 1975: 261). Documents by Duarte Ribeiro de Macedo and Manuel Silva Thadim mention oranges from China arriving in Portugal during the 17th century. Aurora Carapinha reads these documents as enlightening about the presentation of a new variety of oranges from China into the country rather than as the introduction of sweet orange in Europe itself — as previously evidenced in the writings of Friar Gaspar da Cruz in 1569 and Priest Lucena in 1600, for whom the oranges from China were the best in the world (Macedo 1854: 9). This is the variety that Aurora argues would become known in all of Europe as the "orange of Portugal" and was named by Giovanni Battista Ferrari as *Aurantium Olyssiponensis* (Carapinha 1995: 240).[10] It is the one associated with Portugal,

[8] *Aurantium sinensis* was already known in Europe before the 16th century. In a 1483 letter sent by Luis XI to the governor of Languedoc, the king demanded for the expedition of various fruits for St. Francis of Paola, who had just arrived to the French Court, and sweet orange was among them (Tolkowsky 1938: 238). Gallesio, for example, mentions the existence of Italian documents dating back to 1471 and 1472, where references to sweet oranges were included, and Henri Bresc wrote a document with the list of species cultivated in a kitchen garden where the *aurantium sinensis* is included (Gallesio 1811: 322; Bresc 1984: 29). Alonso Herrera recalls an order of sweet oranges that Navagero made to send to his Sevillian friend Ramusio on 21st May 1526, whereas Gallesio stresses sweet oranges must have been introduced into Europe in the beginning of the 15th century through the commercial routes between Genoa and the Middle East (examples included in Carapinha 1995: 234-235).

[9] In 1675, Duarte Ribeiro de Macedo wrote that D. Francisco de Mascarenhas, the first governor of Macau, had "brought to Lisbon in 1635 an orange tree which came from China and then Goa, and from there into his Garden of Xabregas, where he cultivated it" (Ferrão: 199). The text "Memórias sobre a Agricultura Portuguesa consideradas desde o tempo dos Romanos até ao Presente", by Veríssimo Álvares da Silva, published in 1815, points out the introduction of sweet orange trees in Portugal during the year of 1635, a fact that shows that he already knew about the document mentioning D. Francisco de Mascarenhas. Ferrão claims he has found a manuscript in a private library entitled "Diario Bracarence das Épocas, Fastos, e Annaes mais Demarcáveis e Sucessos Dignos de mençam, que succederam em Braga, Lisboa, e mais partes de Portugal, e Cortes da Europa" by Manoel José da Silva Thadim, dating back to 1764 (Ferrão: 202). The document says that "the orange trees were brought by D. Francisco Mascarenhas from China to Goa when he was the governor of Macau and from there he brought them into Portugal in 1624. The orange tree from all others proceed is still called Eve in 1671: it has given fruits in Quinta do Grillo" and there is an added note saying that "I saw orange trees inside the wall of the Grilos' barefoot" (Ferrão: 204). My translation.

[10] Aurora Carapinha says that this must be the variety that Ferrari denominated in 1646 as *Aurantium Olysiponense*. Cf. Giovanni Battista Ferrari, *Hesperides; sive, De malorum aureorum cultura et usu libri quatuor*. Hermani Scheus, Roma, 1645, p. 425.

the one from which the use of the word "Portugal" to describe it in so many different languages stems.

The seventeenth-century does however seem to be too late for the introduction of orange varieties, as they were so familiarly used by the Portuguese, even to prevent scurvy during transatlantic travels. Starting in the early sixteenth-century, orange trees were brought by the Portuguese to Brazil so as to be cultivated in colonial gardens and farms, although the exact year is difficult to establish.[11] Still, a Jesuit's letter written in São Paulo in 1554 pointing out the fact that orange trees were flourishing in a spectacular way may also validate other possible interpretations, such as the one in which Brazil always appears as a blessed land by God:[12]

In this land thorny trees which came from Portugal flourish, such as oranges, citrons, lemons, limes, and the whole year round they bear good fruit without watering: because Heaven takes this care and the land is fertile with these trees which grow on the hills and in the fields without any tending at all.[13]

The presented case-studies enhance the idea of Portugal as a rotary platform for orange trees and probably many other citrus trees that have not been included in this study. As we shall see, even more relevant than knowing if the Portuguese introduced the sweet orange variety in Europe, for which no accurate answer seems to be found, is stressing the indisputable role of the Portuguese as disseminators of varieties of orange trees, as well as in the way they were used and appropriated in other countries.

III. The soul of Iberian gardens

The singularity of the existence of orange trees in Portugal derives precisely from the fact they were very common in this territory; thus, they did not have an exotic fruit tree connotation. If we compare Josefa d'Óbidos' *Still Life* (1666) (Fig. 4) with Bartolomeo Bimbi's *Varieties of Citrus Fruit* (1715) (Fig. 3), we can conclude that in the Portuguese painting the intention is not to convey a sense of a collection, but merely three well-known common species of citrus fruits in Portugal: oranges, citrons and a *citrus medica*.

[11] (Hasse, 1987).
[12] Brazilian landscape perception
[13] The Orange, a Brazilian Adventure, 1500-1987. P. 21

Orange and citrus trees that were rare and exotic in the Roman Empire became very common in the Iberian Peninsula right after the Moorish conquest in the beginning of the eighth century. The orange from Seville (*Citrus aurantium L.*) is already mentioned in Ibn Bassal's *Book of Agriculture* (c. 1080), Ibn al-Awwam's *Book of Agriculture* (c. 1180), Ibn Luyun's *Treatise of Agriculture* (1348) and in the Persian Treatise on Agriculture (c. 1450), but it does not appear in *Le Calendrier de Cordove* (961-76) nor in Ibn Wafid's *Compendium of Agriculture* (c. 1060). Harvey concludes that it was introduced in the Iberian Peninsula during the second half of the eleventh century (Harvey, 1992, 78).[14]

These trees began to have a major importance in Hispano-Moorish gardens, one of its best-known examples being the Orange's courtyard in Córdoba, or the Seville cloister cathedral, remaining until today as one of the main features of Iberian gardens.

Gregorio de los Rios, the Spanish Royal gardener of Philip II of Spain, also king of Portugal since 1580 until 1598 – wrote a fundamental treatise on the art of gardens in the late-sixteenth century. Gregorio de los Rios' *Agricultura de Jardines* (1592)[15] represents a turning point in written sources concerning gardens and landscapes, since it was the first time that the art of gardens was considered as independent from Agriculture, in search for its autonomy as a field of both art and knowledge, before the seminal French treatise by Jacques Boyceau (1638) was published. In the Spanish treatise, we can assess the supreme value of orange trees in the Iberian Peninsula at this period in time. To highlight this, one can compare the content of Rios' *Agricultura de Jardines* (1592) with the 1586 and 1593

[14] Nevertheless, historiography sometimes is not acknowledge of this Hispano-Moorish sources and considers the book by Hugo Falcando, who lived in Sicily from 1154 to 1169, the first mention of sweet orange in Europe. Dugo and Giacomo, 2003, op.cit. P. 8.

[15] The edition quoted in this article is the first edition: Gregorio de los Rios, *Agricultura de jardines*, Madrid: por P. Madrigal, 1592. For the part that was added to the second edition the used text is Gregorio de los Rios, "Agricultura de jardines", in Alonso Herrera, *Agricultura General que trata de la labranza del campo, y sus particularidades: crianza de animals, propriedades de las plantas que en ella se contienen y virtudes provechosas à la salud humana*, Madrid: por la viuda de Alonso Martin, 1620. Pp. 244-270. Gregorio de los Rios's work is also available in many websites containing online editions such as: Alonso Herrera, *Agricultura General, que trata de la labranza del campo, y sus particularidades: crianza de animals, propriedades de las plantas que en ella se contienen, y virtudes provechosas a la salud humana*, Madrid: por Don Josef de Urrutia, 1790, that can be accessed online at: http://books.google.pt/books?id=YLZbAAAAMAAJ&pg=PA448&lpg=PA448&dq=gregorio+de+los+rios+agricultura+de+jardines&source=bl&ots=hC-S5OcWzP&sig=1GgmyaXquN2Xvepo5A4_HFqvUz0&hl=en&sa=X&ei=qcQxU7iGCIud7QaBjICgBQ&ved=0CDkQ6AEwAw#v=onepage&q=gregorio%20de%20los%20rios%20agricultura%20de%20jardines&f=false

editions of the English treatises by Thomas Hill and William Lawson, which do not include any chapters on orange trees.

Gregorio de los Rios considers fruit trees as more adequate to orchards rather than to gardens. Gardens should be filled with flowers that would be "beautiful to sight". Nonetheless, there is an exception: orange trees. Due to their perfume and colour, they could be considered as an ornamental plant, and could then be included in the bed-flowers of different gardens. Gregorio de los Rios begins the chapter on how to spread orange trees by advising that it is more difficult to grow them when compared with other fruit trees (Rios, 1592, 79v-80). If this tree is to be grown in hot regions it needs to be additionally irrigated, but if it is planted in a cold region there is no need for so much water, although it is more difficult to grow. The Royal Spanish gardener also says that in a hot region one can cultivate them directly on the ground but if it is in a cold region it needs to be in pots, so as to protect them from the cold, and then covered with a tent during the winter (Rios, 1592, 83). However, the idea of a greenhouse is still not suggested by this author, probably because the building did not exist yet in Spain.[16]

In te English language, foreigners used the expression "orange-garden" which provides evidence for the aesthetical value of orange trees' groves, even when they were openly placed along the road, defining the landscape.[17] I personally interpret this finding as a direct link between orange trees' groves in Portugal and the idea of the Portuguese garden as the Garden of Hesperides.

In *Relation of the Kingdom of Portugal* (1701), Thomas Cox defines Portuguese gardens through the existence of orange and lemon trees: "Their gardens are great parcels filled with orange and lemon trees, as well other fruit trees and herbs used in the kitchen."[18] (Cox, 1701, fl. 45). In 1699, the traveler Corsini states for instance that the only interesting aspects of Quinta de Alcântara – another Royal villa dating back to the 17th century –, are orange and lemon trees. Later on, Link will define "quinta" as a set of large gardens, "often of considerable extent and laid out rather for use than pleasure, generally

[16] According to Piero de' Crescenzi's fourteenth-century treatise on agriculture; in this book, there is a chapter devoted to citrus trees and their growth within a "closed place", probably a sort of protected space as a greenhouse (Dugo and Giacomo, 2003, 8).

[17] "Before we came to Elvas we saw the first orange-garden, lying open along the road, though a great quantity of this fruit is grown round Badajoz" (Link 1801: 130)

[18] Cox, T. (1701/2007) *Relação do Reino de Portugal*, 1701/Thomas Cox, Cox Macro, Maria Leonor Machado de Sousa (coord.) e Maria João da Rocha Afonso (trans.), Lisboa: Biblioteca Nacional, fl. 45.

containing plantations of orange and olive-trees, and sometimes even corn fields and vineyards" (Link, 1801, p. 179).

In addition, orange trees have been grown in Royal palaces for the pleasure of the Portuguese kings at least since the fifteenth century. King D. João II ordered the plantation of an orange grove in his palace in the city of Évora, in southern Portugal – the famous "King's Orange Grove" (Carita, 1990, 35). The description of this grove by Ieronimous Muncher gives us an additional insight on how this space was also used for recreation. The German traveller's time spent with the King of Portugal in 1494 is recalled as follows: "one day the king was having lunch in his garden near the castle, surrounded by orange trees … this garden was new, it had just been designed four years before, and it was surrounded by a hedge of reeds"[19] (my translation).

All of the Royal Portuguese gardens such as the ones at the Paço da Ribeira, Royal Palace of Sintra, Royal Villas of Belém, Royal gardens of Queluz, and the Royal Botanic Garden of Ajuda, included orange groves as a typical feature. The Royal gardens of Queluz, created by D. Pedro in 1746, were also visited by Richard Twiss and he describes the moment when he visited the orange trees' groves and plucked a fruit and the sense of satisfaction he had that day[20]. This was more or less thirty years after D. Pedro decided to transform the Castelo Rodrigo's estate into a sophisticated retirement for him and the Royal family; and the orange trees grove was probably planted by him. Even in the Royal Botanic Garden of Ajuda, the description published in Loudon's journal stresses that "at the pleasure-garden, as it is termed, which, together with the terrace, occupies about one half the space enclosed, the remainder is devoted to walks, orange, lemon, and citron quarters"[21].

Nevertheless, orange groves were not only present in Royal gardens; they were also to be seen in public gardens such as the sixteenth-century orange grove of Évora or in cities such as Seville, Córdoba or Granada, in southern Spain. Orange trees were also found in many cloister gardens, as well as in *jardines de crucero*, although, according to the

[19] The original text reads "um dia que o Rei almoçava no jardim orlado de laranjeiras, ao pé do castelo… este jardim onde ele almoçou era novo, havia quatro anos que o tinham plantado e rodeado duma sebe de canas" (in Hélder Carita 1990: 35).
[20] "There is a large garden behind this palace, with a labyrinth, and orange and lemon groves. After having refreshed myself with some of these fruits, just plucked from the trees, I remounted my horse, and returned to Lisbon, amply satisfied with what I had seen.", in Richard Twiss, p. 22.
[21] Loudon, *Garden Magazine*, p. 413.

documents found so far, in less quantity. Orange trees were brought to the monasteries in small numbers because they were very expensive. The Monastery of Saint Claire in Évora paid 400 réis for five orange trees in 5 May 1520[22]; the enclosed Monastery of Saint Claire in Estremoz paid 400 réis for four orange trees in 10 March 1521[23]. For example, in the cloister garden of the Monastery of Alcobaça, for example, there were only four orange trees, probably one in each flower bed. Twiss describes the cloister as a square "consisting of seven arches on each side. In the center there is a well, and at each corner a large orange tree"[24]. The cloister of the Monastery of Ieronimous is described as already possessing orange trees in the 19th century: "The cloisters are very beautiful, consisting of a lower and upper arcade, divided by a finely sculptured frieze. In the lower arcade, the light arches with their delicate tracery and slender mullions seem far too fragile for stone-work. The upper tier of arches was never completed, the position of the mullions being indicated by their sockets alone. The court enclosed by the cloister is kept in beautiful order, and is gay with orange, rose, and camellia trees, interspersed with rarer plants, such as the banana and tree-fern" (Lack, 1884: 83).

Orange trees were also present in vernacular gardens; an extensive number of documents describe a small vernacular garden in the backyard of a house, as having a well and orange trees, features that increased their economic value, such as the one of Afonso Gomes Restolho in Évora, rented on 23 December 1435[25]; the one owned by Rui Mendes in Évora, rented on 30 December 1436[26]; the quintal owned by the tailor Gonçalo Gonçalves who lived in the Rua dos Caldeeiros in Évora and rented the quintal with orange trees in 31 December 1436[27]; the one owned by Luís de Brito and his wife D. Joana de Ataíde who rented a "pardieiro" and a "quintal" which had a fig-tree, an orange-tree and other fruit trees, in the north of Portugal[28]. We have to underline that the well and orange trees are the only features mentioned in these documents. Thus, they seem to be the decisive factors for the price of the allotment.

The growth of orange trees in Portugal and Spain was done in a very different manner when compared with countries of central and northern Europe. There is nothing similar

[22] ANTT, Corpo Cronológico, Parte II, mç. 89, nº 67.
[23] ANTT, Corpo Cronológico, Parte II, mç. 94, nº 175.
[24] Richard Twiss, p. 44.
[25] Instituto dos Arquivos Nacionais/Torre do Tombo (ANTT), Chancelaria de D. Duarte, liv. 1, fol. 201.
[26] ANTT, Chancelaria de D. Duarte I, liv. 1, fol. 202.
[27] ANTT, Chancelaria de D. Duarte I, liv. 1, fol. 230.
[28] ANTT, Viscondes de Vila Nova de Cerveira, cx. 10, nº 32.

to a "parterre d'orangerie"[29] in the Portuguese language because there are no orange trees in box-hedge *parterres* as we find them in France (for example, Versailles) or Germany (for example, Herrenhausen Garten). On the contrary, they were directly planted into the soil and not in boxes. It is very significant that such an acknowledged author as Dézallier d'Argenville, the French author of the most famous treatise on the formal garden, confesses he wished he had alleys of orange trees growing on the floor or orange tree groves, just as they were seen in Spain, Portugal, Italy and some districts in France (Dézallier d'Argenville, 1709, 218). Furthermore, he underlines that orange trees give a unique contribution to the gardens' aesthetics. Topiary made out of orange trees is another feature that is not to be found in Portuguese gardens, as it is described, for example, in *Hypnerotomachia Poliphili* (1499) by Francesco Colonna, which has deep roots in Italian gardens[30].

Thomas Cox criticized the fact that orange tree groves were not lined up in Portuguese gardens; at the beginning of the eighteenth-century they were cultivated as if they were in the countryside.[31] Nevertheless, later on, another foreign traveler described orange tree groves as "uniformly planted in groves, by the side of a stream running in the bottom of a valley."[32] Alleys of orange trees were also reported to exist in the Marques of Pombal's estate.[33] The orange tree grove at the Royal Villa of Queluz followed a geometric grid, as displayed in the 18th century plan of the palace and gardens of the Royal Villa of

[29] "Um parterre d'orangerie est destiné à recevoir des orangers en caisse" (Dézallier d'Argenville 1709: 32).

[30] "When we joyfully reached this enclosure, I found that it was equilateral, with three wings resembling perpendicular walls as high as the tall cypresses along the road, and all made from magnificent citrons, oranges and lemons with their lovely foliage closely pressed together and artificially connected to one another. I estimated their thickness at six feet. There was an archway in the middle, made from the same trees, which had been trained so skillfully by the gardener that nothing better could be done or described, and higher up there were windows at the appropriate places. Not a branch or twig was visible on the surface, but only the flowering fronds of charming greenery. Among the beautiful, dense and vigorous leaves were decorative clusters of white flowers giving off the sweet smell of oranges, while delicious ripe and unripe fruits were offered in abundance to the avid gaze. I admired with some astonishment the way that the branches had been masterfully arranged within the thickness of the hedge, so that one could conveniently climb through the entire structure supported by the connected branches, without the climbers being visible." (Francesco Colonna 2005: 88).

[31] Cox 1701, op. cit. P. 127 and 129.

[32] Smith, J. G. (1832) *Santarem: or, sketches of society and manners in the interior of Portugal*, London: Fisher. P. 97 http://purl.pt/17124/3/#/6

[33] Dalrymple, W. (1777) *Travels through Spain and Portugal, in 1774; with a short account of the Spanish expedition against Algiers, in 1775*, London: printed for J. Almon, opposite Burlington-House, Piccadilly. P. 151 http://purl.pt/17049/3/#/144

Queluz.[34] There were then three different types of orange groves in Portugal: the ones being grown without any specific plan or pattern; orange tree groves that obeyed to a geometric grid; and alleys of orange trees, rather than *parterres* of orangery or orange trees in boxes. Furthermore, orange groves were sometimes cultivated at a lower level, so as to allow a view from above, following in the Islamic influence in gardening. They could be appreciated, almost as a tapestry, when one would go for a walk in the garden. It was like that in Quinta da Bacalhoa (where there are presently vineyards); and it certainly had a similar effect as the orange tree groves cultivated in the Badhi Palace in Marrakesh, built after the battle of the three kings, both built in the same period of time (ca. 1550-70).

Through a later document we are able to get some information on the irrigation system of the "laranjal do Rei" in Évora. António Monteiro was hired to take care of the orange trees grove and kitchen gardens of the Royal Palace in Évora in 12 February 1567. And to help him with this task he appointed two men and a beast to work the water-wells.[35] Another document about the orange trees groves and kitchen garden of the Royal estates at Almeirim mentions the existence of noria at the orange trees grove and that it was the gardener's responsibility to irrigate and graft them[36]. Later, Link describes another irrigation system: "which is supplied to plantations by channels, which are filled by waterwheel norias. The earth is heaped up at their roots, and the water conducted through these ditches"[37]. They had a renowned good technique to grow orange trees, which is described in 1701 as follows: when the winter starts gardeners leave a hole around the orange tree roots, so that they absorb the rain and they do this again in March to avoid herbs growing around it. Oranges are considered to be ripe in March and if they are not plucked after this they lose their juice[38]. Link confirms that in February they gather them

[34] Carapinha, Aurora (2014) "The guardian of the Mediterranean matrix – the Portuguese garden", *Gardens & Landscapes of Portugal*, CHAIA/CHAM/Mediterranean Garden Society, nr. 2 (May): 13. ISSN 2182-942X URL: http://www.chaia_gardens_landscapesofportugal.uevora.pt/index%20home%20presentation.htm

[35] ANTT, Chancelaria de D. Sebastião e D. Henrique, Doaçoes, liv. 17, fl. 405, etc.

[36] ANTT, Chancelaria de D. Filipe II, Doações, liv. 9, fl. 13vº, in Sousa Viterbo, A Jardinagem em Portugal, pp. 289-290.

[37] Link 1801: 185-186.

[38] "Conhecem a Cultura das Vinhas perfeitamente. Remexem a Terra três vezes por ano: no princípio do Inverno, deixam-na em Buracos em torno das Raízes, para melhor reterem a Chuva, outra vez em Março para evitar que cresçam Ervas à sua volta. Usam o mesmo método para as Laranjeiras. Consideram que as Laranjas estão completamente maduras em Março, e as que ficam mais tempo nas árvores são piores, pois o sumo se perde.", In Textos BNP, Relação do Reino de Portugal, 1701 – Thomas Cox. Cox Macro, p. 131.

for exportation and that in March and April they are already good and in May they are "perfectly sweet and well flavored"[39].

Orange trees' groves probably lost their predominance in Portuguese gardens and landscapes probably during the 19th century. Sousa Viterbo (1906) complained that Portuguese gardens cannot and should not be a reproduction of gardens from northern Europe because they are a place where orange trees and vines grow freely. Thus, they should not be systematically put aside and replaced by others which are only recommended because they are exotic[40].

IV. Orange Landscapes

Orange tree groves were a key-feature of Portuguese landscapes in such a way that when João Vigier (1718) translated Caspar Bahuin's *Theatri Botanici* (1571) into Portuguese, he skipped their description due to the fact that they were so common in Portugal.

William Beckford (1760-1844) distinguishes between two kinds of groves in the outskirts of Lisbon, olive trees and orange trees.[41] The perfume of orange trees was highly appreciated, not only in gardens, but also in landscapes. "Near Lisbon [there] are many Chento's, or Summer Country Houses, several of them extremely sweet and pleasant, the Flowers from the Orange Trees and Jessamins perfuming the Air round them" stated an English traveler.[42] In the same sense, Duarte Nunes Leão's *Descripção do Reyno de Portugal* (1785, 144) points out to the existence of a scent to orange tree throughout the whole territory, during the spring. Besides its perfume, orange trees were highly appreciated as a typical landscape of the outskirts of Lisbon. The evergreen character of orange groves was the reason pointed out by Duarte Nunes Leão for all of Lisbon's estates to grow them.[43]

Orange groves, in religious and noble estates, from southern to northern Portugal, are described by Portuguese and foreign visitors, redefining the country's identity as connected to the orange landscape. Jacob Sobieski visited Portugal in 1611 and referred

[39] Link, 1801, p. 186.
[40] In Viterbo, A Jardinagem em Portugal, 1906, p. 45.
[41] Beckford, W. (1834) *Italy; with sketches of Spain and Portugal. By the author of "Vathek"*. Second edition, revised. London: Richard Bentley, New Burlington Street. P. 29.
[42] Bromley, W. (1702) *Several years travels through Portugal, Spain, Italy, Germany, Prussia, Sweden, Denmark and the United Provinces*, London: A. Roper. P. 7.
[43] Leão, D. N. de (1785) *Descripção do Reyno de Portugal*, 2ª ed. P. 143.

that in just outside Lisbon there were a lot of orange groves.[44] Some years later, Richard Twiss said "The country about Lisbon is agreeably diversified with groves of orange and lemon trees, intermixed with olive and vine-yards."[45] When Richard Twiss was riding a horse fifteen miles away from Lisbon, probably from Oeiras, and going into the city, he saw "groves of orange and lemon trees loaded with blossoms as well as fruit"[46] all along the road parallel to the river. The same landscape picture is given by him when he describes his excursion to Mafra.[47] The German doctor, botanist and naturalist Heinrich Freidrich Link, who visited Portugal in the last years of the eighteenth century, describes the orange landscape in the Lisbon's region and evaluates it as totally different from the landscape in Germany, especially because of the visual effects.[48] Jane Lack describes the landscape between Coimbra and Lisbon as follows: "One passes through forests of oak, pine, and cork trees, agreeably alternating with orange groves and vineyards".[49] Nevertheless, she says she did not see any orange trees between Mafra and Sintra.[50] The fact that she noticed this is based on how used she was to seeing them. Furthermore, she also stressed there were a lot of these trees in Setúbal, something which is still true today.

Orange groves became then an important feature of the Portuguese landscape, not only because of their aesthetical value, a legacy of the Islamic garden,[51] but also because of their economic value. Orchards of citrus trees were likewise granted political protection at the time, because of the strong desire of the Philippine dynasty to safeguard and promote their plantation and growth.[52] Whilst they were of almost no economic value inside Portugal – they were so common that they were not even put for sale –, they did have great value for exports.

The quality of Portuguese orange trees was well-known abroad. They were compared with the ones from Malta. Link pointed out that the best oranges were the ones from:

[44] Jobieski, s.d., 250
[45] Twiss, R. (1775) *Travels through Portugal and Spain: in 1772 and 1773*, London: G. Robinson. P. 7.
[46] Twiss, R. (1775) *Travels through Portugal and Spain: in 1772 and 1773*, London: G. Robinson. P. 14.
[47] Twiss, R. (1775) *Travels through Portugal and Spain: in 1772 and 1773*, London: G. Robinson. P. 15.
[48] Link, H. F. (1801) *Travels in Portugal, and through France and Spain. With a dissertation on the literature of Portugal, and the Spanish and Portuguese languages*. Translated from the German by John Hinckley, Esq. with notes of the translator. London: printed for T. N. Longman and O. Rees, paternoster Row. PP. 185-186.
[49] Lack, 1884, 73
[50] Lack, 1884, 99
[51] Carapinha, A. (1995) *A essência do Jardim Português*. PhD thesis on Landscape Architecture presented at the University of Évora. P. 243.
[52] See *Ordenações Filipinas* in Silva, 1808, 296-297

Lumiar, still considered as an outskirt of Lisbon at the time; the ones from Condeixa, near Coimbra; and the ones from Vidigueira, in the Alentejo. A foreign traveler remarked for instance that, in Portugal, oranges were never sold outside the area of Lisbon since they were so common everywhere.

Duarte Leão has provided the first account of all the productive areas of orange trees in Portugal since the late-sixteenth-century, namely Beira, Douro and Minho, whose oranges were exported to Flanders through the Porto harbour.[53] Many sources show evidence that a huge quantity of orange trees was packed and sent to England.[54] For example, Darlymple mentions most of the Portuguese oranges were for the London market, and actually specifies the route of these oranges.[55] In addition to this, Link also clarifies that most of the Portuguese oranges were exported to France and England and from there to other countries.[56] A treatise by Dézallier d'Argenville's sheds light on the way the orange tree market in Versailles functioned annually, being that, between March and May, orange trees from Genoa, Lisbon and Provence, kept arriving to that region.[57] The exportation of Portuguese orange trees would continue to grow until the nineteenth century and further data on the number of oranges exported from the Algarve's harbors of Faro and Portimão can be found in Silva Lopes' *Corografia ou Memória Estatística do Reino do Algarve* (1841).

In view of all the above, there is enough evidence to prove orange groves were praised by foreigners both by the way they were incorporated in the landscapes as well as by the fruit they produced.

The appropriation of the orange grove by the New World

As some of Pompey's frescos show, and although already orange trees were known in Europe since the Roman Empire, almost every signs of their existence were lost during the Middle Ages; an exception is to be found in the Iberian Peninsula, where it flourished under the Islamic rule. The Maritime Expansion headed by the Portuguese and the Spanish was the great turning point in the dissemination of orange trees. Through the Portuguese and the Spanish, the growing orange landscape of the Iberian Peninsula in the

[53] Leão, D. N. de (1785) *Descripção do Reyno de Portugal*, 2ª ed. P. 121.
[54] Smith, J. G. (1832) *Santarem: or, sketches of society and manners in the interior of Portugal*, London: Fisher. P. 97 http://purl.pt/17124/3/#/6
[55] Darlymple, 1771, op. cit. 165
[56] Link, 1801, op. cit., 187
[57] Dézallier d'Argenville, 1709, 233

sixteenth century, was reproduced into the New World, namely in Brazil, Mexico and the USA (Florida and California). Consequently, orange landscapes started being associated with the idea of a blessed and fruitful land, rather than with an exotic, ornamental character.

Citrus fruits and the ones related to them, with the exception of the grapefruit, were not pervasive in the New World. It was Columbus who, for the first time, and during his second voyage in 1493, took orange, lemon, and other citron seeds from the Canary Islands to *Hispaniola*. By 1525, oranges and shaddocks were widely grown throughout the New World. Spanish explorers were responsible for the rapid dispersion of citrus trees in Central America – a region explored and conquered by Juan de Grijalva (1490-1527), in Bermuda's islands, discovered by Juan Bermudez in 1505 and where in 1515 he left some animals and seeds for future lost navigators, and in Florida where orange trees were acclimatized between 1513 and 1565. The work *Agricultura de jardines*, written in Castilian in 1592, may also have become available in the territories under Portuguese and Spanish rule, especially since it was included (after the 1605 edition), in the most successful treatise on Agriculture: Alonso Herrera's *Agricultura General* (1513), whose copies circulated both in Portugal and Mexico.[58]

The Portuguese also played an important part in the spreading of orange trees in their colonies, namely Brazil, which is today one of the top worldwide producers, and indirectly in the USA, because Californian orange groves developed from Bahian orange trees.

Due to its Mediterranean-like climate, California and Florida became the only states in the USA where orange trees naturally adapted to the climate, becoming an essential trait of their landscape, as can be seen in a commercial ad to orange grove in Florida (ca. 1942).[59] Orange trees became a brand image of both California and Florida. The sheet music cover for *Down Where the Orange Blossoms Grow*, music by J. Fred De Berry (1904), provides in its iconography the association between two main ideas: the sunshine in an orange world (Florida) and the perfume of the orange tree blossom suggested by the white flowers, as shown by Helen L. Kohen. Finally, the poster Florida's *Land of sunshine*

[58] (Arellano, 2006; Rodrigues, 2014).

[59] (Kohen, 1998, 40)

and happiness depicts an attractive female figure bearing palm leafs and oranges (ca. 1920).[60]

It conveyed the message of a land of oranges as a land of Mediterranean plenty on an early promotional brochure. The same idea was disseminated on the brochure for DeLand, where a woman is portrayed while picking oranges in the main street, with the Stetson university tower in sight (1925), and a basket filled with oranges as the focal point of the brochure.[61] The advertising poster for the luxurious Savana Line that took passengers to Florida and the South (ca. 1900) had an almost tropical look to it, presenting an image based on the sea, oranges and sunny scenery. Images of oranges in all their inflated glory have carried the message of the promised land in all sorts of print material, including postcards, orange crate labels, promotional brochures and other forms of publicity, sheet music, and the cover of at least one theatrical journal, showcasing the significance of the orange landscapes created in the New World, which followed the Iberian influence and model.

Conclusion

Orange trees were highly praised all over Europe. Nevertheless, as they are of very difficult growth in cold countries, where greenhouses became necessary, orange trees kept an ornamental value, since they were perceived as exotic in northern Europe, following the Italian model. The iconography of orange trees cultivated inside wooden boxes, so as to be easily transported into the greenhouses, inspired the shape of Peter Carl Fabergé's *Orange Tree* (1911) (Fig. 2), who validated his artistic perspective according to the northern Europe circumstances. On the contrary, in view of its climate and Islamic legacy, orange trees in the Iberian Peninsula have been directly cultivated into the ground. In addition, they are not only present in all kind of gardens but they also cover large portions of landscape. As a prelude to the golden fruit of the Garden of Hesperides located in the ultimate site of Western Europe, the glorious white petals deliver what they promise: beauty, aroma, and a cash crop that almost never crashes from the Iberian Peninsula into the New World where the top worldwide producers are presently to be found: Brazil, USA, Mexico. When in the New World, the orange landscape was

[60] (Kohen, 1998, 40-42)
[61] (in Kohen, 1998, 34)

envisioned as a fruitful and blessed land enhanced by its economic value, rather than appropriating its former ornamental character.

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