

Gardens & Landscapes of Portugal

The guardian of the Mediterranean matrix – the Portuguese garden **Aurora Carapinha**

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ABSTACT

I seek to define the garden and estate spatiality in the Portuguese culture having as a starting point history and biophysical conditions. I argue that Portuguese gardens spatiality finds its roots in the Mediterranean matrix.

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ARTICLE

The essence of the Portuguese garden is a long-term subject of my research. This research has been absorbing and of predominant importance. Each visit I made, each description I read, each document I analysed would reveal a garden different from any other. And this comes from the particular nature of the garden space which determines that each garden is a unique construction, even if only in terms of concept, as a happy place and representative of many powers and various meanings which would spread in time and be repeated in space. Each garden chooses its place and simultaneously synthesizes the landscape's potential diffuse estheticism as prompted by Assunto (ASSUNTO 1973: 61). Thus it is not strange that gardens in the Portuguese culture are different from their European counterparts. The difference that we are talking about is not this one because this one is inherent to a garden's own condition.

The difference that we wish to talk about is the resemblance we find with the concept developed by Kubler (KUBLER 1988: 3)¹. The concept of plain architecture: Architecture without any superfluous decoration gives an answer to a functional programme and not to a meaningful symbolic narrative built with humble materials. This is the difference. The garden in Portugal has a plain expression, is built with a plain spatiality. And we recognize it even in those gardens which are considered representatives of golden moments of art for gardens in Portugal. It is designed through a plan which runs away from the normal canon consecrated by treatises and shows itself in plain solutions. It offers a spatiality which takes advantages from the physical qualities of materials. It is built with poetic material and deviates from great symbolic speeches. It has a great human scale, even when time's spirit would convey another expression. The areas of production overcome areas exclusively for pleasure. However, it is revealed with symbiosis and reconciliation among natural elements understood as objects of pure and detached contemplation and with understanding for factors of production and utility.

The different terms with which we define the amenity and happiness of any garden is the best evidence to confirm this. An incursion into the terminology used to define gardens reveals two moments. One when kitchen gardens dominated – "hortas, vergéis, hortos, pomares, almuinhas" ²—, concentrated in the 16th century (CARAPINHA 1995: 34-36). These horticultural unities guarantee not only the *food* for the body but also for the

¹ It is important to mention that the concept of plain architecture it is a reality that goes beyond the period cited by Kubler, but something that is reflected in a very clear way in the spatiality of Portuguese culture living space.

^{2 &}quot;Almuinha" is a word of Arabic origin (*al munia*) which means simultaneously space of vegetables production and of pleasure located in the periphery of Spanish-Muslim towns and that can still be found in Portuguese toponyms.

soul. After the 16th century we can see the appearance of another category: the *quinta de recreio* (pleasure garden, villa).



Fig1- Water as defining element of an certain pleasure space with the trilogy tank/pergola/seat. Estate in Évoramonte, Évora. All photos are by the author except when mentioned.



Fig.2 - "Horto de recreio" (pleasure garden), Quinta da Fonte Cansada, 17th-18th centuries, Estremoz.



Fig.3 – Entrance to the "horto de recreio" of the Quinta dos Olhos Bolidos

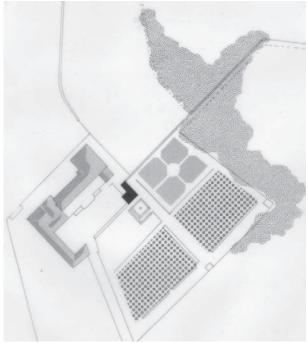


Fig. 4 - Quinta do Paço do Fontelo, 16th century where the pleasure architecture is pointed out in black – the cool house which establishes the connection between the building and the garden, orchard and wood. All plaans are by the author.



Fig.5 – Pérgola at Casa do Canedo, 18th century, north of Portugal. Photo by Ana Duarte Rodrigues.

An estate (Quinta) is an agricultural entity of horticultural, fruit and vineyard production. It will only become a space for leisure in the late-15th century and at the beginning of the 16th century. It presents itself as an organized whole which results from a group of sub-spaces: copse woodland, architecture, garden, orchard, kitchen garden. Versatility is one of the *quinta de recreio*'s spatial features. Leisure and production share the same space, both invading each other, and establishing formal and functional relationships. From this intimate relationship comes a space that apparently does not show a global structure. It is not perceived as linear, immediate and sequential, but made of tiny moments. The whole is sometimes organized independently from the building (Carapinha 1995: 201).

Quinta de Recreio for pleasure stands out in the universe of landscape heritage for its quantity but especially also because of its geographic distribution and permanence through time.

They are similar to other models for pleasurable living which have developed since the 15th century in Italy, and after throughout the whole of Europe.

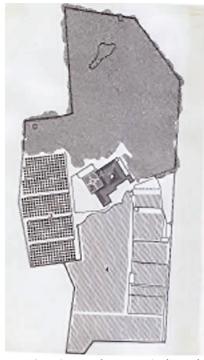


Fig. 6 – Quinta de Nossa Senhora da Consolação do Bosque, ancient Capucho convent, 16th century, Borba.

The principles which convey orchards, kitchen gardens, "hortos", "almuinhas" and woods' location and establishment, whether they come up individually or integrated into an estate, are related mostly to functional aspects in order to convey optimal production and protection conditions.

Its location and form is given by nature, exposition, land slope, water presence and by the vegetable species to cultivate. The dimension depends on the water and human resources available. These practical presuppositions determine a great communion with the place's characteristics and complexity of the composition principles which appear mostly in landscapes exclusively for pleasure. Production/pleasure, Pleasure/production is a connection

Fig. 7 - Quinta de Recreio of the Marquises of Fronteira, 17th century, Lisbon.

whose order is arbitrary and which makes a perpetual appearance in the garden in Portugal. This characteristic will lead all others in Portuguese gardens.



Luz, 19th century, Castelo de Vide.



Bower covered by Fig. 9 – Bower with an hydraulic structure associated in Fig. 10 – Coolhouse, built in Camelia sinensisno in Wisteria sinensis in the middle the middle of the kitchen garden, Quinta da Sancha-a- 19th century, Celorico de Basto's environs. Photo of orange trees at Quinta da Cabeça, 18th century. Montemor-o Novo.



by Ana Duarte Rodrigues.



Fig. 11 – Coolhouse at Quinta dos Olhos Bolidos from where we have Fig. 12 – Tank in Quinta de Nossa Senhora da Conceição, 18th century, views of the orangery, wood and pleasure garden, 18th century, Castelo Castelo de Vide. de Vide.



The Mediterranean matrix

The timeless and geographic permanence of this model is, in the first analysis, not easily understood. The diverse cultural moments and the theoretical context which determine the changes in garden design have been known in Portugal³. Portuguese architects and foreigners were aware of this reality and their formulations were responsible for the conception of some quintas de recreio. However, theirs achievements were the exception which confirm the rule and therefore integrated and adapted the national model. The formal permanence conveyed by the alliance between production and leisure overcomes any foreign influence and seems to stay unchanged by the vagaries of history. Some experts consider4 that erudite culture reveals some tonalities in Portugal – and resilient constancy is a good example of that – resulting from our geographical situation, in the extreme west of Europe and far from the great centers of the artistic vanguard. For us to subscribe to this idea we have analyzed the geographic overlap from diverse points of view. The geographic position of Portugal is not only some distance from the great cultural centers, the national territory also has some completely distinct natural features. The soils are not rich, the

³ As proved by the exhibition held at the National Library of Portugal between 15th May and 31 July 2014. See the exhibition's catalogue Rodrigues (ed.), Uma história de jardins. A arte dos jardins na tratadística e na literatura, Lisbon: CHAIA/BNP, 2014.

⁴ Jacinto Prado Coelho shows the isolation and desfazamento of Portugal and its culture in comparison with the rest of Europe, when he mentions: "Só com apreciável atraso vamos acompanhando a evolução Europeia na mentalidade e nos costumes; e quando, provincianamente, nos deleitamos com coisas novas, já estão a passar de moda nos países de origem. É esta uma queixa repetida. No século XVIII, o Cavaleiro de Oliveira comparava Portugal a um relógio sempre atrasado: «nada de novo lá entra que não tenha já envelhecido em outros países" (Coelho 1992: 30-31)

climate has simultaneous periods of drought and hot weather and irregular distribution of rainfall which is not the best for plant's development. Portugal has a Mediterranean climate and these natural features determine the look of the Portuguese landscape. Even if we are in a peripheral, position when, taking into consideration the world defined by the Mediterranean basin. Even if Portugal has a location on a frame which separates, and simultaneously gathers, the regions of Mediterranean climate and Atlantic, we do not find in Portugal "the fertile plains of cereals in Europe, with mountains where humidity keeps the landscape fresh the whole year with the rain from all seasons allowing to be rebuilt" (RIBEIRO 1987:60-61) which characterize the landscape of Atlantic countries. Because of those natural mediterranean conditions Portugal, "is a place of sustainable effort" (GUERREIRO 1991:20).

These biophysical conditions define a different relationship between man and territory, made from struggle and constant vigilance, and convey an irregular design of landscape, the development of a promiscuous agriculture and multifunctional growing systems. Fields, prairies, woods and kitchen gardens mix interpretations, and are built in various layers and adapted to the topographic accidents, to the soil and water conditions and to the strong sunlight.

They are not well defined distinct spaces as those in Central Europe where the climate, the soil and the relief allow an almost Cartesian landscape design, the individualization of elements in each growing system and their independent benefits. There, countryside is countryside, prairie is prairie, wood is wood. Here, we have the countryside, the countryside/prairie, the prairie/ countryside among coppice systems. Even the kitchen garden is a mix of orchard and horticulture. The diverse unities of *ager* are culturally polyvalent. The landscape that comes from there is diverse, multiple, irregular, rich in contrasts, overlapping.

When we understand the garden as the bringing together of the potentially diffuse aestheticism of landscape, we accept that distinct landscapes will produce distinct gardens. The landscape normalized, mono-functional and organized by sectors, matches a garden with a regular plan where pleasure and production are separate worlds.

In Portugal, the garden cannot be formed aside from the irregular, culturally promiscuous image of landscape which covers the territory. The condition between production and pleasure in the Portuguese garden is a fact, a natural fate, as well as the mixture presented by the diverse components of the *ager*.

We can argue that the landscape features pointed out and considered decisive for the definition of the particular spaces for gardens in Portugal, are not unique to the national territory but can be found all over the Mediterranean basin. We consider this assertion to be legitimate. However, in order to better define that and its relevance in Portugal, there is another point to be made about our geographic position: the detachment and isolation it conveys, towards Europe and its artistic formularies.

As long as this geographic condition has contributed, in the opinion of some experts, to the cultural inferiority and technological delay, we find, in respect to the art of gardens, that it functions, not as a negative condition, but as something that allowed the only continuation of the essence of the Mediterranean garden in the European context.

In a first analysis this statement seems strange because many of the books on art of gardens convey an image of the Mediterranean European garden completely different from the concealing of production/recreation that we find unique in the Portuguese garden. However, we cannot forget the examples pointed out as master-pieces resulting from a vast range of vicissitudes and historical influences, some of them outside the Mediterranean culture⁵.

⁵ See, for example, the influences Centro-European on the flower-bed drawings in the Italian mannerist garden, so many times considered paradigm of Mediterranean landscape for leisure.

A very short re-visiting to examine the garden roots in diverse countries of the interior sea basin will sustain that statement. The Greek word used for garden — *Kepos* — is ambiguous. It is used both for spaces, which function is mostly sacred, or divine, and for the study of prestige spaces (royal gardens), public, private, kitchen gardens and orchards (CARROL-SPILLECKE 1992:84-101 and CARROL-SPILLECKE 1990:485-486 and FERRIOLO 1989:86-94). However, this diversity is more virtual than real because all those spaces are a combination between kitchen gardens, orchards and vineyards, a symbiosis between *otium* and *negotium* that did not exist even in the Hellenistic period. They are an integrated part of the productive landscape which determines the territory that, together with the city, defines the Greek *polis*. In the surrounding "*hortuli*" around the cities, in the Republic as well as in the Roman Empire, the conciliation between these two components was common. As a result of what they symbolize the Roman divinities connected with the garden Priapo, Venus, Flora and Pomona testify to this ideal which also appears in Virgil's *Georgics*".

The love for Nature, revealed by Byzantines, and the role which it occupied in daily-life is reflected in the interest for agriculture and horticulture, as well as in the plant themed designs of mosaics which decorated the interior of the first churches, and in the general use of toponyms and names related or derived from elements and natural attributes. As an extension of nature's strength, veneration and moral dimension and happiness this feature is typical of Byzantine culture and is connected to Roman culture. This context was the starting point where A.R. Littlewood started to characterise the gardens of Byzantium. His study reveals, once more, the communion between production and leisure which is a feature of *amoenus* places of the Mediterranean and expressed by the terms *ampelokepion* and *ampeloperibolion*, usually used with the sense of orchard, kitchen garden, vineyard and garden (LITTLEWOOD 2002; 1992: 102-125).

This tradition was continued, beyond the fall of the Roman Empire of the Orient, in 1453, by the Ottoman culture which had already integrated the art of gardens of Islam, which in itself is also an example of the communion between the beautiful, the entertaining and the productive. This is the ideal that will appear in many countries of the Mediterranean basin, determined by mesological reasons and by cultural influences.

And following on from this Mediterranean feeling in the garden we should deepen our understanding of the Italian humanist *ville* considered historically as being the first example in the Christian Europe context as a space for leisure and where utilitarian character is supposedly absent. Its appearance is explained, ideologically by the cultural framework conveyed by *Studia humanitatis* (which has spread the idea of *aurea mediocritas* and of *Santa Agricoltura*) and by the prompt answer they gave to urban pressure, to city life, to which they were not a denial but a complement.

The advisory principles of its formulation were the ones conveyed by *Res rusticae Scriptores* where the ideal model of space for leisure was well expressed in nature's context: accumulation between entertainment and utilitarian. In many treatises of agriculture, published in the northern and central Italy during the 16th century, we clearly find this conciliation. Even the fact that theories on gardens are found in agricultural treatises is a result of that. In the works by G. Tatti (1561), A. Gallo (1572). G. Saminiati (1580-1590) and Bussato (1593), as well as in Pietro Bembo's texts, and in Palladio's architecture treatise, we find the idea repeated that a garden incorporates

⁶ The garden of Alcinous, the garden of Laerfus and the gardens of the tombs of Alexandria where fruit trees and vegetables were cultivated are an example of that permanent conciliation, (Carrol-Spillecke 1992:84-101 and Carrol-Spillecke 1990:485-486 and Grimal 1969:63-89 and Thompson 1963).

⁷ Virgil, Les Bucoliques, les Géorgiques (tradução, cronologia, introdução de Maurice RAT) Georgics IV, vv. 119-138, pp. 158-159.

⁸ This duality of the Turkish garden is well settled in the Spanish fray Haedo's repport who visited the town of Algira in the 17th century (Petruciolli 1985:78-79).

beauty, pleasure and utility⁹. This idea brings together and establishes points of connection between the Italian and Portuguese models. It reinforces the conclusion already prompted by us. However, reasons of various and complex order¹⁰ have lead to the dissipation of this primordial feeling for the Mediterranean garden in the Italian Peninsula and lead instead to a major growth in the representantion of pleasure¹¹.

There are two elements determinant for the creation of spatiality in any garden: vegetation and water. Ilídio de Araújo defines the garden as: "an intimate place meant for people's leisure and which area is in its majority covered by vegetation, balancing its environment" (ARAÚJO 1989). This definition makes clear the dominance and absolute necessity of vegetation in the garden and in consequence the need for water.

In the Portuguese garden the vegetation covers walls, defines unities, designs spaces, polarizes compositions, and makes verdant places. The vegetation transforms the garden into a sequence of "little gardens". The perpetual character of the vegetation used contributes to the quality of the space. This strong presence of vegetal species with perennial leaves, does not result from a selection inherent to the aesthetical creation but it is determined by the environment. Most plant formations in Portugal are dominated by species with leathery leaves, evergreen, as well as by conifers, with similar physiological and physiognomy characteristics.

This biophysical conditioning offers the garden a unifying Eternal Spring, not only because of the presence of structural vegetal elements all along the year – which does not happen in Central Europe – but also because of the range of the evergreen colours, as Herman Lautensach called them¹². This feature is underlined by fruit trees and herbal flower blooms.

In the Portuguese garden, the vegetation is used mainly in its natural form, even if settled by rectangular pattern. This is defined by the hydraulic system, by its walks or by the vegetation. When it is used as topiary art and techniques, it presents as a geometric natural system, connecting the role the composition has in the space with aesthetical and theoretical principles. Its use is restricted to the pleasure garden where erudition is recognizable.

The reason for the preference of the natural form determines in our opinion, once more, what the productive side garden shows in Portugal and the perennial character of the plants. Throughout the year this offers a chromatic and aromatic diversity, a formula which never fails, that takes it away from the concept of natural artifice that we find all over Europe, and makes it closer to the concept of *natura naturans* and its aesthetical value.

⁹ The Book VI, in *Le vinte giornate dell' agricoltora et de piaceri della vita* de Agostino Gallo intitula-se "como si possono far'horti per vaghezza, et per utilità" (TATTI, 1561: 79). In *Trattato D'Agricoltura de Saminiati* the conciliation between useful and beautiful in Italian ville stands out: "... fra tutte le delitie dela villa, niuna più diletti che la vaghezza et utilità che si tranno da un ben ordinato giardino di diversi alberti fruttiferi, da un delitioso orto di tenere et fresche erbette et vaghi fiori compartito... "transcrito por (Barsali 1964:256) Bussato em 1593 reitera este ideal ao escrever o 1º capítulo, da sua obra Giardinao di Agricoltura, que se intitula, "Quello che debba avertire un padre di famiglia il quale desidera piantare un bello delitioso et utile giardino" (Palladio 1988:201). We find references to this duality production/leisure in Italian gardens in Masson 1961; Bentamn, Muller, 1975; Puppi 1972: 94-108; Lazarro 1990.

¹⁰ From what we understand as the influence of gardeners originally from Central Europe who brought new spatial languages as well as the development, after the second half of the 16th century, but with more expression all along the 17^{th} century, of the taste for collecting exotic species, coming not only from the New World, but also Asia and Europe.

¹¹ The geography of Portugal in the periphery, the appeal of the sea, which is translated by an history of character much more Atlantic than European has set us apart from the European ideal.

¹² Ribeiro and Lautensach 1988: 544; 554; 569.

Among the fruit trees used in Portuguese garden the citrus stand out¹³.



Fig. 12 - Quinta Real de Queluz where orange trees are designated in orange.

An analysis of the agricultural landscape and of the Mediterranean art of gardens reveals that the emblematic value of citrus is not only Portuguese but Mediterranean. However, historical vicissitudes determined that it became should last mainly in Portugal. When Predrag Matvejevitch speaks on clots in his Breviário Mediterrânico he tells us: ... transplanted (the citrus) to the Mediterranean basin, have ended to belong there and became its emblems (MATVEJEVITCH 1994: 87). When Goethe speaks about his nostalgia for Italy he sings of the lemon trees in flower, the golden orange trees coming out from dark green foliage (GOETHE 1979: 103). The studies by Sereni on Italian landscape and those by Fernand Braudel on the Mediterraneo¹⁴ (BRAUDEL 1983: 124, 469, 641; SERENI 1969: 67, 177) confirm the importance of citrus cultivation which happens in productive areas as well as in areas dedicated to leisure. We also have to point out the orange trees in Italian villae. Francesco da Sangallo in 1525, proposes to Villa Madama a luogo per aranci. In a project for a garden by Giovanvittorio Soderini — a revolutionary in 16th century garden design because of the new forms he introduces — he suggests the use of orange and lemon trees as elements of space composition. Georgina Masson refers to Villa Imperiale, in Pesaro, considering it typically renaissance not only because of the design but also the cultivation. Among the plants listed mentioned particularly noteworthy are orange trees which are managed to climb, covering the walls, the thirtyfour citron-trees that fill the flower-beds, two lemon trees, and multiple hybrids, named bizzarie¹⁵ (MASSON 1969:196).

¹³ It is important to mention that orange trees since the 16th century until the 19th century were an essential export product which balanced Portuguese finances. And once more this is due to the climatic characteristics which make possible orange tree cultivation from the north to the south in Portugal which does not happen in Spain or Italy.

¹⁴ E. SERENI, Storia del Paesaggio Agrario Italiano, Roma-Bari, 1969, p. 67, p. 177; Fernand BRAUDEL, O Mediterrâneo e o Mundo Mediterrâneo, 2 vols, Lisboa, 1983, I vol., p. 124, II vol., p. 469, p. 641.

¹⁵ Georgina MASSON, Italian Gardens, London, 1969, p. 196.



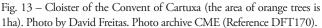




Fig. 14 – View of the Cloister of the Convent of Cartuxa. Photo by João Rodrigues.

These and many other examples that we could point out, prove the use and the important role citrus had in the Mediterranean garden design. However, in the context of this European region, they survive today, especially in the written and iconographic document. On the other side, in Portugal, it is a live and contempory reality which puts us closer to the landscape compositions of Islamic culture¹⁶.

Water and its pathways are the heart and soul of the Portuguese and Mediterranean garden. The vegetation with its different forms and typologies only makes clear the disguised design water conveys in its own way.

The regular composition derived from cultivation (especially in the kitchen garden and orchard), the dimension of the flower-beds and of the different subspaces, the distribution of the parts, the leveling of the ground and the consequent fragmentation are equally contributory with the presence of water and the hydraulic system. The design's fragmentation comes from that.

Aqueducts, mines, wells, tanks, gutters, fountains and water basins focus on and run through the space defining regularities and continuance of the plan as well as irregularities, punctuations and fragmentation of the design, following the presence of a spring and other hydraulic conditions. From this results a kaleidoscopic space full of surprises and pleasure. There is clearly a preference for plain hydraulic systems. The proper qualities of water such as murmuring, a reflecting mirror and the fresher environment are preferred instead of its scenographic and symbolic manipulation.

The biophysical characteristics, the liberation from academic rules and Italian forms, as well as the appreciation of vernacular architecture, announced by Kubler, as setting features of the "plain style", are present in the creation of the garden in Portugal. This makes Portuguese gardens different to all other erudite Mediterranean gardens and makes them the last representative of that singular Mediterranean matrix which seeks to make beauty and utility equal in the sense that usefulness only seems to convey beauty, while beauty cannot avoid being useful: the inherent values of the concept of the garden.

¹⁶ A vegetação do Mediterrâneo entra mais pronunciadamente para o sul, para além das cordilheiras de África, do que para o Norte, no interior europeu (MATVEJEVITCH 1994:93). Portugal is located more southern than many Mediterranean countries, and closer to North Africa.

Bibliography

ARAÚJO, Ilídio Alves de (1989) "A Vegetação no Jardim Português do séc. XV ao século XIX". Conference proceedings of the colloquium *Encontro sobre o Jardim Português (século XV ao século XIX*, Lisbon: Fundação Casa de Fronteira e Alorna.

ASSUNTO, Rosario, (1973), Il paesaggioe l'estetica, Arte, Critica e Filosofia, 2 vol, Napli: Gianni Editore.

BARSALI, I. Belli, (1964) La villa a Lucca dal XV al XIX secolo, Rome.

BENTMAM, Reinhard; MULLER Michael, (1975) La Villa como Arquitectura Del Poder, Barcelona: Barral.

BRAUDEL, Fernand, (1983), O Mediterrâneo e o Mundo Mediterrâneo, 2 vols, Lisbon: Dom Quixote.

CARAPINHA, Aurora (1995), *Da essência do Jardim Português*, PhD Thesis on Landscape Architecture presented to the University of Évora, Évora.

CARROL-SPILLECKE, M. (1992), "The Gardens of Greece from Homeric to Roman Time". *Journal of Garden History* 2 (2) 1992 pp. 84-101.

CARROL-SPILLECKE, M. (1988) "Greek gardens and parks in Hellenistic city planning" in *Acts of the 13th International Congress for Classical Archeology*, Berlim 1988 (Mairz, 1990), pp. 485-486.

COELHO, J. P. (1992), A Originalidade da Literatura Portuguesa, 3rd ed., Lisbon.

FERRIOLO, M. V. (1989) "Homer's Garden" Journal of Garden History, 9 (2), 1989, pp. 86-94.

GOETHE, J.W., (1979) *Poemas* (anthology, Portuguese version, notes and comments by Paulo QUINTELA), Coimbra: Centelha.

GRIMAL, Pierre, (1969), Les Jardins Romains, Paris: P.U.F.

GUERREIRO, MANUEL Gomes (1991), O Mundo Mediterrâneo - Sua Diversidade e Seu Futuro, Loulé: I.N.I.C- Unversidade do Algarve

KUBLER, George, (1988), A Arquitectura Portuguesa Chã, entre as Especiarias e os Diamantes 1521-1706. Lisbon: Vega

LAZZARO, Claudia, (1990), The Italian Renaissance Garden: From the Conventions of Planting, Design and ornament to the gardens of sixteenth century central Italy, London: Yale University Press.

LITTLEWOOD, Antony et al. ed, (2002) Byzantine Garden Culture, Washington D. C.: Dumbarton Oaks.

LITTLEWOOD, Antony. R, (1992) "Gardens of Byzantium" Journal of Garden History, vol. 12(2), 1992, pp. 102-125.

MASSON, Georgina, (1961), Italian Gardens, London: Thames and Hudson

MATVEJEVITCH, Predrag, (1994) Breviário Mediterrânico, Lisbon: Quetzal

PALLADIO, Andrea (1988), Los Cuatro Libros de Arquitectura, Madrid: Akal

PETRUCIOLLI, Attilio (1985), Dar-al-Islam, Architetture Del Territorio Nei Paesi Islamici, Rome: Carruci.

PUPPI, Lionello, (1972), "The Villa Garden of the Veneto from the Fifteenth to the Eighteenth Century", in *The Italian Garden, (ed. COFFIN, David R.)*, First Dumbarton Oaks Colloquium on the History of Landscape Architecture, Washington, 1972, pp. 94-108.

RIBEIRO, Orlando; LAUTENSACH Herman, (1988) Geografia de Portugal. 2 vols, Lisboa: Sá da Costa.

RIBEIRO, Orlando, (1987) Mediterrâneo, Ambiente e Tradição, Lisbon: Fundação Calouste de Gulbenkian.

SERENI, Emilio, (1961) Storia del Paesaggio Agrario Italiano, Roma-Bari:Laterza

TATTI, Giovanni (1561), Della Agricoltura, Venice: Apresso F. Sansovino et Compagni.

THOMPSON, D. B., (1963), Garden Lore of Ancient Athens, Princeton: American School of Classical Studies.