

# Historic Gardens and Patrimonialization by UNESCO: The Botanical Garden of Coimbra, Portugal

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## Abstract:

Contemporary marks include expansion of cities, extinction of nature, mobility and past as an important value. These marks enlighten historic gardens as cultural heritage and tourism product. The World Heritage List inscription ensures safeguards, but also places heritage as tourist differential. This article presents Botanical Garden of the University of Coimbra, World Heritage Site since 2013, with the aim of describing heritage historical reasons for its inscription on World Heritage List, presents visitor's profile and their knowledge about the Botanical inscription on the UNESCO list. The results show the success of the decision of UNESCO, but as this occurred associated with the University there is low visibility to Botanical Gardens patrimonialization inside and outside the University. Current management has in its planning to expand visibility of the Botanical Garden using communication and tourism tools.<sup>44</sup>.

**Keywords:** Garden Tourism; Historic Gardens; World Heritage; Botanical Garden of University of Coimbra; Coimbra; Portugal

## Resumo:

A expansão das cidades, a extinção da Natureza, a mobilidade e a valorização do passado são algumas das marcas do contemporâneo. Essas marcas levam à valorização dos jardins históricos como patrimônio cultural e como produto turístico. A certificação pela UNESCO como Patrimônio Mundial deve garantir salvaguardas ao Bem, mas também o coloca como diferencial turístico. Este artigo apresenta o Jardim Botânico da Universidade de Coimbra, Patrimônio Mundial desde 2013, com o objetivo de descrever as razões histórico-patrimoniais que levaram à

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sua certificação pela UNESCO, apresentando-se o perfil do visitante e o seu conhecimento sobre a certificação da área. Os resultados apontam o acerto da decisão da UNESCO, mas, como essa se deu associada ao conjunto da Universidade, há pouca visibilidade à patrimonialização do Jardim Botânico dentro e fora da Instituição. A atual gestão tem no seu planejamento dar maior visibilidade ao Jardim Botânico, usando ferramentas de comunicação e turismo.

**Palavras-chave:** Turismo de Jardins; Jardins Históricos; Patrimônio Mundial; Jardim Botânico da Universidade de Coimbra; Coimbra; Portugal

**Resumen:**

En este artículo se presenta el Jardín Botánico de la Universidad de Coimbra, Patrimonio de la Humanidad desde 2013, con el objetivo de describir las razones históricas que llevaron a su certificación por la UNESCO. Además, a través de un estudio, se presenta el perfil del visitante y su conocimiento de la certificación. Alguno de los argumentos contemporáneos más utilizados en relación a las diferentes políticas de gestión del territorio urbano han sido: la expansión de las ciudades, la extinción de la naturaleza, la movilidad o la exaltación del pasado. La gobernabilidad y gestión de las mismas, podrían conducir a la recuperación de los jardines históricos como recurso turístico a ofrecer en forma de producto dentro del patrimonio cultural. La certificación por la UNESCO como Patrimonio Mundial debería no solo garantizar su mantenimiento, sino que también situarlo como un diferencial dentro de la oferta de turismo. Los resultados de nuestra investigación, muestran el éxito de la decisión de la UNESCO. Pero también se reseña que como esta declaración fue asociado con el conjunto de la Universidad, hay poca visibilidad a patrimonialización del Jardín Botánico en términos internos y externos a la Institución. Concluimos con la idea de que la gestión actual debería de dar en su planificación mayor visibilidad al Jardín Botánico, entre otros, con herramientas de comunicación no solo a la población autóctona, sino también a los visitantes y turistas que vienen a la ciudad.

**Palabras Clave:** Turismo de Jardines; Jardín Botánico de la Universidad de Coimbra; Jardines Históricos; Patrimonio Mundial

## 1. Introduction

Historic or botanical gardens have gain visibility in recent years due to contemporary scene, characterised, among others, by wide territorial, economic, political and population expansion of the city. Nature is disappearing in urban areas and there is an increased mobility of people as well as a specialization of trips. Fredric Jameson (2001) sums up saying that contemporary society is culturalised and that nature is gone forever, just being ransomed or sustained as product, most especially, if incorporated as heritage.

The social emphases are associated to economic emphases. Mobility, for example, leads to increasingly larger number of travellers going through the world, contributing not only to well-known mass tourism, but also expanding specialised and culturally motivated trips, among others, in search of gardens. (Galli, 2015). Data from Botanic Gardens Conservation International (BGCI, 2010) recorded 200 million visits to botanical gardens in 2010, creating a niche tourism that is analysed as garden tourism.

Even culture and its expressions are associated with the economics. Nowadays, culture is an economic sector that involves significant figures, leading to market disputes between products, such as it happens with historic centres of the cities. For that reason, UNESCO inscription as World Heritage has become highly valued. It means recognition of the importance of property, giving it visibility and adding differentiated value to it in competitive cultural and tourism markets.

Positive scenario, however, does not assume that historic centres, museums, historic gardens and botanical gardens, even those recognised as World Heritage by UNESCO, have no worries about financial maintenance and a greater integration in community, leading to actions in favour of loyalty of visitors and the expansion of this public in terms of numbers and diversification. BGCI proposes audience development, i.e. expansion of number of visitors, users and even communities (Moussouri, 2013). To achieve these goals, BGCI recommends conducting research (audience research), i.e. investigations that focus on public, their opinion and feelings, as proposed by cultural studies.

Audience research is an important means of knowing how people want to enjoy and participate, and then it may assist in the production of content for educational projects of heritage interpretation. Such content should be easily assimilated, contributing to greater awareness about proceedings carried out on Botanical Gardens (Moussouri, 2013; White 1998; Van Valkenhoef, 2013; Wang and He, 2013 Willison, 2013; Walker, 2003; Ryland, 2010; Furse-Roberts, 2009).

This chapter intends to analyse garden tourism and to introduce Botanical Garden of University of Coimbra, Alta and Sofia (JBUC), inscribed on UNESCO World Heritage List in 2013, in procedure that certified University. Finally, we present results of exploratory level research conducted in 2016 in Botanical Garden. Research traced the profile of the visitors (audience) and questioned their knowledge on area under study, in particular regarding recognition of Botanical Garden as World Heritage by UNESCO. For collecting data, we used questionnaire with open and closed questions applied to 120 individuals in July 2016.

## 2. Gardens, Historic Gardens and Garden Tourism

Florence Charter<sup>45</sup>, signed by the International Council of Monuments and Sites (ICOMOS), defines historic garden as an architectural and vegetal composition which has public interest from the point of view of history and art, and for that reason it should be considered as a monument. Gardens are vegetal compositions, whose living material are perishable and at same time, renewable. Historic garden results from cyclical movement of nature associated with artistic expression and human skills in its maintenance, through gardening and natural sciences. They are equivalent to living museums, and must ensure future generation's access to natural and cultural preserved heritage. This led UNESCO and other safeguard entities to recognise its importance to figure in World Heritage List.

Among historic gardens there are some botanical gardens. Creation of botanical gardens refers to the 15th century, when great navigations, on their return to Europe, began to bring vegetal species from new worlds. Thereafter, they were deposited in enclosed areas to guarantee their survival and, if possible, reproduction. Historically, botanical gardens have demarcated a long association with researches, first ones being auxiliaries for teaching in medical schools, "with botany lessons aimed to apothecaries and surgeons" (Campbell, 2007: 250). Botanical gardens were consolidated in Italy (Pisa, 1543; Padua and Florence, 1545; Bologna, 1547), all of them associated with universities<sup>46</sup>.

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<sup>45</sup> The Florence Charter, 1981. International Committee of Gardens and Historical Sites. Available at: <<http://portal.iphan.gov.br/uploads/ckfinder/arquivos/Carta%20de%20Florenc%CC%A7a%201981.pdf>>. Consulted on: April 20th, 2016.

<sup>46</sup> The Botanic Gardens Conservation International (BGCI, 2015) does not consider that these spaces represented in the act of their foundation, the purpose and the function of botanical gardens in essence, even if they had the support of a university in their design. And it points out, however, the Botanical Garden of Missouri, in the United States, as the 1st garden considered botanical, in essence. The space had a scientific basis for identifying and researching the plants of its collection and exchange seeds with other institutions in order to expand the botanical knowledge around the world (BGCI, 2015).

Expansion of international trade routes in the 16th and 17th centuries changed botanical gardens. Kew Gardens in London and the Botanical Garden of Madrid, for example, were created to acclimatise and cultivate species brought in through expeditions to the tropics. European gardens began then to give rise to new botanical gardens in regions visited by them, to conserve and cultivate species for commercial purposes. This was the case, for example, of an *herbarium* created by Dutch in Recife, Brazil, in the 1st half of the 17th century (Gesteira, 2004). As time passes, function of these areas started being expanded. Today, they have as main objectives researches in biotechnology, biodiversity maintenance and natural environment preservation of the Planet.

Every garden is unique in its botanical content and for artistic pieces such as fountains and statuary that complement landscape and expand symbolic value of the area. That is why gardens are among most prominent tourist attractions, being example Central Park (New York, USA), Tivoli (Denmark) and Giverny (France). Among those classified by UNESCO as World Heritage are Royal Exhibition Building and Carlton Gardens (Australia), Classical Gardens of Suzhou (China), Kew Gardens (Britain) and Botanical Garden of University of Coimbra (Portugal), all of them attracting considerable visitation.

Portugal, in particular, has registered significant numbers in garden tourism. In 2008, Autonomous Region of Madeira, for example, in its 3 main gardens (Botanical Garden of Madeira, Monte Palace Tropical Garden and Quinta do Palheiro Ferreiro) registered more than 580,000 visitors who gave revenue of 3,5 million euros. In Continent, Serralves Park (Oporto) receives an average of 100,000 visitors a year. The gardens of Marquês da Fronteira Palace (Lisbon), and Botanical Garden of University of Coimbra (Coimbra) count every year 11,000 visits each<sup>47</sup>.

Such demand leads academic literature to present what has been referred to as garden tourism (or garden visiting) (De Angelis and De Angelis Neto, 1998; Smith, 2013; Brum and Santiago, 2011; Deladerrière, 2004; Evans, 2001). Garden tourism is included as an important trend of niche tourism, understanding that "niche is nothing more than a small market consisting of a single customer or a small group of customers with the same characteristics or needs" (Silva e Carvalho, 2013:633). Garden tourism, in general terms, involves trip to visit gardens which have significance to gardening history, and to festivals or events related to botany (Thomas et al 1994:2.). Quintal (2009:71) is more restrictive and defines it as "a

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<sup>47</sup>Source: the author from the data obtained in the Tourism and Creative Economy Congress. Porto, 18th and 19<sup>th</sup>, May 2016, and in an interview with the director of the Botanical Garden of University of Coimbra.

specialised tourism niche in visits to botanical gardens, historic gardens and other gardens with high phytodiversity.”

### **3. Botanical Garden of the University of Coimbra**

Botanical Garden of University of Coimbra has 244 years of history full of events and people who contributed to it to reach in 2013 the recognition by UNESCO as World Heritage, in same nomination process as University. University of Coimbra was founded in 1290, being part of an exclusive group of 15 higher education institutions that refer to the 13th century. Until 1537, when it is definitively installed in Coimbra, University was alternately based in this city and Lisbon.

Botanical Garden is an emblematic space for city of Coimbra and a prestigious space for Portugal due to its scientific contribution to botany. Like its counterpart in other countries, its creation is associated with medical sciences. Gradually, Garden began to interact with other areas of knowledge, such as Biology, Ecology, Anthropology, Philosophy, Pharmacy, Education, and at last Tourism. Integrating UNESCO list of properties registered as World Heritage, Botanical Garden expanded its visibility and consequent presence of visitors, who want to enjoy a public space for leisure, meeting and appreciation of natural landscape in addition to scientific culture. They are new ways of using the gardens, which managers seek to respect, without neglecting its scientific functions.

Back in time, Botanical Garden of Coimbra history started at Marquis of Pombal's administration (1750-1777), when University was modernised, particularly Medical School. University reform sought to improve Portuguese elite, only class with access to University, encouraging culture, arts and sciences (Maxwell, 1990: 110). This context led to the creation of University Botanical Garden in 1772, on land donated by Benedictine friars, next to St. Benedict College. It was called Horto Botânico, taking up only the area that is still known as Quadrado Central (Central Square).

Botanical Gardens should be a "common Establishment of Medical and Philosophical Colleges, for the cultivation of plants that are useful to Arts in general, and Medicine, in particular" (Statutes of University of Coimbra, 1772). Same document determined cultivation of all kinds of plants, especially of those that could contribute to Medicine, including plants of Portuguese overseas dominions. Even today, Garden keeps this scientific component, but it has also expanded its role in the dissemination of science and environmental education, its potential as a recreational space, as green lung in the middle of town, and now, as an important tourist

attraction and Coimbra postcard. Nowadays, Jardim Clássico (Classical Garden) occupies 3,5ha in upper level. In other 9,5ha is Mata (forest), an area that connects Upper and Lower part of city of Coimbra.

Botanical Garden original design was idealised by naturalist Domenico Vandelli, who had already founded first Portuguese Botanical Garden (Ajuda, Lisbon) in 1768. Professor Dalla-Bella and Julius Mattiazzi, the gardener responsible for Padua Botanical, also contributed to first sketches. Italian school was therefore, reference to the project of Botanical of University of Coimbra, in particular of Padua Garden (Henriques, 1876). Vandelli's project added 18 fountains, statuary and vases with floral arrangements (Figure 1). The project sent to Marquis of Pombal for approval was considered luxurious<sup>48</sup> and it was refused. A new project was designed with greater modesty and oriented to functionality proposed by Pombal.

### Figure 1

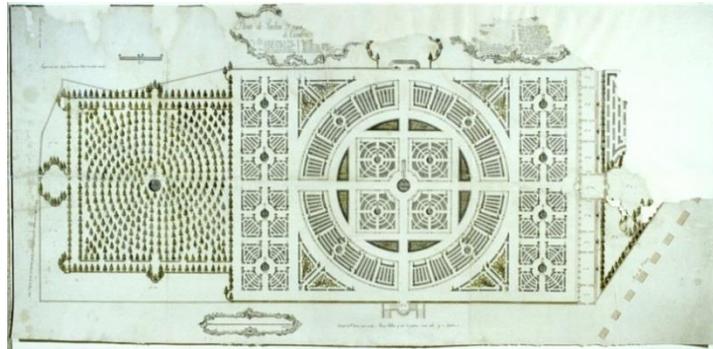
Plant cultivation began in Quadrado Central (Central Square) in 1774, and it was completed in 1790, with addition of only a central fountain, setting that remains to present day. In that decade, Medical School to study plants therapeutic properties and Escolas Sistemáticas (Systematic Schools) for botanical studies, as well as a series of rectangular flower beds for cultivation of medicinal plants were all concluded (Henriques, 1876).

Italian botanist Domenico Vandelli was first director of Botanical Garden, a position he held until 1791 when Portuguese botanist Félix Avelar Brotero, Professor of Botany and Agriculture, took over direction (Brites, 2006). Brotero was a scholar of Portuguese flora and went around the country searching for species hitherto unknown or little studied and he cultivated such plants on site (Braga, 1898). German physician and naturalist, Heinrich Friedrich Link, who visited Coimbra in 1799, wrote about Botanical Garden that "this property was superiorly organised and it is more interesting than the Lisbon Botanical Garden. Next to each plant it is found a stake with the name of the plant written on it, which is a similar distribution to the Jardin des Plantes in Paris (...)" (Braga, 1898).

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<sup>48</sup> The letter in which the Marquis of Pombal expresses its indignation at time of writing: "Os dictos professores são italianos: e a gente d'esta nação, acostumada a ver deitar para o ar centenas de mil cruzados de Portugal em Roma, e cheia d'este entusiasmo, julga que tudo o que não é excessivamente custoso não é digno do nome portuguez ou do seu nome d'elles. Eu, porém, entendo até agora, e entenderei sempre, que as cousas não são boas porque são muito custosas e magnificas, mas sim e tão somente porque são próprias e adequadas para o uso que d'ellas se deve fazer" (Carvalho, 1872).

Brotero's long work included publication of *Flora Lusitânica* (Lusitanian Flora) in 1804. This book describes 1,885 species in Latin, using Linnaean classification system (Carvalho, 1987). Brotero also signed extensive report, exposing garden conditions in terms of accomplished work and what was still necessary to be done, and submitted it to the rector of University in 1807. Report echoed, leading to purchase of new areas and duplicating Garden (Figure 2). During Napoleonic wars, Brotero took refuge in Lisbon, but remained as director of Institution until 1811 (Henriques, 1876).

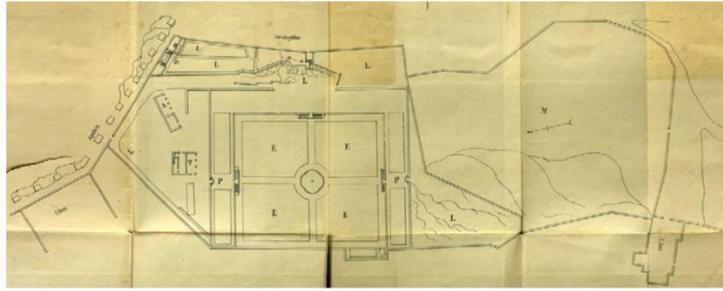


**Figure 1. Plant of the University of Coimbra Botanical Garden, 1773**

Source: Botany Library of University of Coimbra

## Figure 2

António Neves de Mello succeeds Brotero as Professor of Botany and also as director of the Garden. In his administration, impressive railing made of stone, iron and brass was installed and project for main gate by Joseph Couto dos Santos Leal was approved (Brites, 2006). Neves de Mello was also responsible for *Garden Catalog* (1882), reporting existence of 1,834 species of plants and a store of 4000 species of seed. In same year he was expelled from University and – even returning between 1825 and 1834 – he was dismissed for political reasons (Henriques, 1876). From 1834 to 1854, stairs of the Alameda Central were built and the main iron gate was installed in 1844 (Image 3), a blacksmithing work by Master Manuel Bernardes Galinha. His signature can still be seen in locks of the gate (Henriques, 1876).



**Figure 2. Plant of the University of Coimbra Botanical Garden, around 1800**

Source: Henriques, 1876

**Figure 3**

In 1852, director Antonino Rodrigues Vidal presented a proposal for building a greenhouse, which was approved only two years later, in Henrique Couto d'Almeida's administration. Couto named Pedro José Pezerat, a French engineer, to carry out construction. Three years later, most of the structure was ready, but for money reasons, only in 1862 last part was ordered to Massarelos Foundry, in Oporto. Conclusion only happened in 1865 and greenhouse is still viewed as main structure in Botanical Garden of Coimbra (Brites, 2006; Sousa, 2001) (Figure 4).

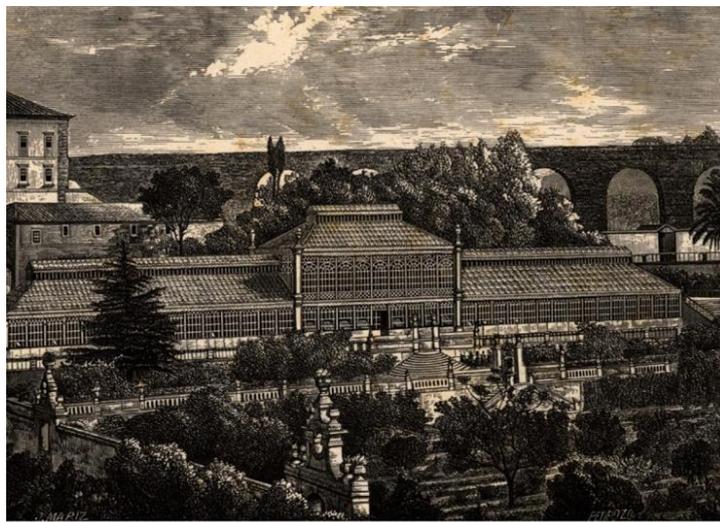


**Figure 3. Project for the main gate of the JBUC, 1818**

Source: Reis Trincão, 2014

**Figure 4**

Conclusion of the greenhouse allowed expanding exchanges and acquisition of plants, and hiring of German gardener Edmond Goeze, who had worked at Botanical Gardens at Kew, in England, and in Paris. It inaugurated a new phase for JBUC. In 1868, Antonino José Rodrigues Vidal, director of the Garden, encouraged Goeze to organise and publish first *Index Seminum*, a catalogue listing seeds of Garden that are available for exchange; a practice that still happens. The so-called 'Mata' began to be systematically planted at that same time.



**Figure 4. Engraving of the University of Coimbra Botanical Garden's greenhouse**

Source: Joaquim Mariz, 1867 (University of Coimbra Botany Library)

Another major player in construction of Botanical Garden of Coimbra was Júlio Henriques, who took office in 1873. He was director for 45 years, exercising this activity in parallel with teaching and researching in Botany and Agriculture. He established relationships with other botanical gardens and assembled a qualified team to introduce new collections in different spaces. He organised Herbarium, created Botanical Library and founded Botanical Museum. During his management, building of São Bento School, which was extinct in 1868, was connected to Botanical Garden (Figure 5). In building, they settled classrooms, work offices, accommodations for employees, workshops, storage houses, botanical museum, herbarium and a library. It is architectural configuration that is still present today.

## Figure 5

Henriques was responsible for some contributions in the city of Coimbra, such as afforestation projects of Quinta de Santa Cruz, current Sá da Bandeira Avenue, and Jardim da Sereia. He introduced exotic species in other areas of the city, such as Mata do Choupal and Mata do Vale de Canas. He was the founder of Broterian Society and its Bulletin. In 1887, it was built in Botanical Garden, by suggestion of Júlio Henriques, a statue in honour of Avelar Brotero, first statue in Portugal to honour a man of science (Fonseca, 2009; ICNF, 2005; Loureiro, 2007; Henriques, 1890). (Figure 5).

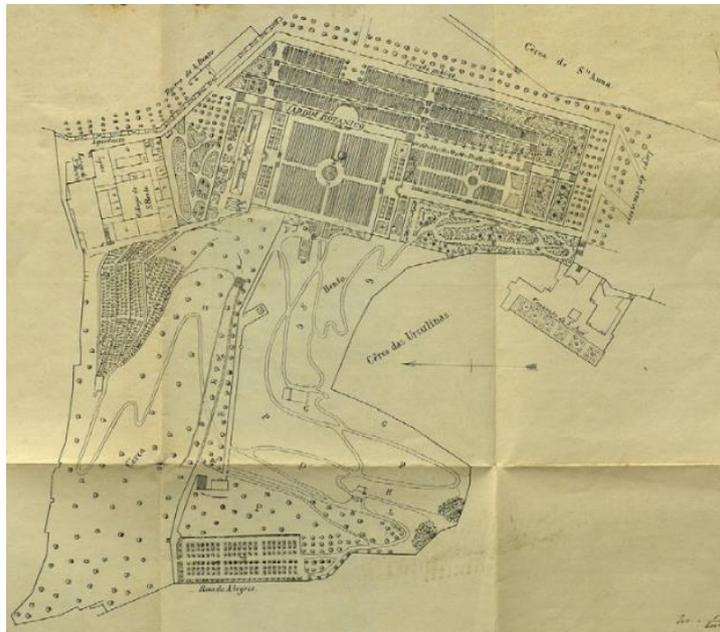


Figure 5. University of Coimbra Botanical Garden plant, in 1873

Source: Henriques, 1876

## Figure 6

Before retiring, Henriques started planting bamboos in Mata, completed work on Alameda Tílias and reshaped Quadrado Central. He replanted upper terrace with ornamental plants and plants arranged by botanical family and concluded placement of stone and iron railing in interior spaces of the Garden. His work was publicly recognised in a decree determining that Garden and its annexes - Herbarium, Museum, Library and Laboratory - would be renamed as Julio Henriques Institute (Brites, 2006; Coimbra Gazeta, 1925. The Institute, 1925).

The difficult task of continuing Júlio Henriques's work fell to Luís Carrisso in 1918. He worked to strengthen relations and exchanges with other botanical gardens. He restructured Seed Bank and secured international recognition of *Index Seminum*. He opened spaces for large trees and ornamental plants and created areas for visitors. As researcher, he invested in overseas territories, being a great expeditionary in Africa, where he died in one of his missions (Balcony, 2007; Martin, 2011; Guimarães, 2008; Brites, 2006).

Garden was for a few years under direction of Professors from Science Department until Abílio Fernandes took the office. He improved garden, together with Administrative Commission of Work Plan of University City of Coimbra (Barros Neves, 1980). Improvement, between 1944 and 1950, became known as works of arrangement and embellishment. The planning included restoration of railing, stairs and gates; water tank installation; construction of accommodations for employees, building of a cold greenhouse and of a bridge between Mata and Jardim Clássico.

Project also contemplated installation of fountains in Quadrado Central lake, and hundreds of benches all over the Garden. Finally, there were some improvements in landscaping, introduction of new species of plants, placement of plates describing plants, installation of living fences, introduction of lawns and shrubs and flowering plants. Historical component was not forgotten. Abílio Fernandes managed to receive funding for construction of a statue in honour of Júlio Henriques and for a medallion honouring Luís Carrisso. In 1969, University Commission was extinct and, in 1974, Abílio Fernandes left the Garden direction, after an intense life as a manager, professor and researcher (Brites, 2006; Barros Neves, 1980; Quintanilha, 1980).

In 1990s, under direction of José Mesquita, Mata was once again a target for action, with all main paths being cobbled. Six years later, Botanical was classified as Public Interest Property (Decree-Law No. 2/96). Modern Era in the Garden was marked by Helena Freitas's contributions (2004 - 2012), who led projects and partnerships in order to attract national and European funds for major actions and reforms in Botanical Garden. In total, there were more than two million euros for rehabilitation of scientific and technological infrastructure, which ensured historic contribution of the area, a better teaching and dissemination of knowledge, rehabilitation of tropical greenhouse and cold greenhouse, building of a new greenhouse, improvement of storage conditions for seed bank and also building of space for science divulgation and improvement of support equipment. Freitas also orchestrated decision to open a path in Mata that would be a link between Upper and Lower Town, reunifying Coimbra.

Meantime, in January 2012, formalization within UNESCO for application of University of Coimbra as World Heritage is also submitted, which was result of a process started in 2003. Botanical Garden was part of proposal and request accepted by UNESCO in 2013 (Figure 7).

In May 2015, António Carmo Gouveia, researcher and doctor in Biology, became Garden director, replacing Paulo Trincão who was in office for three years, both specifically appointed for director title. Until, position was accumulated with teaching in some University department. Change marks new position of Rectory, understanding need for professionalization of management, but also meeting demands arising from inscription in UNESCO List. Plan of action, coordinated by Gouveia, highlights five strategic lines established to achieve objectives set by new scientific and social functions that Botanical Garden should pursue (Reis and Trincão, 2014):

- (1) Encouraging scientific research, providing access and appropriate research conditions: preserving existing botanical collections and foster new areas; rescuing the garden history and its architecture to make them world reference in history of science.
- (2) Disseminating Science and Scientific Culture: through formal and informal means, contributing to social understanding of plants, establishing close links between the Garden and people.
- (3) Restructuring the educational service: implementing programmes with greater diversity, flexibility and visibility, which are appropriate to profiles and needs of various audiences (students, families, children and youth), awakening their interest in science, nature and botany.
- (4) *Ágora* - Citizenship and Public Area of Recreation: Garden should be a strategic place for enjoyment of citizens, in view of its central location in city. Equipping garden with necessary infrastructure for use of leisure, such as the implementation of urban furniture, proper signalization of areas and routes and creation of permanent spaces for dissemination of science, culture and arts.
- (5) Promoting tourism: For tourist insertion it will be required some improvements in accessibility, implementation of support services, availability of urban mobility and proper signalization. Later, guided tours in different languages will be created, supported by graphics and editorial material for sale and free distribution to tourists.



**Figure 6. Tribute Monument to Avelar Brotero**

Source: Authors, 2016

### **Figure 7**

In addition to targets set in Strategic Plan, management aims toward financial sustainability demands some actions of communication and promotion of Botanic Garden, and also qualification and professionalization in relationship with tourist. Going through online portal of University of Coimbra, it is observed a timid presence of Botanic Garden on it. The 'Tourism UC' link in portal cover refers to a page that highlights Royal Palace, College of Jesus, visitation programmes and permanent exhibitions. Another link indicating what to visit lists, once again, Royal Palace, Saint Michael Chapel, Iron Gate, Baroque Library, College of Jesus and University Tower. Botanical Garden appears only within pages 'Extension' and 'Academy'. This finding leads to believe that University itself still ignores the importance of Botanic Garden as a historic garden, in addition to its value as a scientific research area.



**Figure 7. Coimbra panoramic view**

Source: Terceira Dimensão Fotos Aéreas, 2015

### 3.1 The goer

Audience poll interviewed 120 people in Botanical Garden in the last week of July, 2016. As proposed by BGCI, audience researches allow understanding demands and interests of goers, to support future actions of heritage interpretation (prints, signalling, visitor centre ...) and communication with wider public. Original questionnaire has 32 open and closed questions, divided into five sections. This analysis considers only 12 closed questions included in fifth section (called Characterization of the Respondent) to meet objective of tracing a profile of goer. Moreover, two closed questions of second section (called Characterization of Travel) were used to meet objective of evaluating knowledge of inclusion of Botanical Garden in UNESCO list. Finally, three questions were selected from first section (called Characterization of Visit) trying to understand people's motivation to visit or learn about Botanical Garden, and how this visit takes place and where tourists and excursionists come from.

Numbers that come from research reveal that visitor in Coimbra is mostly woman (62.6%). Greater presence of women is explained by most common form of visit to garden, that is, by family groups (44%) which, when approached by a female researcher, tend to elect women (partners, mothers or daughters) to answer the questionnaire. Public attending Botanical is under 35 (50%), but there are many (36%) between 50 and 60 years, indicating a mature goer. In this public, there are a small majority of singles (47%), a significant number of married people (43%), and fewer divorced people (7%) and widowers (3%). In terms of occupation, most of them are employees (42%), but there are freelancers or independent professionals (16%) and a considerable percentage of students (27%).

Number of students is justified by the proximity of Botanical and University of Coimbra, one of the most popular places in Portugal for graduation, academic mobility programme and postgraduate studies. University of Coimbra currently estimates a number of 30,000 enrolled students and some of these students elect Botanical as a place to relax between classes or to study under the shadows of old trees, especially in the summer, period of the survey. But regardless situation of students, the sum of the graduates (43%) and postgraduates or masters (34%) and doctoral degrees (10%) reaches a significant percentage of 87% of the sample. This percentage may be associated with aforementioned higher age group, but also refers to what has been stated on niche tourism, which in case of historic gardens; it would be associated with a good academic educational background.

Among respondents, Portuguese nationality is predominant (38%), but there is a good number of French (12%), followed by Germans (7.5%), Spaniards (7.5%), Brazilians (6%), Dutch (5%) and Belgians (5%). Other nationalities were British, Chinese, Italians, Poles, Australians, Maltese, Angolans, Hungarians, Romanians, Argentineans, Americans, Canadians, Swiss, Lithuanians and Russians who together represent 19% of those surveyed. Although Portuguese are majority in figures, in absolute numbers they are supplanted by foreigners from 18 countries (12 from Europe, 2 from South America, 2 from North America, 1 from Asia and 1 from Australia).

Among Portuguese visitors, city of Coimbra, as expected, leads the ranking (26%), but 18 other Portuguese districts are cited, being 12 located in the Central Region where the city of Coimbra is, 4 located in the North and 1 in Lisbon. Second most mentioned Portuguese city in the survey was Leiria (3%), matched, for example, with same number of visitors from Brazil, Belgium, Lisbon, Italy, England and Poland (3%). Places like Aveiro, Mealhada and Cantanhede, neighbours of Coimbra, brought to Botanical Garden a number of visitors equivalent to the number of visitors from Australia, Switzerland and China (2%).

Public interviewed visited Botanical Garden accompanied (88%) by family members (44%) friends (14%) and boyfriends or partners (25%). A considerable number of them (26%) claim to be in Garden because it integrates a tourist circuit of the city of Coimbra, others for pleasure, for practicing outdoor sports, for reading or dating (28%), but also for escaping noise and movement of the city (22%). In small, but significant number, there are some visitors with botanical interest who want to see plants and participate in activities related to nature and science (16%).

Two-thirds (77%) of respondents answered affirmatively when asked about their knowledge on fact that University of Coimbra, Alta and Sofia is a property inscribed on List of World

Heritage by UNESCO. When same question was asked in relation to Botanical Garden, half of respondents (50%) were unaware of the fact. If we consider high level of academic education of respondents, the result is, to some extent, surprising. Likely reason for discrepancy is supported on verbal reports from visitors about absence of specific disclosure on botanical and historic garden, on patrimony in University materials and local and regional tourist authorities.

#### 4. Conclusion

The data collected by survey show the rich history of Botanical Garden of University of Coimbra since its creation, 244 years ago, during Pombalino government and justify its treatment as historic garden and, of course, its inclusion on World Heritage List of UNESCO. Data also indicate that inclusion in the list does not guarantee public recognition of property as a significant heritage. Expanding frequency of visitors, users or communities, as proposed by Moussouri (2013), will be result of management actions and communication policies.

Results achieved by research in Coimbra indicate that growing tourist flow in Botanical Garden is associated with visits to University, as 26% was part of a visitation itinerary. Even so, they are modest numbers compared to total visits to Institution. In 2015, University received 350,000 visitors, 90% of them were foreigners; these numbers express only those who purchased tickets. Forecast for 2016 is 400,000 paid visitors, an increase of 166% compared to 150,000 visitors recorded in 2013. Botanical, on the other hand, recorded 11,000 visits in 2015, even without charging admission.

Joanina Library, considered in most international rankings as 'one of the most beautiful in the world', is the space of University that attracts more tourists, followed by former throne room, called now Hall of Capelos, also known as Great Hall of Acts. And these are places of greater integration and visibility in the tourism products offered by Tourism Special Project and UC Shop, which is the department responsible for ticket sales and service to visitors. Neither Botanical Garden nor any information about free admission appears among visitation programmes available for purchasing of tickets on online page. Attractions map of University, given to those who purchase tickets directly from shop, also does not include Garden.

It is notable the lack of coordination between academic sectors in the marketing of tourist attractions. It is possible to conclude, therefore, that visit to Botanical is spontaneous, because only 16% declared botanical interest in visit. Current management of Botanical Garden presents, in target five of planning, proposals of actions for disclosure and guidance to tourists, such as maps of the site and use of social networks to give visibility to programming. Other actions

include help desk, distribution of information material, signs for orientation and patrimonial interpretation, guided tours and development of a smartphone application for self-guided visit.

The contribution proposal contained in submission to UNESCO includes redevelopment project of area for better use of existing historical buildings, restoring their original functions or adapting them to new uses. Architectural heritage built, sculptural elements, statuary, gates and greenhouses have already been restored. Plan also provides for recovery scientific, educational, social importance and greater dialogue with tourism.

Time is opportune for this approach, considering what literature presents in terms of garden tourism and interests of public specialised in historic gardens and botanical gardens. This is a niche tourism booming, which is given as a complement to scientific and structural activities that are fundamental to Botanical Gardens.

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