

Title: Historic Garden Management towards the organization efficiency

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Abstrat

Is the Covid19 the biggest threat to the safeguarding of Historic Gardens of the 21st century? On the contrary, we believe that these pandemics provide the right opportunity to change the mindset regarding garden maintenance.

We did have witnessed a violent disruption and the adaptation to this Global Pandemic reality is mandatory. While we have thus far evolved along a path structured around raising the historic gardens and parks to meet their monumental character in Sintra, we are today struggling with a new reality: the very survival of this heritage.

As an answer to the health crises, strategically the state-owned company Parques de Sintra, implemented in 2021, a new model of management of 171,15 ha of public historic gardens and parks, classified as national monuments, based on the estimated minimum rate of manpower, logistics, daily based gardening methodologies, etc., required to guarantee the survival and preservation of two decades of investments.

Key-words: Historic Gardens, Management and Maintenance of Historic Grounds, Sintra

The need for a new management model of the historic grounds in Sintra, Portugal

Parques de Sintra, a state-owned company, has been playing a key role on the safeguarding of Historic Gardens in Portugal, since 2000, being responsible for the management of the parks and gardens classified as national monuments, located in the Cultural Landscape of Sintra, listed by UNESCO since 1995, including the most visited monument in Portugal in 2019, the Palace and Park of Pena (Fig.1).

Over the last 20 years, a qualified multidisciplinary technical team have striven to consolidate methodologies and define a unique management model, capable of accomplish the main goal of preserving the heritage values within the Sintra's region (Fig.2).

Until 2019, the referred management model was mainly based on the tourism industry, generating an adequate amount of money to cover all the operation costs, including maintenance costs and investments on the conservation and restoration interventions.

As a result of this process, and following the best ethical and technical methodologies, guidelines and recommendations promoted by the international charters on preservation of

heritage, were accomplished several awarded restoration projects of historic properties including Park of Pena, Park of Monserrate, Moorish Castle, Capuchos Convent and Gardens of the Palace of Queluz (Fig.3), among others.

As long as Parques de Sintra assist to the raise of the tourists visiting (more than 3,5 million of visits in 2019), was capable of doing as much as the organization could, given the scale of the technical team. But then, the Covid19 pandemic triggered a type of domino effect that originated the collapse of this type of models, with a reduction of 80% of the number of visits by the end of 2020. In a very short period, the technical team was asked to come up with new strategics to reduce the operation costs to the minimum towards the organization efficiency.

Right now, it can be possible to invert the logic of «tourism pressures» and the heritage models that base their financing models almost exclusively on tourism. It seems clear that historic garden managers from this time on, may focus attention on sustainable alternatives for heritage maintenance and conservation programs or, the plans for meeting the new standards imposed by social distancing, digital challenges, or the regeneration of the planet. More than ever before, solutions must involve the national public, the local community and the local interested parties.

Following the best practices

There are today many factors that reveal the shortcomings of the theoretical methodological paradigm disseminated by charters, conventions, and best heritage practices. That demand different commitments towards the safeguarding of historic gardens in their role as cultural monuments. Although the Florence Charter remains until today as an unavoidable guidance applied to historic gardens preservation, looking into a garden as a living monument, capable of having resilience over time but, still, very fragile. As reflected on the Article 9, the preservation of historic gardens “require several kinds of action, mainly maintenance, conservation and restoration. In certain cases, reconstruction [...]”¹. “Continuous maintenance of historic gardens is of paramount importance” and it is the key factor for the success of any other action towards the safeguarding of the garden’s authenticity and spirit of the place.

Following the emergency state declared by the Portuguese state, all the monuments in Portugal were closed in 14th of March 2020, as a control measure of the spread of COVID 19. It was mandatory to reduce all the maintenance and administrative services to the minimum. All the maintenance routines were suspended until 18th of May 2020.

During this period of three months, the technical team responsible for the management of the grounds, implemented a contingency plan to guarantee minimum conditions for the reopening to the public of the monuments. Regardless of this concern, a great number of restoration and conservation actions were suspended or cancelled and was reduced to the minimum the management annual budget.

The sanitary restrictions got suspended the corporate program of social responsibility regarding the integration of prisoners into the labour market, running since 2008, to reinforce the manpower of the organization, with an average of 20 workers in addition to the base team of 27 workers. In addition, the base team of garden maintenance has been complemented

¹ ICOMOS, Historic Gardens - The Florence Charter 1981. International Council on Monuments and Sites, Paris, 1982, p.2.

with the integration of 12 disable people, correctly trained to be able to execute basic gardening techniques as gardeners assistants.

Based on this new reality, the headboard of Parques de Sintra developed a Management Strategy for the triennium 2021 to 2023, based on the requirement of increasing the organizational efficiency, meaning a change on the paradigm of planning the management of historic gardens and parks, involving:

- Resource optimization (human, logistic, financial, and administrative resources).
- Reduction of bureaucracy of processes and procedures.
- Flexibility of response to the unpredictability of the public health crisis.
- Modernization: search for innovative solutions.
- Analysis of non-core and non-strategic activities in the need for strategic refocusing.
- Reduction of current expenses towards the financial sustainability, budget balance and compliance with the triannual budget (2201-2023).

The historic garden management model

A management model of any historic garden, park or Landscape must follow the best tailored gardening standards and techniques to each propriety, considering the character, style, typology and construction period. Must be based on continuity, be realistic and flexible. Need to be monitored, adjusted, updated and rolled forward on a regular basis².

Along with the patrimonial and cultural values, including the botanical value, these properties also have interest for the conservation of natural and ecological values, being insert in the National Natural Park of Sintra-Cascais.

Considering the context of human resources dedicated to the maintenance³ of the gardens and parks (2 Landscape Architects, 5 gardeners chiefs, 22 gardeners and 12 gardeners assistants), the monthly costs of: administrative, logistics, materials, machinery maintenance and repair, salaries expenses and external contractors and services were reduced to minimum.

Parques de Sintra is due responsible for the management of 11 very distinct properties with 171,15 ha of historic gardens and parks:

Property Name	Total Area (ha)	Style / Typology	Period of construction / transformation by the owners	Estimated annual cost
Convent of the Capuchos (Convent of Cork)	7,37	Religious medieval grounds transformed in a romantic ruin	1560 - 1873	16 039,61 €
Park of Pena	86	Romantic Park framing a royal residence	1836 - 1904	302 238,86 €

² John Watkins, Tom Wright, "The Management & Maintenance of Historic Parks, Gardens & Landscape – The English Heritage Handbook" 2007, Frances Lincoln. P.35.

³ According to the Burra Charter maintenance means continuous protective care of the fabric and setting of a place, and is to be distinguished from repair. Repair involves restoration or reconstruction.

Moorish Castle	3,85	Moorish fortification transformed in a romantic ruin	10th century - 1885	49 465,94 €
National Palace of Sintra	1,12	Medieval royal residence	10th or 11th century - 1910	15 305,75 €
Info PSML (Sintra's historical center ticket office)	0,04	State forestry guard housing	1950	348,37 €
Abelheira	0,93	Romantic royal residence housing	1838	8 407,17 €
Vila Sassetti	0,78	Romantic private residence	1890 - 1984	31 679,03 €
Mont Fleuri	0,72	Romantic private residence	1882	18 063,33 €
Sintra's historical center picnic park	4,09	Romantic forestry public area	1937 (uncertain)	65 876,36 €
Park of Monserrate (including the Farmyard of Monserrate)	34,25	Romantic private residence	1540 - 1901	214 804,75 €
National Palace of Queluz and Queluz woods	32	Baroque, Rococo and Neoclassic royal residence	1654 - 1910	267 892,50 €
TOTAL	171,15			990 121,67 €

The annual cost of each property was defined based on manpower productivity indicators, taking by example the case of the Ville de Rennes in France⁴, adjusted to the Portuguese and Sintra's specificity. All the 11 properties were analysed and classified in 4 intensity levels of maintenance (Fig. 3 to 6) supported by GIS cartography (fig. 8):

Intensity levels of historic garden maintenance	Characterization of the landscape/garden category	Garden area that 1 average gardener can maintain following the standards of the intensity level per year ⁵	Approx. labour hours per year
High	Ornamental gardens and borders with a wide range of vegetation types and high visual impact:	0,6 ha	2800h/ha

⁴ Web platform Barom&tres – Les Indicateurs, developed by the organization Plaet & Cité, dedicated to the dissemination of indicators for Gardening professionals working in public urban gardens. On-line at: Parcs et jardins: Temps de travaux pour l'entretien - Baromètres (plante-et-cite.fr)

⁵ In Parques de Sintra each average field worker should complete 1694 labour hours in a year. A workday has 7 labour hours, a year has 11 labour months and 5 labour days a week.

	<ul style="list-style-type: none"> • Formal areas. • Annual bedding. • Ornamental glasshouses. • Propagation facilities and nurseries. • Topiary of formal hedges. • Parterres, • Knot gardens. • Lawns. • Roads, paths, terraces and verges (weeding, swept). • Displays in pots, vases and other containers. • Specific collection of plants (ex: Rose Garden). • Garden entrance. 		
Intense	<p>Garden areas surrounding palaces, landmarks, buildings with patrimonial value, visitor service areas (parking, interpretation centres, cafeterias, shops, toilettes, administrative buildings, etc.).</p> <p>Garden and landscapes with consolidated bedding plots or extensive areas with high botanical diversity and interest:</p> <ul style="list-style-type: none"> • Kitchen garden. • Cottage garden. • Ground cover. • Perennials. • Mixed and cottage-style borders. • Water features: garden pools and pounds. • Ferneries. 	1,4 ha	1200 h/ha
Medium	<p>Framing areas distant from the palaces, landmarks, buildings with patrimonial value, visitor service areas and buildings. Plots and bedding with consolidated vegetation, special the ground cover. Pleasure gardens:</p> <ul style="list-style-type: none"> • Ornamental meadows. • Orchards. • Fence lines. • Animal paddocks. • Hedges 	2,1 ha	800 h/ha
Low	<p>Landscape garden and naturalized park and wild garden areas with very dense tree canopy:</p> <ul style="list-style-type: none"> • Ornamental woodland areas and walks. • Framing woodland under recovery or conversion of the arbor collection. • High slope areas. • Granite outcrops - Chaos Blocks. 	18,8 ha	90 h/ha

All the works have been registered in a daily basis, in order to confirm by the end of the year, the number of hours spent in each area.

Is it worth it?

We are halfway to the end of these experiment, and we already can effortlessly prove that we are lacking human resources. Taking Park of Monserrate by example, it was registered until

June an average of 703,36 labour hours per month. Inferring that the labour hours will be constant until the end of the year, we will register at Park of Monserrate a total of 2048,12 h per hectare. It is certainly insufficient since we estimated as required, to meet the correct standards of historic garden maintenance, a total of 4890 h/ha/year.

Intensity levels of historic garden maintenance	Area (ha)	Average labour hours per month	Labour hours per month per ha	Total estimated labour hours per year per ha	Approx. labour hours per year per ha required (Target)
High	5,03	635,65	126,37	1516,46	2800
Intense	1,12	45,66	40,77	489,25	1200
Medium	1,9	5,39	2,84	34,02	800
Low	23,85	16,66	0,70	8,38	90
TOTAL	31,90	703,36	170,68	2048,12	4890

Of course, It is worth to develop and applying this methodology, although very demanding to the also very short technical team responsible for the management of the 11 properties. By the end of the year, we will have irrefutable proof that is fundamental to make a biggest investment on garden maintenance.

Bibliography

Baromètres – Les Indicateurs, developed by the organization Plaet & Cité, dedicated to the dissemination of indicators for Gardening professionals working in public urban gardens, On-line at: Parcs et jardins: Temps de travaux pour l'entretien – Baromètres: <https://barometres.plante-et-cite.fr/donnees/parcs-jardins-temps-entretien/>).

ICOMOS, Historic Gardens - The Florence Charter 1981. International Council on Monuments and Sites, Paris, 1982.

John Watkins, Tom Wright, "The Management & Maintenance of Historic Parks, Gardens & Landscape – The English Heritage Handbook" 2007, Frances Lincoln.