PARQUES DE SINTRA MANAGEMENT MODEL: THE PALACE OF PENA CASE STUDY

El modelo de gestión de Parques de Sintra. Estudio de caso sobre el Palacio Nacional de la Pena

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ABSTRACT

Parques de Sintra - Monte da Lua, SA (PSML hereafter) is an entirely state owned company set up in 2000 subsequent to UNESCO classifying the Cultural Landscape of Sintra as World Heritage in 1995 and bringing together those institutions with responsibilities in this field as shareholders.

The PSML public heritage management model is unique in Portugal. In 2014, the heritage sites received over 1.9 million visits and generating some €18.3 million in revenues and ranking the company as among the three most important cultural tourism poles in the country. The PSML mission involves restoring, maintaining, promoting and opening up the heritage managed for the public good.

To ensure the maintenance and functioning of this heritage, the company draws exclusively on the revenues generated by site entrance tickets, by the cafeterias, the stores and by renting out such sites for events. For its investment projects, the company draws on its own income and whenever possible also seeks support from national and European subsidy programs.

The Palace of Pena is the most visited monument in the Sintra Cultural Landscape having received around 900,000 visitors in 2014.

We now present the PSML management model, applied across its different facets, and particularly in relation to the National Palace of Pena, explaining its economic sustainability, the relationships with visitors and the strategy deployed in the approach to heritage restoration and conservation intervention projects. This correspondingly focuses on aspects such as the "open for works" method, the projects implemented and the future perspectives as well as the "virtuous cycle" vision driving the model's success: heritage restored and open to public enjoyment, greater and deeper visitor satisfaction, higher revenues, higher investment.

Keywords: Sintra, Pena, Heritage, Management, Sustainability, Refurbishment, Conservation and Restoration

RESUMEN

Parques de Sintra – Monte da Lua, SA (PSML) es una empresa de capitales exclusivamente públicos creada en el año 2000, después de que la UNESCO declarase en 1995 el Paisaje Cultura de Sintra Patrimonio Mundial. Agrupa a las instituciones con responsabilidades en la zona y que constituyen su accionariado, con la misión de recuperar, conservar, divulgar y abrir al público el patrimonio que gestiona. El modelo de gestión del patrimonio público de PSML es único en Portugal. En 2014 recibió a más de 1,9 millones de visitantes que generaron unos ingresos de cerca de 18,3 millones de euros, situándose entre los tres más importantes polos de turismo cultural del país. El Palacio de la Pena es el monumento más visitado del Paisaje Cultural de Sintra, con cerca de 900 mil visitantes en 2014.

El mantenimiento y funcionamiento de las propiedades dependen exclusivamente de los ingresos que reportan las taquillas, las cafeterías, las tiendas y el alquiler de los espacios para eventos. La empresa también recurre a sus propios recursos para financiar sus inversiones, buscando en la medida de lo posible contar con el apoyo de programas nacionales y europeos.

El modelo de gestión de PSML que se presenta, aplicado en sus diferentes vertientes y en especial al Palacio Nacional de la Pena, explicita su sostenibilidad económica, la relación con los visitantes y la estrategia utilizada en las intervenciones de recuperación y conservación del patrimonio. Entre los diferentes aspectos tratados destacan el método "abierto por obras", los proyectos ya realizados y los previstos para el futuro. Se ofrece también una visión sobre el "círculo virtuoso" para el éxito del modelo: patrimonio restaurado y abierto al público, más y mayor satisfacción de los visitantes, mayores ingresos, más inversiones.

Palabras clave: Sintra, Pena, Patrimonio, Gestión, Sostenibilidad, Rehabilitación, Conservación y Restauración.

1 INTRODUCTION

In 1995, a very successful application resulted in the classification of the Sintra Cultural Landscape as World Heritage. The important work carried out in this process and enabling this classification also led to added responsibilities that drove the convergence of efforts that had hitherto been dispersed across the different entities and organisms with responsibilities in managing this field.

The sheer scale and complexity of the design and implementation of the restoration project required by this zone, alongside the appropriate management of the means of financing the activities necessary for them to take place, led to the

conclusion that the properties should be entrusted to an entity endowed with a business structure.

Hence, in 2000, Parques de Sintra – Monte da Lua, SA. (PSML) was founded, a private company with exclusively public capital and underwritten by the state (through the Ministry of Agriculture, Rural Development and Fishing, the Ministry of the Environment and Land Planning, the ICN - the Institute of Nature Conservation, the Ministry of Culture, through IPPAR - the Portuguese Institute of Architectonic Heritage and by Sintra Municipal Council (original shareholder structure). The company was structured as an autonomous unit that would sustainably manage, and without further recourse to state budgetary financing, the botanic, landscape and cultural values existing in the territory included within the classified zone.

Evolution and structural modifications in the Portuguese state produced alterations in the aforementioned shareholder structure. Currently, the company is held by the Ministry of Finance (35%), the Institute of Nature and Forestry Conservation (35%), by Portugal Tourism (15%) and by Sintra Municipal Council (15%). Despite these developments, the company mission has remained unaltered.

The properties currently under PSML management constitute the most relevant natural and cultural sites of Sintra: the Parks and Palaces of Pena and Monserrate, the Palace of Sintra, the Gardens and Palace of Queluz, the Moorish Castle, the Convent of the Capuchos and its adjoining forests.

The National Palace of Pena

The Palace of Pena perches on a rocky escarpment that stands as the second highest point in the Sintra Hills (behind only the Cruz Alta at 528m in altitude). The Palace spans two wings: the former Manueline convent of the Order of Saint Jerome and that built in the 19th century under the supervision of Ferdinand II. These wings are flanked by a third architectonic structure which sketches out a fantasy, imaginary castle with rounded walls, topped by parapets and turrets, lookout towers with an access tunnel and even its own drawbridge.

In 1838, King Ferdinand II acquired Nossa Senhora da Pena, the former convent of the Order of Jerome monks, which had been built on top of the Sintra Hills in 1511 by King Manuel I and had stood empty since 1834 when the religious orders were abolished. The convent then contained the cloister and support buildings, the chapel, sacristy and the bell tower and that today makes up the north section or the Old Palace.

Ferdinand began by making repairs to the old convent that, according to contemporary accounts, was only in a very poor state of repair. He ordered the restructuring of the entire upper floor and doing away with the fourteen cells to install larger scale rooms and covering them with the vaulted arches that we see today. In around 1843, the king decided to expand the Palace with the construction of a new wing (New Palace) with larger sized rooms, with the Great Hall one example, setting off the structure with a circular tower alongside the new kitchens. The construction project was overseen by Baron von Eschwege.



Figure 1 - National Palace of Pena

2 MANAGEMENT MODEL

PSML manages natural and cultural heritage of the highest standard (World) but does not however receive any state funding and relies exclusively on the revenues generated by its sales of entrance tickets, by its cafeterias and stores and in renting out sites to host events. This is the only such heritage management model of this type in existence in Portugal.

Its economic sustainability requires constant attention to visitors and their respective levels of satisfaction. To this end, PSML engages in its activities in accordance with the following guiding principles:

- I. The satisfaction of shareholder expectations constitutes the underlying premise inherent to all activities;
- II. Dialogue with interested parties represents one source of information essential to continuing to improve the quality of the goods and services made available by PSML;
- III. Commitment towards enabling due enjoyment of the heritage under its management;
- IV. The need to satisfy, where not exceed, the expectations of visitors and other clients;

- V. Commitment to ensuring multifunctional management within the business framework of the resources and heritage assets placed in its care;
- VI. Economic, environmental and social sustainability of its heritage management activities provides the means of guaranteeing their conservation and enhancement not only for the current generations but also for those still to come;
- VII. Managing the forestry heritage placed in its care with all due respect for the Principles and Criteria handed down by the Forest Stewardship Council and fostering greater awareness among interested parties;
- VIII. The professional and personal development of all members of staff proves an essential condition to the efficiency and effectiveness of the Model;
- IX. All activities ongoing are subject to periodic evaluation processes in order to ensure continuous improvement;
- X. Promoting and implementing Social Responsibility actions.

PSML runs a young, competent and motivated team containing specialist technicians able to provide rapid responses to new needs. This structure is furthermore supported by a Scientific Council on which sit persons of recognised merit from across the cultural field, external consultants across the most varied of areas and in addition to establishing protocols with universities and laboratories, which enable the justification of decisions taken whether in terms of intervention policies or overall management.

The technical team defines the project and working requirements, oversees the tendering processes, supervises and accompanies project implementation with the scale of the contracts awarded compatible with its inspection capacities.

The effective results stemming from these good management practices over the course of time are reflected in the following tables:



Table (1) – Growth in visitor numbers: 2005 to 2014.

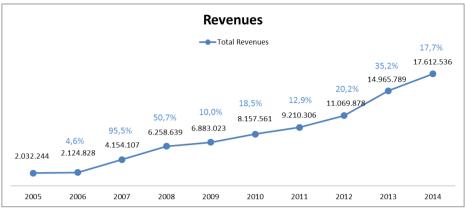
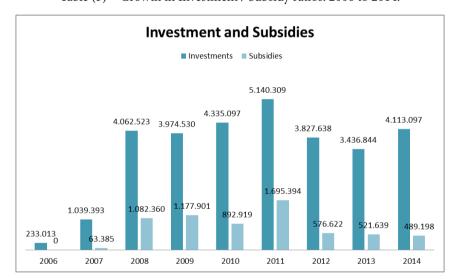


Table (2) – Growth in revenues (€): 2005 to 2014.

Table (3) - Growth in Investment / Subsidy ratios: 2006 to 2014.



The three main conditions necessary to applying the Model are:

- The heritage under management needs to be high level and attractive and located within a controlable perimeter.
- The heritage requires a critical mass and be of a diversified nature, including
 both buildings and green spaces so as to enable the installation and support
 of teams with various competences and compatible with the restoration and
 maintenance of this heritage.
- The heritage should not only need conservation but also investment in some cases more than in others and thereby justifying the search for revenues and their redistribution and application throughout the zone.

"Open for Works" projects

The "Open for Works" concept encapsulates the scope for visitors to witness up close the ongoing work undertaken to safeguard and value the various parks and monuments and also enabling dialogue with the technical experts involved. This is one of the most emblematic PSML initiatives and present in diverse projects bringing about the requalification of parks, palaces, gardens and monuments and always with the doors open to public.

Based on this concept, PSML includes in every restoration project that does not jeopardise visitor or worker safety the requirement that such work be done on display to the public. The technical staff respond to any questions asked of them and motivated to proactively explain to visitors the respective tasks they are undertaking. This seeks to maintain the visibility of any work ongoing and enabling the visitors to recognise the maintenance demands inherent to such heritage (whether natural, architectural or museological) as well as grasping the human and financial investment necessary to such ends. Additionally, witnessing the work conveys a more immediate notion of the evolution in the work project and thus enhancing a better appreciation of the final results.

PSML also believes that the fact that visitors witness this type of work may also serve to awaken vocations given that much of such work is normally undertaken in workshops or other facilities non-accessible to the public in general. This facet to the interventions may further deepen the attractiveness of a visit to broader and different publics and thus representing added value to visitors.

3 RECENTS INTERVENTION PROJECTS AT THE NATIONAL PALACE OF PENA

Following the awarding of the management of the Palace of Pena to PSML in August 2007, the technical team began a thorough study of the maintenance, conservation and restoration needs establishing a hierarchy of priorities identifying the most urgent tasks within the objective of the medium term recovery of the entire Palace and its grounds.

The results of this global approach focused on the urgent need to prevent water entering through the roofing and window alongside the need to review and modernise all of the infrastructures (water supply and drainage, electrical installations, telecommunications, detecting and combating fires and in addition to security issues), adapting the reserve spaces and setting up facilities for maintenance teams, restructuring the visitor support facilities, the educational and interpretative programs, building up the facilities for hosting events, restoring the external appearance in pigmented limestone, masonry and tiles and fostering and enabling the conditions necessary to restoring the interior decoration and the collections.

In these early years, the beams and the roofing sections were repaired to halt any further degradation of the interiors. Rooms for the reserve museum collections underwent adaptation and improvement. The Palace gained a drinking water supply system alongside completion of the connections with the public sanitation network. The water cisterns for combating fires and irrigation gained automatic supplies via the Park's own water collection storage tanks. Maintenance team working facilities underwent an upgrade along with the installation of around 80 CCTV cameras within the overall framework of adaptation to ensure effective monitoring and security.

In the following years, projects targeted the modernisation of the electricity installations, communications in general and the fire detection and extinction systems in a phased fashion gradually extending throughout the entire Palace without ever interfering with its daily operational functioning. The lighting of the museum visit routes was replaced and deploying far more efficient solutions. One area underwent conversion to become an interpretation room with another serving for educational support activities. The decorative finishings to the Queen's Room and Cabaças Staircase underwent renovation with work beginning on the project foreseeing the complete restoration of the Great Hall and its adjoining rooms.

2014 saw some highly important projects take place at the Palace: the conclusion of the complete restoration of the Great Hall and its adjoining rooms as well as the core phases to the modernisation of the infrastructures; restructuring the visitor support areas (store, restaurant and cafeteria); the restoration of the external finishings in limestone, masonry and tiles; and in addition to the restoration of the Queen's Writing Room and the Tower's Monumental Clock. With project completion forecast for the first half of 2015, 2014 also saw the launch of a review spanning all of the signposting at the Palace and the final phase of infrastructural modernisation.

The restoration of the Great Hall and its adjoining rooms

The full restoration of the Great Hall started in 2011 and was finished in January 2014. It consisted of the general rehabilitation of its infrastructures, repairs to the pavement and restoration of plaster finishings, stained glass and furniture commissioned by king Ferdinand, including pieces in the reserve collection and porcelain.

Rehabilitation of the infrastructures

The infrastructural rehabilitation project launch dates to 2012 and spanned four criteria based on the different sections of the Palace and their respective utilisations and incorporating a review of the external primary infrastructures; the full substitution of the networks incorporated into the main section of the

New Palace that houses the Great Hall, D. Manuel Rooms, the Stag Room and the Royal Kitchen; and the redesign of the section hosting the commercial spaces, the store, the restaurant and cafeteria. The fourth phase is currently ongoing and extending across the entire section making up the former convent.



Figure 2 - Great Hall

Restructuring of the store, restaurant and cafeteria

The redesign and refurbishment of the store, the restaurant and the cafeteria was completed in May 2014 in time for the peak summer season. The intervention sought to endow a better visit experience and to meet the demands raised by their growing numbers and totalling around 840,000 entrances in 2014. Another objective involved providing a better response to citizens with mobility restrictions and who are now able to circulate in these three areas courtesy of the new elevator.

The spaces were reorganised, enhancing the original structure of the building and the means of better redesigning and equipping the store, restaurant and cafeteria. Thus, the project correspondingly optimised the conditions for access and utilisation and inclusively improving the circulation between each of the three floors on which these facilities are located. We would note that prior to this intervention project, there was no direct access between the restaurant and the cafeteria.

The greatest challenges derived from being able to define these new facilities while taking into consideration the Palace's own architecture, which understandably was not conceived for such functions and hence also required the restructuring of the technical support zones. The space that now houses the store was the coach stable in the 19th century while the current restaurant stands in the

quarters for the Palace's maids while the cafeteria was once the pantry and store to the Royal Kitchen. The adaptation of these areas had already taken place in the 1990s.

The building was fitted with two elevators, one for public access and thereby improving the means of accessing the three floors - in particular for visitors with reduced mobility - and a service elevator interlinking the floors housing the warehouse, the restaurant and cafeteria.



Figure 3 - Refurbishment of the Store, Restaurant and Cafeteria

Restoration of the facades, masonry and tiles

The full restoration of the Palace exteriors, involving facades finished in pigmented lime cal, stone masonry features and tile panels came to a close in December 2014 following around two years of project development and eight months of construction work.

The project was structured and implemented in accordance with both conservation and aesthetic based issues, involving the PSML technical team with support and technical supervision from the General Directorate of Cultural Heritage, the José de Figueiredo Laboratory and the National Tile Museum.

The work carried out on the limestone cal surfaces (around 10,000m2) consisted of stabilising the finished surface through consolidating the place, the replacement of degraded areas, preparing the surfaces and applying limestone coloured washes in accordance with the colours based on the historical samples stored in the Palace

archive (undertaken within the scope of a similar, earlier intervention project). The application of colour in this intervention followed the options taken in the 1990s, during the last restoration campaign. Furthermore, this harmonised the final surface finishing visuals, which proved the most appropriate and compatible with the existing structure: limestone cal painted.

This also extended to rendering the Queen's terraces, the Dining Room and the Cafeteria (around 645m2) impermeable with the replacement of means of isolation along with the tiled finishings with those closer to what the originals would have been.

The work on the applied stone masonry features covered a field of intervention extending across 800m2. Despite the greater material resistance, this did still need both general and specific cleaning and resulting in the elimination of biological colonisations and accompanied by the stabilisation of the base joints and decorative features.

The tile panel finishings (an area of around 450m2) reported structural problems: the interconnection between the mason support structure and the ceramic panel, the degradation of the *chacota* (the reverse side of the tile) and the glazed surface. The risk of falling forced the prior application of temporary protective films across a significant proportion of the area and during the project planning phase and subsequently enabling the removal of tiles without the loss of any pieces.



Figure 4 – Restoration of the facades, stone masonry and tiles

Restoration of the mural painting in the Royal Family Drawing Room

This restoration focused on "Queen Amélia's Writing Room" and its mural painting displaying *trompe l'œil* architectonic features and dated to 1917 and the work of Eugénio Cotrim. The first phase of work contemplated the removal of the cloth glued to the painted surfaces in 1990s, the removal of contact glues, the underlying biological colonisation and the pre-fixing of the chromatic layer to prevent future degradation. Infiltrations in the roofing were stemmed alongside a thorough cleaning of the detritus of diverse origins that had accumulated in the underlay. In 2014, both the surfaces and a large part of the collection underwent restoration.

Restoration of the Monumental Clock

The clock is installed on the upper floor of the tower that bears it name. This is a monumental mechanism in national clock making and built at the "Royal Army Arsenal", as may be observed from an inscription on the "service clock face", an inner feature of the mechanism and that shows the time in parallel with the four external clock faces. The clock workings furthermore contain a set of two bells and respectively marking the quarter hours and the hours.

Having been withdrawn from service in the early 1990s with the objective of restoring and replacing the clock in a functional status but in the meanwhile experiencing various setbacks with PSML resuming this restoration process in 2012. Among other operational facets, this involved treating the original pieces and the two main alloys present, iron and bronze, removing oxidations, rectifying distortions and applying the final means of stabilisation and protection. Given this process also identified how a substantial part of the mechanism had been lost, this required the manufacture of the missing pieces, in particular, the whole extent of the movement transmission satellite set running from the clock workings to the Tower walls and from there outwards to the hands. This restoration also extended to work on the space housing the clock in the Tower.

Requalification of the signposting

Now nearing completion, the requalification project for the Palace's signposting foresaw the replacement of all supports, the review of the contents and the implementation of new means of visitor support. In 2014, the signposting in effect for the Store, Restaurant and Cafeteria was inaugurated following their refurbishment work. Throughout the first quarter of 2015, new signposts will be installed throughout the visit routes.

This new signposting was designed by PSML taking into account the legislation in effect and the best practices as regards accessibility and intelligibility within the scope of the "Parks of Sintra Welcome Better" Project. This paid particular attention to the design and materiality of the sign support within the objective of

ensuring elegance and discretion and so as not to contrast with the surrounding environments. Along the course of the visit circuit, the reference to the respective Palace sections gets conveyed by the background colour of the signs and that in turn reflect the colour of the facade in the Palace zone then being visited.

4 AWARDS AND DISTINCTIONS RECEIVED IN 2013 AND 2014

In 2013 and 2014, Parques de Sintra receive a series of national and international awards and thus reflecting important recognition of the quality of its work both in general terms and on specific projects.

Europa Nostra Award (Conservation)

The restoration project on the Chalet of the Countess of Edla proved one of the winners in the European Union/Europa Nostra 2013 Awards for Cultural Heritage in the Conservation category.

According to Europa Nostra, "The Jury acknowledged the great charm and importance of this romantic building, and were impressed with its meticulous restoration following a fire in 1999. The restoration, carried out after detailed historical research and with help from the national conservation authorities and universities, demonstrates the power of example in post-fire reconstruction. The care taken to research in the most precise way the originality of the wood and plaster works, and the building details, such as the imitation timberwork and the cork detailing, is extraordinary. The educational potential of the building and its surroundings has been fully developed for use by teaching bodies at all levels."

This award selected 30 European winners from around 200 projects nominated in categories including "Conservation", "Research", "Exemplary contribution" and "Education, training and awareness".

European Garden Award (Best Development of a Historical Park or Garden)

On 31st August 2013, the Park of Monserrate won in Germany (Schloss Dyck, Aachen) the European Garden Award attributed by the European Garden Heritage Network (EGHN) and the Schloss Dyck Foundation. This award, into its fourth year, selected the Park of Monserrate as its winner in the "Best Development of a Historic Park or Garden" category.

The award, for which the Park of Monserrate was a finalist alongside two other European gardens (the Summer Garden in St. Petersburg, Russia and the Gunnebo Castle and Garden, Sweden), resulted from an initial selection process that spanned countless European parks and gardens and based on criteria such as the utilisation of innovative methods of implementation and management, the relevance to urban development, sustainability and community involvement as well as high quality in construction, restoration and maintenance.

The award in this category results from a jury specialist in gardens and landscapes, historical parks and gardens that have been subject to exceptional restoration, improvement and development and that include activities interrelated with social inclusion, education, the environment and services to visitors.

World Travel Award (Best World Company for Conservation)

In 2013 and 2014, PSML was honoured as the recipient of the World Travel Award for "Best World Company for Conservation", in competition with another six institutions from the United States, Australia and Africa.

The awards, internationally recognised as the "Oscars of tourism", are attributed annually to the world's best tourism sector companies and represent one of the most important distinctions companies may ever receive.

The voting is carried out by the public in general and by thousands of professionals from Travel and Tourism Agencies in over 160 countries.

Camellia Garden of Excellence

This distinction handed down by the International Camellia Society means the Park of Pena became a member of a restricted international network of gardens of excellence in terms of their respective Camellia collections. The stipulations included the existence of a camellia collection with over 200 plants under cultivation with appropriate labelling and mapped by geo-referencing systems in gardens open to the public and with high maintenance standards. Other criteria extend to the development of research programs into the Camellia collection and the regular staging of promotion and awareness raising activities whether for Camellias in general or the collection contained in the respective garden (such as the annual Camellia Exhibition in Sintra hosted and promoted by PSML).

SIL Real Estate Award (Refurbishment of the store, restaurant and cafeteria of the National Palace of Pena)

An award made within the framework of the Portugal Real Estate Trade Fair 2014 that seeks to recognise quality and innovation in activities within the scope of urban rehabilitation (among others). This provided due recognition of the refurbishment project for the commercial areas of the Palace of Pena resulting from an intervention seeking to provide an appropriate response to the rise in visitor numbers. The intervention project enabled the re-scaling and modernising of the infrastructures welcoming the public and not only optimising its functional and commercial performance but also easing up visitor circulation.

5 CONCLUSIONS

The PSML management model incorporates the total application of all the revenues generated by the heritage restoration process and results in better visitor satisfaction levels given the clear advantages in terms of boosting the conditions presented to visitors. Consequently, this raises revenues and enabling successive increases in the investment put into restoration. This represents a "virtuous circle" that above all benefits the conservation of monuments and parks all the while raising awareness about the world heritage of Portugal and thus attracting higher visitor numbers to Sintra's historical centre and thereby nurturing regional economic growth and development.

The management of various properties with high levels of heritage and tourist attraction potential, within controllable perimeters, of sufficient scale and diversity, enables the founding of multidisciplinary teams for the recovery and maintenance of heritage with a close but global vision on the needs and integrating diverse specialist fields into each project. This also enable synergies to be leveraged through shared common services, whether security or cleaning, the stores, the cafeterias or the ticket offices, to generate economies of scale and fostering more favourable commercial terms for suppliers and service providers.

The application of this model to the Palace of Pena stands out in the interventions detailed above and especially in the research projects undertaken. Each intervention involved technical teams featuring museologists, historians, conservators-restorers, engineers, architects with distinct, compatible and complementary competences. The accumulation of the different perspectives drives a global vision of the Palace's needs, the respective solutions and the respective priorities, the most appropriate construction methods and authenticity with a view to minimising the levels of intervention necessary for future generations.