

Towards the incorporation of a raised walkway at the Royal Alcázar of Seville: status and execution of the works

Alberto Atanasio Guisado 

Juan Francisco Molina Rozalem* 

Instituto Universitario de Arquitectura y Ciencias de la Construcción, HUM 799 – Estrategias de Conocimiento Patrimonial, Universidad de Sevilla, E. T. S. de Arquitectura, Avda. Reina Mercedes, s/n, 41012-Sevilla, Spain
*jfmolina@us.es

Abstract

The Milanese architect Vermondo Resta arrived in Seville in the 16th century and soon became the master builder for the Alcázar, in charge of all the construction works undertaken in this royal palace dating from the Middle Ages. One of the challenges he addressed was the transformation of a fragment of the 12th century wall, which had lost its defensive function, into a double-storey gallery with views over the palace gardens. It was called the *Galería del Grutesco*, or Grotto Gallery. At the beginning of the 21st century arose the opportunity to restore this space to the design that Resta had conceived four centuries earlier. This article discusses the need to undertake this restoration and describes the technical solution that was proposed and recently executed.

Keywords

Royal Alcázar of Seville
Architectural intervention
Grotto gallery
Cultural Heritage

Estudo da incorporação de um passeio elevado no Real Alcázar de Sevilha: estado e execução do projecto

Resumo

O arquitecto milanês Vermondo Resta chegou a Sevilha no século XVI e rapidamente se tornou o mestre do Alcázar, sendo o responsável por todas as obras de construção realizadas neste palácio Real datado da Idade Média. Um dos desafios que ele enfrentou foi a transformação de um troço do muro do século XII, anteriormente com função defensiva, numa galeria de dois andares, a *Galería del Grutesco* ou Galeria Grotto, com vista sobre os jardins do palácio. Já no início do século XXI, surgiu a oportunidade de restaurar este espaço, considerando o desenho que Resta havia concebido quatro séculos antes. Este artigo discute a necessidade de realizar este restauro e descreve a solução técnica que foi proposta e recentemente executada.

Palavras-chave

Real Alcázar de Sevilha
Intervenção arquitectónica
Galeria Grotto
Património Cultural

ISSN 2182-9942



Introduction

According to the findings of the archaeological investigations conducted in the last two decades, the origins of the Royal Alcázar of Seville date back to the Taifa period, namely in the 11th century [1, p. 166]. Since then, the relationship between the established power and the fortress has continued uninterrupted, to the extent where Spain's royal family still use the top floor of the main palace, known as the Mudéjar Palace or Palace of Peter I.

The Almohad conquest in the mid-12th century ushered in a period of major urban expansion and architectural transformation that affected both the city and the Alcázar itself. In the 13th century, Seville was reclaimed by the Christians and during the course of the next four hundred years, until the 17th century,

the palatial complex was adapted and renovated in the prevailing taste and style of each period. In particular, the Alcázar bears the special marks of its relationship with monarchs such as Alfonso X, Peter I, the Catholic Monarchs, Charles V, Philip II and Philip III, even though the latter king never actually visited the city.

After two hundred years of decay and generally unfortunate transformations, the second half of the 19th century assisted to a slow but gradual renewed interest in recovering the architecture of the complex. This process culminated in 1987 with the inclusion of the Royal Alcázar of Seville on the UNESCO World Heritage List, along with the city's Cathedral and Archive of the Indies. Prior to that, in 1931, it had been declared a Property of Cultural Interest, the maximum category for protected Heritage in Spain.

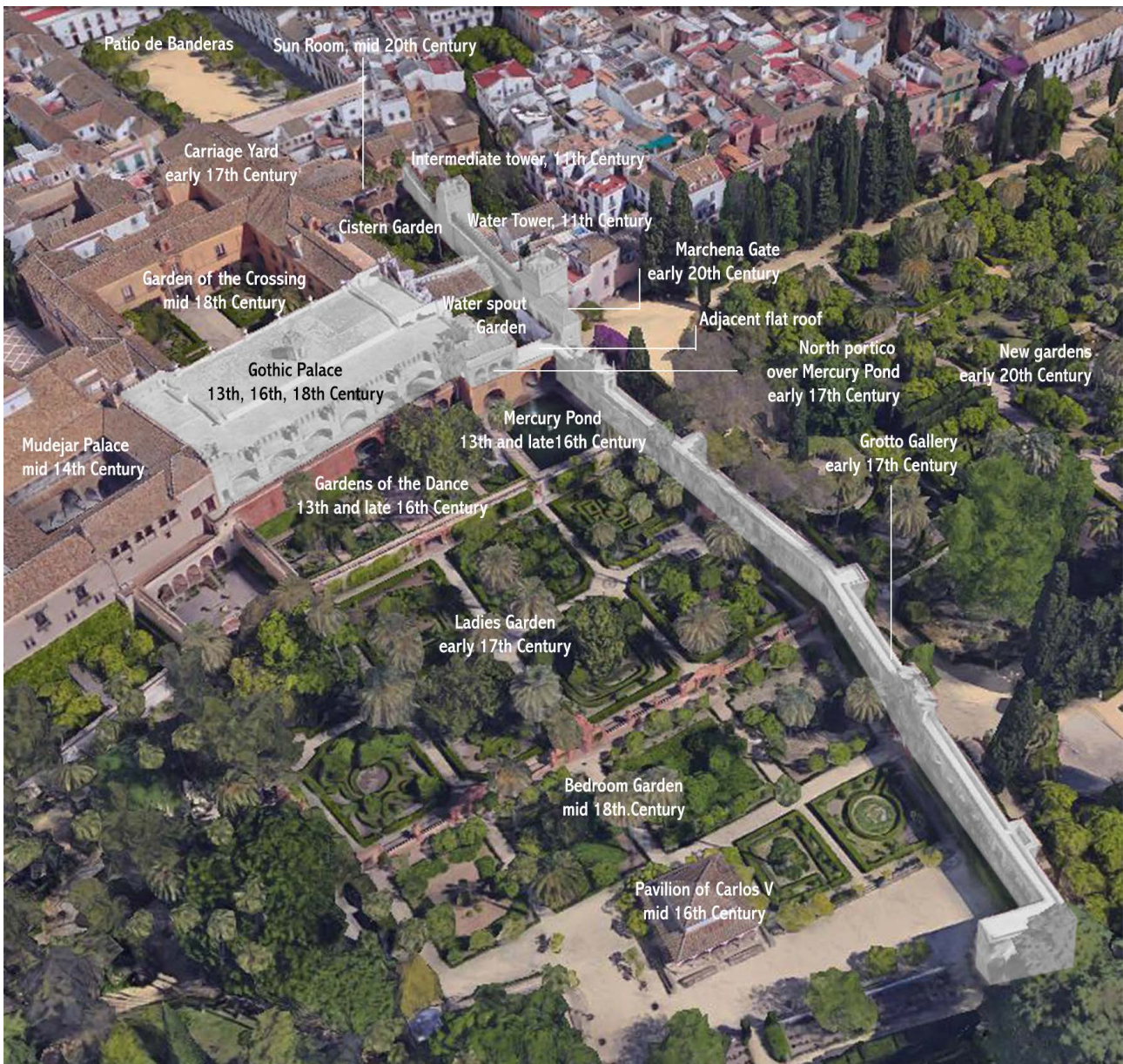


Figure 1. Plan showing the sections mentioned in the text (montage on Google Earth image).

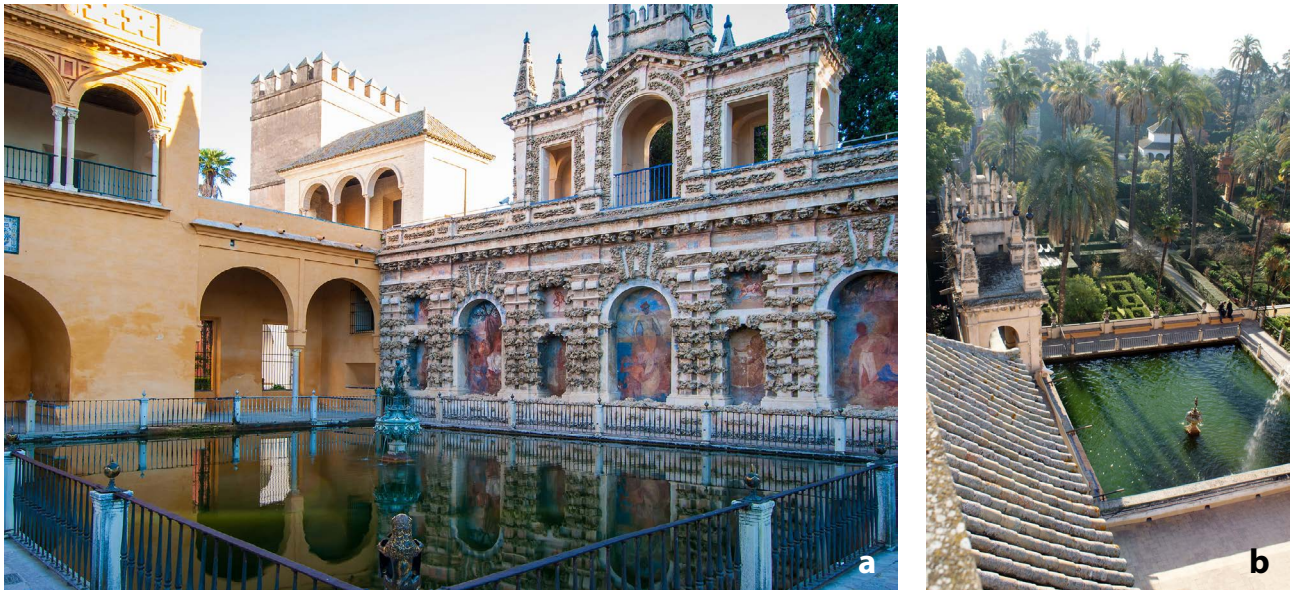


Figure 2. In the centre of the image (a), the three arches of the roofed section of the Marchena Gate, the space that articulates the entire raised itinerary. Also in (a), the Mercury Pond and the first section of the Grotto Gallery forming its east façade; and in the background, the Water Tower. (b) The reverse of the previous one and taken from the Water Tower roof, the Mercury Pond in the centre and the Pavilion of Charles V (*Cenador de Carlos V*).

At the administrative level, in 1993 the Board of Trustees of the Royal Alcázar of Seville was created to oversee the management and conservation of the complex. Although the Board reports to the city council, it has its own funds, which is largely thanks to the revenue from the tourists who visit the site – more than 1.5 million euros in 2015, according to the latest figures.

With regard to planning, although the Royal Alcázar Special Protection Plan (SPP) was drawn up in 2009, to date the document has only been provisionally approved. Volume II of the SPP contains an 11-year schedule of works, broken down into 12 intervention proposals. The fourth proposal is entitled “Opening up of the parapet walk along the walls and roof of the Gothic Palace” and, in addition to other areas, mentions the flat roof of the Gothic Palace and the wall section that runs north from the Water Tower. The stated aim is

to promote the merits of the military architecture for public enjoyment by including this parapet walk in the tourist itinerary, for which purpose it will be necessary to guarantee the safety of visitors using elements that do not distort the monument [2].

However, the proposal does not include the open walkway of the Grotto Gallery, south of the Water Tower, which, as shown in Figure 1, perfectly complements the first two itineraries proposed.

Objective: a new perspective

Neither does the SPP make any mention of what for us is the main objective, over and above promoting the merits of the military architecture, i.e., to include an

itinerary that offers visitors a new raised perspective and helps them to contextualise the fortress in the city and gain a more meaningful insight into the sequence of interventions that have been undertaken in the complex throughout its existence.

This article describes the planning and renovation works carried out to date in order to open up this new raised itinerary. The floor height of each and every part of this new walkway, with their specific characteristics and circumstances, is situated less than nine metres above the height of the usual tourist itinerary through the Royal Alcázar of Seville. However, for the moment, access to these areas is still restricted.

Scope of intervention

Description of the new itinerary

The space that articulates the entire proposed raised itinerary is the roofed section of the Marchena Gate (*Puerta de Marchena*). This leads north to the outer walls, west to the roof of the Gothic Palace, and south to the open walkway of the Grotto Gallery. With its trapezoidal plan and hip roof, this space also accommodates the stairs leading from ground level to the roof (Figure 2).

From here one can proceed north up a flight of steps ending at the Water Tower. The north face of the two-storey rectangular tower receives the palace wall, while the east face adjoins the city wall that served as the conduit for conveying water from the Caños de Carmona aqueduct.

This tower provides access to the parapet walk of the aforementioned north wall of the Alcázar, which separates

the *outside* (*Calle Judería*) from the interior of the Alcázar (gardens of the Cistern [*Alcubilla*] and the Water Spout [*Chorrón*]), presenting crenels and merlons to the outside and a low stone parapet to the palace grounds. There is an intermediate rectangular tower, with a single storey and merlons around the roof.

The west exit from the roofed section of the Marchena Gate leads to the flat roofs of the Gothic Palace.

Lastly, the south exit from the flat roof adjoining the Marchena Gate provides access to the open walkway of the Grotto Gallery. Approximately 145 metres long, this separates the Renaissance and Baroque gardens (Gardens of the Pond [*Estanque*], of the Ladies [*Damas*] and of the Bedroom [*Alcoba*]) from the gardens created at the beginning of the 20th century (Gardens of the Marquis of Vega-Inclán and Gardens of the Poets). The third and final tower, nowadays without its crest, accommodates the steps leading down to the lower level and the Garden of the Bedroom.

Sectorisation

The proposed new itinerary is divided into three sectors, based exclusively on the progress in the works carried out to date and those that have yet to be undertaken:

- Sector 1 corresponds to the roofed section of the Marchena Gate, the adjacent flat roof and the Grotto Gallery. For this part, the technical design document has been drawn up and the works have been executed.
- Sector 2 comprises the small stretch of gallery linking the Marchena Gate to the Water Tower, the Water Tower itself, the parapet walk leading to the Sun Room (*Cuarto del Sol*), including the intermediate tower and the North Portico overlooking the Mercury Pond. The technical design document has been drawn up and it has been approved by the Culture Committee so works can now commence.
- Sector 3, for which neither documents nor works have yet been undertaken, would include all of the Gothic Palace roofs.

Intervention criteria I: historical background

Although the aim is to create a single, continuous itinerary, the origins and circumstances of the different areas are so varied that they each merit their own description.

Sector 1: Grotto Gallery

In 1598 Philip II passed away and was succeeded as King of Spain by his son, Philip III. Although it never actually happened, the journey that the new monarch was meant to make to the city of Seville gave rise to

the complete renovation of the Alcázar. The person chosen to undertake this renovation was Vermondo Resta, a Milanese architect who arrived in Seville in the latter decades of the 16th century. In 1585, Restahe was appointed master builder of the Archbishopric of Seville and, in 1603, he replaced Lorenzo de Oviedo as the official master builder of the Alcázar [3, pp. 15-25].

The gardens of the Alcázar are the place where the transformation to Resta's Mannerist style is the most evident and interesting, particularly noticeable in the design of the Garden of the Ladies and its new east façade, the Grotto Gallery. The Milanese architect turned the Almohad wall into a two-storey walkway from which to admire and enjoy the gardens. In other words, he converted the original defensive structure into a recreational space. Initially, this wall would have been part of Enclosure IV, which together with Enclosure V formed the fortifications around the Alcázar during the days of the Abbadid and early Almohad dynasties. It was therefore built between the end of the 12th century and the beginning of the 13th century, executed in adobe with the layout of a barbican [2, p. 120].

The works commenced in 1612, with Juan de Mendoza as the mason, although the gallery extension beyond the section serving as the façade for the Mercury Pond was probably started in 1613. Resta created the lower roofed walkway by means of multiple semi-circular arches supported by recycled Islamic columns. The upper walkway, open to the skies, is protected by a parapet that also serves as a crest for the entire gallery, tracing a continuous line along the passageway.

Along the top of this wall is a roofed passageway, formed by jasper columns and others made out of marble, and above that is another passageway, this time open and flanked by parapets; from both it is possible to view and enjoy not only a great deal of the city but also the outlying fields, and these gardens [4, p. 57].

However, the most distinctive feature of the Grotto Gallery is the ornamentation on every panel of the west façade using *opus rusticum*, porous marine stones embedded in the walls to create natural effects like grottoes or caverns. In the case of the opposite side of the wall, overlooking what would have still been fields at the time, Resta left it smooth, without any ornamentation whatsoever. The gallery culminates in a recess at the Garden of the Bedroom, generating a much wider lookout than the rest of the walkway with a similar façade arrangement (Figure 3).

Sector 2: walls and towers of enclosure II and north portico over the mercury pond

In the 11th century the Alcázar's original enclosure, identified with the present-day Patio de Banderas, was extended by doubling the area to the south and east of the original fortress. This defined a new area (Enclosure II) stretching from the south wall of the old fortification,



Figure 3. Lithograph by Benoist entitled “Seville vue prise de la terrasse de l’Alcazar d’apres nature, par Chapuy”, mid-19th century.

now lost, to the Gardens of Mercury and the Gardens of the Dance (*Jardines de la Danza*). Nowadays, this space is extremely difficult to define because of the numerous interventions that the original layout has undergone. For example, at the beginning of the 20th century King Alfonso XIII and Queen Victoria Eugenie commissioned the construction of what became Spain’s first tennis court. Then, in the 1970s, the architectural conservator Rafael Manzano completely remodelled the entire flank from the Sun Room to the China Pavilion (*Pabellón de la China*).

With regard to the walls of Enclosure II, only the west and east ones are still standing. The intervention to adapt the itineraries affects the parapet walk of the east wall separating the Alcázar from Calle Judería outside. This wall includes the crenelated, square-plan Water Tower, also known as the Linking Tower (*Torre del Enlace*), which takes its name from the works commissioned by Abu Yaqub Yusuf in 1172 to bring water from Alcalá de Guadaíra via the Caños de Carmona aqueduct [5, pp. 195-198]. The final destination was a large water tank in the gardens of the Alcázar, nowadays known as the Mercury Pond.

The tower contains two stages: a solid lower one connecting the external wall of the Alcázar to the city wall that surrounded the Santa Cruz quarter, hence its secondary name as the Linking Tower; and an upper stage comprising two superimposed floors, both covered by domical vaults and connected by a flight of steps leading to the terrace. In the 18th century the lower space housed

a small chapel where the remains of frescoes are still visible on the south wall (Figure 4).

Meanwhile, the north face of the North Portico presides over the Mercury Pond. Organised around semi-circular arches on marble columns, it was built by Vermondo Resta between 1612 and 1613 to replace an earlier portico that had collapsed. The Milanese architect designed a loggia composed of three semi-circular arches on marble columns crowned by Moorish capitals, probably recycled from the Mudejar Palace or one of the earlier Almohad palaces.

Sector 3: Gothic palace

The original design of the Palace of the Crossing (*Palacio del Crucero*), subsequently renamed as Gothic Palace, dates from the Almohad period and is organised around a single, symmetrical courtyard along an east-west axis and a two-storey walkway with a difference in height of approximately five metres. At the south end there are four rooms: two parallel ones serving as the façade, and two smaller ones set at right angles to the former. In the 13th century, Alfonso X transformed the entire complex into the prevailing Gothic style and in the late 16th century, during the reign of Philip II, the severe medieval appearance of the Palace of Alfonso X was remodelled again [6, p. 271]. This renovation programme consisted in a series of interventions, including the construction of the upper walkway, on top of the buttresses, connecting



Figure 4. a) The Water Tower with the Marchena Gate adjoining its south flank; in the background, the intermediate tower with its ochre rendering. b) The fresco remains inside the tower.

the Mudejar Palace – the later royal residence – to the North Portico (the one preceding Vermondo Resta’s) of the Mercury Pond. Following earthquake damage in 1755, the Flemish engineer Sebastián Van der Borcht decided to sink the lower walkway around the Garden of the Crossing (*Jardin del Crucero*), which gave rise to the crypt-like appearance of the Baths of María Padilla that we see today. He also remodelled the main north nave of the Gothic Palace, crowning it with a lantern similar to the ones he had designed for Seville’s Royal Tobacco Factory.

Intervention criteria II: project background

The substantial degradation of the floor and roof structures of the Grotto Gallery was what led the Royal Alcázar Board of Trustees to commission the first emergency architectural project. Initially, the aim was to provide a new structural solution to avoid the corrosion of the metal girders. In other words, the idea was to repair the roofed gallery and maintain the restricted access to the open walkway. However, during the course of the project, it was discovered that Vermondo Resta had originally intended to build a two-storey walkway, and that is what led us to examine the feasibility of recovering that open walkway for visitors. This, coupled with the requirement to create access to the upper level via the Marchena Gate, tied in with the idea expressed in the fourth proposal of the SPP, namely to extend this itinerary along the parapet walks to the north and the roofs of the Gothic Palace to the west. Consequently, the commitment undertaken by the Royal Alcázar Board of Trustees to carry out the gradual incorporation of the raised itinerary got off to an unexpected start. It began with the recovery of the open

section of the Grotto Gallery, not included in the original proposal of the SPP, and it was implemented as a result of a series of emergency works due to structural problems in the floor and roof.

Sector 1: Grotto Gallery

The original structure of the Gallery was made of wooden beams. However, at the beginning of the 20th century, it had been replaced by metal beams. At present, there was no trace of the ligneous structure, and the metal profiles showed a high degree of oxidation, with the result that half of the roofed gallery had to be closed due to falling debris. In the section still open to the public, the ceiling and walls presented very obvious patches of damp. Meanwhile, the restricted flat roof – the open walkway designed by Vermondo Resta –, which had been closed to the public at some unknown point during the 20th century, served as a *vast conduit*, conveying numerous installations (electrical, water, etc.) along the interior face of the parapets. The possibility of recovering this upper itinerary for visitors had not been advanced by the new paving laid in the late 20th century [7, pp. 38-39], which had made the height of the parapets too low, nor by the forced mouth of the gargoyles to drain rainwater, which left highly visible remains of accumulated dirt and large patches of damp in its trail (Figure 5).

Sector 2: walls and towers of enclosure II and north portico over the mercury pond

The condition of the various areas in sector 2 is more or less acceptable, and most of the renovation works that need to be carried out stem precisely from the desire to open up to the public a series of roof spaces to which access has always been restricted due to their function as

a conduit for the installations from all the other sections of the palace. This implies removing or concealing the cables, installing normal and emergency lighting, erecting safety protective barriers to avoid falls, and cleaning and repairing the cladding materials and finishes.

On a descending scale, the best preserved areas are probably the North Portico overlooking the Mercury Pond and the interior of the Water Tower, whose walls

were repaired in 1991 [8, p. 70]. In contrast, the most dilapidated area is the intermediate tower, where several wooden beams in the roof structure show signs of rot and the steps are in a state of great disrepair. At a great distance, somewhat neglected but better preserved than the tower, both sections of the parapet walk reveal abundant dirt due to the presence of damp on the floor tiles, merlons and ceramic gargoyles.



Figure 5. a) General view of the open walkway with the installations running along the inside of the parapets and the accumulated dirt along the edges. b) Forced mouth of one of the gargoyles. c) State of the roof structure in the closed area. d) Patches of damp in the area open to the public. e) Oxidation of metal beams. f) Wall anchors.

Conservation and restoration works also need to be carried out on the historical and artistic features found in this itinerary: column shafts and capitals of the North Portico and the rear side of the Marchena Gate, wooden roof over the North Portico (restored in 1999 but in need of maintenance) [9], and the fresco in the lower chamber of the Water Tower, which requires complete renovation.

Sector 3: Gothic palace

Although the technical design project has yet to be drawn up, it would appear that the roofs of the Gothic Palace do not require any major repair. However, it will be necessary to erect safety barriers to prevent falls, install lighting in every area, and, above all, remove the enormous quantity of cables along the inner face of the parapets.

Results

Projects

As described elsewhere [10-11], the intervention criterion in both projects is minimal intervention, limited to cleaning and repairing the cladding materials and finishes, where required (floor tiles, rendering, etc.), and installing the necessary lighting and safety systems to prevent falls. In short, to repair the itineraries without altering their features, based on recognition of the fact that each area is completely different from all the other areas. The idea is also to provide continuity to the itinerary by using the same solutions throughout; in other words, the same type of lights and the same type of vertical rails, handrails and metal plates wherever they are required. Unifying the different types of materials creates the impression that the raised walkway constitutes a single passageway, even though the elements are very diverse.

The only exception to this criterion of minimal intervention was the replacement of the roof structure of the Grotto Gallery, which cannot be avoided. Three options were presented: to execute a new wood structure, to replicate the existing solution of metal beams, or to create a new structural floor. Given the absolute lack of information about the original slab, it was not considered appropriate to simulate a construction system in wood, which details were unknown. Regarding the use of metal profiles, experience had shown the catastrophic effects of oxidation, and the very ornamental shape of the wall, with its rustic stone inserts, hindered the definitive disappearance of moisture. The option remained was to design an alternative structural system. The somewhat unconventional structural solution of the composite roof deck was chosen as the best system for resolving the preliminary conditions:

- durability – the roof deck profile is made of galvanised steel, which offers greater protection from damp;

- speed and ease of assembly – compared with a slab of reinforced concrete, the narrow span of the gallery permitted the use of a mixed structural roof without the need for props;
- relatively thin – made it easier to reposition the structural roof at the optimal height for the gargoyles to fulfil their original function properly; recovering the open walkway also meant that we had to remove all the installations lining the Grotto Gallery parapets, and the thinness of the new structural roof permitted the use of a false ceiling to conceal all the cables without reducing the ceiling height of the lower walkway.

Intervention in the Grotto Gallery

Records show that the earthquake of 1755, known as the Lisbon Earthquake, caused serious damage to the city of Seville, as well as to the Alcázar and the Grotto Gallery. Baena Sánchez refers to two reports describing the damage, which led the master builders to consider the possibility of demolishing the gallery completely and then rebuilding it. In the event, reinforcement works were chosen due to lack of funds, although they did not commence until 1759. The most significant from the structural point of view, in addition to the renovation of the wooden beams, was the insertion of iron tie beams at certain intervals to stiffen the walls [12, pp. 89-92].

In view of the historical concern about tie beams between parallel walls, the demolition of the existing roof structure meant that we had to make sure we did not lose or weaken these bracing elements. Hollowing out the structure could have caused the parapets to collapse so, given the unique nature of the west façade of the Grotto Gallery, we designed and built a tie based on clevis pins inserted in the walls, with the necessary protections to prevent damage to the *opus rusticum*. The demolition of the existing roof structure was carried out in stages, one short section after another, so that there was never too large a gap in the structure at any given time.

The first beams we saw when we commenced the demolition confirmed our worst suspicions and supported the decision to replace the entire roof structure. This meant that we also had to remove the embedded heads of the beams and the 50 solid iron square-profile tie beams that appeared, having been inserted in 1759 after the earthquake. The removal of the tie beams and some of the wooden beams was a slow, laborious process since many of them were so deeply embedded as to be almost touching the façade.

Since we had done away with the support system provided by the existing metal elements, we had to reinforce the bracing that would now serve as the new roof structure, so we inserted metal connectors between the composite roof deck and the side walls. For this we used Hilti HAS M10 anchor rods secured with HY-30 resin, placed every 30 centimetres.

Having replaced the roof structure, the remaining works were mostly related to recovering the open walkway. We chose handmade ceramic floor tiles to restore the original colour and texture to the flat roof. Unlike the

homogeneity of industrial pieces, wood-fired tiles present different nuances of colour depending on where they are placed inside the kiln during firing. Before forming the roof and laying the tiles, we had to repair the walls, which

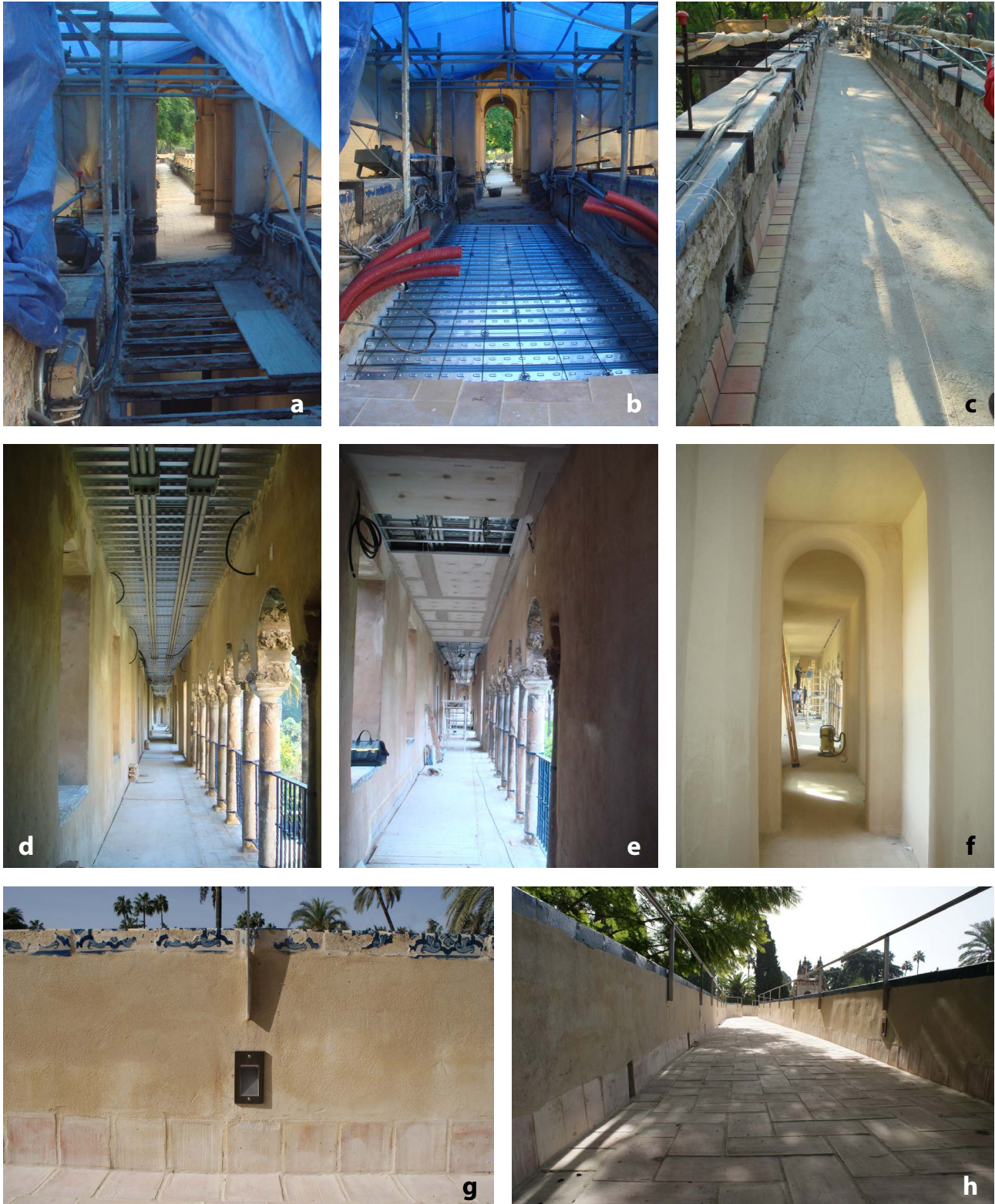


Figure 6. *a)* Demolition. *b)* New roof deck profile. *c)* Beginning with the handmade ceramic floor tiles. *d)* Installations under the roof deck profile. *e)* False ceiling. *f)* Interior final state. *g)* Small lamps connected to a double circuit to provide normal lighting and emergency lighting. *h)* Final state of the walkway.

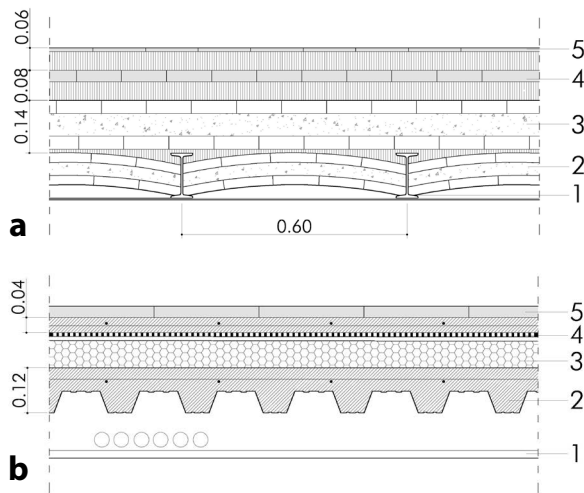


Figure 7. a) Original state: 1. IPN120 metal beam; 2. Double brick vault; 3. Lime mortar + brick + filling + brick; 4. Lost floor tiles on lime mortar; 5. New floor tiles on lime mortar; b) Proposal: 1. False ceiling; 2. Composite roof deck; 3. Form of slopes; 4. Waterproofing layer; 5. Artisanal floor tiles on compression layer.

had been seriously damaged by water seepage. We then cleaned the ceramic pieces along the top of the parapets, removing all traces of cement and repointing the pieces with lime mortar.

Similar works (wall repairs, parapet cleaning, the replacement of gargoyles) were carried out in the access points to the open walkway, namely the two flights of steps, the rear section of the Marchena Gate and the adjacent flat roof along the north flank of the Mercury Pond. In the latter area, which now serves as an outlet area following the recovery of the open walkway, the existing floor tiles had to be removed so that we could lay and then conceal the conduits. The same handmade tiles were chosen to unify the appearance of the new work.

With regard to the installations that ran along the Grotto Gallery parapets, all cables were re-laid under the false ceiling, with electrical boxes every 12 metres. This apparently simple operation, which was essential to recover the open walkway, permitted conduits for the surveillance, lighting, telephony and internet circuits from the gardens to the palace buildings. A set of empty pipes has also been installed for future extensions. The Grotto Gallery and its false ceiling therefore constitute a major hub for the Alcázar's entire network of installations. The false ceiling, which contains access panels with concealed profiles to blend into the background, was completely rendered.

As for the lighting, in view of the obsolescence of the existing installation, a new system was designed for the entire complex as part of the intervention in the Grotto Gallery. There were three basic premises for this system:

- energy saving, for which purpose LED devices were installed;
- unobtrusive presence, leading to the use of lamps connected to a double circuit to provide normal lighting and emergency lighting, therefore reducing the number of devices required;
- minimal visual impact, achieved by the use of small lamps with a simple design.

Lastly, in order to unify the appearance of the new work and preserve the same aesthetic criterion, the same type of lamp was used on the open walkway, the flat roof adjacent to the Mercury Pond and the access steps. On the upper level, the aim was to not shed any light above the line of parapets, which meant that the new lighting system could not be perceived from the outside when looking at the façade.

With regard to the rails, which had to be installed because of the low height of the parapets, the aim was to design an element that would be as unobtrusive as possible. Bearing in mind the unique nature of the Grotto



Figure 8. The Garden of the Ladies, with the North Portico, Gothic Palace and Mudejar Palace in the background. Image taken from the recovered open walkway of the Grotto Gallery.



Figure 9. Detail of the upper section, with the Cathedral in the background.

Gallery and the distinctly longitudinal dimensions of this element, this was no easy task. To this end, the position of the uprights matches the irregular rhythm marked on the façade by the pilasters surmounting the parapets. The uprights also had to be perpendicular to the façade so as to camouflage the contour line. Completing the railings is a horizontal metal plate, reinforced to prevent buckling due to the distance between uprights. The railings are all made out of stainless steel. The uprights are wider at the bottom and accompanied by two anchor rods to absorb the irregularities of the wall (Figure 6 and Figure 7).

Conclusions and pending works

Following the replacement of the roof structure and the renovation of the open walkway, the Grotto Gallery has been recovered for visitors exactly as it was conceived by Vermondo Resta and described by Rodrigo Caro in 1634: a double-storey walkway from which to admire and enjoy the beauty of the Alcázar gardens and the landscape of the city of Seville.

However, the present-day configuration of these gardens is not the same as when Resta designed the Grotto Gallery, when the first Hispano-Islamic gardens and the recently created Garden of the Ladies were all that existed. Meanwhile, the Pavilion of Charles V was situated in what was still an area of orchards and would not become the Garden of the Bedroom until the 18th century. The same is true if we turn our gaze to the east flank, where there was nothing but an orchard outside the Alcázar and so it would remain until being turned into gardens at the beginning of the 20th century. However, the vegetation

was not the same since topiary was the predominant style then, compared with the normal trees we see today.

Consequently, going back to Resta's original design, the Grotto Gallery no longer simply offers a walkway along which to stroll and admire the gardens. It is also a chance to gain an insight into the sequential development and transformations which these areas have undergone, because it provides visitors with first-hand information about how the Alcázar and its gardens are the result of numerous processes of aggregation and reorganisation. The recovery of the open walkway broadens this new perspective. The higher the vantage point, the wider the vista and the easier it is to see the gardens as the sum of its clearly differentiated parts (Figure 8).

The execution of the renovation works for the parapet walks would create the same effect, although it is true that the Hispano-Islamic gardens visible from this walkway – Gardens of the Water Spout and Cistern – were practically laid anew in the mid-20th century [13, p. 183], so the sequential interpretation is much less pronounced. However, a magnificent view would be afforded from the roof of the Water Tower because of its height and its original configuration as the hinge between the city wall and the Alcázar wall, making it easy to differentiate the sector that belongs to the city – the Jewish quarter – from the sector that belongs to the Alcázar. The tower itself is also worth a visit due to merits of the narrow staircases, the configuration of the chambers and the presence of frescoes in one of these chambers.

The same is true if we head west, since the North Portico of the Mercury Pond could be enjoyed for the view it offers not only of the pond, but of the portico itself with its Moorish capitals and wooden ceiling.

However, perhaps the most important advantage gained from opening up the North Portico would be the chance to access the roofs of the Gothic Palace. This is the great pending task since it would provide an excellent culmination to the raised itinerary that begins at the Grotto Gallery.


The echeloned disposition of the roofs themselves offers us a clear insight into the spaces that form part of the palace and the different phases of transformation that have taken place, with the lantern added in the 18th century serving as an iconic reference on the horizontal plane. Meanwhile, the beauty of the perspective over the Gardens of the Dance from the first level of the roof is on a par with the vista of the gardens from the Grotto Gallery, although as we advance the Gothic Palace does not provide the same chronological interpretation as that afforded by this first roof. On the north face, accessing the top level of the roof, the architectural complexity of Seville Cathedral suddenly appears, while the vista within the walls of the Alcázar hints at the barracks beneath the Garden of the Crossing as well as offering a clear vision of how Van der Borcht designed the passageway that connected the Courtyard of the Hunt (*Patio de la Montería*) with the Carriage Yard (*Apeadero*) (Figure 9).

Acknowledgments


Instituto Universitario de Arquitectura y Ciencias de la Construcción, ETSA, Universidad de Sevilla, Av. Reina Mercedes, 2. Sevilla. This research is associated with the Project HAR2016/78113/R of the National Research, Development and Innovation Programme focused on the Challenges of Society, funded by the Ministry of Economy and Competitiveness and FEDER funds.

ORCID

Alberto Atanasio Guisado

 <https://orcid.org/0000-0002-3350-5035>

Juan Francisco Molina Rozalem

 <https://orcid.org/0000-0001-8066-3610>

References

- Almagro, A., 'Los Reales Alcázares de Sevilla', *Artigrama* 22 (2007) 115-185.
- Bermudo, R.; Llanos, V.; Tabales, M. A., 'Plan especial de protección del sector 6 "Real Alcázar"' (2009).
- Marín Fidalgo, A., *Vermondo Resta*, Diputación Provincial de Sevilla, Sevilla (1988).
- Caro, R., *Antigüedades y Principado de la Ilustrissima Ciudad de Sevilla y Chorographia de Su Convento Iuridico, o Antigua Chancilleria*, Andrés Grande, Sevilla (1634).
- Valor Piechotta, M., *Sevilla Almohade*, Editorial Sarriá, Málaga (2008).
- Marín Fidalgo, A., *El Alcázar de Sevilla Bajo los Austrias*, Guadalquivir, Sevilla (1990).
- Cabeza Méndez, J. M., *Real Alcázar de Sevilla 1990-2008*, Fundación Cultural del Colegio de Aparejadores y Arquitectos Técnicos de Sevilla, Sevilla (2009).
- García-Tapial y León, J.; Cabeza Méndez, J. M., 'Recuperación de la cerca islámica de Sevilla', in *El Último Siglo de la Sevilla Islámica, 1147-1248*, ed. M. Valor Piechotta, Gerencia de Urbanismo y Universidad de Sevilla, Sevilla (1995) 57-82.
- Ramírez López, I.; Rodríguez Méndez, C., 'Memoria de la restauración del alfarje del mirador al Estanque de Mercurio', non published work, Patronato del Real Alcázar y Casa Consistorial de Sevilla Library, Sevilla (1999).
- Muñoz García, A.; Atanasio Guisado A., 'Proyecto de intervención en la Galería del Grutesco', Patronato del Real Alcázar y Casa Consistorial de Sevilla, Sevilla (2013).
- Muñoz García, A.; Atanasio Guisado A., 'Proyecto de adecuación de recorridos de adarves y cubiertas en torno a la Torre del Agua', Patronato del Real Alcázar y Casa Consistorial de Sevilla, Sevilla (2015).
- Baena Sánchez, M. R., *Los Jardines del Alcázar de Sevilla Entre los Siglos XVIII y XX*, Diputación de Sevilla, Sevilla (2003).
- Manzano Martos, R., 'Los patios y jardines del Alcázar de Sevilla', *Apuntes del Alcázar de Sevilla* 14 (2013) 170-188.

Received: 2017-12-7

Revised: 2018-2-21

Accepted: 2018-3-19

Online: 2018-4-16



This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>.