# FOUNTAIN ARDEA PURPUREA VERDUN, BEIRUT

PROJECT BY ARTIST MARCO BRAVURA





### STAKEHOLDERS:

Promotion and Financing by:

- The Italian Trade Agency Beirut Trade Promotion Office of The Italian Embassy in Lebanon
- The Lebanese Armed Forces Independent Works Regiment

Under the Patronage of:

- The Lebanese Ministry of Culture - DGA Directorate General of Antiquities

Scientific Coordination and Consultancy:

- Assorestauro Italian Association for Architectural, Artistic and Urban Restoration
- ICOMOS Italy, International Council of Monuments and Sites

Execution of Maintenance and Restoration:

- Independent Work Regiment

In collaboration with:

- Rockland Group Holding for Engineering and Construction
- Rebirth Beirut for Lighting Installation

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### **CONTEXT:**

Ardea Purpurea is a monumental mosaic fountain, designed and created by the Ravenna-based master Marco Bravura in Beirut, Lebanon. The inspiration for this project was conceived during the Ravenna Festival 1999, as part of the event Le Vie dell'Amicizia.

**Dimensions:** 7m x 3.8m

Mosaic Weight: 25 kg/ m<sup>2</sup> x 15 m<sup>2</sup>

0. PREMISE - ARDEA PURPUREA'S RESTORATION:

### 0. Introduction

This dossier offers a detailed overview of the restoration project for the Ardea Purpurea fountain by the Italian artist Marco Bravura, located in Beirut. It includes a thorough comparison between the methodologies and phases outlined in the Preliminary Project, which was discussed with all stakeholders in July 2024, and the current status of the works, including on-site methodological adjustments, specific execution details of the operations carried out during the work period from January 20th to 25th (Executive Project). The document also addresses the planning of forthcoming executive phases and training activities, to be executed by LAF, under the scientific supervision of architect Francesca Brancaccio and restorer Carlo Chinellato.

In the discussions held in July 2024, the restoration of the Ardea Purpurea fountain was identified as an urgent necessity due to significant deterioration and neglect. Before formal planning began, several methodological options for the restoration were carefully considered.

The first point of debate centered around whether to move the fountain from its current location during the restoration process. Initial considerations included the possibility of carrying out the work on-site, supported by the installation of stable scaffolding to provide workers with access to all parts of the fountain. This approach would have offered the advantage of public visibility and participation, enabling the community to witness the restoration process firsthand. However, after thorough consideration of safety concerns, this option was ultimately rejected. The decision was made that relocating the fountain would be the safest and most feasible approach. While this choice necessitated additional precautions, such as secure transport and the establishment of a fully equipped heritage workshop, it was deemed to be the best solution. The workshop, though requiring more logistical planning, was recognized as offering a safer and more controlled environment for the restoration work. Furthermore, it was considered a valuable educational resource, fostering a space for learning and providing

workers with a fully equipped setting in which to carry out the restoration tasks effectively.

The second significant topic of discussion was whether the fountain should be relocated to a new site after restoration. Given the poor condition of its current location—an increasingly deteriorated traffic island surrounded by urban development—the idea of moving the fountain was initially considered. The area had undergone significant changes over time, resulting in a setting that was no longer suitable for the fountain's preservation or visibility. Despite these challenges, the relocation option was ultimately discarded. It became clear that finding a new site that would provide the same level of prominence, symbolic value, and visibility as the original location would cause delays and practical difficulties. Instead, the decision was made to maintain the fountain's original location and improve its surrounding environment. A broader architectural intervention was planned to revitalize the area and address the fountain's needs for future conservation, maintenance, and enhancement, while preserving the genius loci.

In summary, the meeting held on July 24, 2024, with the participationofallstakeholdersandafterthoroughconsultations with artist Marco Bravura, resulted in the decision to relocate the fountain to the LAF heritage hospital for the duration of the restoration. The fountain will ultimately be reinstalled in its original location with necessary adjustments to ensure its future conservation and protection.

These guidelines were adhered to and upheld during the execution phase in January 2025. Both parts of the sculpture were carefully removed from their base and transported to the fully equipped LAF restoration workshop, which was prepared with all the necessary infrastructure to support the restoration process. Simultaneously, demolition work on the fountain basin and site area cleaning took place, as the requalification project for the surrounding area was discussed among stakeholders and designed by architect Francesca Brancaccio.



# 1.1 Surveys and Visual Analysis of Degradation

The initial stages of the restoration, carried out by Selim Germanos from the DGA in July 2024, focused on conducting comprehensive surveys and a detailed visual assessment of the fountain's condition. The process began with a metric survey to obtain accurate measurements of the fountain, which were crucial for fully understanding its dimensions and spatial relationships, particularly as the artifact was to be relocated for restoration. A variety of technologies were used to gather an extensive set of precise data, which supports the project's development throughout the restoration process.

The result was a cloud of points generated through photogrammetry, which not only informs the current decay analysis, restoration and design efforts but also will serve as an important reference for future maintenance interventions and typological documentation.



# 1.2 General and Detailed Photographic Documentation

As outlined in the preliminary discussions in July 2024, the survey and analysis phase was to be accompanied by thorough photographic documentation, covering not only the preliminary stage, but the entire duration of the project. This documentation was to include both broad contextual views of the fountain and detailed close-ups, particularly following the removal of the fountain. Additionally, the entire restoration process was to be consistently documented to provide a comprehensive record of the project's progress and interventions. This approach is considered crucial for engaging the general public and for the open-source dissemination of historical, artistic, and methodological information.

These guidelines were followed during the removal phase of the sculpture and continue to be adhered to during the ongoing operations at the LAF restoration workshop. In addition to the documentation collected by the scientific coordinators, professional photographers and drone operators were employed during the removal phase to produce high-quality documentation. As for the restoration operations, the LAF operators were instructed to document step by step the cleaned areas of the mosaic, including before-and-after comparisons, to ensure a thorough and accurate record of the work carried out.

# 1.3 Research of Archival Documents and Bibliography

The existence of a second Bravura's fountain located in Ravenna, where successful conservation interventions have already been completed both structurally and on the surface, provides a valuable reference for comparing conditions, types of degradation, and intervention methodologies. Additionally, the analysis and documentation previously produced by Laura Baratin offer crucial insights into this specific case. There is also relevant bibliography detailing the entire construction process of the fountain, along with the direct experience and available consultation from the artist. The research will also ensure that the overall urban and architectural interventions are appropriately adapted to fit either the new landscape conditions or the original context, altered over time.

## 1.4 Relocation Planning

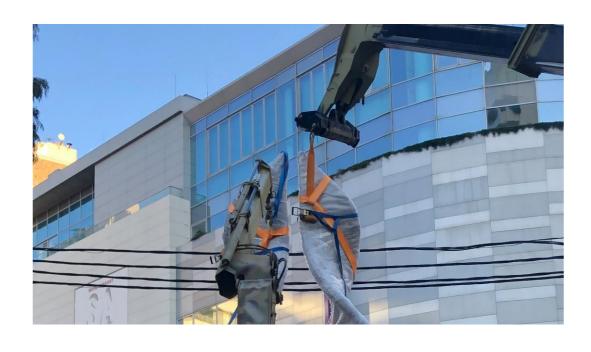
As discussed in July, relocating the artifact was deemed necessary for security reasons, and on-site permanent scaffolding for the entire duration of the restoration work was to be avoided. It was agreed that temporary scaffolding would only be required for the preparation of the structure for removal and relocation.

However, during the executive phase of removal in January 2025, it was decided that scaffolding was not needed. Instead, access to the sculpture was facilitated using mechanical arms, forklifts, elevating platforms provided by LAF, which allowed the sculpture to be securely fastened and strapped, following the same technique employed by artist Marco Bravura during the initial transport of the two components. Once the straps and wooden props were in place, the components were stabilized with vertical traction from the mechanical arms.

## 1.5 Pre-Consolidation and Stabilization

In July, the preliminary discussions included the planning of preconsolidation and stabilization measures aimed at providing temporary stability to the most deteriorated areas, where more invasive interventions would be required later. This phase would involve the application of a veiling layer of fabric or specialized mesh, which would support the mosaic during the conservation process, particularly in areas showing signs of detachment between components.

Following the agreements made in July, during the execution phase, the preparation process focused on ensuring the artifact was properly prepared for transport to minimize any risk of damage. This was achieved by using sponge pads and applying a shock-absorbing coating to the entire structure.



### 1.6 Protection of the Structure and Surface

As preliminarily discussed in July, additionally to the **shock-absorbing coating**, **rigid and flexible panels**, **such as plywood and foam materials**, **were employed** to ensure stability, prevent movement during transportation, and absorb any shocks or impacts during handling.

### 1.7 Careful Removal of Added Elements

After the original installation of the fountain, blue tesserae were added inside the basin. These additions were not part of the original design and were used to cover calcareous and biological stains that had developed over time. As agreed in July, these elements were carefully removed as the first step in the removal phase successfully completed in January.

Furthermore, although the initial plan had called for removing the section of the mosaic covering the sculpture's base and connecting the two wings using the "stacco" technique before extracting the fountain from the basin, a more detailed examination of the sculpture's base stratigraphy was carried out on-site.

Under the supervision of restorer Carlo Chinellato and architect Francesca Brancaccio, it was found that the mosaic section joining the two components and anchoring them to the base was created with materials and techniques of inferior quality compared to the rest of the mosaic. It had been applied at a later stage, with a thick concrete layer poured directly onto the fiberglass structure, lacking both a meshed support for the tesserae and a protective layer between the structure and the concrete.

As a result, a revised approach was adopted, involving the careful mechanical removal of this section using hand tools,

drills and angle grinders, while ensuring minimal stress on the surrounding mosaic. All detached mosaic pieces were carefully collected, transported to the LAF heritage workshop for cleaning, with the aim of setting aside any salvageable tesserae and mosaic portion for reuse during the restoration phase.

# 1.8 Excavation and Cutting of Pipes and Foundations

As outlined in July, to facilitate the removal of the fountain, it was necessary to carefully detach the section of mosaic and cement at the base of the sculpture, thus releasing the two components of the structure. Once this section was removed, the anchoring system used to secure the sculpture to the foundation became apparent. Two metal plates were employed to anchor the two wings of the sculpture to the foundation, with each wing secured by four anchoring bolts. After removing the top plate and clearing the bolts of any remaining concrete, the two wings were finally lifted using the aforementioned hoists and cranes. They were then placed on two appropriately sized transport vehicles, which were carefully prepared to prevent any damage or shock to the structure and the mosaic during transit.

As it will be described in detail later on in this document, a new design for the requalification of the area was proposed alongside the demolition of the basin, with the original foundation system remaining intact. Following the demolition and clearing of the area, a comprehensive investigation of the piping and electrical systems was conducted. This involved surveying all the cables that were previously connected to the fountain for electrical and plumbing purposes, as well as examining the associated pits and control panels. The new design includes modifications to both the electrical and hydraulic systems, aiming to integrate with the overall design of the site while addressing the fountain's visibility, maintenance and conservation needs, as well as the revision of the systems.

2. PHASE 2 - CONSOLIDATION AND RESTORATION (OFF SITE WORKSHOP - LAF Cultural Heritage Center):

# 2.1 Placement of the Two Working Bases on Wheels

As agreed in July, the workshop where the fountain was transported and where all restoration phases will be carried out is provided by LAF. The facility has been adapted and equipped for this purpose, offering spacious work areas and necessary supports, including pulleys and overhead cranes, to facilitate the execution of the restoration tasks.

In January, both wings were placed inside the facility and unpacked by the LAF Independent Works Regiment, under the supervision of specialized Italian restorer Carlo Chinellato and architect Francesca Brancaccio.

Thorough training on analysis, documenting and cleaning activities was provided to the LAF Independent Works Regiment, under the guidance of restorer Carlo Chinellato and with assistance of architect Francesca Crotti.

Some unstable elements that were purposefully detached for safety reasons before transport as well as spare collected tesserae, were recovered and will be reintegrated by the LAF Independent Works Regiment in the presence of the Italian restorer once the cleaning phase is completed.

## 2.2 Investigation and Study of Internal Conditions

Although in July it was suggested to investigate and assess the internal conditions of the structure and materials using core drilling to check for potential water infiltration, this method has been deemed unnecessary after a detailed examination of the structure off-site.

In fact, during the tactile and visual inspection conducted in January by restorer Carlo Chinellato, no signs of water infiltration were observed. The fiberglass structure appeared to be intact, showing only slight rust stains at the base and faint traces of calcareous deposits.



## 2.3 Initial Cleaning and Biocide Treatment

After a thorough and detailed mapping of decay phenomena was carried out by the scientific coordinators, no traces of moss or lichens—typically found in areas where the structure shows fractures or cavities—were observed on the surface. This made the use of biocides, initially forecasted in July, unnecessary.

# 2.4 Surface Cleaning

As planned in July, surface cleaning was to begin to eliminate any materials foreign to the structure that could pose a threat. In fact, the characteristic irregularity of the mosaic facilitates the formation of calcareous encrustations.

Although previous interventions, such as the cleaning carried out in Ravenna in 2009 and 2013, used low-pressure water jets with sodium bicarbonate and calcium carbonate and aluminum oxides as a micro-abrasive agents, during the execution phase in January, a more targeted approach to cleaning and removing incoherent materials was adopted.

A new methodology was developed to remove stains and incoherent substances from the base of the structure's components, including soil, rust in the connection areas, and areas in contact with the metal anchoring plates. This approach involves the exclusive use of nylon-bristled brushes of varying hardness, small brushes, and vacuum cleaners.

It was also noted that, especially in the lower part of the surface exposed to the fountain's water jets, coherent calcareous deposits covered large areas of both tiles and mortar joints. Therefore, it was deemed necessary to remove these incoherent deposits through brushing and mechanical removal using scalpels, followed by damp sponging. A thorough cleaning training session was conducted for LAF operators under the direction of restorer Carlo Chinellato.

# 2.5 Iron, Cement, and Fiberglass Consolidation

A detailed structural inspection will be conducted to evaluate the condition of the original reinforced concrete foundation, particularly in relation to the technical anchoring requirements and the needs of the new design, to prevent any potential structural weaknesses.

The iron components, including the anchoring bolts still fixed to the foundation and the two metal plates that contributed to the stability of the sculpture, will be examined. Their condition will be assessed to determine whether replacement or dimensional adjustments are necessary, in line with the technical anchoring specifications and the requirements of the new design.

After a thorough inspection, the condition of the artifact's structure, made of fiberglass and polystyrene, was found to be stable, with no signs of water infiltration. It is important to note that the difference in weight and material properties between the mosaic and the structure has caused detachment of the mosaic. To prevent this from recurring, suitable adhesives (as described in the following sections in detail) will be used.

### 2.6 Mosaic Consolidation

In July preliminary plans involved consolidating the mosaic on the fiberglass, securing the edges, and stabilizing any loose pieces.

In January, a thorough visual, percussive, and tactile investigation was carried out across the entire surface, which revealed that the condition of the areas still attached to the support was generally good. However, some detached sections were found to need cortical consolidation, which will involve the injection of consolidating products such as epoxy resin, to be performed under the supervision of specialized restorers.



## 2.7 Surface Survey for Replacements.

In July preliminary plans involved mapping the mosaic surface, removing any loose or at-risk tiles, cleaning and treating their positions to prevent bio-degradation, and then determine the best anchoring system, either cementitious mortar consistent with the original or two-component epoxy resin.

In January, during the execution phase, the adhesion of each tessera to the substrate was assessed, with those showing adhesion issues marked with tape. These tiles will be reattached using the materials acquired for the restoration. Additionally, the method for mechanically removing cementitious residues from the base of the two elements, particularly at the support points, was further refined.

# 2.8 Execution and Reintegration of Missing Tesserae and Lacunas

In July preliminary plans involved applying the first layer of bedding mortar, then imprint the design to be executed. A thicker second layer would be applied, followed by the insertion of missing tiles in sequence, either individually or in pre-assembled supports, using a mesh support with pregluing if necessary, until the design was fully restored. It was noted that the fountain had a significant gap measuring 1.50 meters in height. Artist Marco Bravura had already measured the missing portion using a template, with plans to recreate this section in Italy, mount it on a support, and install it during the restoration process.

During the execution phase, preliminary tests were carried out using products such as Kerabonf T with Isoelastic additive (Mapei) and Mur Ex filler (Toupret) to determine the best methodology for reattaching medium and large detached mosaic portions to the support.

The artist Marco Bravura supplied redesigned sections of the mosaic as previously discussed. Furthermore, it is important to note that



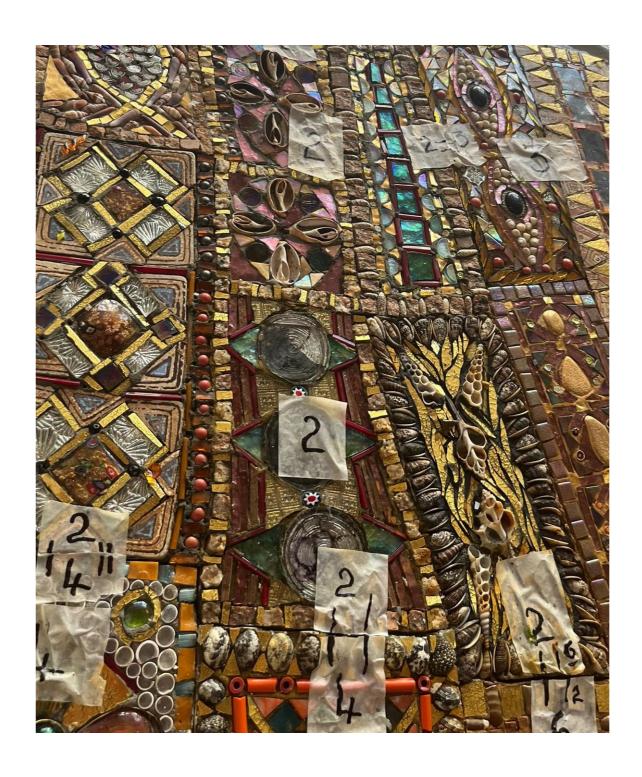
between July and January, the condition of the mosaic deteriorated, with additional sections detaching, and the portion at the base of the two components was dismantled, as described earlier. Given these circumstances, it was agreed that Marco Bravura would personally manage the final stages of the reconstruction, producing extra sections to be integrated into the artwork, ensuring alignment with the updated design and anchoring techniques.

### 2.9 Surface Protection

The treatment must cover the entire mosaic surface, aiming to provide water repellency without creating a film or altering the color. Suitable treatments include mixtures of siloxane resins dissolved in white spirit.

In the case of Ravenna, the best results were achieved with the application of Idrofluoro 10, which did not alter the luster of transparent glass pastes or the tiles with metal leaf. This allowed the colors of the various ceramic, glass, and metallic materials used in the mosaic to remain unchanged. The final phase of the restoration involved applying a fluorinated copolymer to the mosaic surface affected by water runoff. This water repellent not only slowed the formation of calcareous deposits but also reduced their adhesion, facilitating easier removal during future maintenance.

It should be noted that, apart from the surface cleaning of both coherent and incoherent deposits, which will be carried out by LAF operators, all other restoration activities will be performed exclusively by a specialized restorer throughout the entire duration of the intervention.



3. PHASE 3 - TRANSPORT AND INSTALLATION (ON SITE):

## 3.1 Inspection of Pipes and Control System

After the sculpture was removed and the basin dismantling and cleaning of the project site were completed, the pipes were identified and inspected. As agreed upon with the artist and all parties involved in the reconstruction and requalification, the pipes will be repositioned to direct water to lateral jets within the basin, while the central jets will be eliminated. This adjustment will improve future maintenance by reducing issues related to rising moisture and calcium deposits. Additionally, a comprehensive survey of all pits and control systems associated with the fountain has been conducted and assessed in collaboration with Rockland Group, which will oversee the construction phase under the supervision of Architect Francesca Brancaccio.

To support this operation, it is worth noting the precedent of the Ravenna fountain, where severe damage occurred due to thick ice, which was caused by the lack of a seasonal maintenance program for the hydraulic systems and the failure to drain the basins during the winter months. The redesign of the basin provides an opportunity to resolve these issues by enhancing the hydraulic system and establishing a more efficient control and maintenance scheduling program.



# 3.2 Design of the New Basin and Surroundings / Lighting System Design

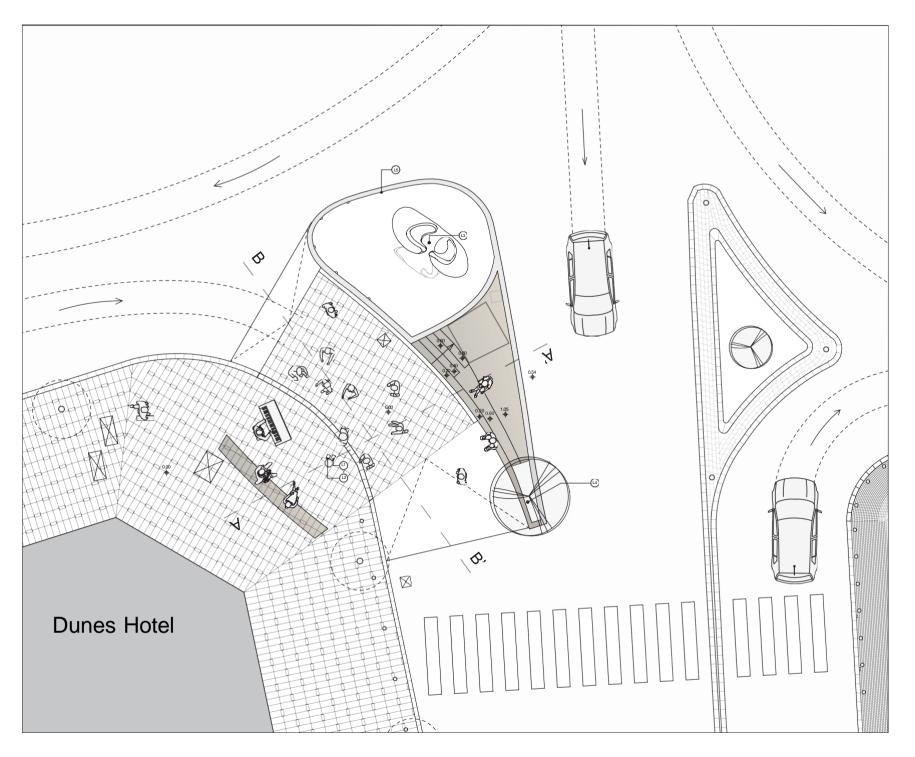
As agreed in the preliminary phase, after its dismantling, the basin will undergo a redesign and expansion in collaboration with the artist Marco Bravura. A new lighting system will also be developed to highlight the mosaic's composition and colors, making up for the removal of the central jet. This will elevate the fountain into a prominent urban landmark that remains accessible and functional even at night.

The requalification project, which was further discussed and refined during the executive phase in January, extends beyond the fountain and its basin to encompass the entire surrounding traffic island. The goal is to enhance the visibility and prominence of the artwork while creating a public urban space that is both enjoyable and accessible. Situated in an area with heavy vehicular traffic and multiple points of interest, including schools, offices, shopping centers, and hospitality venues, the project aims to reconnect the fountain with its environment. The design will allow for both low-speed vehicular traffic and occasional closures for events and urban gatherings. A seating area, designed as an urban amphitheater, will be incorporated into the basin, creating a "piazza" that seamlessly integrates with the surrounding architecture and offers protection from traffic for both the fountain and the public.

In addition, the redesign will involve updates to the plumbing and lighting systems. Given the high calcium content in Beirut's water, a new filtration system will be introduced. The water jets will be repositioned along the perimeter of the basin to prevent the buildup of calcareous deposits, while the central water jet will be replaced with a scenographic light source that complements the overall lighting design. This will accentuate the artwork and help create a dynamic and welcoming public space, further enhancing the fountain's artistic and symbolic importance.

Additionally, improvements to the surrounding green area will enhance accessibility, ensuring the fountain remains a vibrant and engaging public space while promoting education and awareness about the fountain's history and ongoing restoration.

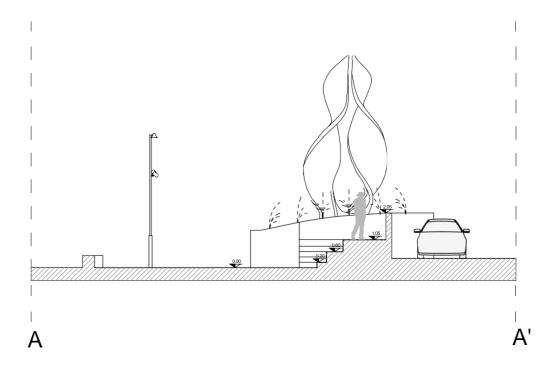
# Requalification Masterplan - Pedestrian Circulation



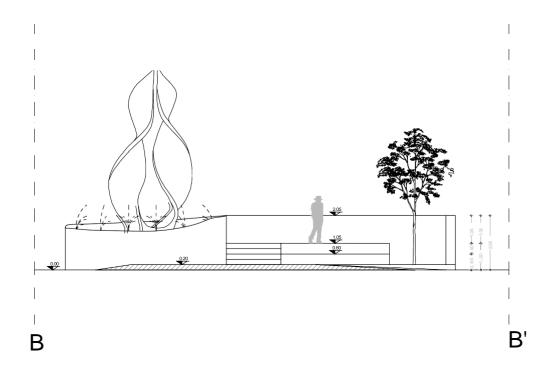
্ 0 **Dunes Hotel** 

Requalification Masterplan - Vehicular Circulation

# Requalification Masterplan - Section A A'



# Requalification Masterplan - Section B B'



# Propopsal for Lighting System Design - Technical Specifications

### L1: Projector Integration on Existing Municipal Lighting Pole

Palco InOut

Tipology: Projector Light source: LED Power: 20.4 Watt Lumen: 2093.5 Im Optic: 18° - Medium CCT: 3000 K CRI: 80

### L2: Projector Integration on Existing Municipal Lighting Pole

Palco InOut

Tipology: Projector Light source: LED Power: 20.4 Watt Lumen: 2093.5 Im Optic: 28° - Flood CCT: 3000 K CRI: 80

### L3: Fountain Central Lighting

Light up Earth

Tipology: Recessed Spotlight

Light Source: LED Power: 12 Watt Lumen: 1900 Im Optic: 14° - Spot CCT: 3000 K CRI: 80

### L4: Garden Recessed Spotlight

Light up Orbit

Tipology: Recessed Spotlight

Light Source: LED Power: 3.8 Watt Lumen: 470 Im Optic: 21° - Medium CCT: 3000 K CRI: 80

### L5: Perimetral Underwater Recessed spotlight

Light Fixture Tipology: Underwater Recessed spotlight

Light Source: LED Power: 2.2 Watt Lumen: 197 lm Optic: 23° CCT: 3000 K CRI: 80

# Focus on floor recessed lighting - Proposal 1

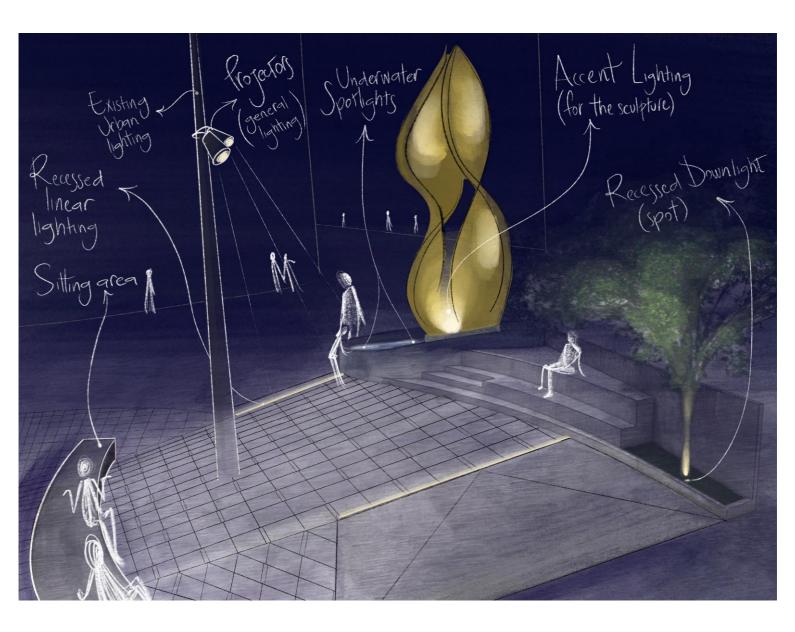


The first solution involves recessed linear lighting installed in the ground, radiating outward from the seating area to reach the urban amphitheater. It climbs across the island, highlighting its main elements: the fountain, the staircase, the seating area, and finally, the ramp that defines this new urban space.

## Technical specifications:

- Floor recessed linear lighting
- 3 W per meter
- 3000 K
- Flood lighting

# Focus on floor recessed lighting - Proposal 2

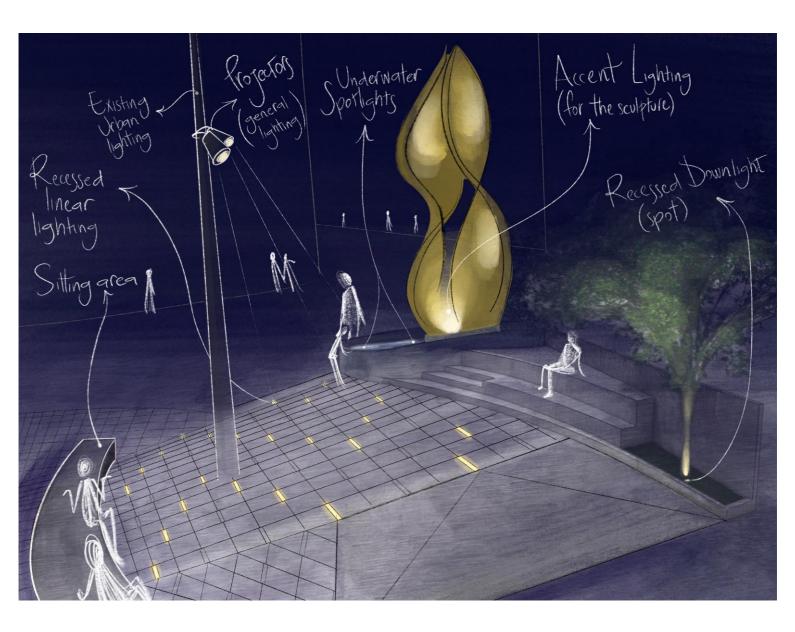


The second solution involves recessed linear lighting installed in the ground, radiating outward from the existing sidewalk to reach the urban amphitheater, thus delineating the square created by the continuation of the joints in the existing pavement.

### Technical specifications:

- Floor recessed linear lighting
- 3 W per meter
- 3000 K
- Flood lighting

# Focus on floor recessed lighting - Proposal 3



The third solution involves recessed linear lighting installed in the ground, integrated into the design of the existing pavement, where the pattern is reinterpreted by replacing the dark stone elements with light tiles.

### Technical specifications:

- Floor recessed linear lighting
- 1 W (100x250 mm)
- 3000 K
- Flood lighting

# 3.3 Foundation Inspection, Consolidation, Calculation and Reconstruction

During the dismantling phase, the foundations were left intact, including the anchoring bolts. However, a detailed inspection of their current condition will be required before reinstalling the artifact. This may be followed by consolidation and recalculation to guarantee proper reconstruction and sufficient support for the structure, particularly if the design calls for raising the fountain's base to enhance visibility and provide better protection from water.

# 3.4 On-Site Transport and Reassembly

Once all parts of the artifact have been protected, suitable lifting equipment—such as cranes, hoists, or lift trucks appropriate for the fountain's size and weight—will be used. Padded slings or lifting straps will distribute the weight evenly and prevent direct contact with the mosaic surface, thus minimizing damage risks. The fountain will be secured with straps or tie-downs to ensure stability and prevent any shifting during transport. The transport vehicle must accommodate the fountain's dimensions and weight, featuring a stable, level floor and adequate suspension for safe transit. Given the current location's safety constraints, temporary scaffolding will be installed, and the work will be conducted in accordance with the prescribed timing and precautions.

4. PHASE 4 - PARALLEL DISSEMINATION ACTIVITIES:

# 4.1 Fabriano: Illustrating the Fountain and Its Symbols

The Italian company Fabriano, known for its paper products, will sponsor drawing initiatives in schools related to the mosaic restoration project. This collaboration aims to engage students creatively and educationally by connecting them with the restoration process. This initiative may have several benefits, such as enhancing educational outcomes and increasing public interest in the restoration work.

# 4.2 Explaining the Worksite to Experts

A key aspect of the project is the establishment of an international cooperation plan involving experts and educational dissemination. This will include periodic panels, meetings, and events throughout the process to share progress and engage with a broad network of specialists. Additionally, virtual support could be utilized to provide continuous, open-source monitoring of the work, facilitating real-time updates and collaborative input.

# 4.3 Explaining the Worksite to the General Public

In line with the approach described earlier, it is vital to actively involve the general public throughout all stages of the intervention. To underscore both the artistic and symbolic value of the artifact and the restoration process, fostering a strong sense of ownership and connection to cultural heritage is essential.

This can be accomplished through direct engagement in events and workshops, as well as ensuring transparency and accessibility of information. Such involvement will help to enhance public awareness and appreciation of their cultural commons.

# 4.4 Workshop on Creating a Mosaic

A workshop will be organized in collaboration with the artist Marco Bravura, focusing on researching the mosaic designs. This will allow the designs to be transferred onto the mortar, particularly in areas with significant gaps.

# 4.5 Workshop on Restoring a Mosaic

Additionally, during all the restoration phases, it is planned to organize educational worksites involving students and professionals from LAF and DGA. These participants will have the opportunity to engage in various restoration activities under the guidance of the appointed restorers from USEK and UNIURB.

# 4.6 Focus on the Analysis of Different Mosaic Materials

Given the composite nature of the mosaic tesserae and the various materials used, a specific activity will be organized to catalog and analyze the properties of the different materials employed, their degree and type of damage and the different methods of intervention.

### 4.7 Concert

At the conclusion of the restoration work, an inauguration event will be held to honor all the professionals involved, the participating institutions, and the general public. This event will celebrate the successful completion of the project and serve as an opportunity to engage and involve the broader community.

### 4.8 Book and Website

As outlined in various previous points, extensive documentation will be collected throughout the entire process, including details on the work phases, specific analysis activities, the agents and institutions involved, and the outcomes of the related educational events. This comprehensive material will culminate in a publication aimed at providing a thorough record of the project, serving as both a typological reference and a guide for future projects.

To maximize accessibility to these resources, a dedicated website will also be established. This site will be regularly updated and made widely accessible to the public.



SONO PARTICOLARHENTE

PROFONDAMENTE IMPRESSIONATO

PA QUESTA REALTA! (HE SI OCCUPA E

PRECICUPA DI PROTEGGERE E SALVISRE
L'ARTE E LA PREZIOSA CULTURA DI

QUESTO COSI PRECIALE PAESE

E GONO PARTICOLAR HENTE ONORATO

DI COLLABORARE PER PERSEQUIRE

QUESTO OBIETTI O

Maco Zure