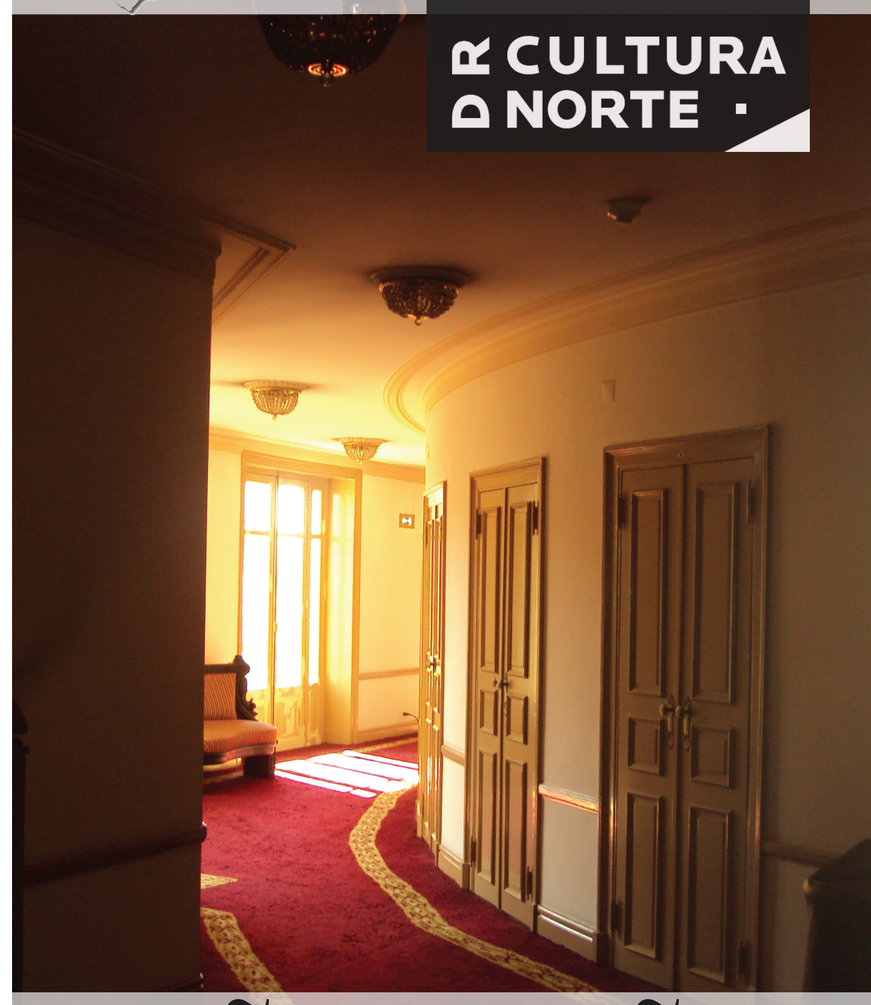
DR CULTURA DO NORTE



TEATRO NACIONAL DE SÃO JOÃO

SÃO JOÃO NATIONAL THEATRE

The first inauguration of S. João's Theatre was in 1798, according to the ideia of the influent politician Almada Mendonça that Oporto needed an artistic centre similar to S. Carlos Theatre, in Lisbon. The author of the design was the Italian Vicente Mazzonesch and the building assumed the characteristics of the Italian theatres. Inaugurated in honour of the Regent Prince D. João, the future king D. João VI, it was financed by the city's bourgeoisie. There were several reconstructions, including in the year of 1835, after the Portuguese Liberal Wars. In April 1908, a fire destroyed the first building. Its reconstruction was approved in 1910 but, with the beginning of World War I, it was delayed until 1920. The new building reveals French characteristics, due to its creator's training. In 1992 the theatre was acquired by the Portuguese Government. In June 10th 2012, it was categorised as a National Monument.

The façades of the Teatro Nacional S. João feature some anomalies that motivated the elaboration of detailed studies of mapping and diagnosis of pathologies, in order to define the required rehabilitation strategy.

The trials conducted in the armed mortar façades revealed that these are composed of cement-based ligand and sands of siliceous nature. The reinforcement coatings are very variable, not noting, in general, relevant contamination by chlorides.

Visual inspection performed has shown us the existence of various anomalies, the most relevant being related to detachment and falling pieces of sculptures and reliefs of the façades. These anomalies are due to reinforcement corrosion that are arise associated with expansion, causing cracking and delamination of mortars, being compounded by insufficient armor rods covering sculptures, excessive porosity of mortar and lack of preservation of superficial protection coating, associated to exposure to rains, winds, atmospheric pollution and temperature changes.

The sub-vertical façade cracking appears to be due to differential settlements and also possible to temperature variations associated with the large dimensions of the building. The remaining façades anomalies, notably biological colonization, guano accumulation, paint coatings degradation, metallic guards corrosion and anchorages for masonry elements corrosion are mainly due to the lack of maintenance/conservation.

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Photos by Helena Vilar and Gabriel Andrade
Designed by Helena Vilar /DRCN

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The proposed strategy aims the restoration and rehabilitation of the façades, taking into special consideration elements such as the sculptures and other mortar elements, which after being duly inspected will be subjected to treatments and repairs depending on the type of anomalies presented, through duly designated mortars for that purpose and protective paints.

The façades coatings are subject to repair, in particular when it comes to cracking and detachment of plaster. It is predicted, as well, the application of a protective coating as well as water-repellent.

It is also proposed the rehabilitation of metal balconies guards, through brushing and cleaning followed by application of anti-corrosive products. Likewise, also the marble elements will be treated according to their specific characteristics and presented anomalies.

All the spans of the four façades will be subject of restoration, in works of carpentry and metalwork, as well as replacement of glasses, when necessary.

Given the continuing presence of birds that mostly contribute to the degradation of the building façades, it is predicted to install a system to remove them, after a careful removal of guano and biological colonization not only on the façade, but also on the sign in the north façade.

Regarding the coating we expect a review and general cleaning, replacing if necessary, tiles and broken glasses. Special emphasis will be given to operations such as the cylindrical block recovery (original ventilation of the room) and disposal of decommissioned ventilation systems, as well as the renewal of waterproofing seals.

It is also predicted to clean the sand retention boxes, as well as a general cleanup of the areas involved.

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