Insertion of a water treatment cycle in a patrimonial site, Meknes, Morocco

Sahri Swani, also named "Basin des Narjas," is a large water basin measuring 319 m long, 149 m wide and about 2 m in depth. It was constructed by King Moulay Ismail in the end of the 18th century in order to irrigate the gardens of Meknes. It also served as a water reserve for the medina. The Swani basin is a part of a patrimonial complex consisting of Dar Elma, the stables and the historical well. Despite its important potential and value, this patrimonial site is marginalized in the present day.

The goal of this study is to get benefit from this patrimonial site, starting with the basin's capacity of storage. It will be integrated in a water treatment cycle (recovery, treatment, retention and irrigation) while offering the neighborhood a new attractive and historical center around the theme of water conservation.

In order to reinsert this basin in its context, the project is based on 3 important points:

- **Pedagogic**: Making the citizen aware of the importance of water. Drawing the different phases of water recovery and treatment on the site, highlighting the high school (a physio-purification basin, incorporating participatory agriculture).
- **Memory**: Rebalancing the Sahri Swani basin and enhance its patrimonial value. Highlighting the entire patrimonial site (historical well, stables, stable and Dar Elma).
- **Recreation**: Creating a route around the site (the existing carriage trail, the new countryside trail, the new urban agriculture park and the new market). Repopulating a patrimonial area on the theme of agriculture.

Creating a park promoting social interaction.

Rainwater recovery: 170,000 m³/year

Wastewater recovery: 350 m³/day/citizen

The basin retention capacity is: 36,000 m³

Rainwater recovery: 50,000 m³/year

Grey waste water treatment production: 685 kg/year

Rainwater recovery: 350,250 m³/year (70% sprinkler water)

Drainage of the seeping golf water: 17 ha

Storage in the existing patrimonial basin: 56,000 m³

New market:

Washing the public agriculture parks: 150,000 m³

Recovery through the market structure of the rainwater: 24,467 m³/year

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