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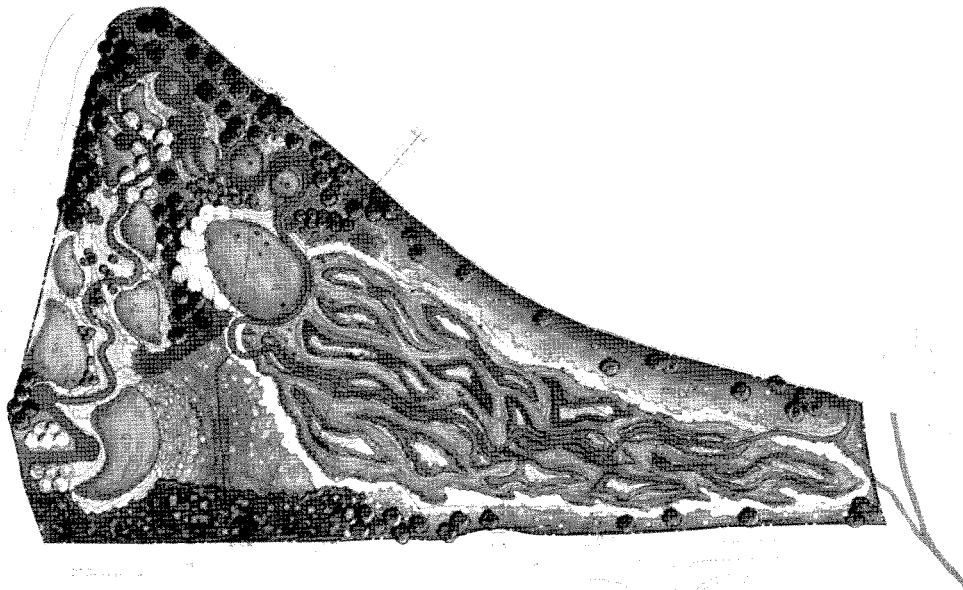
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Gardens

Submitted by Lorna Jordan Inc., Seattle



Waterworks Garden, a public space integrated into an otherwise ordinary water treatment facility in Renton, Washington, demonstrates a remarkable combination of experiential, eco-conscientious and didactic qualities.

The eight-acre garden, completed in 1996, was created by artist Lorna Jordan and built by Metro, the agency that handles water treatment for the Seattle region. It consists of stormwater treatment ponds and wetlands designed as an earth-water sculpture that funnels, captures and releases water.

The project's multiple accomplishments include the natural treatment of stormwater, the enhancement of two on-site wetlands, and the creation of five garden rooms for the public. This last aspect is perhaps the most important given the fact that this industrial site sits amidst a business park, quarries, shipping companies, residences and a heron rookery.

The garden rooms invite people to observe the natural processes of water purification while connecting them to the cycles and mysteries of water. Stormwater runoff from the grounds of the wastewater reclamation plant is collected and pumped into eleven ponds that settle out contaminants and sediments. Water is then released into the wetland below, helping to sustain plants, micro-organisms and wildlife.

Jordan developed the conceptual framework of the garden because she considered it to be a balancing point between nature and human presence. The garden demonstrates a level of in-depth research into the fields of gardens and indigenous plant material, water treatment technology and recycled materials.

Waterworks Garden may be the first attempt to integrate an arts project with a water treatment plant, and the story of how this came to be demonstrates the artist's commitment and perseverance. In fact, Waterworks Garden was not developed as the typical "per-

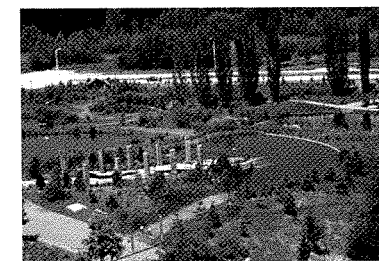
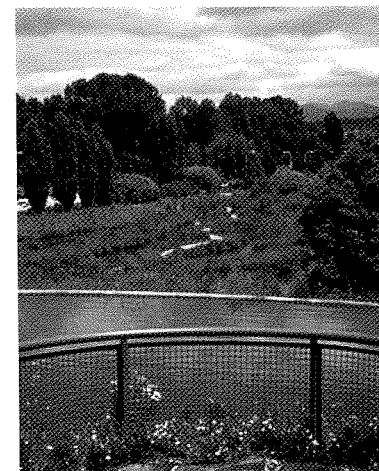
cent for art" project; rather, it was an artist-initiated project from the very beginning.

In 1989, Jordan advocated that a "people place" should be carved out of the ninety-five acres that Metro purchased for the King County East Section Reclamation Plant. More than anything else, Jordan wanted to move beyond an earlier design effort, which had proposed that a wall of trees be planted at the perimeter of the plant to hide it. The Metro Arts Committee also trusted that a more innovative solution could be reached if a strong design team were assembled.

As the artist member of the design team, Jordan advocated for a natural system treatment of stormwater that collected on the site. This was not met with total agreement at first, but when the plant's building permit required complete drainage of the site's stormwater, due to the impervious cover the treatment plant would require, the project came closer to reality. It took the joint efforts of Jack Warburton, the consultant team lead engineer, and Bill Burwell, the treatment plant manager, to reach the decision to merge the stormwater budget with an already allocated art budget.

Construction began in 1995 and groundbreaking took place in June of 1996; the total cost of the project reached \$1.6 million, an amount not far from what a percent-for-art project might have yielded. But the development process here was a completely different experience. Waterworks Garden went through an incubation period of eight years, and this allowed Jordan to research a number of aspects of the project quite extensively; it was clear from the outset, the artist has commented, that the media and science at hand were not part of her usual palette.

The story of how Waterworks Garden came to be sited at the northern border of the plant reveals how an unexpected challenge became an important part of



opposite page: Basalt columns and grate-covered channel.

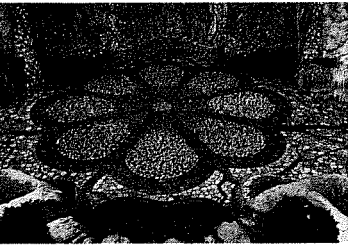
left: Illustrative site plan showing location of five garden rooms.

top: The Knoll, the first garden room.

center: View from The Knoll overlook.

bottom: Aerial view of eleven stormwater treatment ponds.

Photos: Lorna Jordan



top: The Funnel consists of a series of terraced, leaf-shaped ponds connected by a path, or stem.

middle: The Grotto, shaped as a seed pod, provides a point of respite.

bottom: The Passage is a path that passes by a row of Lombardy poplars and three circular ponds.

Photos: Lorna Jordan

the design solution. Early on, Renton’s city examiner had deemed that the stormwater runoff from the treatment plant was to drain into Springbrook Creek on the north side of the site, rather than into the Green River, where the treatment drains were already carrying water runoff. To do this, a vault and pump had to be installed to redirect this runoff to the opposite side of the site.

Jordan capitalized on this opportunity and devised a scheme whereby water pumped to the top of the hill could be re-directed down into the wetlands, a work of choreography that inspired the five outdoor rooms she developed. Jordan explained that “the progression of five garden rooms intimately engages visitors and follows the story of the water’s cycle: impure, working, mysterious, beautiful and life-sustaining.” The spaces are:

The Knoll, where stormwater splashes into the open system of ponds. The first stormwater treatment pond is framed in forced perspective by ten standing balast columns, and the wetlands that culminate the process can be seen from the outlook.

The Funnel consists of a series of terraced ponds that emphasize the role of plants in purifying the water.

At the bottom of the hill, cleansed stormwater cascades into *The Grotto*, which is designed as a dank, fertile environment.

The Passage evokes a sense of calm as the path passes by a row of Lombardy poplars and three circular ponds that symbolize the fruit of the plan.

In *The Release*, cleansed stormwater passes from the pond system to the wetland and then from the wetland to Springbrook Creek.

While the gardens do not instruct the visitor about the more complex technology required in the treatment of wastewater in the reclamation plant, which is a totally separate fenced-in experience, the presence of the adjacent tanks and digestors that do this job are certainly part of the garden ground’s experience. The reciprocal to this is that planned tours of the reclamation plant include the Waterworks Garden, and this helps to inform the visitor about multiple forms of water treatment.

Waterworks Garden’s tactile qualities express the integration of both recycled and indigenous materials and textures. Recycled glass cullet was used for drainage aggregate throughout the garden, and the grotto was built with eighty-five-percent recycled granite and marble; recycled concrete from nearby sites was also

used for structural fill. The artist also used a product called Gro-Co, a manufactured soil amendment, which is made from sludge (a by-product of the treatment plant) that is then mixed with sawdust.

The use of natural material was inspired by the four elements: earth, wind, water and fire, which the artist integrated into the project. Fire inspired the choice of the primary stone, described by the artist as a fiery-looking, almost sinched red quartzite. Water is celebrated in the underground watercourse, which cuts through the formal geometry of the first garden room; here, the sound of the water underfoot is meant to lead the visitor out onto the overlook. The natural setting brings the elements of earth and wind into the experience, primarily with indigenous plant material; Red Cedar, Douglas Fir, Quaking Aspens and Wax Myrtles are arranged in broad bands that create moments of intimate space and then vast openness. Plant material is irrigated by tertiary water that comes from the adjacent treatment plant.

Robert A. Gonzalez

Jury Comments:

Lawrence Halprin: This is an example of how one can take a very difficult necessary function in a city or a region, which is usually considered some sort of blight on the landscape, and turn it into a great work of art. It is clear that the project was developed so that one can interact with the industrial aspect of the site without feeling like they are excluded from this type of facility.

Samina Quraeshi: I think Waterworks Garden is an example of imaginative and original design work. What a wonderful use of materials. It is interesting to see the variety of ways that this project is made accessible to people.

Donlyn Lyndon: The garden is an example of how a set of processes that are interesting and valuable can be dealt with in an explicit and knowledgeable way. The designer then goes beyond just engineering the treatment process and makes a place that is understandable.

Gary Hack: Usually this work remains in the realm of engineering and gets treated as dumb environments, and to hear that someone has made this into a piece of public art is remarkable.