

Deneen Powell Atelier, Inc. (DPA) - Educational Garden Design

Special Note

Our paper is best told through multiple images and graphics. In our work, the written word is a supportive element of our educational garden designs. By no means are signs and copy the focus or the critical element. The gardens themselves and the artistic supportive elements are the primary focus of the educational message. This same concept holds true for this paper. It is best told visually with support copy adjacent to the images. We invite you to view the entire presentation with corresponding support images at the following. Thank you.

http://www.dpadesign.com/Ed_Garden_Design.html

Abstract

As the leading designers of water conservation and sustainable tutorial gardens - including the Desert Living Center (DLC) at the Las Vegas Springs Preserve, The Conservation Garden Park outside Salt Lake City, Utah and The Water Conservation Garden in Southern California - Deneen Powell Atelier, Inc. is fully versed in teaching water conservation and sustainable landscape design on an informative, easy to understand, yet entertaining level. Normally water-conserving and sustainable landscapes are believed to be rocks and cactus, but these gardens are lush and colourful. DPA organizes the educational gardens into teaching topics - design, planting, irrigation and maintenance. We utilize native plants as well as plants naturally adapted to their particular climates to create botanical garden gems.

Unique features include whimsical icons, artistic signage, comfort/gathering spaces and amphitheatres with hands-on opportunities for children and adults. Good planning helps set sustainability components firmly in place. Artistically handling these components initiates a desire to learn.

Keywords

Deneen Powell Atelier, Inc., Design, DPA, Educational Garden Design, Immersion Design, Sustainable Gardens, Sustainability, Tutorial Gardens

DPA Specialty - Immersion Design

Immersion Design is the creation of space with a comprehensive and interactive approach, utilizing visual clues, subtle messages, sculptural reinforcements and architectural enhancements to influence the visitor's natural experience. We develop curiosity while educating through landscape and art. Whether the space is a quiet respite or an interactive revelry, we engage multiple senses with multi-level learning techniques to create beautiful, entertaining spaces and the desire to learn and return.

This is accomplished by combining several different but related professional fields. Our principals and staff are educated and trained in the following disciplines - landscape architecture, architecture, advertising and marketing, environmental graphic design, interpretation, and sculpture. We immerse and educate through a range of techniques in multiple layers.

The Process

DPA begins planning the visitor experience with the overall design of the site.

The design process begins with client meetings, site analysis, related research, etc. to gather as much background information as possible. After this process we begin bubble diagramming. We design the gardens much like you would write a book. First a basic outline, selecting the major topics or “chapters” then determining how these “chapters” relate and interact with one another while keeping in mind site grading issues, best entry and exit points, parking lot placement, maintenance requirements, road access, etc.

Once the garden has been organized into the main “chapters”, we continue by designing the “subjects” that relate to these and design how they will interactively and visually teach. As this process plays out we pay close attention to reality, creating ADA access, planning for maintenance, events, etc. Each of the “subjects” is then illustrated in plan and elevation. These are wonderful tools for clients and donors.

The Water Conservation Garden, near San Diego, California, U.S.

This is the entry to the Water Conservation Garden near San Diego, California in the U.S. As this is a teaching garden, you literally walk through a living textbook, experiencing, seeing and interacting with the lessons.

Within view of the entry are 11 different teaching elements. These elements are interesting, engaging, attractive and educational.

San Diego is a desert. Over 90% of the water comes from thousands of miles away and is located literally at the end of the water pipeline. This sculptural main entry feature is a giant water pipe protruding from a hillside. A tiny trickle of water drips from its depths and a fine mist floats through the air. Seeing this literal expression reinforces the dire need to conserve water.

Whimsy plays an important role in this water conservation, sustainable garden. Such a “dry” subject needs a little drama to engage visitors. DPA designed iconic pencils for the design area, shears for the maintenance area, and a pop-up head for the irrigation area. These icons signify the entry into each “chapter” of the garden.

We utilize countless ways to relay messages. Here we cast images into the concrete and had fun with shadows too.

Signage is designed sculpturally and specifically for each of our projects. These signs are designed in layers. Quickly read, fun titles describe the exhibit; the light colour leaf feature sketch renderings and short captions; and the dark green, recessive colour panel tells the in-depth story. The signs also act as wayfinding elements. Gardens are continuous and it can be somewhat difficult to recognize one educational display from another, so these also serve to mark an exhibit.

At The Water Conservation Garden in San Diego, there are 36 different outdoor exhibits that fall under the categories of Design, Maintenance and Irrigation. In Design, there are several exhibits on how to design a landscape. In addition to “How-To” exhibits we also included specialty garden exhibits to show homeowners a few of the endless garden styles. This is a formal garden layout with pollarded *Lagerstroemia indica* (crape myrtles) set in a grid of different colour mulches to accentuate the pattern.

How many times have we heard “don’t step on the grass”? The exhibits are designed to be hands on but this gentleman was concerned, so he looked around first to see if anyone was looking before he finally stepped right on the grass, little did he know he was being photographed.

This exhibit in the Maintenance area shows how to properly stake and guy trees. Knowing that using living trees would become an incorrect lesson very quickly, we used dead trees painted in crazy colours.

Within the Irrigation area is a fountain exhibit displaying a spray irrigation system. Popup heads calliope up and down to demonstrate full, half and quarter head coverage.

Also within the Irrigation area is an exhibit on how weather effects irrigation. DPA designed a sculptural weather vane to introduce this subject. It has wind chime raindrops, lightning bolt supports, patina clouds and a cow that swings through the moon.

As you continue to view these gardens, please note the consistent use of fonts, materials, colours, etc. These are the marketing and graphic design elements incorporated into the overall design. Cohesiveness and consistency are key components to the design and ease learning curves.

This exhibit utilized recycled water pipe as bins to display mulches. Dig in with your hands to see, feel and smell the differences.

We also included many areas for events and repeat visitation to pull in visitors that might not otherwise be interested in visiting a conservation/sustainable garden. This amphitheatre showcases different ground covers.

The children like the garden as a whole, but we’ve also included special children’s activities and information within the entire garden.

As previously mentioned within these educational botanical gardens, the plants are the main focus; art, sculpture and signage step back into the landscape when viewed from a distance but stand out when appropriate.

The Desert Living Center at The Las Vegas Springs Preserve, Certified LEED Platinum, Las Vegas, Nevada, U.S.

This is a very constrained, hourglass shaped site; one side has an archaeological site and the other a 10 million gallon water reservoir. We worked hard on the design so visitors never feel the pinch point.

After a thorough study of local nurseries DPA found that well over 90% of their stock was not climate appropriate or water conserving plants, so we researched at length to locate and source over 1200 different plant species that grow in this harsh desert climate to force nurseries to change.

DPA designed a tightly controlled visitor entry into the Desert Living Center (DLC) and exit without the need of directional signage. We funnel guests while offering teaser views into the garden.

The large main orientation plaza is centred within the desert region.

Careful attention was paid in design to make sure all views of and within the garden are attractive, eliminating unsightly back of house views. Shown is the secondary back entrance into the gardens. Working very closely with the project architect our site features match exactly to the facility architecture.

One of the most significant sustainable features in this garden is the Constructed Wetlands Machine. Here all the wastewater from over 45,000 square feet of building is captured and directed through these wetlands where plants clean and filter the water for reuse for irrigation and flushing toilets.

Desert wetlands are a vital, natural feature in the Las Vegas area. Although our site actually traverses up hill in some areas, as well as over pipes, vaults, etc, as this is a working water district site the gardens appear to flow downhill creating the "natural" wetlands feature.

At the end of the wetlands is a teaching node for school groups to test the water to see just how incredibly clean it is.

Whimsy also played a key role in this garden. Several teaching nodes/visitor comfort areas/storage facilities were included in the garden. A small amphitheatre flanks the watering can kiosk with irrigation parts as decorative architectural features.

Tool Shed teaching node/visitor comfort area/storage facility.

The small teaching amphitheatre was designed into the gardens for programmes and located adjacent to the resource library.

Another major sustainable site component are our solar trees designed to capture the energy needed to light the garden at night.

Within the maintenance area of the DLC are sculptural tool and pest control display walls.

A large chequered pattern of hardscape design ideas are included to show the limitless opportunities available.

Several specialty gardens are incorporated into the design as well. This first one is a teaching kitchen garden, the Library Garden adjacent to the Resource Room, the Oriental Garden, and the Cactus Garden.

Las Vegas, Nevada generally experiences two months of beautiful weather. One in the spring and one in the autumn. Winters are generally windy, cold and dry. Summers are very hot and dry. Yet a huge variety of beautiful plants thrive in this climate.

This garden is open year around for visitors to see and experience the great variety of climate appropriate, water conserving plants.

The Conservation Garden Park, Salt Lake City, Utah, U.S.

Phase 2 Visitor Centre and additional gardens are on track for LEED Silver.

This view is of the site prior to beginning our garden expansion project. The Wasatch Mountains serve as a dramatic backdrop.

The Garden was designed in the same planning manner as we practice for all of our gardens.

Once the basic plans were set we also included comprehensive illustrations. These illustrations were valuable tools for both clients and donors.

The tutorial gardens begin with an overall explanation of what the garden teaches, the region's history, as well as the Seven Principles of Xeriscape.

Design styles, colours and materials are consistent throughout the gardens.

Upper Café Terrace, overlooking the Tool Shed in the How to Plant section of the garden. This photograph was taken during the Phase I opening in the spring of 2009.

Each area of the garden is introduced with sculpture and signage.

The interpretive signs are colour-coded to their overarching subjects.

The wayfinding signage is easy to understand and a fun element in the gardens.

This exhibit teaches composting. DPA fully understand that guests visit gardens in their free time so the exhibits are designed to be interactive, fun and informative. Here the composting exhibit is a "salad bowl". Guests are invited to select "ingredients" from the surrounding condiment bowls and add them to the salad and "toss", teaching the basic principles of composting.

Irrigation is often referred to as "irritation" because it seems complicated. We break down the basic elements with multiple displays on how to build different irrigation components. This basic understanding promotes educated choices when planning a for an irrigation system.

These sculptural buckets make for a great looking wall but they also invite guests to touch and feel different types of soil.

Children's exhibits are placed throughout the garden; here they have a sand box to dig in and sculptural plants to set.

Education is key in our gardens, but they're also beautiful spaces where the plants are the primary focus.