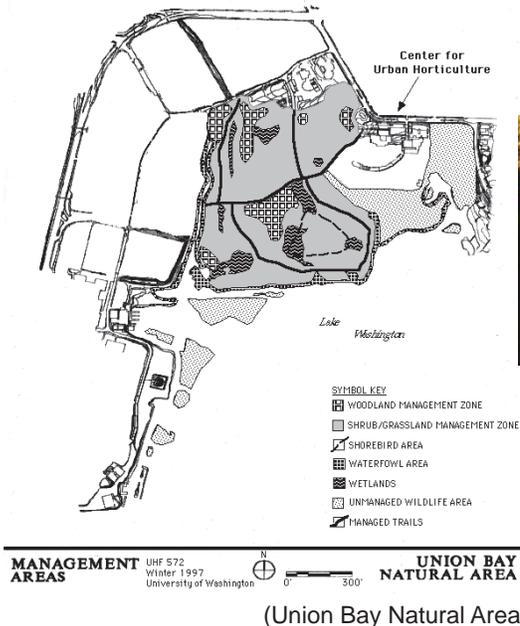


Botanical Gardens



(UWBG)



(Union Bay Natural Area)



(Washington Park Arboretum)

“One generation plants the trees under which another takes its ease”

(Chinese proverb taken from www.mobot.org)

Botanical Gardens provide an opportunity to construct ecologically functional landscapes on a large scale while at the same time educating individuals, professionals and organizations about sustainable green infrastructure. Because of their large scale and their role as educational facilities, they hold a unique potential to significantly influence the direction and pace of urban green space design and planning. In addition to the numerous ecological and informal educational opportunities available in large urban parks, Botanical Gardens provide the following opportunities:

Education: Botanical gardens are usually committed to some level of public education. This function is usually carried out through the combined use of demonstration gardens and displays, informal and formal instruction through classes, tour and web-based resources, outreach using publications such as newsletters, and by making the most of passive experiential learning opportunities.

Research: Botanical gardens, whether public, private or associated with an academic institution, usually contain as part of their mission an aim to improve the understanding of plant biology, the role of plants in the environment and the relationship between people and plants. This often includes efforts to extend research networks and expand collaborations on both global and local scales. Botanical gardens often serve as both informational and physical databases (housing seed, live plant and herbarium specimen collections) for professional and amateur plant researchers.

Recreation: Like large public parks, botanical gardens provide healthy recreational opportunities and an escape from the urban infrastructure

Users: The typical audience and users of botanical gardens include the general public as well as the professionals responsible for shaping urban landscapes.

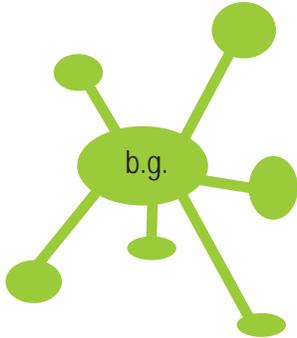
Botanical Garden:

“a garden often with greenhouses for the culture, study, and exhibition of special plants”

(Miriam-Webster online)



(Missouri Botanical Garden)



botanical garden with satellite landscapes in diverse environments

Context

Botanical gardens have traditionally been landscapes of learning. Whether through passive or active opportunities, visitors to botanical gardens expect to be presented with new information, new sights and new experiences. When combined with the large scale of botanical gardens, their traditional role as educational landscapes puts them in a unique position to significantly influence the urban green infrastructure currently, through physical means, and into the future, through demonstration and education.

Botanical gardens as spatial and informational hubs:

spatial- Most cities can only support one botanical garden. However, they are often composed of multiple landscapes, or associated with partner gardens, all with different foci and located in different environments. The large, diverse landscapes of the botanical garden and its satellite partners provide multiple opportunities for developing diverse, ecologically functional systems. They can serve as source landscapes and refuges for biological organisms at multiple scales as well as filter and store water in the urban landscape.

information systems: Botanical gardens can serve as a city's informational database for ecologically sustainable design by actively educating the public through classes and the construction of demonstration landscapes as well as by serving as a clearing house for information about sustainable design.

access: Botanical gardens should make a significant effort to ensure accessibility to the entire public and to develop an aggressive outreach campaign to attract people to the gardens and to distribute information about sustainable design.



Integrating beauty, pleasure, education and research:

Mission: "To discover and share knowledge about plants and their environment, in order to preserve and enrich life."

The Garden seeks to engage its visitors on a profound level - "to preserve and enrich life" by illuminating the importance of plants to the balance of life on Earth.

While most visitors discover a heightened appreciation and understanding of the world's rich botanical heritage, few realize that beyond the floral panoramas and exhibits there exists another realm; our internationally renowned research enterprise. This is the "Unseen Garden."

CASE STUDY: Missouri Botanical Garden (St. Louis, Missouri) a model for research-focused gardens

A private non-profit, 79 acre National Historic Landmark founded in 1859 by Henry Shaw on the site of his private estate. Although a separate organization, the garden has an intimate relationship with the Botany Department at Washington University. It runs on donations from individuals and corporations and grants from public agencies.

focus: dedicated to botanical research and conservation, science education and horticultural display

features:

research: research centers, library, herbarium, botanical database

horticulture: display gardens, classes for the public

education: partnership with local schools to develop an overnight education center for young students

<http://www.mobot.org/>

Aquisition, Implementation, Support and Mangement

Public Facilities

- State Owned and Managed Lands-
University or College Gardens
- City Owned and Managed Lands

Private Donation of Land to Public Agencies- Kubota Gardens

Privately Owned Business - Butchart Gardens

Private Non-profit - Missouri Botanical Gardens

Public- Private Partnerships-

- Washington Park Arboretum: City-owned land but managed by three-way partnership between University of Washington, Arboretum Foundation and City of Seattle
- Bellevue Botanical Garden- City of Bellevue Parks and Bellevue Botanical Garden Society

Additional Opportunites for Support and Management-

- Program, Course and Entrance Fees
- Concessions
- Volunteer labor



<http://www.arboretumfoundation.org/>

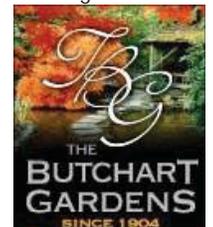


... preserving a northwest treasure

CASE STUDY: Butchart Gardens (Victoria, B.C.) a model for pleasure gardens

www.butchartgardens.com

Begun in 1904 on a former rock quarry, this family owned and operated classical garden has an international reputation for providing magnificent floral and foliage displays year-round. In 2004, the 55 acre garden was designated a National Historic Site of Canada



focus: pleasure garden, horticulture, garden styles
Italian Garden, Japanese Garden, Rose Garden
floral and foliage displays

features:

- year-round entertainment -
 - fireworks saturdays (sell & rent blankets)
 - summer evening light display
 - holiday light displays and activities
 - music and theater "Summer Evening Sounds"
- Historical Perspectives walk- viewpoints provide historic views of the gardens





<http://www.redbuttegarden.org/>

Essential Elements

local landscapes: demonstration gardens highlighting local landscapes serve to teach visitors about the complex environment in which they live and the role plants play in maintaining a healthy, functioning system

global landscapes: demonstration gardens highlighting different landscape types from around the globe illustrate the relationship between the local landscape and the larger, global environment

demonstration beds: living examples of design approaches to addressing current challenges in urban landscapes illustrate alternatives to the traditional approaches to urban landscapes. demonstration beds include information about the application of demonstrated technologies to residential and other urban spaces

experimental landscapes: new approaches to constructing a green urban infrastructure are explored and explained in the gardens

wayfinding and information: botanical gardens should have a clear, easily accessible wayfinding system that provides information in multiple formats and clearly illustrates the relationship between plants, people and their environment

relaxation and escape: the entire landscape should be designed with the intent to provide opportunities for escape from the built environment

conservation: preservation of species diversity through maintenance of living collections as well as seed collections and herbarium specimens

<http://www.redbuttegarden.org/>

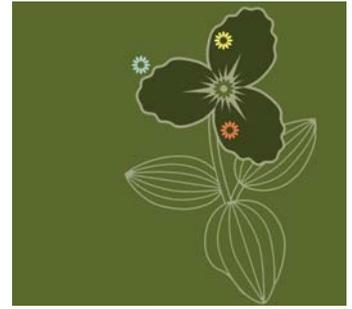
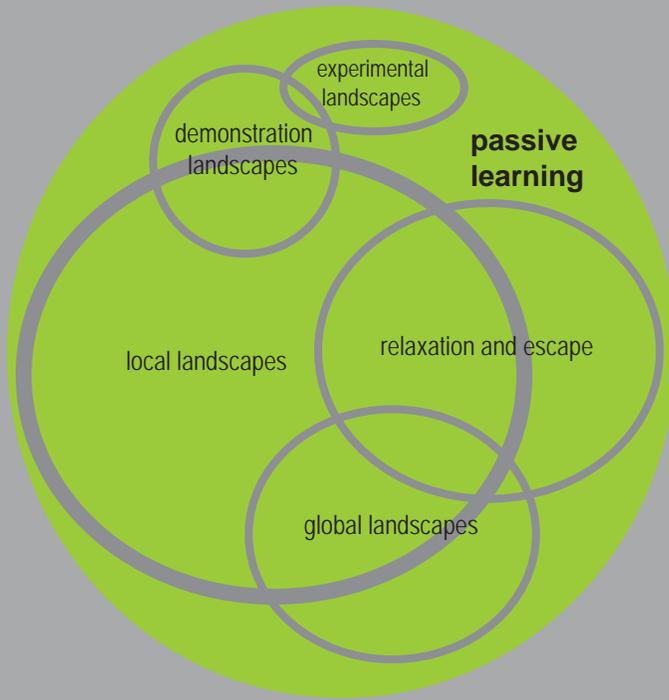
CASE STUDY: Red Butte Botanical Garden (Salt Lake City, Utah) a new model for urban gardens

Nestled against the foothills of the Wasatch Mountains on University of Utah property, Red Butte takes visitors through highly sculpted and maintained landscapes containing ornamentals to the native, arid landscape of the northern Utah desert.

focus: horticulture - demonstration of ornamental and native plants that are well-suited to Utah's desert climate



Pattern: Dedicated to Learning



(Bellevue Botanical Garden)

CASE STUDY: Royal Botanic Gardens, Kew (U.K.)

a model for global perspectives

<http://www.rbgekew.org.uk/>

Mission:

To enable better management of the Earth's environment by increasing knowledge and understanding of the plant and fungal kingdoms - the basis of life on earth.

changing the world by:

developing global reference collections, conducting world-wide research in all areas of plant biology, supporting conservation and sustainable use of plants in UK and world-wide, developing world-class gardens that provide window into RBG's work enabling world-wide collaboration, training and information exchange

focus: Science and Horticulture
Conservation and Wildlife
Education

Collections: plants, seeds, references, herbarium specimens
Data and Publications (collaboration and outreach)

features:

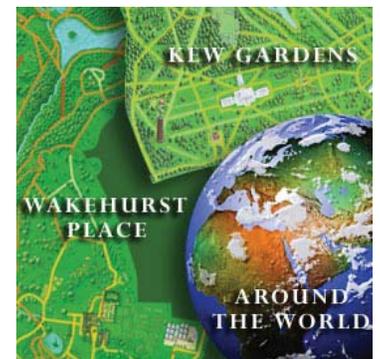
collections: formal gardens, wildlife areas, themed collections

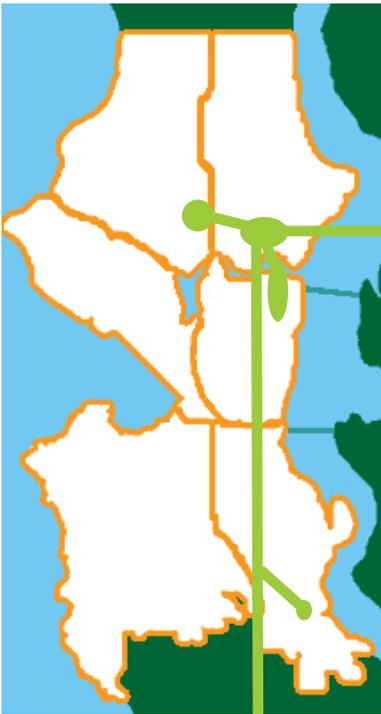
entertainment: guided and self-guided tours
'Kew Explorer' people mover, 'Climbers and Creepers' interactive play area, Festivals and Events - art exhibits, Christmas fete, ice skating

Royal Botanic Gardens, Kew

at Kew Gardens, Surrey and Wakehurst Place, West Sussex

Focus on People and Plants





Making Connections: Resources in and around Seattle

University of Washington Campus

UW Botanic Gardens - 90 acres of display and natural areas

Demonstration gardens: 16 acres

- Orin and Althea Soest Herbaceous Display Garden
- Marilou Goodfellow Grove
- Seattle Garden Club Entry Shade Garden
- McVay Courtyard
- Children's Garden

Union Bay Natural Area -

74 acres, 4 miles of shoreline

UW Erna Gunther Botanical Gardens

UW Herb Garden/Pharmacognosy Lab



Within Seattle City Limits:

- Washington Park Arboretum - 230 acres, 3 miles of shoreline
- Kubota Gardens
- Woodland Park Zoo

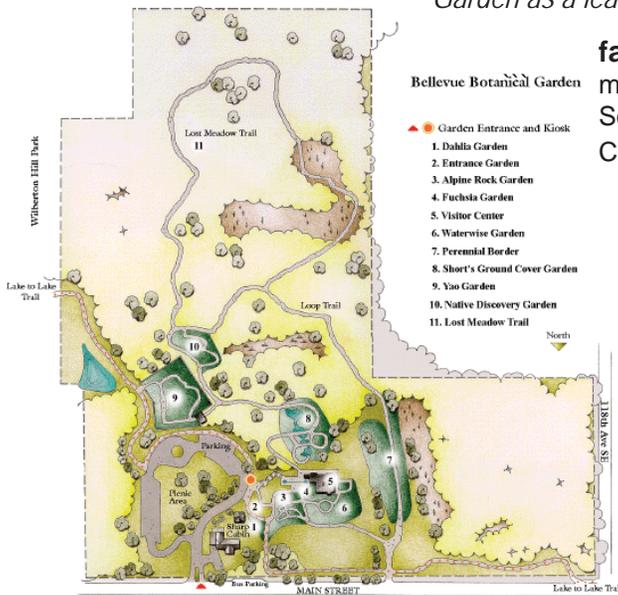
... Beyond Seattle

- Bellevue Botanical Gardens
- Rhododendron Species Botanical Garden

CASE STUDY: Bellevue Botanical Gardens (Bellevue, WA.)

a local model of collaborative management

Mission: "Perpetuate and further enhance the Bellevue Botanical Garden as a learning resource in partnership with the City of Bellevue."



facts: 36 acres of display gardens and

managed jointly by City of Bellevue and Bellevue Botanical Garden Society (501c3) and acquired through private donation and City designation

focus: Education: Develop, maintain and promote interpretive programs and facilities for public education in gardening, horticulture and conservation relevant to the botanical heritage of the Pacific Northwest.

Garden Development: assist the City of Bellevue to develop the BBG into a resource of regional and international renown.

features: Waterwise Garden-

Water Conservation Demonstration Garden -

project of City of Bellevue Parks and Utilities Departments

Botanical Garden Resources:

American Association of Botanical Gardens and Arboreta (AABGA)

www.aabga.org