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CWGS Water Blossom Festival

**Monet Pond, IWGS Competition
Lily Pond, Aquatics Greenhouse,
Japanese Garden
Denver Botanic Gardens
Denver, CO**

**Saturday, August 8th
10:00 AM – 1:00 PM**

Pond Side Meeting

**Robert "Bob" Hoffman Memorial
Pond & The Grove Picnic Area
Hudson Gardens
Littleton, CO**

**Saturday, August 22nd
12:00 PM – 2:00 PM Picnic Potluck
& Fall Plant Swap**

Online at:
www.colowatergardensociety.org



Monet Pond at Denver Botanic Gardens, (photo courtesy of Jim Arneill)

Variety of Activities Highlight this Year's Water Blossom Festival

by Jim Arneill

Each August, the Water Blossom Festival highlights the beauty of the aquatic collection at Denver Botanic Gardens. From the colorful cannas and multi-jeweled water lily blossoms to the giant-leaved Victorias, the water features offer views of magnificence and splendor.

The event will be held on Saturday, August 8th, from 10:00 am to 1:00 pm. Tables will be set up near the Monet Pond, and CWGS members will be available to answer questions and provide tips for planting and growing all types of water plants. Some interesting carnivorous plants will be on display and free water plants will be available while supplies last.

From this information hub, there will be docent-led tours of the water features throughout the Gardens. In the morning, at 10:00 am and 10:45 am, tours highlighting the aquatic plants will be offered. Two of the special stops will be at the pool near the Science Pyramid, where Tamara Kilbane, Senior Horticulturist of the Aquatic Collection, is conducting the annual IWGS New Water Lily Competition. She will explain the process of the contest and point out this year's entries. In addition, Tamara will also provide a behind-the-scenes look at the greenhouse where she grows, maintains, and over-winters many of the plants we enjoy around the Gardens. There will be a sign-up for these tours at the information table.

In the afternoon, visitors will have an opportunity to enjoy the history and beauty of the spectacular Japanese Garden. Docent-led tours of Sho-fu-en, the "Garden of Wind and Pines," will be offered at 12:00 pm, again from a sign-up at the tables in the information area. Two of the special features in this popular garden are the stunning water reflections of the surrounding Ponderosa Pines and the observation deck where koi and goldfish mingle.

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www.colowatergardensociety.org

CWGS Treasurer's Report:
Balance as of July 30, 2015 -
\$12,813.92

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Unless you have specifically requested receipt of The WaterGarden in paper form, you will receive it electronically.

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dorothy.martinez@colowatergardensociety.org.

Water Blossom Festival

(continued from page 1)

This year's Water Blossom Festival will offer many opportunities to experience several different facets of Denver Botanic Gardens. Please plan to join us for a very special day and program!

The event is free, but Denver Botanic Gardens' membership or daily admission fee is required.

For more information, please visit www.colowatergardensociety.org or contact Jim Arneill at (303) 843-9619 or arneil4@comcast.net.



Chinampa Illustration, (courtesy of Bill Powell)

What is IT? And why does it SMELL?

by Bill Powell

These two questions, among others, are often asked of us as we work on the latest aquatic display at Denver Botanic Gardens. The answer to the second question is *"anaerobic decay."* Which of course, leaves the first question open and begs a third, *"WHY are you doing that?"*

The manager of the Hive restaurant – the pleasant and very busy venue by the Monet pond - recently asked me (I paraphrase): *"What genius thought of putting a compost pile next to food service?"* I admitted it was my idea and observed, unhelpfully, that the growing pile only *"really"* smells when I jump on it. Unfortunately, for my argument, I had just finished jumping on IT as lunch and the Hive's busy time approached.

The smelly "IT" is a recreation of a Chinampa, an agricultural practice thought to predate the Aztec civilization. Chinampa are still in use along Lake Xochimilco south of Mexico City. Sometimes erroneously called "floating" islands, Chinampa begin as loose piles of unconsolidated compost material. Over time, and as materials are added, the piles consolidate into a medium capable of supporting agriculture. "Jumping on it" helps with consolidation...or so I think.

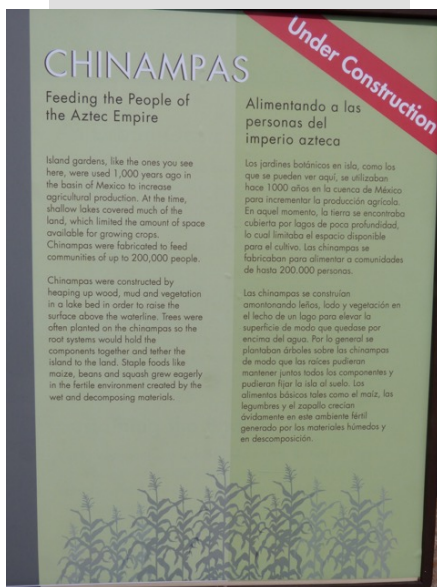
The consolidation process of Chinampa is really a form of aquatic composting. Its cultural history is fascinating, but the science behind the construction and consolidation process is, appropriately enough, murky....and unfortunately sometimes odor producing.

Some of you may recall an article on Chinampa that I wrote some years ago for The Water Garden. The current issue of "The Colorado Gardener", the free periodical, includes a similar article focused upon the history of the agricultural practice. I won't repeat those articles here instead; this piece is intended more as a brief opening to an ongoing blog about the construction of a modern Chinampa.

DBG's Chinampa was conceived as a companion display to the "Sacred Earth" garden located just behind the Hive restaurant. Sacred Earth, as you may know, celebrates the dry-land agricultural practices in the "Four Corners" region of the American southwest where Colorado, New Mexico, Arizona, and Utah meet. Water is a valuable and rare commodity there. (Just recall the landscape associated with all those John Ford westerns.) It's a region of stony plateaus and red earth. Native Americans had to husband the small amounts of water that they could direct to agriculture.



Chinampa Garden at DBG, (photo courtesy of Bill Powell)



Interpretive Sign at DBG, (photo courtesy of Bill Powell)

(continued on page 4)

Chinampa

(continued from page 3)

In Central America, water was more plentiful. In fact, the immediate proximity of water presented a challenge. Water occupied the nearest and most fertile areas to the Aztec city so the native Nahua peoples began to reclaim land from the shallow lake that enclosed their habitations. They threw organic wastes from grasses and reeds, soil they carved from the sides of the lakes, pesky water hyacinths they cleared from the bogs, and the occasional rock and tree limb into these watery impounds. Over time the decaying compost consolidated and the land was claimed by staking the Chinampa with a kind of basketry made from willow or juniper. In fact, the Anglicized word “Chinampa” that describes the agricultural practice is derived from the Nahuatl words “chinamitl” and “pan”. The phrase translates roughly as the place (“pan”) where a square is made of canes (“chinamitl”).

Our recreation of a Chinampa is only beginning. We now have the wattle outlines of two very small Chinampa panels. (The Central American originals are huge, often approaching 15 ft. by 300 ft.) The remainder of this summer we'll continue to contribute materials to the Chinampa as we are able and at times other than lunch! We hope that by fall we will have planting taking place. I'm currently rooting willows that will be planted at the corners of the Chinampa, a practice the Nahua developed to secure the wattle enclosures. (Picture Daniel Defoe's living stockade from “Robinson Crusoe”). Eventually, but not this season I suspect, we'll recreate the annual Native American plantings of the Nahua. Interestingly, the crops are pretty much the same, the “Three Sisters” planted in the Four Corners' area – maize (corn), beans, and squash.

Interpretive signage is now in place adjacent to the bend in the waterway behind the “Hive” near “Sacred Earth.” It explains the basic concept of a Chinampa, but if you are really interested in this unique gardening technique, look for my article in the current “The Colorado Gardener”. As our project develops, I'll write short updates in [The Water Garden](#). And, of course, you can always grab a peek (and a sniff) during the upcoming Water Blossom Festival.

2015 Plant Sale

by Dorothy Martinez

This year's Plant Sale went very smoothly. It was held again at Hudson Gardens and attracted quite a diverse clientele. Again, we received lots of positive comments about the location, ease of set-up, and marketing provided by Hudson Gardens and are likely to have future Sales there again.

The Sale would not take place without a lot of hard work and planning. The Plant Sale Committee starts meeting early in the year to decide what plants to order and discuss logistics. This year, on the day of set up, many hands helped complete set-up in a minimal amount of time. All the people who helped the day of the sale made sure people found what they were looking for and made sure people bought plants they would be successful with. We have such a great knowledge base in this Club; it is great to have the opportunity to share it. Some people were there for every stage, others volunteered a few hours, and some only shopped. We appreciate everyone who helped and attended the Sale! The Sale would never take place, let alone be so successful, without each and every person who takes part.

A special thanks to everyone who came out and purchased plants. Since this is our main fund-raiser for the year, you really helped support the Club. Also, thank you to all of our dedicated volunteers who staffed the Sale, helped people select the right plant, and answered many questions.

Again, without your support, the Plant Sale would not be possible. THANK YOU!

2015 Pond Tour & Picnic

by Dorothy Martinez

This year's Pond Tour and Picnic was a great success! Thanks to Dennis Weatherman, Sue Weatherman, Rebecca Nash, and all of our Pond Tour participants for helping to organize, host, and open up their yards for our Annual Pond Tour and Picnic. All participants said they had a steady stream of visitors throughout the day. Thanks to all our participants, without your vital involvement, the Pond Tour would not be possible.

We had 10 ponds included on this year's Tour. The ponds featured were all very beautiful and different. It is always nice to see how much creativity goes into a water feature. We had beautiful Koi ponds, incredible examples of water lilies and marginal plants, and awesome garden features showcased in yards both large and small.

A special thanks to Dennis and Sue Weatherman for opening their pond and yard to host our Picnic. We had a great turnout with over 50 people attending the Picnic.

THANKS for your support and participation!

June 20th Pond Side at The Aquaponic Source

by Dorothy Martinez & Joanne Bell

The Pond Side meeting on June 20th was educational and informative. We had 10 people attend the tour at The Aquaponic Source and 5 people participate in the optional potluck picnic at The Gardens on Spring Creek in Fort Collins. If you haven't had a chance to visit The Gardens on Spring Creek, you should consider doing so, it's a great community garden. After our tour at The Aquaponic Source, I asked our guide Joanne if she could summarize her talking points about our tour and here is what she provided:

Aquaponics, simply stated, is the combination of hydroponics (growing plants in a soilless media) and aquaculture (fish farming). This combo creates a symbiotic relationship where fish waste is converted into usable nutrients for plants, and plants act as a bio filter, cleaning the water for the fish.

Systems are kept at a 7.0 pH. This is the point where the ideal pH ranges for fish and plants overlap. Any plant that is happy at a 7.0 pH (that's most garden plants) can be grown in an aquaponics' system; everything from lettuce, which will gladly sit in water 24-hours a day, to rosemary, which prefers a dry environment.

The fish most commonly grown in an aquaponics' system is tilapia. However, *The Aquaponic Source (TAS)* has also stocked: catfish, yellow perch, wiper bass, goldfish, and koi. Other aquapons grow crayfish, freshwater shrimp, freshwater clams, ducks, frogs, alligators, and turtles. Anything that produces waste in water can and has been used. However, TAS does not recommend reptiles due to risk of salmonella.

TAS has 4 types of systems on display: bell siphon, timer-based flood and drain, vertical towers, and constant flow. Each type runs on a single pump and can be used to easily convert an existing pond or fish tank into an aquaponics' system. Imagine enjoying the beauty of a water garden and the production of a vegetable garden.

To learn more about aquaponics, visit the website at <http://theaquaponicsource.com/>. TAS offers books, online courses, as well as weekend workshops for beginner and advanced aquapons. If you missed the private tour, you can visit *The Aquaponic Source* on Saturdays at 1:00 pm for the public tour.

Victoria, Queen of the Water Lilies

by Peter Hier

Come and join us Thursday evening, September 17th at the Plant Society Building at the Denver Botanic Gardens for one of the clubs' enjoyable Potluck dinners followed by our Annual Board Election. Then allow me to take you on a journey through my eyes into the world of a very special water lily, the VICTORIA.

We will travel back in time to the backwaters of the Amazon delta in South America and hear about when these beautiful lilies (*Victoria amazonica* and *Victoria cruziana*) were first sighted by Europeans, and how this grand lily received its Regal Name.

After South America, our journey will take us to Europe and England where the first bloom outside of the Amazon was observed.

Next, see how the plant was introduced into North America.

The Australian connection began when, as a child at the Adelaide Botanic Gardens, I first observed this plant with the big platter leaves.

The journey will conclude with the history of Victoria at the Denver Botanic Gardens. Experience one full season from seed to bloom at DBG.

We will also take a lighthearted look into the sex life of this outstanding water lily and see how the Victoria truly is the "Queen of the Water Lilies".



Peter Hier & Brenda Parsons-Hier
photographing the Victoria Water Lily at
DBG, (photo courtesy of Tamara Kilbane)

New and Returning Members for May, June, July, & August 2015

May 2015

Joan & Brian Greelman (Returning)
Arvada, CO

June 2015

Gary & Joyce Blubaugh (Returning)
Lakewood, CO

Connie Brasher (NEW!)
Littleton, CO

Craig & Deb Dawson (Returning)
Highlands Ranch, CO

Mary Ege (NEW!/Returning)
Denver, CO

Don & Sue Eloe (Returning)
Littleton, CO

Ed Glassman (Returning)
Denver, CO

Susie & Mike Hawes (Returning)
Englewood, CO

June 2015 (Cont'd)

Joe & Carla Mascarenas (Returning)
Lakewood, CO

Chuck & Jean Mitton (Returning)
Englewood, CO

Kim Moorhead (NEW!)
Centennial, CO

Lon Nestrud (NEW!)
Denver, CO

Theresa Marie O'Sullivan (Returning)
Denver, CO

Patricia Roth (Returning)
Denver, CO

Joseph Salvati (Returning)
Castle Rock, CO

Jim Shires (NEW!)
Wheat Ridge, CO

June 2015 (Cont'd)

Carol Tuttle/Lynn Barleet (Returning)
Denver, CO

Terry Vicek (NEW!)
Morrison, CO

July 2015
Susan Fayad/David Brunell (Returning)
Denver, CO

Brenda Parsons-Hier/Peter Hier (Returning)
Golden, CO

Bill Powell/Bruce Polkowsky (Returning)
Denver, CO

August 2015
Ken Lange (Returning)
Denver, CO



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*For details regarding rates, sizes, and formats of ads, contact Dorothy Martinez
dorothy.martinez@colowatergardensociety.org*

Make checks payable to:
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___ *Check here if you are also a member of Denver Botanic Gardens*

Check one:

___ ***I would like my contact information included in a membership list that will be distributed only to the members.***

___ ***I do not want my contact information published in the membership list.***

Contact me concerning volunteer opportunities I've checked below:

- DBG Volunteer Sundays ___
- Water Plants booth, DBG May Sale ___
- Hudson Gardens ___
- CWGS Plant Sale (June) ___
- Pond Tour (July) ___
- Water Blossom Festival (August) ___

Note: Your newsletter will be made available to you electronically unless you check otherwise below.

___ ***I request to receive a paper copy of the newsletter***

Membership Fees
 \$15.00 Individual; \$20.00 Family

THIS YEAR

A calendar of CWGS Activities and Events:

August 8: Water Blossom Festival
Monet Pond, IWGS Competition Lily Pond, Aquatics Greenhouse,
Japanese Garden, DBG
Denver, CO

10:00 AM – 1:00 PM

August 22: Robert “Bob” Hoffman Memorial Pond & The Grove Picnic Area
Pond Side Meeting
Picnic Potluck & Fall Plant Swap, The Hudson Gardens & Event Center
Littleton, CO

12:00 PM – 2:00 PM

Sept. 17: Potluck, Annual Board Elections, & Presentation – Plant Society Building, DBG, 6:00 PM – 8:30 PM

Oct. 15: Potluck, Presentation, & Planning Meeting – Plant Society Building, DBG, 6:00 PM – 8:30 PM

Dec. 17: Holiday Banquet, Volunteer Recognition, & Silent Auction – Plant Society Building, DBG, 6:00 PM – 9:00 PM



FIRST CLASS MAIL

From...

The Water Garden

c/o Dorothy Martinez, Editor
14837 W. 57th Drive
Golden, CO 80403-3001

The Colorado Water Garden Society (CWGS) is a non-profit 501 (c) (3) organization founded in 1983 to encourage appreciation and interest in the use of water in the landscape.

To learn more, visit us at
www.colowatergardensociety.org