



VOLUNTEER NEWSLETTER

OCTOBER 2010

Volunteers In The Garden

MONDAY, OCTOBER 11, 2010
DORRANCE HALL

9:30 a.m. - Social Hour
10 a.m. - Business Meeting
10:15 a.m. - Program

CARMEN & ZARCO GUERRO
ARIZONA ARTISTS

PRESENT

"DIA de los MUERTOS:
An Amerindian Celebration"



PRESIDENT'S MUSINGS

Last February my friend Pavlina Menclova and her family came to the United States for a visit from the Czech Republic. Though Pav had been to Arizona several times before, this year was the first time I took her to the Garden. Armed with her camera, she photographed everything in sight! I'll bet she took 300 photos that day. It was a great visit but the time sped by and soon she had to return to Prague and her job with KPMG, a large international accounting firm.

Several months later Pavlina's employer sponsored a photo contest. She entered one of the photos she had taken that day at the Desert Botanical Garden. It featured two house sparrows hanging on the side of a monster saguaro, a sighting that is very common for us here in the desert but is probably most unusual for an Eastern European city. Her photo won first prize and is hanging in a place of honor in the main conference room of this large firm in downtown Prague. I call it the "shot seen 'round the world".



Many foreign visitors come to our Garden. They gaze in awe at the soaring saguaros, marvel at the magnificent blooms of the cacti and are forever touching spines to see if they are really sharp. (They find out they are!) Most of our visitors, foreign or local, carry cameras, capturing their day with us in living color, and retaining memories of the experience.

How many of these pictures are hanging in other conference rooms? Or are used as screen savers? Or are placed in albums or stored on iPhones and passed around at family gatherings? What we do every day as part of our volunteer routines is indeed felt around the world. I just swell with pride when I think of that!

So don't think that what you do is insignificant. It all matters - whether it's leading a tour, entering data, or mounting an herbarium specimen. We all know that we are a world class botanical garden. Now the rest of the world is finding that out!

DAWN GOLDMAN
PRESIDENT, VOLUNTEERS IN THE GARDEN

VOLUNTEERS IN THE GARDEN EXECUTIVE OFFICERS

PRESIDENT	DAWN GOLDMAN
VICE PRESIDENT	MIKE GILMAN
SECRETARY	MARILYN WOLFE
TREASURER	JUDY THOMPSON

A monthly newsletter for and by the
Volunteers of the Desert Botanical Garden

EDITOR/LAYOUT	NANCY WALKER
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THE GARDEN FLOAT IS BACK!

I am proud to announce that once again the Garden will have an entry in the APS Festival of Lights Parade. In the two years since our last appearance, the float volunteers have been working on the trailer chassis that serves as the base for their design, making it safer and more stable. Now they are ready once again to represent the Garden in this fabulous event.



The Garden's winning float in another year.

The Parade will be held Saturday night, December 4 and will be staged at the North Phoenix Baptist Church. The route runs down Central Avenue, turning east onto Camelback, then south on 7th Street, ending at Indian School Road. Literally thousands of people line the streets, enjoying the lights, music and holiday atmosphere. You should hear the cheering when the crowd recognizes our distinctive agave logo. It's thrilling!

The floats are judged on the Friday night before the Parade. Talk about a block party! To impress the judges, all the floats are lit up and have their music playing. Family members, friends and those just curious are free to wander through the parking lot, soaking up the community spirit and getting pumped for the holidays. I think we should all be there! Let's make a "volunteer party" out of this. I know it's the first weekend of *Luminaria*, but this benefits the Garden as well. Besides, it's a great venue to bring the children/grandchildren to.

So think about coming. That's Friday, December 3, between 5:00 and 8:00 p.m. at the North Phoenix Baptist Church at Central and Bethany Home. I'll be there and I'm bringing Hubby with me!

DAWN GOLDMAN

PRESIDENT, VOLUNTEERS IN THE GARDEN

PLANT SALE ALERT!

The Plant Sale is coming. At every sale, for as far back as most of us can remember, there has been a stack of boxes either near the entrance or exit, for our use. Boxes are handy for keeping plants from falling over on the way home and for protecting the inside of your vehicle. They also make it easier to stack plants in the shopping carts that the Garden provides. For the past two years we have also had a supply of plastic sheets available for protecting car interiors. These sheets have come from our gracious and wonderful friends at Baker's Nursery.

SHIRLEY BEKEY has been the "Box Lady" for more than ten years. For a month or more, before each sale, she has gone to her local Bashas' Market, several times a day sometimes, in order to collect the boxes we have been using. Twice a year she turns her living room and dining room into a box factory and storage area. Tall boxes are cut down to create multiple shorter ones. Cartons that have been flattened are reshaped by cutting and stapling. Large boxes are filled with smaller ones. Her entire living room typically is filled almost to the ceiling with boxes by sale day. Her husband Tom then delivers at least one van and trailer load of them for the sale.

This year Shirley won't be in the box business. Please don't plan on picking up boxes at the sale. If you would like to put your plants into boxes, please plan on picking some up and bringing them along. Again this year we will have plastic sheeting for protecting your car, just as most nurseries do.

See you at the Plant Sale.

TOM BEKEY

HORTICULTURE AIDE



COYOTES IN THE GARDEN

The adult coyote cleared the fence surrounding the Wildflower Garden like an Olympic hurdler. It stood watching me for a moment, then faded into the creosote bushes. As I made my way around the Garden in the early morning, I was astonished and delighted to see a group of six coyote pups playing and exploring about 20 feet away.



Coyote Pup Photo by Gillian Rice.

All were shy except this curious one who stayed at the front of the bush, chewing, and watching me as I watched it. Notice its large pointed ears and its narrow pointed nose, features which Lauray Yule, author of *Coyotes*, (2004, Rio Nuevo Publishers), says give the coyote a touch of "smartness." Also observe its feet; a coyote's back feet are slightly smaller than its front.

I only occasionally see coyotes in the Garden. They shy away from humans and move with stealth. Once, I was absorbed in watching a family of ground squirrels. A friend crept up to join me. "Didn't you see the coyote?" "No," I replied. "It just walked right by you along the side of the fence!" she told me.

Coyote pups are usually born in April or May. I saw the family on May 30. They stayed to play all morning but I never saw them again. Coyotes have several dens and rendezvous sites. The latter are above-ground resting sites visited by pups and adults when the dens are abandoned. Coyotes will move pups from dens or rendezvous points if there is any human disturbance or other danger.

The pups will now be foraging for their own food. Although they have a range of 1-25 square miles, I would like to think that they are still moving with stealth around the Garden, helping to control the rabbit and rodent populations.

GILLIAN RICE
DOCENT

Bring family & friends to THE GREAT PUMPKIN FESTIVAL at the Garden in October. While there, stop by our Children's Programs Open House in the Wells Fargo Classroom on Friday morning, October 22, from 9:00 a.m. to 12:00 p.m. and on Saturday, October 23, from 9:00 a.m. to 2:30 p.m. Activities will be set up for children to take part in and the staff/volunteers can talk to you more about what programs the Garden offers for families and children. We will also have an information table out in the festival area. Look for us at The Great Pumpkin Festival!

The Garden Corner

ANTS AND CACTUS – A SWEET RELATIONSHIP

I noticed a bunch of ants swarming over the tops of two of my barrel cactus (*Ferocactus latispinus*) this past summer. I did a quick Google search for “ants” and “cactus” and learned that many plant species provide food rewards such as nectar (but not necessarily from flowers) to attract ants that in turn provide the plant with protection against plant-eating critters. Recent studies have shown that a singular species of prickly pear cactus in coastal Mexico that rewards ants with non-flower nectar increases the number of fruits produced by 50% compared to those where their ant partners were experimentally excluded.

What is really interesting is that these cactus don't provide this sweet nectar to the ants from their flowers, but instead from specialized openings near their spines (see photo 1 below). On cactus, these non-flower sources of nectar, called “extrafloral nectaries,” are modified spines or glochids produced by the specialized axillary buds known as areoles. Cactus nectaries are an extremely rich food source for ants because they contain several sugars as well as amino acids that are thought to be essential to insect nutrition.



Ants obtaining nectar from a nectary opening on a barrel cactus.
Photo by Tom Gatz.

Still a mystery to me is why the ants sometimes pile little mounds of soil around the nectary openings on my cactus (see photo 2). I watched them climbing up the sides of the cactus with bits of debris that they carefully place in mounds around and over the nectary. I've even observed some ants “borrowing” material from an



Why did these ants create soil piles around these cactus nectaries?
Nobody seems to know. Photo by Tom Gatz.

adjacent nectary on the same cactus, saving a trip. If I hose off the mounds, the ants often rebuild them. On the web I came across other cactus growers who reported occasionally observing similar “ant hills” on top of some barrel cactus. Unfortunately, they assumed it was harmful and ran for the ant poison.

I've asked several botanists and entomologists if they had any idea what function these soil piles might serve, since nothing requiring this much work would likely persist in nature if it had no survival benefit to the ants and/or the cactus. Brandi Eide in our research department wondered if the soil might somehow help regulate the temperature in the subsurface nectary. Dr. John Alcock wondered if perhaps the soil helps retain extra nectar that oozes from the nectaries or blocks other insects from gaining access to the fluid. No one seems to know for sure so I will keep observing the ants and will report back if I learn more. If you have observed this on your cactus or have any ideas, let me know at tommygatz@cox.net. I guess the plants and ants are still withholding some of their secrets from us.

TOM GATZ
THE GARDEN CORNER

THE GREEN SPOT

OUR CARBON FOOTPRINT (PART 2)

One of the best ways to reduce the amount of carbon you produce is by making wise choices about the products you and your family use and how you live.

Below is a list of simple things you can do.

- Turn it off when not in use (lights, television, DVD player, stereo, computer, etc.)
- Turn down the central heating slightly (try just 1 to 2 degrees)
- Turn down the water heater setting (just 2 degrees will make a significant savings)
- Check the central heating/air conditioning timer setting - there is no point heating or cooling the house after you have left for work
- Turn up the central air conditioning setting (1 or 2 degrees)
- Fill your dishwasher and washing machine with a full load - this will save you water, electricity, and detergent.
- Fill the kettle with only as much water as you need
- Cover heating pots with lids to retain heat and use less energy.
- Do your weekly shopping in a single trip
- Sign up to a green energy supplier, who will supply electricity from renewable sources

The following list of items may take an initial investment, but should pay for themselves over the course of 1 - 4 years.

- Use energy saving light bulbs
- Insulate your hot water tank, attic and walls
- Replace your old fridge/freezer (if it is over 15 years old), with a new one with an energy efficiency rating of "A"
- Replace your old hot water tank with a new energy efficient tank

- Replace your old washing machine, dryer and dishwasher with new energy efficient models

Travel more carbon friendly:



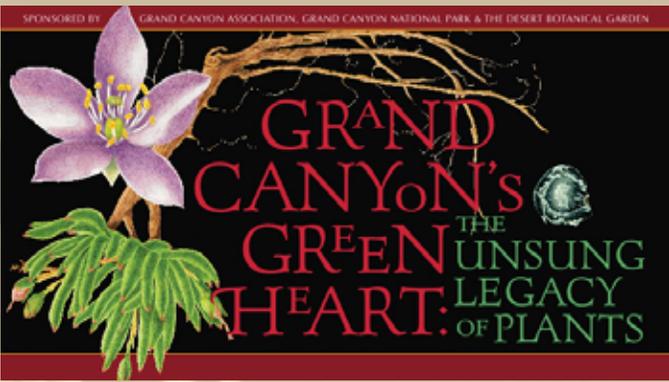
- Car share
- Use the bus or a train
- For short journeys, either walk or cycle
- Reduce the number of flights you take
- See if your employer will allow you to work from home one day a week or work 4 ten hour days
- When staying in a hotel - turn the lights and air conditioning off when you leave the hotel room, and ask for your towels to be washed every other day rather than every day

As well as your primary carbon footprint, there is a secondary footprint that you cause through your buying habits.

- Don't buy bottled water (our tap water is much more rigorously tested than bottled water, not to mention the gasoline involved in the production and transport of bottles that remain in landfills for years)
- Buy local fruit and vegetables, or even try growing your own
- Buy foods that are in season locally
- Don't buy fresh fruit and vegetables which are out of season, they may have been flown in
- Reduce your consumption of meat (meat production accounts for more of the world's total greenhouse gas emissions than transportation)
- Try to only buy products made close to home (avoid items that are made in distant lands)
- Buy organic produce
- Recycle as much as possible

In summary, you have lots of ways to reduce your carbon footprint and implementing even 1 or 2 of the above ideas will have an impact.

BOB BUCHWALD
VOLUNTEER



Volunteers Illustrate Grand Canyon's Green Heart

The quiet, serene Herbarium was transformed briefly this summer as the Garden's volunteer illustrators busily prepared to frame and package their artwork for transportation to the Grand Canyon. Eighteen illustrators had worked for four years to produce over 50 drawings in pen and ink, watercolor, and colored pencil for the exhibit "Grand Canyon's Green Heart: The Unsung Legacy of Plants," at the historic Kolb Studio.



Phemeranthus validulus by Joan LaMoure.



Mortonia utahensis by Susan Ashton.



Primula specuicola by Gillian Rice.



Machaeranthera bigeloviae Greene var. *mucronata*, by Sally Boyle.

In keeping with the Garden's mission, the purpose of the exhibit is education. "When people are educated about plants, they are more likely to appreciate and protect them," says WENDY HODGSON, Herbarium Curator. The exhibit has several themes relating to plants and botany such as paleobotany, plant diversity, Grand Canyon vegetation management, and sex in the plant world. "Different themes will interest different people," says Hodgson. "If each visitor learns just one thing about plants, we have succeeded. The goal is for the exhibit to spark people's curiosity and be a starting point from which they continue their journey into the world of plants!"

Most of the exhibit's illustrations are of rare or uncommon plants which will be included in Nancy J. Brian's revised edition of A Field Guide to the Special Status Plants of Grand Canyon National Park.

Illustrations are preferred to photographs for species

identification; specific differentiating details can be shown more carefully. H. Walter Lack, in Garden of Eden: Masterpieces of Botanical Illustration, writes: "The purpose of every botanical illustration is to give an exact picture of a plant or of parts of a plant. It is essential to capture the often short-lived and fragile structure of a plant so precisely that the observer is able to identify and recognize the plant."

Illustrators often work only from dried herbarium specimens and a botanist's field notes. Botanical art must be scientifically accurate, technically excellent, and aesthetically pleasing.

The exhibit ran through August 31, but can be seen again from December 2010 to February 2011.

For exact dates visit:

www.grandcanyon.org/events_calendar.asp?category=all

The exhibit is sponsored by Grand Canyon Association, Grand Canyon National Park, and DBG.

GILLIAN RICE
DOCENT AND ILLUSTRATOR



The illustrators at Kolb Studio, Grand Canyon.

HORT AIDE CUTTINGS

CONT. EDUCATION

Already the mornings and evenings are noticeably cooler and fall is in the air. Everything – people, plants and animals – breathes a sigh of relief after the intense temperatures of summer. Many of you are back in the valley, eager to begin your Hort Aide work after a summer of seeking cooler climates elsewhere.

This grand month, October, is the season of mists and mellow fruitfulness (John Keats), and it brings autumn colors, the Fall Plant Sale and The Great Pumpkin Festival at the Garden! We, Hort Aides, love the plant sale and cannot resist buying and squeezing one more plant into our already-crowded suburban gardens.

Friday is the special member day, so take advantage of it - come peruse what the Garden has to offer. I encourage all of you to consider volunteering a shift or two at the plant sale. Don't forget about The Great Pumpkin Festival as volunteers will be needed there also. Back in August our Wednesday Hort Crew was in the Gentry Farm/Pumpkin Patch area trimming and sprucing it up in anticipation of this fun event.

The sign-up for the October 21st Queen Creek Olive Mill trip is available in the kitchen and will come down on October 13th. Cost is \$12 per person for lunch (to include meal choice, beverage, dessert and a wine tasting) and \$5 for the tour. Your menu choices must also be noted on the sheet next to your name and I will be calling the orders into the Mill on October 15th. There are only 60 spaces so get your name on quickly! Also, please do not sign up unless you are committed to attending. Carpooling with others on your crew is recommended with a tour time of 10:30 a.m. Check out their website for directions. <http://queencreekolivemill.com/>

Upcoming events include the Refresher Training on November 2 through 5. If you are a Hort Aide on Tuesday, then you attend training on Tuesday, Wednesday on Wednesday, etc....lunch is provided by the Horticulture Department. Our next potluck is on November 19 and JOAN BORIQUA will treat us to her past adventures at the New York Botanical Garden and Central Park. We hope you will be able to attend. December will see us venturing to Wallace Desert Gardens on December 14th. See you in the Garden.

DEBBI STEINBERG
HORT AIDE CHAIR

The October VIG Monthly Meeting will be Monday, October 11. It will feature Carmen and Zarco Guerrero. The lecture is entitled "DIA de los MUERTOS: An Amerindian Celebration." Arizona artist Zarco Guerrero will tell the compelling and colorful story of this ancient holiday and its powerful and positive impact on our modern society. Proclaiming his mantra "La Cultura Cura/Culture Cures," the artist will present a visually stunning Powerpoint presentation of the "Olmec origins, the Aztec aesthetics, and the Chicano art renaissance that brings to life the spirit of the dead to dance among us."

Remember the social hour is 9:30 a.m., business meeting 10:00 a.m., and the feature presentation 10:15 a.m. I hope all of you can attend.

On Monday, November 8, the VIG Monthly meeting will feature Pinau Merlin, nationally known speaker, naturalist, and author of several books and articles about the natural history of the Sonoran Desert region. Her presentation is entitled "Lifestyles of the 'Not-So-Famous' " (new and improved version). We will have a "fun peek" into the lives and natural history of some of our most fascinating critters such as mountain lions, ringtail cats, turkey vultures, bighorn sheep, roadrunners, Gila monsters, and other charismatic fauna of the Sonoran Desert. Discover which animal's teeth grow 14 inches in a year and hear the stories of ring-tailed bandits, mice that act like wolves, and amorous roadrunners. Save the date, because this should really be fun!

The VIG Continuing Education Committee is collecting ideas for future presentations. If you have seen or heard interesting speakers, please let me know. If you have read an interesting book or topic which could enhance our knowledge related to the Desert Botanical Garden, please let me know that also. I can be reached at email mgedg@cox.net or telephone 602-992-7438. Thanks for your interest!

MIKE GILMAN, CHAIR
VIG CONTINUING EDUCATION COMMITTEE

FALL IS IN THE AIR and the ENVOYS HAVE RETURNED!

GARDEN EDUCATORS

The *Envoys* share a mission statement with Admissions, which is: "To provide every visitor with excellent customer service and the opportunity to become a member." In working toward that mission, the theme of our kick off luncheon and meeting on September 21 was "Selling the Garden." We had several great inspirational guest speakers; DAWN GOLDMAN-VIG President, NANCY WHITE-Assistant Director of Education, and STEEN ALLARD-LAWSON-Adult Education Manager who spoke to us about the upcoming year and the Sept/Oct/Nov Calendar. We showed a newly created in-house training video featuring BILL ROCKWELL and PAT SMITH who spoke about what it means to be an *Envoy*. The video was followed by lively round table discussions where everyone gave their ideas as to how to engage the visitor and promote all the activities the Garden has to offer.

In an effort to streamline the process and go paperless, *Envoys* were offered the ability to sign-up online for shifts at the kiosk and the various events that they staff. The option to sign up online was started last year and was so successful that we decided to add sign ups for the kiosk and to post the open shifts for the entire year.

We would like all of our members to know that you may upgrade your membership and receive the additional benefits for the remainder of your membership. Something new for our Cholla level and higher members this year is beginning October 1: they will be given one free scooter rental per visit. Simply show your membership card at the SRP Visitor Center and the rest will be taken care of.

We open our kiosk on October 1, so please feel free to stop by to get any additional information or to purchase a membership. With the holidays around the corner, a membership to the garden makes a wonderful gift!

We look forward to seeing you.

ALLISON BROWN
ENVOY CHAIR

As the summer winds down, the school field trip program now known as Sonoran Desert Adventure Program is revving up. The first tours begin October 4 and the program will run through May 6. This 2010-2011 season brings a few exciting changes to tell you about.

You've all seen school guides clad in their sky blue shirts ushering groups of students throughout the Garden, discussing science, botany, nature and all things wonderful. Well, the shirts are the same, but the name and scope of the position has evolved. School Guides are now called "Garden Educators". Not only do the Garden Educators lead K-12 school field trips, they have also expanded to Scout programs, private tours, and two new themed preschool tours called "Are You A Yucca?" and "Are You a Butterfly?"

Garden Educators have expert knowledge of ecology, science and the mission of the Desert Botanical Garden, tapping into the huge collective body of knowledge at the Garden from various departments, staff and volunteers. This year we are also relying on the expertise of Volunteer Garden Educators to help round out the line-up.

SHAWN MCCROHAN
SONORAN DESERT ADVENTURE COORDINATOR



DOCENT UPDATES

Welcome Back to an Exciting New Year at the Garden

One of us (Anna) was a school teacher in a former life. She is reminded of the excitement building up to the first day of school. A summer of creative dreaming and planning culminates in setting up the classroom, putting up posters, arranging desks, making detailed plans for a good start on the first day and week, meeting with the rest of staff to discuss the school's goals for the year, and, best of all, getting together with old friends and meeting the eager and excited new teachers.

The last week of September has been like that. After the long hot summer we have both really enjoyed meeting with as many of the docent volunteers as have returned from exotic summer locations. It has been fun and exciting to see so many people as eager as we are to begin a new year of volunteering in the Garden. Many are old friends. And it has been great to have a chance to meet folks from all the different days. We look forward to a great year together.

The first week of October is the first out on the Garden trails with the visitors. We will be sharing our appreciation for the desert plants and honing our tours and station presentations to be the best they can be.

Many members of day teams have expressed interest in continuing education that will help develop skills and knowledge. To that end we have a great schedule of upcoming events for docents this season.



Agave Roast, Spring 2009. Back l.to r.: two unidentified, Phil Baker, Mike Gilman, Gloria Eklund. Front l. to r.: Archer Shelton, Nancy White (Look who's doing all the work!)

Coming Attractions:

November 17, Wed. – Taliesin with ANNA COOR

January – Required 3 hour docent training,
Jan. 11 – 16 or Jan. 24 / 9 a.m. – 12 p.m.

February – Research Activity Day with Garden staff

March 29, Tuesday – Docent Exchange with Heard and Phoenix Art Museum at the Garden

Seasonal Activities:

March/April - Agave Roast

First part of April - Cholla Roast

First part of July - Saguaro Harvest

ANNA COOR AND ARCHER SHELTON
DOCENT CO-CHAIRS

Volunteer DATELINE

WEEKLY OPPORTUNITIES

Mondays, 8:00 a.m.

Bird walks - Meet at Admissions

Tuesdays and Thursdays, 4:00 p.m.

Yoga classes, Classroom A, Weisz Learning Center

SEPTEMBER

Friday, September 24 thru Thursday, September 30

Docent Kickoff Meetings

Saturday, September 25, 9:00 a.m.

Monarch Butterfly Training

Tuesday, September 28, 9:00 a.m.

Special Events Volunteer Training

OCTOBER

Fridays, October 1 through November 12, 6:00 p.m.

Music In the Garden Fall Concert Series, Ullman Terrace

Saturday, October 2, 9:00 a.m.

Special Events Volunteer Training

Monday, October 4

Deadline for submitting articles for November *Gatherings*

Monday, October 11, 9:30 a.m.

Volunteers in the Garden Meeting, Dorrance Hall

Tuesday, October 12, 1:00 to 4:00 p.m.

Long-Term Care Planning Workshop

Wednesday, October 13, 9:00 a.m.

Special Events Volunteer Training

Friday, October 15, 7:00 a.m. to 5:00 p.m.

Members' Day at Fall Plant Sale Festival

Saturday, October 16, 7:00 a.m. to 5:00 p.m. and

Sunday, October 17, 9:00 a.m. to 5:00 p.m.

Fall Plant Sale Festival

OCTOBER

Monday, October 18, noon to 2:00 p.m.

DBG Book Discussion Group, Farrington

Conference Room next to Library

Thursday, October 21, 10:00 a.m.

Hort Aide Trip to Queen Creek Olive Mill

Thursday, October 21 through 24

Great Pumpkin Festival

NOVEMBER

Tuesday through Friday, November 2 - 5

Hort Aide Refresher Course

Monday, November 8, 9:30 a.m.

Volunteers in the Garden Meeting, Dorrance Hall

Monday, November 8

Deadline for submitting articles for December *Gatherings*

Monday, November 15, noon to 2:00 p.m.

DBG Book Discussion Group, Farrington

Conference Room next to Library

Wednesday, November 17

Docent trip to Taliesin with Anna Coor

Friday, November 19, 10:30 a.m., Webster Auditorium

Hort Aide Potluck, Joan Boriqua presenting

DECEMBER

Friday, December 3, 5:00 to 8:00 p.m.

APS Festival of Lights Parade, Float Judging, North Phx.

Baptist Church (Central Avenue and Bethany Home Road)

Saturday, December 4

APS Festival of Lights Parade

Tuesday, December 14, 10:00 a.m.

Hort Aide Trip to Wallace Desert Garden