Library Volunteers Needed

The Center was able to join the Yavapai Library Network (YLN), thanks to a grant from the Arizona Community Foundation of Yavapai County. The YLN is a network of 48 public, academic, K-12, and museum libraries spread across Yavapai County.

The YLN also facilitates the countywide sharing of library materials among all YLN member libraries. The VVAC library is designated as a “specialty” library with non-circulating historical materials available to visitors on-site. Only members can place holds on materials and check out books and DVDs. Some materials, however, are very rare and are restricted to use in-house only.

The VVAC collection includes over 1,000 titles and over 60 DVDs. We have been told that some of our items are unique within the County. The collection includes books and journals on rock art, as well as an extensive collection of materials on archaeoastronomy. We also have a large collection of PDF reports and articles of interest to aid in the research of the archaeology of the Verde Valley.

Once our collection has been entered into the YLN, you will be able to see our holdings on their website at www.yln.info. You can also access the Yavapai Library Network catalog from your phone or tablet by downloading the YLN app either on Google Play or the Apple App store. With the app, you can manage your account, search the catalog, renew and place holds on materials.

Entering such a large collection will be a time consuming project. The Camp Verde Community Library has offered to help by providing training on the YLN software. If you would like to help with this effort, training will be held in the morning on Wednesday, December 2. Please contact the Center for more information or to volunteer.

Native American Garden Winterizes

Rob Estrada and Donna Ullner burn some of the dried plant materials

Thanks to the hard work and management of the garden by our Archaeobotany Specialist, Rob Estrada, this past season was our most productive ever. Aided by our dedicated volunteer Donna Ullner, the variety of plants and their yield was impressive. In the above picture, Rob and Donna are burning some of the plant material. The ashes will be tilled into the soil.

Wood ash (as opposed to coal ash) can be a great addition to the garden. It contains potassium or potash (they’re not identical but the terms are often used interchangeably), and potassium is a vital nutrient for crops. Just as it does in humans, potassium regulates plants’ water balance (so tissue is firm and juicy), and has a part in transporting food within the plant and creating sugars and starches. Without enough, vegetables are more vulnerable to drought, frost, pests and diseases. Being alkaline, wood ash obviously isn’t an ideal addition if your soil already has a pH of 7.5 or greater. There’s no point in spreading it around acid-loving plants such as blueberries. Nor is it recommended for areas where you intend to grow potatoes as increased alkalinity can encourage the fungus, potato scab.

Virtual Edition

As a result of our revenue decrease due to the pandemic shutdown, the Summer Quarterly went digital. This Autumn edition will be the last virtual edition. The Winter edition, coming out in January, will return to a print version. The Quarterly is always available as a PDF file on our website. You can see all issues, going back to 2011, by going to our website and clicking About—VVAC Press and going to the bottom of the page.
Letter from the President

Greetings!

I don’t believe people in their wildest dreams could have imagined a year like we have experienced. However, VVAC has weathered COVID well. Ken Zoll and Susan King took advantage of the “down time” to create and conduct on-line classes, install a new museum management software system, and plan and execute our first ever Virtual Gala. Thank you, Ken and Susan!

The Gala has traditionally been our most important fundraising event of the year. Due to COVID, VVAC went digital on October 17. Ken gave brief tours of various local archaeological sights and Carlos Nakai honored us with his flute playing. The Silent Auction and Raffle were huge successes, bringing in more donations than any previous “live” events. Thank you to all of our members and friends of members who participated in the auction and raffle. We were fortunate to have two significant sponsors and over a dozen others who bought one or more $500 bricks. Stay tuned for another virtual event in March.

Dr. James Graceffa, a founding member of the Verde Valley Archaeology Center, was presented with 2020 Sherman Loy Memorial Award in September (see page 3). The award is given to someone based on contributions to knowledge of archaeology, active participation in the preservation of archaeological sites, and presentation of educational lectures. Jim served as President of the VVAC Board of Directors since its inception, “retiring” in January 2020. Thank you Jim for your dedication and successful efforts in making the Center a viable organization.

We are pleased to welcome Kathryn Turney to our staff as Director of Archaeology. She replaces Dr. Todd Bostwick, who retired from the Center this past year. She has her first M.A. in Applied Archaeology from NAU, her second M.A. in Indigenous People’s Law at the University of Oklahoma College of Law, and has her certification in Cultural Resource Management. Her enthusiasm and dedication to VVAC are greatly appreciated!

We opened our doors to visitors by appointment only beginning September 1. The Center continues to follow CDC and National Park Service guidelines for COVID 19 to ensure the safety of its guests and staff. We plan to open on Sundays in addition to our usual Tuesday through Saturday hours, beginning November 15. Entry is free for members, and we ask that you make an appointment if possible.

We continue to work toward expanding our presence in the Verde Valley. The planned new museum on our Homestead property may not be realized soon due to COVID-19, but we are looking at other opportunities for an expanded display area, repository, and lab. More on this later.

The Board, staff, and many volunteers at the Center thank you for your loyalty and your support. Our tours, classes and field work will return to normal just as soon as possible.

Stay safe and have a Happy Thanksgiving!

Verde Valley Archaeologist
Scheduled Self-Tours Only
Advanced Tickets Required
www.vvarchcenter.org or 928-567-0066

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VVAC Extends Open Hours to Sundays

After a careful planning process, absent any alternative health advisory, we have extended our days open to the public to include Sundays. We continue to follow guidelines from the Centers for Disease Control and the Arizona Department of Health Services to allow guests to have a safe and enjoyable experience.

Tickets are required for timed-entry Self-Guided Tours at 10:00 am, Noon and 2:00 pm. An admission fee was instituted to help recover some new costs. The fee is $5 for adults 18-64, but free for those under 18 or over 64, as well as for members. EVERYONE needs a timed-entry ticket!

- Masks or face coverings for museum guests, vendors, and visitors are required. Free masks are available. Staff wear face coverings.
- We have increased the sanitization schedule for public areas and high-touch surfaces. All contact points in the museum are thoroughly sanitized before and after each use, focusing on door handles, hand holds, etc.
- We installed a professional air purifier as part of our proactive hygiene strategy.

Jim Graceffa Receives Sherman Loy Award

The Sherman Loy Memorial Award is given to an avocational archaeologist for outstanding efforts in the protection and promotion of the archaeological heritage of the Verde Valley. The recipient is chosen based on contributions to our knowledge of archaeology, active participation in the preservation or protection of archaeological sites, presentation of educational lectures or discussions, published books or articles, or who has worked closely with organizations that contribute to the science of Archaeology.

The VVAC is very pleased to give the 2020 Sherman Loy Memorial Loy Award to Dr. James Graceffa. Many of us know Jim as one of the founding members of the Verde Valley Archaeology Center as President from 2010 to 2019, and as current Vice-President. Jim has also been the past President of the Arizona Archaeological Society Verde Valley Chapter and a site steward with Arizona State Parks and Trails. He has coordinated the Colorado Field School for many years and continues to work with members doing field surveys and recent excavations at the Hayfield site.

One of Jim's most lasting contribution is, and continues to be, his work with the Conservation Lab, where he coordinates volunteer activities. Under his excellent leadership, the VVAC was recognized by staff of the Arizona State Museum as “well qualified to be an archaeological collection repository.” Such a review for a new, largely volunteer museum is remarkable. This was only possible under Jim's leadership. For these reasons, the Sherman Loy Award was gratefully presented to Jim at the VVAC meeting on September 29.
The excerpt on page 5 from the Dyck Cliff Dwelling is on the ceramics found within the site. This limited primer on ceramic identification is provided as background for that chapter.

Introduction
Clay vessels have been used from ancient times. As a result, the discovery of pottery, either intact or in pieces (sherds), is a common finding during archaeological investigations. Pottery can be found during excavations or simply lying upon the open ground during field surveys. The pottery’s shape, dimensions, texture, decoration, composition, location (both geographic and soil stratum) and contents can provide clues to the artifact’s date, use and origin.

Pottery as Archaeological Evidence
Archaeology is the study of the material things of the past. The whole domain of things made and used by people is referred to as material culture. Archaeologists expect to be able to find out a great deal about past societies through careful systematic analyses of the objects those societies created. A view of human history and development can be presented through the analysis of the technology, design and function of material culture. Artifacts that are made or modified by humans are valuable pieces of material culture that can provide insight into the past. One of the most readily available types of artifact is pottery. The fired clay of pottery is virtually indestructible if fired properly. As a result, ceramics have traditionally been the archaeologist’s main source of evidence for the periods after the introduction of pottery by the cultures under study.

The pottery consists of simple cups, bowls, vases and jugs. They were designed as everyday dishes or for the immediate or local transport of food and liquids. The spread of this pottery may indicate the migration of people, or simply the transmission of cultural objects between regions and peoples.

Locating Pottery Artifacts
Surface Field Survey. The least expensive and easiest method for recording and collecting artifacts is with a visual survey of an archaeological site. Walking the perimeter of the site develops the outer limits of a grid map. The interior area is then divided into sections, usually from an arbitrarily selected point referred to as the datum point. The resulting grid map permits the plotting of the distribution of the artifacts that are recovered from it. The survey area is then covered by the systematic walking of transects. The locations of surface collections are recorded on the grid map. Sampling within the grid may be performed if the site is large or if the quantity of artifacts is extensive. However, the reliability of surface collection is enhanced if the site can be completely surveyed.

Excavation. Field surveys are useful but it is debatable as to how well surface artifacts reflect distributions that might be found below ground. Artifacts wind up in the ground because they were thrown away, accidentally dropped or purposely buried. Subsurface detection through excavation is the more traditional technique for the search of pottery and other artifacts.

Before a found artifact of pottery is removed, its features and location must be recorded with scaled drawings and photography. Both its horizontal location within the excavation, as well as the vertical features relative to the object's location, are recorded. This process assists in dating the object and permits the development of a “picture” of the overall excavation site. When all the artifacts are later assembled (an assemblage) and analyzed, it is possible to piece together the activities of the community over time.

Pottery Dating Methods
Once a pottery artifact has been located, the next task is to determine its age. There are various methods used to arrive at the date of a pottery artifact. Some of these are described below:

Stratigraphy. As mentioned earlier, the strata in which an artifact is found during an excavation can provide clues to its age. It is assumed that the oldest artifacts are found deeper in the excavation. Similarly, two pottery artifacts found at the same level of an excavation are said to be in association with one another and thus of the same approximate age.

Typology. Another method of relative dating is the classification of artifacts into groups (types) on the basis of method of manufacture, form, decoration, etc. Many artifacts have already been placed within a typological sequence. Matching an artifact to an established typological system is considered the best way to assign a relative date.

Seriation. A refinement of typology is applied to assemblages of pottery. This is referred to as seriation. The pottery is assembled into shapes, decorations and types of manufacture. This is done to put the pottery into an evolutionary or context chronology. This contextual seriation method is used as an indicator of the continual developmental of the pottery over time.

Radiocarbon Dating. Measuring the radioactive decay of carbon-14 (14C) has been used successfully to date many archaeological artifacts. A methodology has been developed using the compound-specific 14C technique as a direct means of dating archaeological pottery. The method isolates individual compounds from lipid (fat) extracts of archaeological potsherds. This method dates the ceramic by dating the organic residues on the surface or the organic matter absorbed by the sherd.

Petrography. Pottery is composed of clay and other mineral deposits. Ceramic petrology is the study of pottery through a microscope to determine geological components. One of the areas studied in this manner is the material used as temper in the pottery. Solid particles such as sand, grit, or crushed pottery are mixed with the wet clay before the vessel is fired to add strength to the pottery. Since many of these materials are limited to certain geographic areas, petrographic analysis can shed light not only on the makers of the pottery but also on the cultural contacts among communities.
Systematic excavations at the Dyck Cliff Dwelling recovered a sizable collection of sherds scattered throughout the architectural spaces, storage rooms, and midden. Altogether, 9,095 sherds and 6 whole or reconstructed vessels were found. These include 8,455 nondecorated (93%) sherds, 155 corrugated (1.7%) sherds, and 484 decorated (5.3%) sherds. The non-decorated ceramics far outnumber the corrugated and decorated ceramics. Pottery vessels would have been used for cooking and serving food, and for storage of food, water, and other liquids. Pottery forms include a variety of bowls, jars, ladles or dippers, and thumb-impressed mini-bowls (“pinch pots”). The variety of vessel forms suggest domestic activities occurred inside the cliff dwelling.

Some of the pottery at the Dyck Cliff Dwelling was likely manufactured at the site as evidenced by the presence of three wooden paddles used to work clay coils, and by numerous polishing stones used for finishing vessel surfaces. No stone pottery anvils were found, but some of the small handstones at the site could have served the same purpose.

**Non-decorated Ceramics**

Non-decorated ceramics dominate the Dyck ceramic assemblage, representing 93% of the sherds that were found at the site. The vast majority of these sherds are Alameda Brown Wares. Of the 8,455 non-decorated ceramics from the site, 8,254 are Alameda Brown Ware (97.6%). The majority (71%) of the Alameda Brown Ware ceramics are jars. Also identified are 164 Central Arizona Plain Ware (1.94%), 21 Prescott Gray Ware (<1%), 2 Gila Plain Ware (<1%), 4 San Francisco Mountain Gray Ware (<1%), and 9 Tusayan Gray Ware (<1%). No Yavapai or Western Apache Plain Ware sherds were identified in the Dyck collection.

**Dyck Variety**

Close examination of the Alameda Brown Ware sherds from the Dyck Cliff Dwelling revealed that there are a small number of sherds that are unique to the site. Peter Pilles, archaeologist for the Coconino National Forest, was consulted about these unique sherds and he agreed that they should be given a special designation. Therefore, the sherds were identified as a Dyck Variety because crushed limestone was added to the paste and temper of Tuzigoot Plain, Beaver Creek Plain, and Beaver Creek Red ceramic types.

**Tusayan Corrugated**

A partially reconstructed Tusayan Corrugated vessel was recovered from an unknown provenience in the Dyck Cliff Dwelling. This small jar is 11.2 cm in height, has a maximum diameter of 9.2 cm, and its everted rim is 7.5 cm in diameter. The handle is made of three clay coils adjacent to each other, but one coil is missing.

**Decorated Ceramics**

Despite their skills as potters, the Sinagua rarely manufactured painted ceramics, instead relying on obtaining a wide variety of attractively designed trade wares painted in black, white, and red from neighboring Pueblo groups. Occasionally, Sinagua painted a few white line geometric motifs on their vessel exteriors, and these designs appear to be related to Flagstaff Walnut black-on-white designs.

A total of 484 decorated sherds and two whole decorated vessels were recovered, representing 5.3% of the sherd assemblage. The decorated sherds are mostly bowls (89.7%), with the others identified as jar forms (10.3%).

**Conclusions**

The Dyck Cliff Dwelling excavations recovered more than 9,000 sherds and their analysis has provided important information about the different ceramic types that were manufactured locally, and those that were traded from various regions. The ceramic types have also provided a chronological framework for the site, dating it from the AD 1000s to as late as AD 1300. Base on limited evidence, the earliest ceramics suggest that the Kiva may have been the first room occupied in the cliff dwelling. The presence of bowls and jars in all of the rooms in the cliff dwelling indicate that these rooms served domestic purposes, including the storage of food.
The Virtual Gala offered the opportunity to purchase a Non-Banquet Banquet Ticket. Purchasers received the recipes of the menu we might have offered at a live event. The menu and ingredients were prepared by member and trained chef Gay Chanler. Below is an article she prepared about the Slow Foods Movement that inspired her Menu.

**Appetizer:** White Tepary Bean Dip  
**Entre:** Hopi Style Bean and Roasted Corn Stew (optional Red Chile Sauce) served with Blue Cornbread  
**Dessert:** Mesquite Chocolate Chip Cookies

When McDonald’s opened a hamburger stand in Rome in 1986 at the foot of the iconic Spanish steps, there was a quiet cultural uproar. A group of Cultural aficionados called ARCI (Association Ricreativa e Culturale,) including Chefs, writers, and a publisher and activist named Carlo Petrini staged a Traditional Italian meal. They set a table and served up bowls of hand made rigatoni- in defense of gastronomic pleasure, the conviviality of sharing good food, and a slow pace of life.

This first act of culinary defiance against the corporate, industrial food system became an international movement, formalized in 1989 when delegates from 15 countries convened in Paris for the inaugural meeting of the Slow Food International Movement. They drew up a manifesto of precepts in opposition to all that was being sacrificed by the growing fast food culture. These basic precepts of Good, Clean and Fair food are a human right, they declared. Good in that it is high quality, wholesome, and delicious. Clean in that it is natural, organic, free of additives, humanely raised and harvested. Fair in terms of fair compensation for the producers, harvesters, fishermen; and fair prices for buyers. Fair also means access to land and water to maintain traditional livelihoods.

The Slow Food manifesto recognizes the value of food communities where producers such as herders, dairymen and cheesemakers for example, and consumers who support them are linked in viable local economies. Communities of farmers, vintners, orchardists share the dignity of their work as well as the pleasure of their products with those who buy, prepare and eat them.

The manifesto also upholds the defense of biological diversity in the food system. In the last 100 years, 90% of diversity in the world’s food plants and livestock breeds have disappeared in the interest of industrial farming and mass production, which seeks uniformity, high volume, and shelf life above flavor and nutrition.

Since its inception Slow Food has spread to 150 countries around the world. It became established in the United States in 2000, first in New York and now operating in many states across the country and in Hawaii. Its programs include alliances with growers, chefs and artisanal producers, as well as elementary school programs.

Notable events established by the Slow Food movement include the biennial Salone del Gusto in Turin, a “convention of taste” to showcase and celebrate artisanal, sustainable produced food from small producers around the world. In conjunction with the Salone is the gathering called Terra Madre, an international educational conference that brings together from around the globe farmers, fishermen, herders, honey producers, grain growers, salt harvesters and others who share their struggles, activist programs, and knowledge to benefit one another, especially youth, in their efforts to continue their traditional food culture and life ways. Slow Fish, Slow Cheese and Slow Meat focus on these particular food producers and communities. The “Slow Food Ark of Taste” is a living catalogue of distinctive and delicious foods in danger of becoming extinct. Its mission is to bring them back into production in the interest of reviving forgotten flavors and protecting biodiversity in the food system.

There is a coalitions of producers called the Presidia who join forces to document and promote their work related to a particular food, such as a sheep, a honey, a cheese or other food, fish, fowl or animal breed in the interest of protecting and promoting the economic viability of the product and the food community that stewards it. One example in the US is the Navajo-Churro sheep.

Education is central to the mission of Slow Food, to prepare the next generation for the challenges ahead presented by climate change and population growth, and the loss of small farms and organic food production. The University of Gastronomic Sciences was established in Pollenza, Italy to research and educate students about the connections between agriculture, science and gastronomy around the world. “Slow Food in Schools” fosters and develops school gardens and related curricula, as well as taste education to

*Continued on page 7*
We are very pleased to advise that our first Virtual Gala produced the greatest return over any previous “live” gala event. The Silent Auction, Raffle and donations were all at the highest levels. Most of this return was the result of lower costs to produce the event than a live Gala, and participation included individuals, members and nonmembers alike, from across the country. Winning auction and raffle items were shipped to Alabama, Texas, Florida, Washington, D.C., North Carolina, and Washington State. It would have been highly unlikely that these individuals would attend a live event. After expenses, the net proceeds came to $16,120.

grade schools, introducing children to Slow Food values - knowing where their food comes from, how it is produced and prepared, and the world of deliciousness from fresh wholesome fruits and vegetables. The “National School Garden” project, founded by chef Alice Waters has grown to a network of more than 2,000 schools globally, and has reached over 200,000 children nationally. As Alice Waters says, “Slow Food is bringing all of us, and most importantly our students, into a new relationship with food and its innate connection to our environment.”

Slow Food leads the world in the effort to ensure the universal right to good, clean and fair food, thereby ensuring the health of our societies, the planet and the pleasures of the table. For more information go to www.SlowFoodInternational.org or www.SlowFoodUSA.Org.

Continued from page 6
WHAT AN ANNIVERSARY YEAR! BEST LAID PLANS . . . .
A Personal Note from Executive Director Ken Zoll

As our President noted in her Letter on page 2, no one could have predicted that our 10th Anniversary Year would include a pandemic and all of its effects. We began the year with plans for several celebratory events spread throughout the year. We also thought that our long-pending application with the U.S. Department of Agriculture (USDA) for a Community Facilities grant/loan to construct an archaeological campus on our Homestead Parkway property was a sure thing. The pandemic changed all of that.

Plans for celebration events were cut short and ultimately cancelled. The museum was closed. Classes, trips and hikes were cancelled. Our primary fundraising event - the Gala - had to be quickly modified to be a virtual event. Fortunately we were successful in getting a couple grants and the Payroll Protection Plan loan to maintain some semblence of normalcy. We tried to use the downtime productively to bring up a new software system for membership and museum management, as well as a new website and distance learning platform. And, thanks to many of you, our Virtual Gala turned out to be the brightest spot of the year.

Before the pandemic, it appeared the USDA decision was imminent so the Board asked for donations to a Contingency Fund for any unanticipated overruns in construction costs. Again, members responded, raising almost $150,000 in cash and pledges. Then the pandemic hit and USDA re-evaluated pending applications in light of shutdowns. They were very hesitant to approve our application for almost $5 million since repayment rested heavily on museum attendance. They asked how we would repay if there was another pandemic shutdown in the future.

They were, however, receptive to fund about half the original request. At this writing, the Board of Directors is evaluating two less expensive options: purchase an existing building or construct a slimmed-down campus, both at about 11,000 sq. ft. Our current space is 3,300 sq. ft., which is inadequate for the growing collection and desired services.

So with this backdrop we once again enter the annual Year End Campaign. The proceeds from the Virtual Gala went into the Capital Campaign to meet our current land loan payment obligation and to prepare for whichever option the Board selects. But daily operations still require funding. We hope you will consider us as part of your year-end giving and make a donation online or send a check. We continue to be moved by your continued generosity in helping us meet our mission of preserving the sites, artifacts and stories of the people who made the Sedona/Verde Valley their home for almost 12,000 years.