



Message from the Council Chair

2017 Annual Meeting: We had a very successful annual meeting on September 17—see the article and photos in this *Site Lines* issue. Thanks to everyone who attended—and especially to Nancy Cella and her planning committee.

Probationary Stewards: During the past month, two applicants, Andrew Akin and Kevin Day, received provi-

sional training to become probationary stewards where openings existed in (respectively) the Jemez area and the Rio Chama area.

Next Site Steward Council Meeting: It will be on November 18, starting at 10 a.m. All site stewards are welcome to attend and observe the council deliberations.

— K. Paul Jones, Council Chair

Annual Meeting, 2017

Our 2017 annual meeting, held in the atrium of the International Museum of Folk Art, was, by all indicators, a success! The guest speakers were outstanding, door prizes eagerly accepted, the silent auction table was busy, lunch was so good there were few leftovers, we adjourned earlier than expected, and were cleaned up and out by 4:30. Many, many thanks to committee members Nancy Brouillard, Gail Bryant, Jan Stone, and those who pitched in on the day. Kay Lee brought in the lunch provided by the Site Steward Foundation. We are grateful to the staff of the IMFA for being responsive to our requests for assistance.

Attendance was good. We fed at least 47 folks, including six guest speakers and an IMFA staff member who helped us with arrangements. All the area teams were well represented. We were happy to welcome SFNF archaeologists Mike Bremer, Annmarie Kmetz, and Jana Comstock. Council chair K. Paul Jones called the business meeting to order at 10:00 a.m.



Above: the Business Meeting has begun.
Photo by Beth Parisi

Editor's Note: The following text is quoted directly or summarized from the minutes of the meeting; many thanks to council secretary Paula Lozar.

Budget Coordinator's Report : Income thus far includes \$250 in contributions and \$10 in auction income. Expenses include \$105.42 on training, \$120 on the website, and \$100 on guest speakers, for a total of \$325.42. Today's meeting expenses are not yet totaled, nor do we have the amount brought in by the silent auction, which usually offsets a portion of the budgeted amount. So far this year, we are coming in under budget. We have a \$3,099.28 cash balance.

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Contributors to This Issue

**Jo Douglas
K. Paul Jones
Paula Lozar
Gary Newgent
Beth Parisi
David Strip**

The Editors Thank You!

Annual Meeting (cont)

Site Steward Perks (Mike Bremer): Today's meeting is one of the site steward perks. We plan two field trips each year, spring and fall. This fall the plan is to visit the Chaco outlier at Guadalupe Mesa, Cabezón, the Eleanor site, and/or Jarido, depending on weather and road conditions.

There is interest in having Severin Fowles lead a trip to the Rio Grande Comanche sites, possibly in the spring, depending on his schedule.

Mike noted that the SFNF is rehabilitating Glorieta Baldy Lookout (returning it to its state in the 1980s-1990s) as a possible rental.

ATL Reports:

Caja del Rio (Mike Bremer for Gary Newgent): There have been a few site visits. Charles Koenig and Stella Davidsen visited Caja del Rio Norte; no damage, but the sign was shot up. Paula Lozar and Ann Batum visited the agricultural fields and Camino Real; no damage, and also monitored Tsinat from above. Mike noted that the river bottom looks better now that no one is running cattle there, but Tsinat needs a new sign.

Garcia (Will Dearholt): All stewards have been out; all sites have been visited. There were cows on the Corral site, but the rest were in good condition.

Jemez (John Morris): There have been no issues or degradation in more than a year on the sites. We have two new teams, one all new trainees, the other transfers from the Caja del Rio. Not all sites have been visited. Cat Mesa hasn't because of the extremely bad road.

Pecos (Cathy Gates): We have seven new stewards, six new trainees, and one transfer. We are monitoring 40 sites and have visited most of them, except for a few on the east side of the mesa because of bad roads. There is no damage, although fence repairs are needed in some areas. There are two new sites on the east mesa, one a sawmill. Our team has started giving monthly public tours of the rock art sites

(June through November), and gave tours for the Pecos Conference. There has been no rock art theft, but one ruin, which was in a perilous location, is falling into the canyon, and some of the hunting blinds are disappearing. Monitoring seems to discourage rock collecting, but there is still some messy tree cutting going on.

Gallina (Nancy Cella for Jo Douglas and Elaine Gorham): We have 21 site stewards in 10 teams visiting 35 sites, most off SR 112 north of Cuba. Conditions near Mud Springs are difficult; lots of elk, and the only access to some loci is by following elk trails. We lost six site stewards, mostly due to health, but gained two and are recruiting for more.

Rio Chama (K. Paul Jones): Two stewards transferred from the Gallina team, we lost one steward, and have six new stewards. We have only 12 sites, but visit them more often because the area is heavily used. On one site, there's a problem with erosion revealing human remains. We may host a pictograph site visit in October. Beth Parisi adds that ATV activity is causing problems on the mesa side, so they may need to visit more frequently. A game camera was installed at Tsiping after illegal digging was discovered in one of the kivas. The Tsiping game camera didn't catch any one, but there has been no more digging recently.

Site Steward Foundation Report (Beth Parisi): We have had a busy year, with an information booth at seven events and conferences. We trained 15 new site stewards in South Park, CO, and had a large training in Santa Fe also. The Pecos Conference drew 440 people, which is larger than usual, and made \$2600 from the silent auction. Thanks to the many SFNF site stewards who helped out; the Foundation couldn't have done it without them.

In October, the SSF will attend the opening in Silver City of a site model that the SSF granted the funds to build. We will also have a table at the Festival of Cultures, Coronado National Monument. On October 14, we will attend the HPD Historic Preservation Day at the Millicent Rogers Museum in Taos. We also held a tour to southern Utah, and plan another tour there next year.

Annual Meeting (cont)

State of the Forest (Mike Bremer):

Maria Garcia retired; the new forest supervisor is James Melonas. We're near the end of the comment period on the Forest Plan revision; the plan should be out next January or February. Mike Frasier retired, and Diane Prather (Mike Bremer's new boss) is also in charge of RHELM, which is a big job. Jason McInteer has been detailed to the Shasta/Trinity district in California but will be back in October. There's a big fuels project in the southwest Jemez, with lots of cutting and burning. Becky Baisden is in charge and is working with contractors for fuels thinning and archaeological site clearing. They have cleared 1,000 sites in three years.

A similar project is beginning in the Santa Fe area, starting from La Cueva and going northwest. They are doing archaeological survey in very steep country using contractors. Some fuels work is going on in the Gallina, where there is high site density. Richard Hayes (volunteer) is scanning Mike Bremer's records; he's up to 1980 now, but there are many more records between then and the present. Kudos to the Pecos Conference volunteers! Jana Comstock is doing archaeological surveys in the north end of the Coyote area. Pete Taylor, Becky Baisden, and Connie Constan are working in the Jemez/Cuba area. Phyllis Martinez is working in the Nogales area. Brad Vierra is the new historic preservation officer for San Ildefonso Pueblo (on a one-year contract to set up their program).

Tours (like the tours the Pecos group is leading to the rock art sites) are a good thing, and more ATLS should consider doing them. October 23 is the Rio Chama cleanup; contact Anne Baldwin for information. The Verde Power Line is something to keep an eye on: One of the possible routes goes across SFNF land near Kù.

Morning guest speakers: Eric Blinman and Chuck Hannaford informed and entertained us with their artifact show and commentary that stretched from the Paleoindian period through modern Pueblo times. It seemed that they had one of everything: ceramics, textiles, wood and metal tools and weapons (large and small), all accompanied by seamless "it's your turn to talk" explanations. Even those of us who had heard

their presentation before learned something new.



Chuck Hannaford and Eric Blinman show us the artifacts and tell the stories. Photo by K. Paul Jones

Site Steward Awards (Candy Borduin, Jan Stone, Ann White): Certificates of Appreciation and fetishes were presented to the following site stewards, all from the Pecos team: Tom Mayer; Richard Martinez (absent); Ron Whatley; Sharon Paris; Felcia Probert, and Paul Leo (absent). Congratulations, Pecos Team!

Paul Leo: *For managing the Site Steward List Server and helping new stewards enroll and for processing steward ID cards, both of which are complicated and time consuming processes. For serving as co-AATL for the Pecos area for over five years. For consistently serving as volunteer photographer at council meetings, year-end annual meeting, and providing photographs for use in Site Lines.*

Paul will be awarded a wolf fetish at a later date. *Wolf medicine has to do with deciphering information and finding new pathways for the benefit of the clan. Being part of a clan and exhibiting loyalty to it is some of the wisdom Wolf brings. And yet, even though Wolf is very loyal, it retains its individuality within the clan.*

Sharon Paris: *For going above and beyond in performing site steward duties with her flexibility, giving of additional time and effort to assure site conditions are reported and intrusions remedied. For participating in additional training on site recording. For taking on extra duties to help Pecos archaeologists including receiving training on mesa rock art tours, preparing a new tour outline, assisting new tour leaders with needed information, leading monthly public tours,*

Annual Meeting (cont)

and by leading a special rock art tour at the Pecos Conference.

Sharon was awarded a badger fetish; Badger is aggressive and tenacious. Keeping Badger's behavior in mind can help one accomplish a specific goal or purpose as it has a great ability to focus. Traditionally, healing properties are attributed to Badger.



Candie Borduin awards Sharon her certificate of appreciation and fetish.

Photos by K. Paul Jones

Felicia Probert: For going above and beyond in performing site steward duties with flexibility, giving of additional time and effort to assure site conditions are reported and intrusions remedied. For participating in additional training on site recording. For taking on extra duties to help Pecos archaeologists including receiving training on mesa rock art tours, and for preparing tour visual aids and leading monthly public tours.

Felicia was awarded a frog fetish. Frog is a sign of water. Water is life. In Zuni Pueblo, frogs often appear on prayer bowls since many of the Zuni prayers and dances ask for water in the form of rain or snow. Cleansing is also a part of Frog's medicine as well as emotional and physical healing.



Candie Borduin awards Felicia her certificate of appreciation and fetish

Tom Mayer: For going above and beyond his site steward duties by researching and preparing a report on the San Miguel del Vado Land Grant for publication in Site Lines. For taking on extra duties to help Pecos archaeologists including receiving training on mesa rock art tours, and for preparing tour visual aids, modifying PowerPoint presentation for public tours, and leading monthly public tours.

Tom was awarded a beaver fetish. Beavers are extremely energetic and exhibit great diligence in whatever they do. Their willingness to participate in purposeful and cooperative activity is part of their

medicine. We can learn a great deal from this singular quality. Whether building their underwater lodges, repairing dams, or taking care of their kits, beavers do it with zeal. This is why we have the expression "eager beaver." They are gentle creatures who show us that working hard can be its own reward.



Ann White awards Tom his certificate of appreciation and fetish.

Ron Whately : For going way beyond expectations for three consecutive years by covering all of the disparate and far-flung sites by foot and vehicle that are scattered across the east side of Rowe Mesa on very difficult roads. For monitoring several sites in Anton Chico as well. For continually showing interest in and visiting other sites in the Pecos and other areas. For helping the Pecos Area Team Leader in many ways.

Ron was awarded a bear fetish. Bear was the principal animal for the Pueblo people and they are the most prevalent subject of Zuni fetishes. Bear fetishes are used for healing, protection, strength, journeying, mothering, hunting, and gathering. Bear's hibernation reminds us of the value of going within.



Ann White awards Ron his certificate of appreciation and fetish.

Many thanks to the Awards Committee for reviewing the applications and awarding the prizes. Stewards are reminded that they can nominate others for the annual awards; give your recommendations to your ATL.

Drone Demonstration: Thanks to Mike Bremer for arranging or a demonstration of a drone, and its application to archaeology, by Nate Geoffrion of Mountainside Aerial (pictured at right).



Annual Meeting (cont)

Afternoon Guest Speaker: Retired director of the Tree-Ring Laboratory at Arizona State University, Dr. Tom Swetnam described the “Fire and People in Resilient Ecosystems in the Jemez Mountains, New Mexico.” Copies of *Southwest Archaeology* that contained articles by each of the major participants of this project were distributed to site stewards at the meeting. The following is a quote from Dr. Swetnam:

Over the past five years, an interdisciplinary research team comprising tree-ring scientists, anthropologists, archaeologists, ecological modelers, and education and outreach specialists have been studying the dynamic history of human communities in the Jemez Mountains. We focused our National Science Foundation supported work on documenting Native use of and attitudes toward wood (at home) and fire (on the landscape); on

archaeological reconstructions of human population dynamics; and on paleoecological reconstructions of fire activity before, during, and after Jemez people lived on the forested mesas. Importantly, we also partnered with the Pueblo of Jemez charter school and other schools to integrate our research with community goals. In this presentation I will summarize our findings, with an emphasis on the archaeological, fire and forest history reconstructions, and the insights they provide for living within resilient forest landscapes in the past and today.

Stewards on the Jemez team were particularly interested in this presentation, and we all appreciated Dr. Swetnam’s style; he was enthusiastic about his topic and has retained his college professorial style.

-Nancy Cella

Site Lines Foundation Update

The Site Steward Foundation organized and hosted the 2017 Pecos Conference on Rowe Mesa, near Rowe, New Mexico, from August 10-13. It was attended by more than 440 people, including volunteers. Every August, archaeologists gather under open skies somewhere in the southwestern United States or northwestern Mexico, where they set up large tents for shade and spend three or more days together discussing recent research and issues of the archaeological profession. The 2018 Pecos Conference will be held near Flagstaff, Arizona, from August 9-12.

The unveiling of the Mattocks Ruin room block displays was held Saturday, October 14, at the Mimbres Culture Heritage Site on the Mimbres River near Silver City (see www.mimbrescultureheritagesite.org). The Site Steward Foundation funded the design and construction of the interpretive scale model trail room block displays by Bill Hudson through a \$1,000 grant in early 2017 to the Grant County Archaeological Society and the Imogen F. Wilson Educational Foundation.



Scale Model of the Mattocks Site

Photo by Gary Newgent

The Mimbres people were a subgroup of the Mogollon, early Puebloans who lived in the mountains, deserts, and valleys of southwestern New Mexico, southeastern Arizona, and northern Mexico. About 1,000 years ago, a Mimbres pueblo was built at this site on top of an earlier pit house village. It was home to as many as 200 people. During the Pueblo Period, the Mimbres people produced beautiful black-on-white pottery that art historians and archaeologists consider the most distinctive prehistoric pottery in North America.

The Foundation operated an information table at HPD’s Historic Preservation Day event on October 14 at the Millicent Rogers Museum in Taos and also at the Fiesta of Cultures, October 21, at the Coronado Historic Site in Bernalillo. Both events were well attended with archaeological activities and cultural presentations.

If you are not a member of the Site Steward Foundation, or have not renewed your membership for 2018, please consider joining or renewing today. The Foundation accepts debit and credit cards for membership dues and donations on our website, www.sitestewardfoundation.org. If you would like to be notified of Foundation tours and activities, please subscribe to the email list on the Foundation website.

-Gary Newgent
President

A Visit to the Folsom Site

The Folsom site is by no means the oldest or largest Stone Age site in North America, but it is iconic to Southwestern archaeology because it offered the first concrete evidence that human beings occupied this continent at least 10,000 years before present. The town of Folsom is located about 35 miles east of Raton, New Mexico, near Capulin volcano. Today, the town is small (pop. 56, as of the 2010 census), most of the businesses on the main street are shuttered, and the Folsom Museum, located in the former Doherty grocery store, is the center of community activity. The Folsom site itself is on New Mexico State Trust land surrounded by private property, but the Folsom Museum has arranged with the State Land Office to sponsor tours of the site twice a year.

My site-stewarding buddy Nancy Brouillard and I planned to drive to Nebraska to view the eclipse on August 21. When we learned that August 19 was one of the tour days for the Folsom site, which was only a few miles out of our way, we promptly signed up. (Coincidentally, the museum celebrated its 50th anniversary that day. We were treated to hamburgers at the museum before the tour, but unfortunately, we couldn't stick around for the chuckwagon dinner and dance that evening.)

The discovery of the Folsom site is an amazing story in itself. In 1908, Folsom was a prosperous town of 800 residents, a stop on the railroad that enabled local ranchers to send their cattle to the stockyards in Kansas City. But its history took an unexpected turn when an enormous rainstorm on August 27 sent water pouring off Johnson Mesa and turned the Dry Cimarron River on the edge of town into a raging torrent. Seventeen people were killed, and most of the buildings in town washed away. After the flood, a black cowboy named George McJunkin, a foreman on the Crowfoot Ranch north of Folsom, discovered that the storm had cut a new arroyo, and exposed in one bank were fossilized bones that he evidently recognized as bison—but larger than any bison he had ever seen.

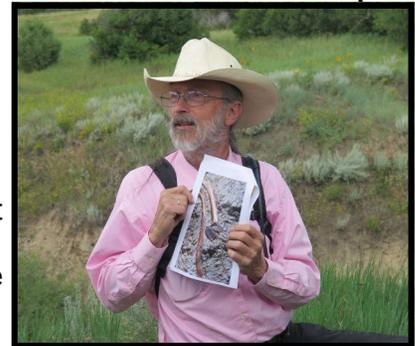
McJunkin was born into slavery in Texas in 1851 and came to New Mexico when he was seventeen. He was a jack of all trades who worked as a cowboy, horse wrangler, and later,

a blacksmith; he was self-educated and highly familiar with the natural history around him. He realized that the bones were unusual and significant, but his efforts to draw scholarly attention to them were in vain, although he showed them to a number of local persons before he died in 1922. Eventually, a banker in Raton drew the attention of the Denver Museum to the bones; their representatives took a look at the “bone pile,” found it intriguing, and mounted expeditions in 1926 and 1927 to dig the site. Coincidentally, the first Pecos Conference took place in 1927. When the excavators discovered a prehistoric stone point imbedded between two ribs of an extinct *Bison antiquus*, some of the finest archaeological minds of the era were a short drive away to confirm the importance of the find—which was promptly dubbed the Folsom Point.

Our site tour was led by David Eck, an archaeologist with the State Land Office, and his colleague, Lia Tsesmeli. After a brief introduction at the Folsom Museum, we caravanned to the site, surrounded by what is now the Paloma Ranch. Although the site is fenced off, there is no official road to it, so we bounced on two-track trails across the grasslands and through oak brush and juniper groves.

I've seen pictures that purport to illustrate McJunkin's discovery of the bones, but they usually show the area as a barren desert. Wrong: It's green, with forests and meadows spread across the rolling hills—and, aside from some slight differences in tree species, it hasn't changed much since *Bison antiquus* roamed here.

The arroyo that exposed the site is still there, but is almost always dry. The site itself isn't much to look at, just an eroded area and a low mound on one side of the arroyo; the bison ribs and point found in the 1927 excavation are on display at the Denver Museum of Science and History. The site was dug again in the late 1990s by a team led by Dr. David Meltzer of Southern Methodist



David Eck, with photo of Folsom point embed in bison ribs.
Photo by Paula Lozar

A Visit to the Folsom Site (cont)

University, who verified the original findings and unearthed a small additional area. According to Eck, the Folsom point may have represented a technological advance: Earlier styles of points were attached to the shaft at the base, so if they broke just above the point of attachment, they were probably rendered useless. The fully fluted Folsom point could be imbedded deeply in the haft, so it was less prone to breakage.

From the findings of the two digs, archaeologists deduced that the Folsom site was a butchering area for the results of a bison kill. Eck gave a vivid account of how that may have been carried out—it was not, as the common depiction has it, a group of spear-wielding male hunters surrounding an enraged male bison. Bison moved in herds separated by age and sex; adult males stayed together while the females, yearlings, and calves formed another herd, which was likely more attractive to hunters because the animals were smaller and the meat wasn't as tough. Hunters of the tribe would wait above the head of a box canyon in the ancient arroyo, while the women and children (probably led by a knowledgeable matriarch) carefully urged the herd up the canyon. Once the herd was trapped, the hunters would throw their stone-pointed spears from a safe distance, then, when the bison were immobilized, moved in and finished them off. The animals (32 at this site) were butchered, the meat was dried, and, after a couple of weeks, the tribe could move

on to its next encampment with plenty of meat for the winter.

The survival and discovery of the Folsom site were the result of a series of fortunate chances. Meltzer discovered that, shortly after butchering was complete, the site was covered by a layer of windblown sediment that kept the bones from being scattered by predators. Later erosion events washed away the upper layers of the landscape (and probably the remains of the hunters' campsite), but didn't cut deep enough to expose the butchering site. It was only when another flood cut a new arroyo in 1908 that the bones were unearthed. And if George McJunkin hadn't been a good observer of the natural world, their significance might never have been recognized.

-Paula Lozar

For further reading: The Folsom Village website (www.folsomvillage.com) has excellent write-ups about the museum and the history and significance of the Folsom site. Site tours are offered twice a year, usually in May and September, and advance reservations are recommended. There is no charge, but donations to the museum are gladly accepted.

The results of Dr. Meltzer's excavations are summarized in his book *Folsom: New Archaeological Investigations of a Classic Paleoindian Bison Kill* (University of California Press, 2006).

If You Fall in the Forest, Do You Make a Sound?

Many of the sites we visit are in areas of the forest with no cellular service. In the event of an emergency, how do you call for help? Even though we require all steward activities to be carried out with at least one other person, the lack of cell service and remote nature of sites means that your partner may require a substantial hike followed by a drive in order to find cellular service. For some sites in the Gallina area this would mean abandoning the injured party for at least an hour, possibly twice that. While satellite (sat) phones would solve this problem, they are very expensive to buy and operate. In the past couple of years, a new class of de-

vices—satellite communicators—have reached the market. Like sat phones, these devices communicate directly with satellites, making them useful just about anywhere on Earth.

The two major devices in the U.S. market are the Spot 3 and the Garmin inReach. Both require an initial purchase and an ongoing subscription to a satellite service plan, much like your cell phone requires a calling plan. The Spot 3 costs about \$170; the Garmin inReach is more than twice the price at \$399. The Spot service plan is an annual plan—no alternative. The inReach offers both an annual plan and a monthly plan if you are going to be using the device only a couple of months each year. Annual

If You Fall in the Forest, (cont)

plan for the Spot is \$200; the inReach basic plan is \$150. The monthly plan for the inReach is a win only if you restrict your usage to a couple of months each year. The Spot 3 uses AAA batteries, while the inReach has an internal battery that is recharged via USB cable. Both devices have a reasonable battery life, but only the Spot allows battery replacement in the field. (Of course, you could carry one of the ubiquitous phone “power banks” to power the inReach if you need a battery recharge.) The two devices use different satellite networks, with the inReach covering more of the globe than the Spot. However, both devices have complete coverage of the U.S., so unless you plan to visit Antarctica or central Africa, the difference probably won’t affect you.

So, what exactly do these devices do? The most important function, common to both, is the SOS function. When the emergency button is pushed, a message is sent to a worldwide, monitored, search-and-rescue (SAR) agency. Your location, determined via GPS built into the device, is also reported. At this point the devices diverge. The Spot is a one-way device; the message is sent and now all you can do is wait and pray. The inReach is a two-way device. You will receive confirmation from SAR that your message has been received. You will likely be asked the nature of the emergency and will be kept up to date on the status of the rescue effort.

The devices also have useful nonemergency uses. The inReach allows you to program three preset messages that you can send as often as you want under the basic subscription fee. Content of the messages as well as who receives them is set via a web account you establish when you subscribe to satellite service. Each message can be sent to multiple people and to a phone as a text, an email, or both. In addition to the text of the message, your current location will be included and a link to a webpage that will plot

your location on a map. We have programmed the messages for “I’m OK,” “I’m OK but I’ll be late,” and “please come get me” for nonemergency rescues. The inReach can also send a text message you make up on the spot. The basic subscription gives you 10 custom messages per month (no rollover, though). The Spot has a default “I’m OK” message plus one customizable message. All messages on both devices include your location. The inReach has an awkward interface for writing custom text messages. However, you can connect the inReach to your phone via Bluetooth and use the Garmin app on your phone to compose the text message, which is then sent by the inReach. Both devices have a tracking mode that sends periodic updates of your position. On the basic plans, this will cost you extra for each reported point (and can add up quickly!)

As noted in the SOS section, the inReach is a two-way device. Not only can SAR message back to you, but also anyone with the “address” of the device can send you a message, at a price. These messages count against your ten messages per month. Excess messages are \$0.50 each.

These devices are not perfect. No surprise there. They may fail to communicate in dense foliage or deep, narrow canyons. Even when you can see the sky, they may take as long as 20 minutes to send a message if the satellites are in the wrong place. And of course, they won’t stop you from leaving on a hike with a battery that’s about to die.

Based on the recommendation of a friend who does a lot of hiking and adventure travel, we chose the inReach. Prior to Garmin’s purchase of the line, the inReach was made by DeLorme. You can occasionally find these units, which appear to be identical to the Garmins, at a significantly lower price than the matching Garmin model.

-David Strip

Was Chaco a Giant Casino?

The first 2017/18 evening talk, “New Perspectives on Chaco Canyon: Gambling, Astronomy, and Exotica,” was given by Brown University graduate student Robert Weiner on September 6. Usual time, usual place, usual excellent cookies provided by education committee chair, Gail Bryant, and well attended by about three dozen stewards.

Mr. Weiner began by showing Chaco’s familiar desert setting and calling it inhospitable. It has little evidence of habitation, he said, salty soil, and few burials, but monumental architecture and what have always been called “roads” radiating in all directions. Its outliers dot an area of approximately 100,000 square kilometers, comparable to the size of the Aztec and Maya empires. Goods like timber, fine-grained stone, and ceramics were mostly imported, often from long distances and sites with better resources. So why were people drawn to Chaco?

Three possible reasons: connections, especially with Mesoamerica; astronomical knowledge (knowledge = power); and gambling, a central social/political/religious practice.

Some objects found at Chaco—turquoise, shells, fossils, cacao and cylindrical cups, copper bells, macaw skeletons and feathers, musical instruments such as conch shells—indicate trade and influences from the south. Such objects trigger sensory responses. The blues and greens of turquoise, for example, might evoke colors of water, necessary for life. Shells, also with a watery past, appeal both visually and aurally. Both cacao and copper, not native to Chaco, found their way there, introducing new tastes and sounds. And cacao in concentration can have stimulant properties. Remains of 40 macaws were found in Pueblo Bonito, nonnative birds of bright red and other brilliant colors that can even be taught to speak. Mr. Weiner assembled a tantalizing image of exotic ceremonies rich with all these powerful sensations.

Too, Chaco is famous for its Sun Dagger petroglyph on Fajada Butte and many architec-

tural alignments carefully laid out to coincide with celestial events, solstices, and equinoxes. Mr. Weiner said the sun and moon are thought of as deities, living beings; they help establish a calendar, knowledge that can support predictions. Those having such knowledge and giving order to the cosmos become powerful.

Another piece of the Chaco mystery puzzle might be gambling, which brings people together, causing the exchange of ideas and goods. Mr. Weiner noted Navajo and Pueblo oral traditions and told the Great Gambler Story, in which the son of the sun came to Chaco for turquoise. Since he won every contest, he eventually enslaved the people and made them construct huge buildings.

At museums in the East, Mr. Weiner viewed artifacts taken from Chaco and used for gambling. They included pottery disks, dice, and throwing sticks. He drew parallels from contemporary Native American contests still played to bring luck or rain. Prestige and respect attach to winners in such competition.

And what about those roads? Do they all lead to Chaco? Mr. Weiner showed amazing LiDAR (Light Detection and Ranging) images taken from the air. While some paths seem to reach sensible destinations such as Aztec, Halfway House, or Guadalupe ruin near Cuba, others appear to dead end. I’ve always wondered if those in “downtown Chaco” are the ancient equivalent of the National Park Service’s paved loop: when you finally make it off the many miles of dusty, washboard approaches, the wide, well-made roads facilitate people and supplies getting where they’re going most easily.

It’s interesting to consider whether Chaco became the local Las Vegas hand in hand with being a trade and ceremonial setting as well as a center for astronomical knowledge and learning.

-Irene Wanner

And Now for Something Completely Different....

On the appropriately blustery evening of October 4, Gallina co-ATL Jo Douglas and Gallina site steward Anne Beckett presented a charming travelogue of their often stormy September 2016 visit to Scotland's most northern isles, Shetland and Orkney. They explained that the series of mysteries set there by novelist Ann Cleeves had so intrigued them, they had traveled with two other companions to explore the islands' history and archaeology.

Jo put up a map of Shetland for us to get our bearings and explained that although the islands had officially become part of Scotland in 1471, the residents still think of themselves as independent.



View of Jarlshof from the Laird's house

Habitation there, however, began far earlier than the 15th century. Jarlshof, at the southern tip of Shetland, has been called one of the most remarkable sites excavated in the British Isles. It has remains from 2500 BC up to the 17th century AD, and includes Bronze Age houses, an Iron Age "broch"—a tall circular building whose purpose is unclear—and walls, Pictish art, Viking longhouses and tools, and remains of a manor house. Coastal erosion threatens many of these remains, which are primarily made of stone. Earlier ice sheets had stripped the land of trees.

We also visited a crofthouse museum; another Viking longhouse on the northernmost island of Unst; the *Skidbladner*, a full-size replica of a Norwegian ship found in 1880; the west coast island of Papa Stour, now home to only about 20 people and famous for its seaside caves; and the

Shetland Museum in the island's main town, Lerwick.

Anne then took us to Ork-



Crofthouse Museum

ney, the cluster of islands nearer the Scottish mainland. Life here, too, spanned millennia. In the Mesolithic period (9000–4000 BC), people were primarily nomadic hunter-gatherers. The Neolithic period (4000–1800 BC) left rich remains: we visited a barnhouse settlement, the Ness and Ring of Brodgar, Skara Brae village, and the Standing Stones of Stenness. Skies were gray as were the beautifully-laid stone walls, but our intrepid travelers obviously enjoyed their rambles.

We went on to tour some Bronze Age monumental stone structures and Iron Age burials, a



Ring of Brodgar

time when, Anne told us, the climate grew colder and wetter. Hard to imagine such inhospitable living conditions as we listened to rain pound on the Forest Service building roof, yet there were traces left by Picts and Norse invaders in coming centuries. In the town of Kirkwall, St. Magnus's Cathedral was founded in AD 1137, built of gorgeous yellow and red sandstone. It took about 300 years to be completed. A stop at a chocolate shop and the delightful little chapel built by Italian prisoners of war during World War II completed our travels.

Thanks so much to Jo and Anne for a superb presentation!

-Irene Wanner

Photos by Jo Douglas

Recording Rock Art in the New Territories of Petrified National Park, Arizona

On November 1, John Pitts described the ongoing efforts of a team of stewards who have traveled to the Petrified Forest National Park on several occasions to record rock art. His initial efforts to contact officials at the park were unsuccessful, even when John had supplied the park archaeologist with a formal proposal, maps, sample recording forms, and references. Finally, Mike Bremer emailed the superintendent to verify that these stewards were really good guys who knew what they were doing (or words to that effect). A 200-page report, which John brought to our meeting, no doubt convinced the park officials that these guys really do know what they are doing.

For John's previous summary about their first two visits, please see his article in the Spring 2016 *Site Lines*. This present update includes some information about these two visits as well as a third visit later in 2016. Another visit occurred this fall; four team members left on November 3 for six days' recording. Instead of tent camping near the railroad tracks, they stayed in guest housing at the park headquarters, complete with indoor plumbing and off-the-floor beds.

Four years ago, the park doubled in size, with the new areas closed to the public until the park personnel inspected the new territory. As part of these initial surveys, John and his team are re-

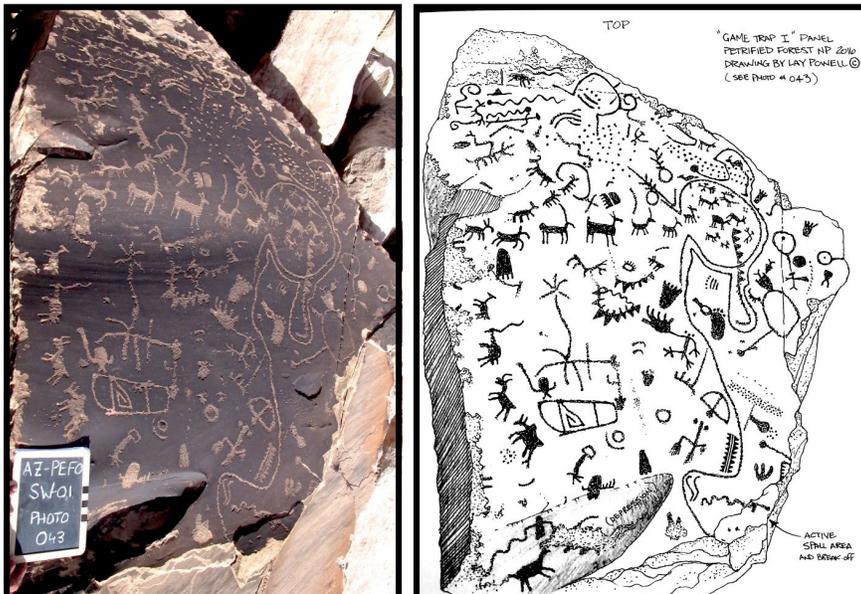
recording the rock art. Their recording form was adapted from that used for the Mesa Prieta Rock Art Project; major items include specific location, a description in text, photos and drawings, the condition of the art, ease or difficulty of public access, and any other information thought useful.

The majority of the rock art was created during the Pueblo III-IV periods, with a few panels reflecting earlier and later time periods. Late-19th and early-20th century inscriptions included railroad workers' notes that resulted in names and dates. Some panels have been defaced by graffiti, and some have experienced exfoliation and deterioration of the rock itself. Everything was recorded, one way or another (text, photos or drawings).

John showed many slides of photos and photos of drawings, with the latter showing details more vividly portrayed than photos. As many already know, how light strikes the rock alters the visibility of the art. Interestingly, there is no rock art on petrified wood, only on the sandstone outcrops, typically at mesa edges.

Typical motifs, of which there was a great variety, included anthropomorphs in many forms, quadrupeds, circles, game traps, spirals, solar (?) markers, turtles, square spirals, cloud terraces, and various geometric forms and lines. The density of images on individual rocks is amazing. In general, the great variety of styles suggests that many groups visited the area and recorded their presence. Some seemed to me to reflect ceramic and textile styles.

-Nancy Cella



Far left: photo by John Pitts of a rock art panel showing game traps, animals, and other motifs. Adjacent is the drawing of the same scene by Lay Powell, vividly showing details of the panel.

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Co-editors
Irene Wanner
570 Vista Hermosa
Jemez Pueblo, NM
87024
iwanner@uw.edu
(575/829-3357)

Nancy Cella
84 Ponderosa Place
Jemez Springs, NM
87025
nancycella@spinn.net
(575/829-4634)

We're on the Web
www://sfnsitestewards.org

Caja del Rio Area News

One fine fall day of site monitoring, Stella Davidsen, Charles Koenig and I replaced the sign at Los Aguajes.

At right, new and old signs at Los Aguajes. (Even with the American flag, vandals shot up the sign!)

We further explored the nearby rock art below the ledge directly west of the original archaeologists' campsite south of the pueblo. We call this the "Luckhardt Panel" named after the most recent discoverer, Grant Luckhardt, who is familiar with the area.

-Story and photos by Gary Newgent



Save the Dates

- Nov. 18: Site Steward Council Meeting, 10 a.m. in the SFNF Santa Fe office Conference Room. All stewards are welcome.
- Feb. 7, 2018: Wednesday evening lecture, topic is Hawaii, Phil Young and David Kozlowski, speakers
- Mar. 7, 2018: Wednesday evening lecture, topic is Portugal, Isabel Caravahal and Beth Parisi, speakers
- Apr. 4, 2018: Wednesday evening lecture, topic is The Singing Stones of the Luis Valley: Gail will moderate the presentation (video and film) prepared by Marilyn Martorano, RPA of Martorano Consultants LLC of Longmont Colorado. The presentation will introduce lithophones of the world with demo, photos, video. Her work has included such stones from the San Luis Valley, Colorado.