by Merry Lycett Harrison

The Patterson Bundle

An Herbalist's Discoveries in a 500 Year Old Native American Bundle

I remember the precise moment I saw them for the first time. I was passing the only display case in the Bureau of Land Management (BLM) office in Moab, Utah, on my way to a meeting. It was as if someone tapped me on the shoulder to get my attention. While still in forward motion, my head turned and among the Anasazi pot and shards, dinosaur skull, and arrowheads, I saw roots, lots of old roots neatly lined up on a tattered piece of tanned hide in the rear of the dimly lit case. Roots, not corn, not rice grass seed, not yucca fiber, which one would expect to find. It was like meeting an old friend. "I know you," I thought, my heart leaping as I recognized a rootcrown of osha (*Ligusticum porteri* J.M. Coult. & Rose, Apiaceae). I instantly knew two things: first, that I was looking at an ancient ancestor's collection of plants, and second, that, if at all possible, I wanted to discover what plants the roots were from. That was three years ago and the journey of discovery continues.

What I did not know at the time was that this collection of roots was part of a much larger Bundle that contained assorted smaller bundles and artifacts. It had been discovered by Margaret and Bryce Patterson in the 1980s on BLM land in southeastern Utah, buried under a ledge in a pit lined with layers of juniper bark (*Juniperus* sp.). Margaret reported that she dug through many layers of the bark that must have served to protect and preserve the contents. [Note: it has since become illegal to disturb or dig up Native American artifacts on public lands.] The Pattersons eventually turned the Bundle over to BLM, and it bears their name still as the Patterson Bundle.

I learned all this during a meeting with BLM Moab Field Archaeologist Bruce Louthan, when he gave me permission to inspect the roots I had seen in the case. Before I began, however, he showed me a carton full of other artifacts: leather pouches of stones and bones, two moccasins, ground red ochre, a delicate juniper seed and bone necklace, a spoon made of animal horn, beautifully stripped circles of bark for basketry, more root bundles, and even more. Mr. Louthan had published an article in the Fall 1990 issue of *Canyon Legacy* in which he listed the complete inventory and suggested that this collection may have been a "Ute subsistence kit," an assortment of items that may have been buried for later retrieval.[1] After

study 8

Opposite, clockwise from top left:
contents 1,
botanical parts 1,
medicine bundle,
Display case where the beautifully preserved contents of the big Bundle and its leather wrapping can be viewed.
vegetable material,
osha

several discussions with him, I received permission and a letter from the BLM to study the botanical and other contents of the Bundle with the stipulation that I would share my findings. A grant from Utah Native Plant Society helped support my efforts.

Having decided to identify the plant parts, I spent considerable time with the entire contents of the Bundle, just looking. The resulting observations helped to focus my study. Although the Bundle has not been attributed to a particular native culture, carbon dating had shown that the leather wrapping is between 400 and 600 years old, which pre-dates contact with Europeans. I noticed that there was nothing of European nature included in the contents (i.e., no metal, woven fabric, or thread). I believe that without European influence, the contents, context, and nature of the Bundle more accurately represents the culture of the people who made it.

Faced with the challenge of making sense of what I was looking at, I began to put order to it. To inventory the botanical parts of the Bundle, I separated all the plant parts from the rest of the contents. Besides the four individually wrapped leather parcels of substantial quantities of what I thought might be medicinal materials, namely the roots, there was basketry material that consisted of four whorls of uniformly stripped bark, a delicate necklace of bone and seeds, and sixteen small plastic bags containing bits of plant material.

There was nothing exotic among the contents such as macaw feathers or pigments from another part of the world. It appeared that everything (i.e., stones, red ochre, feathers, animal parts, and even the leather wrappings) were from materials that could be found locally in the area of southeast corner of the state. These observations led me to think that it was possible that all the plant parts could be found locally as well. Considering that the horse had not yet been introduced to North America at the time of the Bundle's assembly, travel was still done on foot; therefore, the range for hunting and gathering would be limited. Based on this, I constructed a theory that began with the notion that everything in the Bundle could be found within several days walking distance: 50 miles or less from the site where it was discovered. That theoretical region includes mountains, rivers, deserts and canyons, and a large variety of plants in different elevations (4,500 to 10,000 feet) and bioregions.

Rhus

I thought I would simply question people who, I presumed, knew much more than I about prehistoric plant use. I interviewed curators, botanists, ethnobotanists, archaeobotanists, herbalists, anthropologists, ethnologists, archaeologists, collectors; I even spoke with federal authorities whose job it is to prosecute those who traffic in illegally gotten artifacts. No one had seen or knew of anything like the root bundles, or a similar assemblage of artifacts. It was hard to believe that I was looking at a collection of plant parts that no one had paid much attention to. I could understand that the collection was not as "sexy" as the fascinating hunting bundles with stone blades, arrowheads, shafts, and feathers. I could also understand that because the initial assessment did not label it as a familiar type of find, it might not have attracted much interest. It has never mattered to me that the Bundle does not fit in a

familiar niche. I liken this impression to seeing the contents of a woman's purse. It all makes sense and seems of necessity to her, but a stranger might see only a bunch of unrelated stuff.

Pouch

Part of me was eager to see what could be learned from the botanicals. If they could be identified, there might be a new medicinal plant to research. If all the plants were ones we know how to use today, like the ones I learned about from legendary Southwestern U.S. herbalist Michael Moore, it would be a real affirmation to herbalists everywhere.

I also recognized that I was touching and looking at someone else's personal possessions whose value, use, and significance I knew nothing about. Some native cultures teach that such things should be left alone, that it can bring bad luck to rummage around in someone's "medicine bag," or even to touch it. I seriously considered this, but wondered at the same time why it had been shown to me, why I felt so drawn to it and cared so deeply about its meaning and preservation. I reasoned that as long my study was not blocked or curtailed, I would keep moving forward.

Hoping that similar collections in museums in Utah and surrounding states might offer insight into my study, I contacted them only to learn that they had nothing remotely similar. I was even allowed to examine all the boxes in storage that contained botanical parts at the Edge of the Cedars Museum in Blanding, Utah, but found only the usual piñon nuts and yucca fiber. Realizing how unique the Bundle collection is left me awed and a little stymied as to how to proceed. Fortunately, help and direction came from former teacher, Karen Adams, Ph.D., of the Crow Canyon Archaeological Center in Cortez, Colorado. She advised that initial evaluation should be based on morphology, comparing modern plant material to the contents of the Bundle.

Bundel contents

Making sense of the roots was a formidable task at first because there were so many parts and pieces. I took my time to look very carefully and realized that, in some cases, what looked like many roots was actually a couple of roots cut into thirds or quarters. I could place the parts end to end and see how the pieces fit and realized that extreme care had been taken to extricate the *entire* root no matter how minute or fragile its parts. It is remarkable how clean and exquisitely preserved these roots are as a result of the care with which they were dug, handled, and stored.

When I began to identify the roots' source plants, I received some suggestions from interested people and professionals, but they did not make sense to me. For example, a big, chunky root in the collection was thought to be canaigre (*Rumex hymenosepalus* Torr., Polygonaceae), "because it was used to tan hides." I investigated how much root it would take to tan a hide and

realized that a thumb-sized piece would not go very far. It was also thought that some of the roots had to be rabbitbrush (*Chrysothamnus* sp., Asteraceae) "because the root was known to have been chewed like gum." I asked why the people would go to the trouble to dig up, clean, dry, wrap, and bury small amounts of an abundant plant. This doubt reinforced my idea that the roots were more rare and of greater importance, and supported my decision to investigate other possibilities for identification, specifically, to look for roots in the area known to have significant medicinal value. I had rejected the idea that the roots in the Bundle might be food because the amount stored was so small. The quantities resembled the amounts I would use as an herbal practitioner to treat an ailment.

To identify the roots I visually compared a modern root with one from the Bundle under a microscope. To do this, I had to create my own herbarium because most herbarium specimens, I learned, do not have roots attached. This meant that I had to go out in the field, find the plant, dig it up, clean it, dry it, and bring it into the BLM office where the Bundle is stored, a very time consuming and, at times, discouraging task. I waited a whole, hopeful year for cutleaf coneflower (*Rudbeckia laciniata* L., Asteraceae) to come up and spent an entire hot day with topography maps and water bottle searching for it in roadless, overgrazed territory because it grows in just one tiny place in the whole state of Utah. It was very discouraging to admit it was *not* a match.

The author at work Merry based her findings on morphological comparison of contemporary plant parts to the old ones from the Bundle. Out of necessity, she had to collect specimens in the field to establish her own herbarium because most herbarium samples traditionally do not include roots.

My journey of discovery unfolded slowly, one step at a time. Only after reaching a destination would I know where to go next, and I often thought I was at a dead end. When I contacted Michael Moore to tell him of my more about it. He felt a cultural connection to the Bundle because his Shoshone culture is linguistically related to the indigenous groups that were in the Moab area. At the BLM office, once it had been established he was not there to lay claim to the Bundle, he was given permission to sing prayer songs (out in the parking lot) and to perform a ceremony for the spirit of the Bundle (inside the building). My task was to keep the white sage (*Salvia apiana* Jeps., Lamiaceae) smudgestick smoldering as he prayed and fanned the fragrant smoke on the artifacts in the display case, while in the background fax machines trilled, phones rang, and people went on about the government's business of land management. When it was over, I was relieved that another milestone had been reached in the Bundle journey.

Connecting with the People

Of great concern throughout my solitary study of the Patterson Bundle was that no ancestral associations had been established. It nagged at me because the people(s) who created the Bundle should be recognized for having whatever knowledge it holds. I also questioned another potential element that I was unqualified to deal with: the aspect of the spiritual or sacred.

Bruce Louthan of the BLM had reported that the appropriate Native Americans had been notified previously; some representatives had examined the Bundle, but none had claimed it. After a preliminary presentation on my work, I was assured that contacts would be made and a Native American authority would be in touch, but it never happened. When those outreach efforts failed, I traveled to a gathering in southern Arizona to meet the two Native American presenters: Bennie LeBeau, a Shoshone spiritual leader, and Woableza, a Lakota Sioux elder. Mr. LeBeau, I was told, documents sacred Native American sites so that if they are damaged or forgotten as a result of loss of cultural knowledge, they may once again be used and protected. I also understood that he educates people about such matters.

I took three photographs and my report to Utah Native Plant Society with me. Some of our conversations were not very comfortable. Though I had not dug up the Bundle myself, they expressed their anger and frustration that yet another culturally significant piece had been taken, and thus disassociated, from the place it was meant to remain. Realizing that we could not change the current situation, we were able to move on. Both men agreed that the Bundle needed attention and Mr. LeBeau traveled to Moab to see and learn

These cultural issues are very sensitive and I hope that my work and efforts to care for the Bundle are not seen as detrimental. My greatest hope is that they are seen as a contribution to help restore information that may have been "lost" or forgotten. I have been told, however, that some Native Americans may not see it that way, and may be offended not only by what I have written but also for publishing pictures. In short, to some, what I think or hope does not matter, and the whole study may be seen as one huge blunder.

Mr. LeBeau and Woableza have not leveled such criticism. Being the closest I could come to including the Native American perspective in all this, I asked what message they wish to convey and promised to include it here. In unison, they said "Tell people NOT to dig up anything they come across out there that is Native American. Whether it is a burial, a pot, an arrowhead or bundle … tell them this is all sacred to us and when it is disturbed we believe it causes things in the world to be out of balance."

The Patterson Bundle

The following is the inventory of my findings of the plant parts in or associated with the Bundle. The item numbers were assigned by the BLM to every item in the Bundle. I have separated the list into five categories: Herbs, Basketry Materials, Necklace and Trim, Wrapping and Miscellaneous.

Herbs

Item #8 This is the largest grouping of assorted plant materials and, although there are many pieces, includes four plants: three roots and a leaf. They are wrapped together in one piece of leather and a small stone blade is with them.

- Oshá (*Ligusticum porteri* L.M. Coult. & Rose, Apiaceae) Upon recognizing this root, I smelled it to see if there was any lingering scent of the telltale pungent smell of a freshly dug osha root. After nearly 600 years, there was not. Oshá is "one of the best treatments for viral infections".[2] and is commonly given to help relieve respiratory problems brought on by the cold or flu. Oshá has many other applications and uses and is considered sacred by some indigenous cultures. The inclusion of a small stone blade with this grouping might suggest that the roots and leaf were scraped to create smaller pieces that could be ingested or used in an infusion.

Oshá (*Ligusticum porteri*)

- Pleurisy root (*Asclepias tuberosa* L., Asclepiadaceae) This powerful plant is often used in cough remedies as an expectorant.[3] It is also muscarinic, meaning that it can increase secretions and cause vasodilation, gastrointestinal stimulation and other parasympathetic effects.[4]

This juniper seed and bone necklace is a great example of the delicacy and refinement of handwork and preparation of all the items in the Bundle. The author was continually awed and amazed by the quality or workmanship and processing. All roots were carefully and thoroughly dug right down to the tiniest tips and rootlettes and there was hardly a speck of sand or dirt on them.

Balsam root (*Balsamorhiza sagittata*, (Pursh) Nutt., Asteraceae) This thumb-sized piece includes the crown. Stanley L. Welsh, Ph.D., curator of the Brigham Young University herbarium, co-author of *Utah Flora*, and who performed the botanical assessment of Mesa Verde, confirmed the identification. Michael Moore likens the usefulness of balsam root to that of *Echinacea* sp. from the Plains. It is an immunostimulant and inhibits respiratory viruses.[4,5]

Oshá roots

- Yucca leaf (*Yucca* sp., Asteraceae) Dr. Welsh identified this as the base of a yucca leaf. It is such a sturdy piece that it could have served as some kind of implement or utensil. I only know of the use of yucca root for arthritis, but in researching possibilities for medicinal use of the leaf I came across a study that shows that yucca leaf protein (YLP) exhibits antiviral activity.[6] The Navajo used the leaves in a tea to help reduce vomiting.[7]

Item #3 Pleurisy root. This leather wrapping contains the tops of two of the same kinds of roots.

Item #9 Balsam root. This small, fringed pouch contains small pieces of the big balsam root. These fit like puzzle pieces to the bottom of the big root in Item #8. Why these fragments were stored separately from the mother root is a mystery.

Item #2 Stream Orchid, Helleborine (*Epipactis gigantea*, Zinn., Orchidaceae) This clump of multiple roots are all the same. They are wrapped in what looks like the heel of a worn out moccasin. After examining many possibilities, I believe these roots most closely resemble the stream orchid. It is another powerful herb that has many uses (i.e., for tachycardia, migraines and poison ivy, to name a few).[8] Michael Moore recommends using it in place of the rare lady slipper (*Cypripedium parviflorum* Salisb. var. *pubescens* (Willd.), Orchidaceae).

All of these plants are available within the close region I described. Most would have to be harvested at certain times of the year when they were available and the people were in the area where they grew, such as during a summertime hunting expedition in the mountains. Based on the strong physiological actions they can cause, I believe these few plants represent some of the most potent and effective plant medicine that the area has to offer.

Basketry Materials

There are four circles of uniformly stripped lengths of bark.

Item #53 Sumac (*Rhus trilobata* Nutt., Anacardiaceae)

Items #52, #54, and #55 Willow (*Salix* sp., Salicaceae) Some possibilities are: *Salix amygdaloides, S. eriocephala, S. interior, S. lucida.*

As for the other three categories, juniper seeds were used as beads in the "necklace and trim," the "wrapping" was the juniper bark and the "miscellaneous" category listed the 16 small plastic bags that had fragments of plant material that looked like fragments of what has been mentioned here.

Animal Bones

intention to do this study, I shared my frustration of not having other reports or root collections to examine or compare. With an understanding look he said matter-of-factly, "It takes an herbalist to know roots!" I wish I could say that was reassuring, but it just confirmed that I had a big job ahead and would have to find the answers myself through careful work. Hits and misses, rights and wrongs, successes and failures … that's about how it all went. Sometimes I had to resort to wandering, whether it was in the field, through pages in the *Utah Flora*, through herbarium files, or old ethnographic texts at the University of Utah library. Eventually, an inspiration or clue would reveal itself, and I would be off again to investigate yet another idea or possibility.

I believe I have taken the analysis of the Bundle's botanical parts as far as possible based on morphological comparison. I can imagine more sophisticated anatomical testing, especially on the *Epipactis* and *Yucca.* Although I could not predict what herbs I would discover when I started, now that I see the whole picture, it does make good sense that the most important medicine of the area would be stored and protected in such a careful manner, especially if it was not easily obtainable throughout the year.

After I had given my final report to the Utah Native Plant Society, I showed the collection to Michael Moore who agreed with my assessment. "This is winter medicine," he said, indicating that it could shake loose respiratory ailments that are common during cold weather among people that live in high, dry deserts.

I cannot presume to know for what or how these plants were meant to be used, but I can imagine concocting a very effective infusion from what is available here. Either singly or in combination, it is reasonable to believe that these herbs could have a significant, positive effect on a sick person. Even if they were meant to be used ceremonially, they represent powerful healing potential.

Seeking the Larger Context

When I began this work I intended to study only the botanical elements. I thought that once my reports to Utah Native Plant Society and the BLM were made, the project would be over, but that has not been the case. My curiosity and passion for the project leads me to ask more questions and seek more answers. While I am not an archeologist, clearly the context in which the Bundle was found is a huge factor in the story. These herb bundles were not found alone on a ledge in a cave, but as part of a large and varied assortment of other items. If we could learn more about these artifacts, it might shed more light on the use or purpose of the herbs. There is a lot to be learned from studying the collection as a whole rather than bits and pieces. Back to the purse analogy, studying only one of the items (say, the lipstick) does not tell as much about the person as when the car keys, credit cards, family photos, etc. are seen collectively.

In my attempt to understand more about this context, I won permission to bring the ani-

owl feathers1, Oahs 7, animal parts, roots5

mal parts of the original Bundle to the University of Utah for analysis by Jack Broughton, Ph.D., associate professor of anthropology. I had not examined these materials very closely for lack of expertise, and because I did not want to disturb them. He determined that the contents of the five small pouches that contained animal body parts were cottontail rabbit foot bones; a tail of a short-eared owl; a single, headless native trout; a rabbit arm bone; a rabbit leg; the skin of a small mammal; and an unidentifiable body part.

Roots 4

Owl tail, headless trout, roots, and rabbit bones? How does one make sense of such a collection? The Bundle could be much more than a cache of extra supplies. I always regarded the materials as important and of great significance. My continued fascination with the Bundle has led to conversations with anthropologists, rock art specialists, curators, and, most recently, two Native American men who are interested in the cultural and spiritual aspects of the Bundle and the site where it was found. It has added a fascinating dimension to the whole experience to share time and exchange information with them (see related article on page 38).

Bridge to the Larger World

Since beginning this study one particular question has stayed with me, where are the other herb bundles? While this collection is very rare due to its exquisite preservation, there are no others like it to examine and learn from. Do any exist in forgotten collections in museums, labeled as "unknown plant material"? Did the archaeologists at the turn of the 20th century, such as Richard Wetherill and his group, find such herb bundles in their excavations and discard them for lack of interest? These collections, if any exist, could tell us more than what plants were used, but what part of the plant and how far the people had to travel to acquire it.

FullCOntents1

My own experience and expertise as an herbalist and wildcrafter allow me to understand a bit of how these people knew and used plants to survive and thrive, and how they had to travel to get them. In the classes I teach, I often remark that becoming an herbalist has made me feel more at home in my world. What I mean by this is, I enjoy a greater awareness of and connection to my environment by having learned to recognize and use the healing plants that grow around me, in my garden and in the wild. This familiarity is exactly what struck me the first time I saw the old roots in the display case. My personal understanding of what it takes to know where to find these herbs at the right time of year for useful potency, and my amazement and deep respect for the degree of effort to dig, clean, carry, wrap and store the roots so carefully has offered a glimpse into how our herbal teachers of the past used their refined and intimate knowledge of plants.

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Merry Lycett Harrison is a trained clinical herbalist and owner of Millcreek Herbs <www.millcreekherbs.com>. She received her training through an intensive course of study with Michael Moore of the Southwest School of Botanical Medicine and has an herbal practice in Salt Lake City. Her broad view of herbalism led her to complete the Master Gardener Program and to also study ethnobotany at the BACA Institute of Ethnobotany and the science of essential oils at Purdue University. She teaches classes in culinary and medicinal herbs, and herb gardening and leads herb identification trips in the wild.

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