



Southern Nevada WILD

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What is Interpretation?

Generally speaking, interpretation is the process of explaining something unfamiliar to an audience.

At parks, museums, and other natural and cultural history sites, interpretation refers to the information given by a docent or tour guide about the site. But it is much more than that.

The National Association for Interpretation defines interpretation as a form of communication that conveys emotional and intellectual connections to a resource or site (which can be cultural, historical or environmental).



So it is the job of the interpreter to reveal special meanings to things, which the audience can relate to.

The audience should gain a new appreciation for what they are observing, and should see the importance of preserving it. Interpretation can be accomplished through exhibits, brochures, videos, activities and direct speaking. All

of these aim to educate the audience and go one step further by getting them to think.

What is Taxidermy?

Did you ever see a stuffed animal in a museum? Taxidermy is the process of preparing or recreating animals to look lifelike. The name comes two Greek words, 'taxis,' meaning arrangement, and 'derma,' meaning skin. Taxidermy is the process of treating, stuffing and mounting animal skins to create a nearly real model of what the animal looked like when it was alive. The history of taxidermy is very long. It began when early man clothed himself with animal skins. The technique that we know today



started around 400 years ago. This is the method of saving certain parts of the animal (fur, feathers, scales, horns, antlers), while replacing flesh or soft tissue with man-made materials. For example, a taxidermied deer will have the original skin, or **pelt** of the animal, stretched over a plastic body form.

The taxidermy specimen is really a work of art. It takes building and sculpting skills to recreate the body form, with all its muscles and bones. Sewing skills are needed to put the skin back together, and painting skills are necessary to make bare skin have a natural color. Some-

times, if an animal skin is especially difficult to preserve, such as a fish, the whole recreation may be man-made. Other times, with very small animals such as birds and reptiles, the entire body may be freeze-

dried. The purpose of taxidermy is to educate people about wildlife. Scientific researchers use taxidermy to correctly identify animals. So a taxidermy collection is actually like a library of animals. Well-done pieces of taxidermy also help us feel a little closer to the natural world.

"In the end, we will conserve only what we love; we will love only what we understand; and we will understand only what we have been taught."

- Baba Dioum



Phainopepla

One of the most active birds in the desert during the winter season is the *Phainopepla*. The name means ‘shining robe,’ and this medium-sized bird has gleaming black feathers and a crest atop its head. The *Phainopepla* lives on mistletoe berries from October to April, and insects and other fruits from May to September. *Phainopepla* rarely drinks water, but gets the water it needs from the mistletoe berries.

A good way to spot a *Phainopepla*'s home is to look for large mounds of the bird's excrement on the lower branches of mesquite trees or acacia bushes. These mounds are pinkish in color and can measure several inches across. Their unique color is caused



by the seeds from mistletoe berries. One bird can eat over 1000 mistletoe berries a day! As the berries are passed through the bird's digestive system, the seeds are prepared for germination. Then, when digestion is complete, the *Phainopepla* deposits the seeds on branches in mesquite trees or acacia bushes. The parasitic mistletoe seeds germinate and grow right there on their “host” plant. This is a beneficial or symbiotic relationship between the birds and the mistletoe plant.



Today much of the desert riparian area where the bird lives has been converted to different land uses, such as agriculture and urban development. Because we are losing our mesquite habitat, sightings of the *Phainopepla* are not as common as they used to be. It is a lucky event to see one.

Field Trip Etiquette

A visit to any natural area can be an exciting experience for students of any age. However, all of us must be careful to remember that natural areas are habitat for wild plants and animals, so as visitors, we should act like guests visiting someone's home. A field trip is an excellent opportunity to teach students outdoor etiquette skills they can use all their lives. The site should be left as close to natural as possible so that future visitors will be able to enjoy the area's plants, wildlife and beauty.

While on the trip, pass out a copy of the rules for students. Ask them to listen and pay attention to guest speakers and trip leaders. And have the children look out for each other.



Here's a field trip etiquette checklist:

Before you embark on your field trip, have a practice session and discussion. Ask the following questions: How can you help take care of animals, plants and other organisms that you encounter in your field studies? How can you keep from disturbing them and their homes? How can you learn more about your environment by observing it in its natural state? What can you do to ensure that enjoyable outdoor recreational activities do not harm wildlife or habitats? What are the consequences of causing harm to these? Use role-playing to allow students to act as animals and as visitors. Practice safe space and appropriate behavior.

- Act Like a Guest
- Respect the Site and Everything That Lives There
- Observe Wildlife from a Distance
- Put Things Back Where You Found Them
- Leave the Area Cleaner Than You Found It
- Use social etiquette
- Respect State or Federal Rules

Adapted from *Explore the World with Shorebirds*, a K-12 curriculum by U.S. Fish & Wildlife Service, Shorebird Sister Schools

Kangaroo Rat



This member of the rodent family is very appealing because of its rounded shape, with big ears and eyes. The kangaroo rat gets its name from its long hind legs, used for hopping, just like a kangaroo's. It also has a long tail like a kangaroo's, but with a tuft of fur at the end. The tail provides balance while the rat hops. When looking for tracks of these species, you will only see the two hind feet and a tail mark. Their little forefeet are held up and are used for digging burrows and hiding places for food **caches**. These animals live throughout the southwestern deserts and there are several different species of kangaroo rats in the Mojave Desert alone.

These little animals have special adaptations for living in the desert. They can go their whole lives without ever drinking water. The moisture that they need for their bodies is obtained from the seeds and other plant materials they eat. They also process waste without losing too much water because of specialized kidneys. Kangaroo rats don't need to sweat or pant to keep cool, as other animals do. They just spend their days plugged in a tight burrow, where moist air is conserved and re-breathed. At night-time they come out to gather their food, when it is cooler and evaporation is lower.

Like most animals near the bottom of the food chain, they reproduce at a high rate and are short-lived (only a few years). They are preyed upon by many animals, including snakes and foxes. Hopping is their defense mechanism, as well as sounds such as squeaks, squeals and chuckles for some species. While they are entertaining to watch, kangaroo rats should not be handled, as some of them can carry fleas, which could be infected with plague.

Project Wild / Project Webfoot

Project Wild teacher trainings got underway on September 20 and 27. Aquatic Wild trainings were held on October 18 and 25. Classes were full and there were waiting lists of up to 10 people. Please, if you sign up for these classes and are unable to attend, be sure to withdraw on Pathlore so that folks who really want to take the class are able to do so! Trainings will be held again in the spring of 2009.

project WILD

PROJECT
Webfoot

Project Webfoot is scheduled for November 15—a collaborative effort of the Project WET people, Nevada Department of Wildlife, and Ducks Unlimited.

Museum Search for Wildlife (*from the Project Wild curriculum*)

Wildlife has served as an inspiration for art throughout human history. Artists capture wildlife in a variety of creative venues. The purpose of this activity is to recognize one aspect of the value of wildlife and how it serves as a source of inspiration for varying art forms.

Objectives: students will identify wildlife portrayed as an art form, and generalize that wildlife can inspire art.

Procedure: Make arrangements for your students to visit a museum. Discuss the different kinds of art that people have created throughout human history, including cave drawings, pottery, baskets, paintings, sculpture, dances, literature and music. Ask the students what might inspire art.

At the museum, ask each student to find examples of wildlife represented in art. Students should identify the art form and the wildlife, and may sketch what they see.



After the visit, ask these questions: What types of art included the most wildlife images? How is one animal depicted in different ways? Is the wildlife portrayed differently during different historical periods? What were the relationships between people and wildlife during those times? Encourage the students to generalize that wildlife can serve as an inspiration and has **aesthetic** value.

A Wild Year ...



2008 has been chosen as the Year of the Frog – very appropriate since it is a **leap** year. Wildlife conservationists around the world have established this public awareness campaign to inform people about the plight of amphibians. Populations of frogs, toads, newts and salamanders are declining worldwide. Habitat loss is one of the top factors in the decline, as well as pesticide use, the spread of invasive species, climate fluctuation and disease. Amphibians are especially sensitive to environmental changes and so are a good indicator of environmental quality. These animals are in the middle of the food web, which means that they consume a large number of invertebrates, as well as being a food source for snakes, birds, and other animals. Interestingly, tadpoles consume algae and sediment, which can help water quality.

One of the threats to amphibians that is of concern in Nevada is the spread of non-native aquatic species. Recently, NDOW game wardens seized African clawed frogs from a number of schools around the state. This species is a large and voracious feeder. If released into one of Nevada's warm springs, these frogs could consume every aquatic native animal in this fragile ecosystem. Many endangered species are found only in Nevada warm spring systems. The clawed frog is also suspected to carry a disease in the slime covering their bodies. It's very important that teachers know wildlife regulations before importing exotic species for classroom aquarium use. While live animals are a wonderful way to engage students and get a hands-on look at biology, it pays to do some research first. Do not order prohibited species, and most importantly, never release classroom specimens into the wild. Children are not encouraged to take classroom specimens home, either, as they may possibly find their way into our waterways. The entire list of **prohibited species** can be found in the Nevada Administrative Code, Chapter 503, Section 110, www.leg.state.nv.us/NAC/NAC-503.html#NAC503Sec110. Find out more about the Year of the Frog at <http://www.aza.org/yearofthefrog>.



Simulated Taxidermy Activity



Materials needed:

Styrofoam balls
Modeling clay
Burlap, felt or other fabric
Needle and thread or staples or glue

Glass eyes or marbles
Construction paper, cardboard or foam
Paint
Craft sticks
Wire, thick and bendable (coat hangers)

Procedure:

The students may wish to research some animals ahead of time, looking at photographs and getting accurate measurements for the size of the animals. For younger students, use several Styrofoam forms and glue them together to make the body. Legs and a tail can be made by attaching craft sticks. Older students can sculpt a more accurate body shape out of modeling clay. Larger animals will require a wire frame (skeleton) over which to shape the clay. Cut a piece of burlap or other fabric in an outline that shows the shape of the animal if it were lying flat on the ground (figure 1). There are some great fake fur fabrics available. The fabric should fit over the entire body form. Now tack down the fabric around the form, using either staples, glue, or needle and thread (for older students). Excess fabric will have to be pleated and tucked under as needed. Two separate pieces of fabric will have to be cut for the ears and attached to the head. To make the ears stand up, double the fabric pieces and insert a piece of construction paper, cardboard or craft foam. Younger students may draw on the eyes, nose and mouth. Older students should cut out two holes for the eyes, and an opening where the mouth should be. Insert glass eyes and form a small amount of clay around them to hold them in place. Clay should also be used to form the mouth – lips and gums. The fabric edges are then blended into the clay. A nose can also be formed with clay. Paint can be applied to make the “tissue” look more realistic. Other coloring can be added to the fabric to simulate the appearance of a coat with different shades. The students can proudly display the finished animal representations in the classroom or in a special exhibition.



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